

August 22, 2023

Ms. Lori Smith
Cripple Creek & Victor Gold Mining Company
P.O. Box 191
Victor, CO 80860

Re: Additional Information Required, Second Quarter 2023 Surface Water and Groundwater Monitoring Report, Cresson Project, Permit No. M-1980-244

Dear Ms. Smith:

On July 27, 2023, the Division of Reclamation, Mining and Safety (Division/DRMS) received the Second Quarter 2023 Surface Water and Groundwater Report for the Cresson Project. After review of the submission the Division has additional items that need to be addressed or clarified.

1. From the data provided, GV-06 was sampled in June and the results indicate an exceedance for Iron. Please update the narrative section of the report and Table 5 to account for this exceedance.
2. The site specific surface water standards for Grassy Valley are listed in Colorado Regulation Number 32 – Classification and Numeric Standards for Arkansas River Basin (Reg. 32), specifically COARUA24. The Operator states the surface water exceedances were for values listed in COARUA24 and Table Value Standards (TVS) in Colorado Regulation Number 31 – The Basic Standards and Methodologies for Surface Water (Reg. 31). It appears the Reg. 32 TVS calculations would be more appropriate. Please provide a table that compares the Grassy Valley surface water sample (GV-02, GV-03, and GV-06) results with all the surface water standards (acute and chronic) listed in COARUA24 of Reg. 32. Note the Division is expecting the Operator to perform the necessary calculations to determine the TVS value, from Reg. 32, for comparison. Please include the hardness value used for each sample.
3. In the QAPP provided with AM13, Table 3.2 gives the surface water monitoring parameters. It does not appear that all the collected surface water samples are being analyzed for the parameters on this list, e.g. Antimony (total recoverable). Additionally, there are parameters missing from this list that are included in Reg. 32 stream classification for the various basins; COARUA22a for Arequa Gulch from the source to the confluence with Cripple Creek, COARUA23 the mainstem of Wilson Creek, including all tributaries and wetlands, from the source to the confluence with Fourmile Creek, and previously mentioned standards for Grassy Valley. The QAPP needs to be revised to account for these differences and clarify what the individual surface water sample results should be compared to. It is noted the responses to the Division's preliminary adequacy review for TR129 dated March 17, 2022 the Operator committed to revising Exhibit G, applicable maps and QAPP upon approval of TR129.



4. A review of the groundwater field sheets indicates that the wells are being sampled in an inconsistent manner. While the field sheets indicate low-flow methods are being used the typical USEPA methods are not being followed, e.g. drawdown should not exceed 0.33 feet. In other instances low-flow methods are indicated but it appears that sufficient volume may have been removed to qualify for volumetric well purging. The field sheets do not document well diameter or total volume removed during purging for the reviewer to determine what method each well may have qualified for during the sampling event. Please provide a summary table indicating each well's diameter, total depth, beginning and ending water levels (clearly indicating the measuring point location), and the total volume purged for the second quarter sampling event.
5. The QAPP needs to be revised and updated to document how field sampling of groundwater monitoring wells is to be conducted for consistency over the life of mine. A Technical Revision to revise the QAPP for both surface water and groundwater sampling shall be submitted within **60 days of the date on this letter, or October 21, 2023**.
6. Several spikes of analytes above historical levels require additional information as to possible causes: Fluoride in GVMW-8A, CRMW-3B and -3C, Sulfate in VIN-2B, Manganese in PGMW-3, and Cadmium and Zinc in GV-02.

Please respond to these items within 30 days of the date on this letter, by **September 21, 2023**. The Division reserves the right to further supplement this document with additional items and details as necessary.

If you need additional information or have any questions, please contact me by telephone at 303-866-3567 x8114, or by email at patrick.lennberg@state.co.us.

Sincerely,



Patrick Lennberg
Environmental Protection Specialist

cc: Katie Blake, CC&V
Anthony Matarrese, CC&V
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