


**COLORADO**Division of Reclamation,
Mining and Safety

Department of Natural Resources

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.

MINE NAME: Portland Limestone Quarry	MINE/PROSPECTING ID#: M-1977-344	MINERAL: Limestone (general)	COUNTY: Fremont
INSPECTION TYPE: Monitoring	INSPECTOR(S): Timothy A. Cazier	INSP. DATE: April 26, 2017	INSP. TIME: 12:45
OPERATOR: Holcim (US) Inc.	OPERATOR REPRESENTATIVE: Nick Bellino	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Partial Bond	BOND AMOUNT: \$5,268,550.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: November 2, 2017	

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Hydrologic Balance

PROBLEM/POSSIBLE VIOLATION: Problem: The Division has no evidence that the operator has a valid well permit, substitute water supply plan, or approved water augmentation plan for the exposed groundwater at the site. This is a problem related to 34-32.5-116(4)(h) of the Colorado Revised Statutes and 3.1.6(1)(a) of the Construction Materials Rules and Regulations governing injury to existing water rights.

CORRECTIVE ACTIONS: The operator shall demonstrate that the operation is in compliance with the Office of the State Engineer, show evidence that the operator is taking measures to bring the site into compliance with the SEO, or backfill the pits to at least two feet above the groundwater surface by the corrective action date specified.

CORRECTIVE ACTION DUE DATE: 12/04/17

INSPECTION TOPIC: Gen. Compliance With Mine Plan

PROBLEM/POSSIBLE VIOLATION: Problem: No utility structures agreement for the natural gas pipeline on the north side of the pit.

CORRECTIVE ACTIONS: Within 30 days of this report the Operator must submit a notarized letter or agreement in accordance with Rule 6.4.19 addressing the potential for damage to the natural gas pipeline.

CORRECTIVE ACTION DUE DATE: 12/04/17

OBSERVATIONS

This inspection was conducted as part of the regular monitoring program. The Permittee (Holcim) was represented by Mr. Dominick Bellino during the inspection. The Portland Limestone Quarry is accessed from State Hwy 120 approximately 5 miles east of Florence. This is a 112c limestone mine. It was operating at the time of the inspection.

Availability of Records: Annual fees are paid through October 2017. The previous inspection was on June 4, 2012. The approved post-mine land use is rangeland. There are no open infractions. A post-inspection review of the file revealed the last Substitute Water Supply Plan (SWSP) to address exposed groundwater was received from Holcim in 2014 and expired December 31, 2014. A more detailed discussion is presented under "Hydrologic Balance" below.

Acid And Toxic Materials: The mine has historically disposed of cement kiln dust (CKD) on site. Mr. Bellino stated they have been placing the CKD as dry material since about 2000. Prior to that it was deposited as a slurry. They have a groundwater monitoring plan wherein quarterly samples are collected and results reported to the Division on an annual basis. A review of the groundwater monitoring reports for 2015 through 2017 indicate only one reported exceedance, which was for total iron in MW-7 (Fe at 6.05 mg/l, NPL at 4.5 mg/l) in 2017. However, for some reason when Arcadis submitted the results for 2017, they compared total iron to the NPL instead of dissolved iron. The dissolved iron concentration did not exceed the NPL. Therefore no exceedances should have been reported.

Holcim should be aware that the DRMS and CDPHE Water Quality Control Division (WQCD) are currently working together to ensure the proper water quality standards are applied to mine operations. It is likely WQCD's Regulation 41 will be applied to groundwater for all mine sites, including the Portland Limestone Quarry in the near future. If you have questions about WQCD's Regulation 41, please call Tim Cazier (303-866-3567, ext 8169).

Backfilling and Grading: Sufficient backfill material appeared to be available.

Excess Spoil and Dev. Waste: Observed overburden piles appeared stable.

Explosives: Mr. Bellino stated the mine's blasting plan is kept in the plant office. He also indicated Buckley Powder had been performing the blasting for the past two years.

Financial Warranty: The \$5,268,550 bond held by the Division is adequate for the observed mine disturbance.

Fish and Wildlife: No impacts to fish or wildlife were observed.

Hydrologic Balance: Mr. Bellino stated they had received over a half inch of rain the night before the inspection. Standing water was observed in different areas of the pit. Some of this appeared to have a significant groundwater component, if not all groundwater: North Pond (see **Photo 1**) and the million dollar hole (see **Photo 2**). Mr. Bellino explained the million dollar hole receives water pumped out of the active pit for the purpose of dewatering, then is pumped to an Arkansas River discharge point. As stated above, a records review indicates the SWSP expired on December 31, 2014. **The absence of a valid SWSP is cited as a problem on page 1 of this report.**

Gen. Compliance with Mine Plan: The operation appeared to be in compliance with the approved mine plan.

Google Earth was used to measure the disturbed area, which was estimated to be approximately 700 acres. Future plan is to mine towards the north. Mr. Bellino indicated there is a natural gas pipeline towards the north end that limits expansion in the northerly direction. He said the line is now owned by Kinder Morgan, but used to be Colorado Interstate Gas (CIG).

Subsequent to the inspection, the Division found the structure agreement (enclosed) required by Rule 6.4.19 for this utility, but it is with CIG, not Kinder Morgan. **The out of date structures agreement is cited as a problem on page 1 of this report.**

Off-site Damage: The operation appeared to be confined to the permit boundary.

Roads: Mr. Bellino stated haul roads are watered for dust control. Haul traffic is primarily confined to the site, so it is very unlikely for sediment to be tracked offsite.

Reclamation Success: Reclamation efforts have been initiated in the southeast corner of the mine Grading to 3H:1V or flatter had been completed. Topsoiling was in process near the million dollar pit (see **Photo 3**), but no seeding had taken place at the time of the inspection.

Revegetation: Mr. Bellino indicated no revegetation efforts had been initiated. Willows and cattails appeared well established along the lower banks of the Bear Creek Diversion (see **Photos 4 and 5**). However, the upper banks could benefit from more focused revegetation efforts. No noxious weeds were observed.

Sediment Control: Some erosion rilling and gulying were observed along the Bear Creek realignment (see **Photos 6 and 7**). The Division recommends implementing best management practices (BMPs) such as straw wattles and/or erosion control blankets to control erosion until the vegetation is established.

Signs and Markers: The permit sign was properly posted (see **Photo 8**) and boundaries are generally marked with fences.

Permit Stipulations: There are no permit stipulations.

Topsoil: The mine has been stripping topsoil and salvaging it for reclamation (see **Photo 9**).

Please contact Tim Cazier (303)866-3567 ext. 8169 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. North Pond (looking north).



Photo 2. Million dollar hole pond receives water from pit dewatering (looking south).

PHOTOGRAPHS (cont.)



Photo 3. Spreading topsoil near million dollar hole (looking SW).



Photo 4. Cattails along the lower banks of the Bear Creek Diversion (looking north).

PHOTOGRAPHS (cont.)



Photo 5. Willows along the lower banks of the Bear Creek Diversion (looking north).



Photo 6. Erosion rilling and gulying observed along the Bear Creek realignment.

PHOTOGRAPHS (cont.)



Photo 7. Erosion rilling / gullying observed along Bear Creek realignment (looking NW).



Photo 8. Permit sign at entrance.

PHOTOGRAPHS (cont.)



Photo 9. Topsoil stockpiles (near million dollar hole, SE area of permit).

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>PB</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>Y</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PB</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(CI) COMPLETE INSP---- <u>NA</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / **PB = Problem cited** / PV = Possible violation cited

Inspection Contact Address

Nick Bellino
Holcim (US) Inc.
3500 Highway 120
Florence, CO 81226

Enclosure

CC: DRMS file