

May 30, 2023

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

RE: Division Adequacy Review; Technical Revision 136 (TR-136) Numeric Protection Level Recommendations, Permit No. M-1980-244

Dear Ms. Smith,

On March 30, 2023, the Division of Reclamation, Mining and Safety (Division/DRMS) received your request for Technical Revision 136 (TR-136). After review of TR-136 the Division has the following list of items that need to be addressed by the Operator.

1. In the ITRC Guidance Section 3.3 it is recommended that before conducting formal statistical evaluations, review the data. This review should include (1) reviewing data quality, (2) assessing the extent and usefulness of any historical data, and (3) exploring the data for general patterns and characteristics. Was an up-front exploratory data analysis performed to better understand the data set, its usability, and its representativeness? If so, please provide the results of the analysis.

The Division reviewed the permit file and was unable to determine if historical data was collected following any Standard Operating Procedures or a Sampling and Analysis Plan with defined QA/QC procedures. In the original submittal for AM10, Hydrologic Evaluation Cresson Project Mine Life Extension 2 (February 2012), the Applicant stated that groundwater samples would be collected from the approved locations and list of analytes in accordance with CC&V's internal policies. Is there any documentation of what these policies were and are there any field forms that demonstrates those policies were followed? If so, please provide the Division with any available documentation.

The AM10 submittal goes on further to add "Quality assurance and quality control procedures were included in the sampling and analytical procedures as part of the certified Environmental Management System at CC&V. All analytical testing was performed by qualified third-party analytical laboratories that participate in external quality assurance and quality control programs". It is inferred from this statement and the statement made in Section 3.5, all samples were analyzed at a USEPA certified laboratory using standard analytical procedures, that the laboratories used followed the Contract Laboratory Program (CLP) or CLP-like program consistent with the National Functional Guidelines (NFGs). The NFGs provide guidelines in evaluating (a) whether the analytical data meet the technical and Quality Control (QC) criteria established in the project-specific Quality Assurance



Project Plan (QAPP) or similar, and (b) the uncertainty and extent of bias of any data that do not meet these criteria. Laboratories that follow CLP criteria generate laboratory data packages that contain a narrative of general information which may include notable problems with matrices; insufficient volume for analysis or reanalysis, preservation information that is verified by the laboratory. Are there any data packages prior to Newmont becoming the Permittee available for review that demonstrate, among other items, what methods and procedures were used to analyze the samples?

The historical analytical data must meet the technical and QC criteria established in the project-specific QAPP in order to be statistically useful in the NPL analysis.

2. In Section 3.5 Data Quality Assurance/Quality Control (QA/QC) the last sentence of the first paragraph it states “More recent samples (i.e. those collected starting in 2016, during CC&V’s tenure [Newmont]) were collected in accordance with CC&V’s Water Monitoring Quality Assurance Project Plan (QAPP)”. During the Division’s review of the 4th quarter 2020 quarterly report the Operator stated that the QAPP was not followed for all of 2020. Please state whether or not the QAPP was followed in 2016 through 2019. If it was followed, please provide a suitable demonstration that it was followed correctly. In addition, provide an explanation how not following the approved QAPP impacts the suitability of the data for use in statistical analysis.
3. On page 2, the last sentence of the first paragraph (continued from page 1), it is stated “Natural causes, sampling anomalies, or related operations that did not cause a discharge of pollutants to groundwater were not considered to be new or increased sources of groundwater contamination”. Pursuant to Rule 3.1.6 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 NPLs proposed within this revision are intended to comply with WQCC’s Regulation No. 41 – The Basic Standards of Ground Water (Reg. 41). However, the Operator must also be in compliance with Rule 3.1.6. A review of groundwater quality data indicates the lining of the valley leach facilities in Maize Gulch and Arequa Gulch may be negatively affecting both the quantity and quality of groundwater. As discussed in section 4.5 Maize Gulch, lining of Maize Gulch has caused concentrations of various constituents to increase by removing the available amount of water to enter the groundwater system. Lining has also resulted in decreased water levels within monitoring wells and a decreasing trend in dissolved oxygen (DO). While lining the gulch has not been a source of contamination it has negatively affected the hydrologic balance. The Division does not agree it was appropriate to use the increasing concentration trend data for the various constituents because there was no new or increased source.
4. The Division acknowledges the Cresson Mine is situated within a historic mining district, which has contributed to exceedances of water quality standards. However, these areas impacted by historic mining have been incorporated into the affected area of the Cresson Mine. As such, the Operator has assumed responsibility for meeting water quality standards. The Interim Narrative Standards of Regulation No. 41 are intended to ensure that conditions are not allowed to deteriorate further by establishing a system of classifications for determining the appropriate standards necessary to

maintain beneficial uses of groundwater. It is the role of the Water Quality Control Commission (WQCC) to consider whether or not site specific standards should be applied based on historic impairment of water quality. The Operator may petition the WQCC to promulgate site specific standards that take into account the historic impact on water quality. Until such time as the WQCC adopts site specific standards, the Operator will be responsible for ensuring water quality meets either the Interim Narrative Standards or Numeric Protection Limits, as established by the Division.

This concludes the Division's Adequacy Review of TR-136 Proposed Numeric Protection. The Division reserves the right to further supplement this document with additional items and/or details as necessary.

On May 30, 2023 the Division received your extension request to extend the decision date for TR-136 from May 30, 2023 to June 30, 2023. **The Division hereby approves the extension request to June 30, 2023.**

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

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