

STATE OF
COLORADO

Zuber - DNR, Rob <rob.zuber@state.co.us>

Monarch DENM, TR1, Second adequacy review

1 message

Zuber - DNR, Rob <rob.zuber@state.co.us>

Mon, May 13, 2024 at 2:39 PM

To: Kyle Regan <Kyler@civilresources.com>, Eric Leigh - DEN <eric.leigh@quikrete.com>

Kyle and Eric -

Please see the attached letter. Contact me with questions or comments on the additional requirements for this TR. If necessary, we can set up a conference call with Patrick Lennberg.

Also, after you look at this, please let me know what you think is an appropriate timeframe for a likely extension. Patrick will need about a week for reviewing your next submittal. The current due date is Friday, May 17th.

Thanks,
Rob

Rob Zuber, P.E.
Environmental Protection Specialist
Active Mines Regulatory Program



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

I am working remotely and can be reached by cell at 720.601.2276.

Physical Address:

1313 Sherman Street, Room 215
Denver, CO 80203

Mailing Address:

Division of Reclamation, Mining and Safety, Room 215
1001 East 62nd Avenue
Denver, CO 80216

rob.zuber@state.co.us | <http://drms.colorado.gov>



M2022009_TR1_DRMS_Adequacy_Letter_13May2024_with_GW_memo.pdf
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COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

May 13, 2024

Kyle Regan
Civil Resources, LLC
8308 Colorado Blvd.
Suite 200
Firestone, CO 80504

**Re: Monarch DENM Mine, File No. M-2022-009;
Technical Revision Number 1 (TR-01), Second Adequacy Review**

Dear Mr. Regan:

The Division received your response to our first adequacy review (your letter dated May 8, 2024 and the Groundwater Monitoring and Analysis Plan). We have additional adequacy items that must be addressed. Patrick Lennberg's review memorandum is attached.

Please submit a response to this adequacy letter through the Division's e-permitting system. If you have any questions, please contact me by telephone at (720) 601-2276 or by email at Rob.zuber@state.co.us.

Also, it appears that an extension of the decision date will be necessary. When you determine the date, please allow Patrick time to review your next responses.

Thank you,

Robert D. Zuber, P.E.
Environmental Protection Specialist

Enclosure

Cc: Eric Leigh, MMMA



Date: May 13, 2024

To: Rob Zuber, DRMS

From: Patrick Lennberg, DRMS

RE: Monarch DENM Mine, Technical Revision No. 1 (TR-1), Adequacy Review No. 2, Groundwater Monitoring and Sampling and Analysis Plan and Site Groundwater Modelling Review Memo, File No. M-2022-009

On May 9, 2024, the Division of Reclamation, Mining and Safety (Division/DRMS) received the responses to the Division's Adequacy Review No. 1 (dated April 11, 2024) for Technical Revision No. 1 (TR-1) for the Monarch DENM Mine, permit no. M-2022-009. Below are additional follow-up questions and/or clarifications that need be addressed. Please update and resubmit the "Groundwater Monitoring and Analysis Plan," as appropriate.

1. Please confirm that only one duplicate sample is to be collected quarterly, and the analytical results of the duplicate sample are to be reported along with the other quarterly results.
2. In item 9 MMMA states,

"Five quarters of baseline quality monitoring is consistent with recently permitted sites in the area such as Ragsdale Reservoirs (M-2020-007) and the Windsor East (M-2022-042) and exceeds the requirements of slightly older permits. Any stormwater discharges will be made under an NPDES discharge permit from CDPHE and the Site will operate under a Stormwater Management Plan. The plant will be designed with stormwater BMPs to reduce the risk of impacts to water quality from surface discharge and will have a spill prevention, control and countermeasure (SPCC) plan in effect to address any potential spills.

While MMMA agrees that five (5) quarters of baseline sampling will be beneficial in creating a record of current groundwater conditions, they contend that there is not a "reasonable potential" for the Site to adversely affect the groundwater quality of the area. As such, we believe that the current sampling schedule of five (5) quarters and at release of the reclamation permit is consistent with other sites and will adequately characterize pre and post-mining water quality. For these reasons, MMMA does not agree to continuing quarterly sampling after the five (5) quarters of baseline sampling."



The Windsor East permit, similar to Monarch, has performed baseline groundwater quality monitoring to the extent possible prior to exposing groundwater. It is noted Windsor East has committed to monitoring groundwater quality beyond the baseline period.

There are other permits (one approved and two currently in review) in the area of the Monarch site: the Section 20 Gravel Mine to the east, the Sweet Valley Pit to the south, and the Bernhardt Sand and Gravel to the west. All of these permits will have to collect quarterly groundwater quality samples to establish baseline conditions and continue monitoring throughout the life of mine and not just at the completion of reclamation.

Pursuant to Rule 3.1.6(1) disturbances to the prevailing hydrologic balance of the affected land and of the surrounding area and to the quantity or quality of water in surface and groundwater systems both during and after the mining operation and during reclamation shall be minimized. The Division is requiring groundwater quality monitoring throughout the life of mine to demonstrate compliance with Rule 3.1.6 during active mining.

The Division requests the Operator commit to providing the quarterly groundwater monitoring results along with the monthly level measurements by the following deadlines:

- First quarter report due by May 1st of every year.
- Second quarter report due by August 1st of every year.
- Third quarter report due by November 1st of every year.
- Fourth quarter report due by February 1st of the following year.

At the end of five quarters, MMMA may submit a Technical Revision to reduce the analyte list and frequency of monitoring with sufficient justification. Analytical sampling frequency will not be reduced to less than a minimum of twice yearly (high flow and low flow data with a collection interval of 5-7 months).

3. In response to item 12, MMMA provided the full list of analytes (Appendix B) for the monitoring wells. The analyte list is inconsistent with the Appendix A of the Division's Groundwater Monitoring: "Sampling and Analysis Plan Guidance Construction Materials and Hard Rock Sites" (September 2023). Appendix A of that guidance document has been provided for your reference and inclusion into your Groundwater Monitoring and Analysis Plan. Appendix B, as provided, includes sampling for more analytes than needed.

If you need additional information or have any questions, please let me know.

Sincerely,

A handwritten signature in blue ink, reading "Patrick Lennberg". The signature is stylized with a large, looped "L" and a cursive "G".

Patrick Lennberg
Environmental Protection Specialist

Attachment: Appendix A - Full Parameter List for Construction Materials Sites

cc: Jared Ebert, DRMS

Appendix A: Full parameter list for Construction Material Sites (with Table Value Standards) from Regulation 41, Tables 1-4

Analyte	Table Value Standard (mg/L, unless other units given)	Reg. 41 Table Reference (1-4)
pH Field (pH unit)	6.50 - 8.50	2 and 3
TDS	400 mg/L, or 1.25X background	4
Chloride - Dissolved	250	2
Fluoride - Dissolved	2	3
Nitrate (NO ₃)	10	1
Nitrite (NO ₂)	1.0	1
Nitrite + Nitrate as Nitrogen	10	1
Sulfate - Dissolved	250	2
Aluminum - Dissolved	5	3
Antimony - Dissolved	0.006	1
Arsenic - Dissolved	0.01	1
Barium - Dissolved	2	1
Beryllium - Dissolved	0.004	1
Boron - Dissolved	0.75	3
Cadmium - Dissolved	0.005	1
Chromium - Dissolved	0.1	1 and 3
Cobalt - Dissolved	0.05	3
Copper - Dissolved	0.2	3
Iron - Dissolved	0.3	2
Lead - Dissolved	0.05	1
Lithium - Dissolved	2.5	3
Manganese - Dissolved	0.05	2
Mercury - Dissolved	0.002	1
Molybdenum - Dissolved	0.21	1
Nickel - Dissolved	0.1	1
Selenium - Dissolved	0.02	3
Silver - Dissolved	0.05	1
Thallium - Dissolved	0.002	1
Uranium - Dissolved	0.0168 to 0.03	1
Vanadium - Dissolved	0.1	3
Zinc - Dissolved	2	3

- These analytes, at a minimum, will be tested for during the five (5) quarters of baseline monitoring. It will be up to the Operator/Permittee to submit a Technical Revision with proper justification to reduce the analyte list.