

October 3, 2019
Project No. 1705051

Mr. Eric Scott, P.G., R.G.
Colorado DRMS
1313 Sherman St., Room 215
Denver, CO 80203

**Re: REVISED Response to Adequacy Comments Received September 30, 2019 for a
Technical Revision Submitted September 27, 2019, Morrison Quarry, M-1973-021.**

Dear Mr. Scott,

GEI Consultants, Inc. (GEI), on behalf of Aggregate Industries (AI), is providing this response to comments on the Morrison Quarry (M-1973-021) Monitoring Well Technical Revision. The comments and associated responses are presented below.

Are there any plans to install wells to identify conditions near the existing reservoir at the north end of the site? If not, why not?

There were originally 4 monitoring wells installed within the North Quarry in 2009 (MW-3636623A, MW-3636623B, MW 3636623C, and MW-3624323E) shown on the attached Figure 1. During a recent reconnaissance of the wells performed September 27, 2019, GEI determined that MW- 3636623A and MW-3624323E have been destroyed during ongoing mining operations and that MW-3636623B and MW 3636623C are still operational and reported water depths of 26.5 and 28.0 feet respectively. MW-3636623B was heavily silted, and GEI will recommend AI rehabilitate both wells prior to being incorporated to the site monitoring program.

DRMS will likely require that the wells be installed to TD (current proposed final base elevation of reservoir) during the initial installation, rather than partway now and then deepened or replaced later. If there is a solid reason to support the "re-drilling" plan proposed, please provide it.

NOTE – The September 30, 2019 version of the response to comments incorrectly listed the well bottom Elevation (El.) as 6564. The correct El. is 6400 and has been corrected throughout this document.

Projections show that the mining activities will reach the proposed monitoring well bottom Elevation (El.) of 6400 in approximately 15 years. The sillimanitic gneiss is projected to be encountered as mining progresses toward El. 6400, and the mine plan will likely need to be adjusted to reflect/avoid the sillimanitic gneiss based on its extent as observed during excavation, and the location of the wells may need to be modified accordingly. Delaying

the piezometer installation will allow AI to adjust/update the groundwater monitoring as needed based on observations of materials encountered during mining.

In the pending M-1973-021 AM-06, AI will submit a 2-phase mining and reclamation approach to the South Quarry. Phase 1 will represent a mine configuration with a bottom El. at or near 6450 and Phase 2 will represent a complete mining of the South Quarry according to the long term mine plan, with a bottom El. at or near El. 6190.

The proposed wells in this TR are applicable to Phase 1 of the mine plan. If AI determines it is feasible to proceed beyond Phase 1, the existing wells will be deepened or redrilled in a more applicable location to the current mine plan.

What is the plan if GW is encountered at a depth less than the proposed TD of the reservoir? Nested wells to identify separate/perched aquifers? Well installed 10-20' into GW at whatever depth it's encountered?

The wells will be installed to an El. of 6400 or 20 feet below groundwater, whichever is at the lower elevation.

Until a full GW monitoring plan is submitted with the pending Amendment, DRMS will require monthly monitoring of water levels in the wells when completed - assuming there is water to monitor.

The wells will be monitored monthly until a formal monitoring plan is developed. The groundwater data will be reported in the annual report documentation submitted annually by December 31st.

Sincerely,

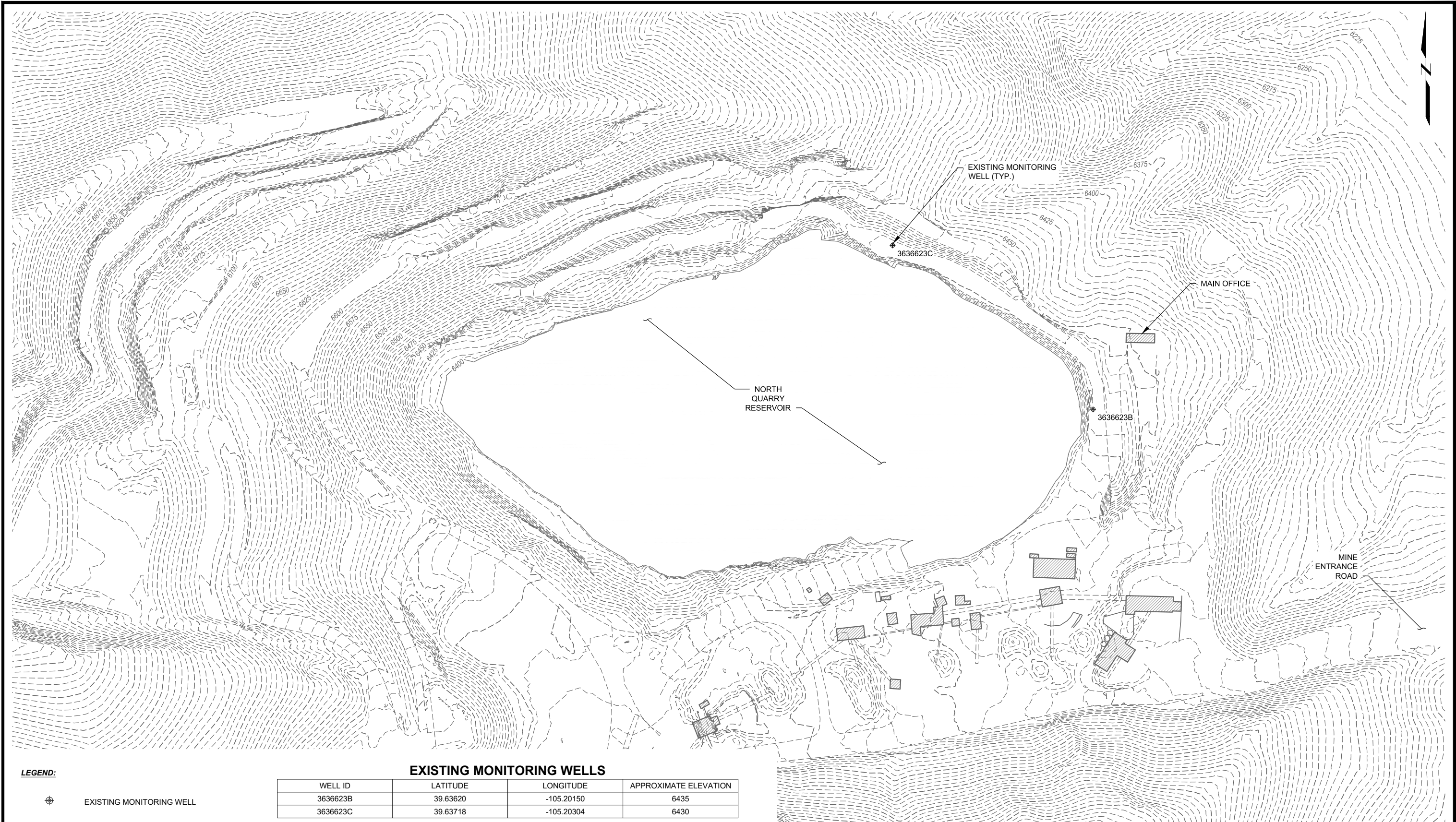
GEI CONSULTANTS, INC.



Jeremy Deuto, P.E., P.G.
Project Manager/Geotechnical Engineer



Andrew Lockman, P.G.
Peer Reviewer/Senior Engineer



LEGEND:

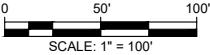
⊕ EXISTING MONITORING WELL

EXISTING MONITORING WELLS

WELL ID	LATITUDE	LONGITUDE	APPROXIMATE ELEVATION
3636623B	39.63620	-105.20150	6435
3636623C	39.63718	-105.20304	6430

NOTES:

1. EXISTING TOPOGRAPHIC CONTOURS PROVIDED BY AGGREGATE INDUSTRIES
2. EXISTING MONITORING WELL LOCATIONS DERIVED FROM COLORADO DWR WATER WELL PERMIT APPLICATIONS
3. OPERATIONAL STATUS OF MONITORING WELLS WAS FIELD VERIFIED ON SEPTEMBER 27, 2019



Morrison Quarry Technical Revision
DRMS Permit M-1973-021
Morrison, Colorado

Aggregate Industries WCR Inc.
Golden, Colorado



EXISTING NORTH QUARRY
MONITORING WELL LOCATIONS

Project 1705051-4.2

September 2019

Fig. 1