



August 17, 2020

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

**RE: Boettcher Limestone Quarry, Permit No. M-1977-348, Technical Revision No. 11 (TR-11),
Preliminary Adequacy Review**

Mr. Toelle:

On July 29, 2020, the Division of Reclamation, Mining and Safety (Division) received your Technical Revision application (TR-11) for the Boettcher Limestone Quarry, addressing the following:

Revise the groundwater monitoring program to include a background monitoring well (MW-8), and depending on the results of water quality data collected from that well, also include a compliance monitoring well (MW-9).

After reviewing the materials submitted, the Division has identified the following adequacy items that must be addressed before an approval of TR-11 can be issued:

- 1) On Figure 1 – Site Location Plan, the permit boundary depicted is not accurate. Specifically, the shape of the boundary depicted on this figure does not match the shape of the approved boundary (see enclosed Google Earth images showing boundary after AR-4 approval). Additionally, the boundary depicted is shifted to the east, so that its western edge overlaps the CKD disposal areas. Please revise the permit boundary depicted on this figure to match the approved permit boundary.
- 2) On Figure 1 – Site Location Plan, please include potentiometric surface information and well depth and screening interval data for all site wells. This information is necessary in evaluating the suitability of the proposed well locations.
- 3) In Section 3.2 – Evaluation of MW-8, the operator states “evaluation of parameters at MW-8 will be focused on parameters that have previously exceeded the Regulation 41 – Colorado Basic Standards for Groundwater at the existing site wells screened in the same formation – specifically MW-4, MW-6, and MW-7. These parameters include Barium, Iron, Manganese, Total Dissolved Solids (TDS), and Chloride.” Please be advised, the evaluation must address all parameters that exceed the Table Value Standards set by Water Quality Control Commission’s (WQCC’s) Regulation No. 41, including: Barium, Boron, Chloride, Fluoride, Gross Alpha, Iron, Manganese, Nitrate as N, Nitrate + Nitrite as N, Selenium, Sulfate, TDS > 10,000 mg/L, and Uranium. Please revise Section 3.2 accordingly.
- 4) Please commit to providing the Division with a construction summary for well MW-8 within 60 days of completion, including GPS coordinates, elevations, well installation date, well material type, well depth, screened interval, filter pack interval, bentonite seal interval, and the interpreted screened unit. This



summary should include the well construction and borehole logs. This summary need not be submitted in the form of a revision.

- 5) Please commit to submitting the field investigation summary (discussed in Section 4.0) in the form of a Technical Revision. This revision must include an analysis of the water quality data obtained at MW-8 (once sufficient data exists to evaluate the results), a comparison of this data to water quality observed at other site wells, and a discussion of whether data obtained from MW-8 indicates any of the parameters that exceed Table Value Standards at other site wells can be interpreted as representing natural groundwater conditions and not CKD-impacted groundwater. This revision must also include an explanation for whether or not well MW-9 will be installed, and if so, include an estimated timeline for construction.
- 6) In Section 4.2 – Data Evaluation and Reporting, the operator describes two scenarios in which a Technical Revision to the permit would be issued that requests site reclamation liability be released and discontinuation of the groundwater monitoring program. Please be advised, the Division's approval of TR-11 would not represent an acceptance of these terms. Firstly, a release request must be submitted on the appropriate Request for Full or Partial Release of Permit Area form and not via the Technical Revision process. Secondly, a full release of the site cannot be approved until the operator has demonstrated to the satisfaction of the Division that reclamation has been achieved so that existing and reasonably potential future uses of groundwater are protected, as required by Rule 3.1.7(8). Other applicable reclamation performance standards from Rule 3 will also be evaluated in determining if the site is eligible for release. Lastly, (as mentioned in Item #3 above) the operator must address all parameters that exceed the Table Value Standards set by Water Quality Control Commission's (WQCC's) Regulation No. 41, including at all wells in the CKD disposal areas.
- 7) Please be informed, Patrick Lennberg with the Division is reviewing Sections 2.0 and 3.2 of your submittal and may have additional comments on these sections which will be provided to you in a separate adequacy review letter.

This completes the Division's preliminary adequacy review. The decision date for TR-11 is currently set for **August 28, 2020**. If additional time is needed to address the adequacy items, an extension request must be received by our office prior to the decision date.

If you have any questions, you may contact me by telephone at 303-866-3567, ext. 8129, or by email at amy.eschberger@state.co.us.

Sincerely,



Amy Eschberger
Environmental Protection Specialist

Encls: (2) Google Earth images of site showing approved permit boundary

Cc: Travis Bennett, Holcim (US) Inc.
Sara Harkins, Golder Associates, Inc.
Patrick Lennberg, DRMS
Michael Cunningham, DRMS

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[View of entire permit area](#)

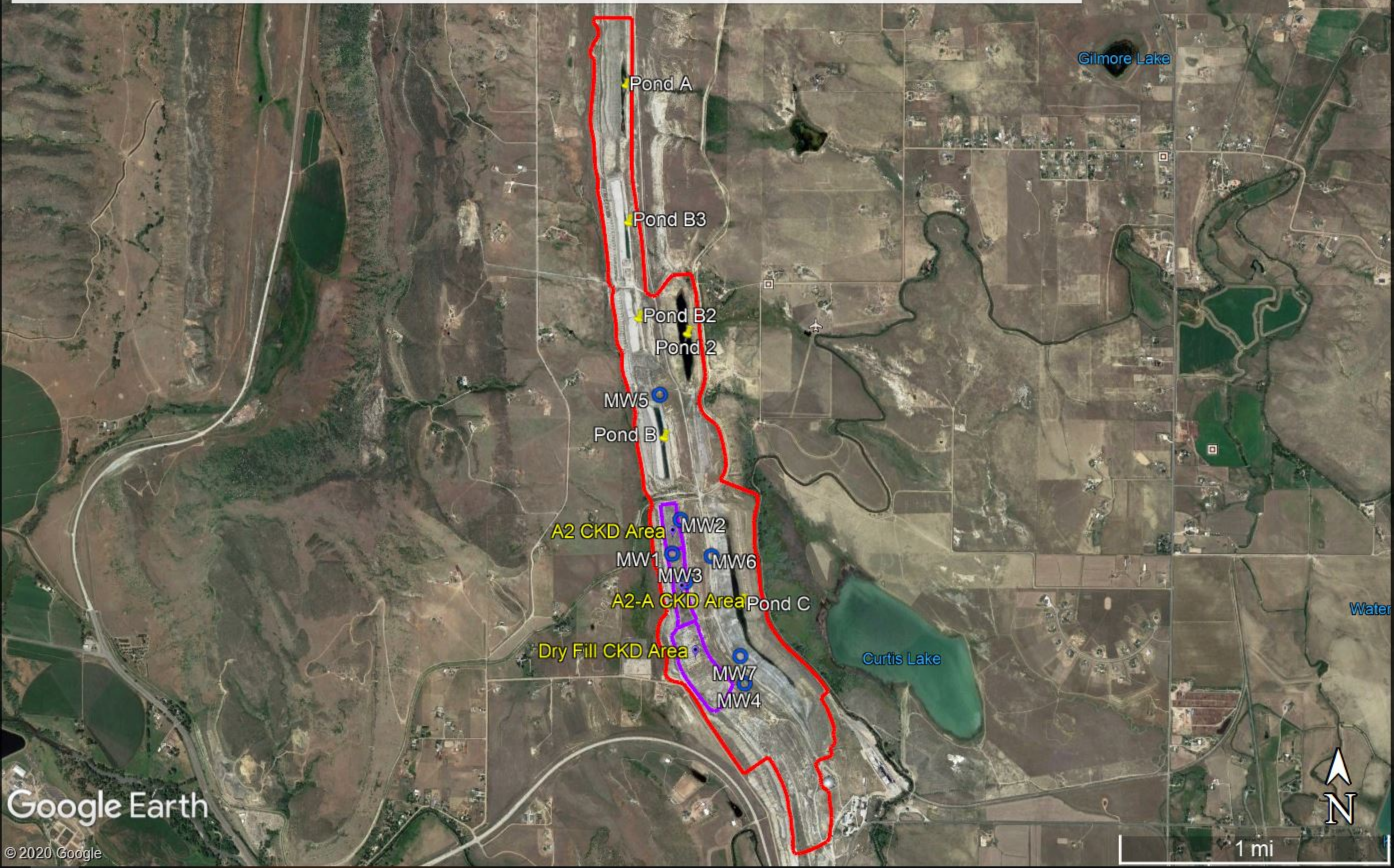
Red Outline = 537 acres = Permit Area (after AR-4 approval; location approximated based on approved maps)

Purple Outline = Approximate location of CKD disposal areas (A2, A2-A, and Dry Fill)

Blue Circles = Location of groundwater monitoring wells (MW-1 through MW-7)

Yellow Thumbtacks = Labeled ponds (A, B3, B2, 2, B, C)

(Image data from 7/17/2019)



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Closer view of area with monitoring wells

