



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

April 10, 2020

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

RE: Division Review No. 2; Notification of Water Quality Analysis Parameter Exceedance February 27, 2020; Cresson Project, Permit No. M-1980-244

Dear Ms. Harmon,

On February 27, 2020, the Division of Reclamation, Mining and Safety (Division) received your Notification of Water Quality Analysis Parameter Exceedance for the Cresson Project, Permit No. M-1980-244. In reviewing the information contained within the notification the Division requested additional information and follow-up to clarify what is occurring at the site. On April 1, 2020 the Operator responded to the Division's initial request for additional information dated March 3, 2020. After review of the information provided in the response letter dated April 2, 2020, the Division requests additional clarification for the items listed below. Please respond to the items with a letter summarizing each response, to the numbered items below, in a cover letter titled "Review No. 2 Response Notification of Water Quality Analysis Parameter Exceedance February 27, 2020, M-1980-244".

1. The Division is not aware of any formal notification that the pumping system failed. Did the Operator provide any formal notification, if not why?
2. What is the nature of the pumping system failure and why is taking so long to fix? If the system is currently operating when did it come back online?
3. The Operator hypothesizes that the spike in manganese was caused by bacterial growth in the well. Did the Operator take samples of the bio-film to characterize and determine the bio-film was the source of the manganese spike? If no sample was taken what information is the Operator using to support this hypothesis?
4. What plans does the Operator have to address the manganese biofouling issue should it become a problem again in the future?
5. Is there a concern that the well's integrity and efficiency are decreasing with repeated biofouling?



6. Please explain the gaps in sampling from April to August and September to December 2019 notable in the table under the Item No. 3 in the response letter dated April 2, 2020.
7. The DMRQA is a program whereby laboratories participate in self-monitoring for specific analytes associated with a NPDS permit. Are fluoride and manganese part of Operator's NPDS permit, if so what are the monitoring concentrations for them?
8. While a single sample sent to the laboratory may indicate an exceedance, even through DMRQA, a follow up sample would verify the exceedance and eliminate potential errors associated with sampling contamination, was this done?
9. The Operator has stated that fluoride and manganese concentrations in downgradient wells, CRMW-5A, -5B, -5C, and -5D, are not outside previously recorded concentrations. Please provide summary graphs for these wells to show that concentrations are not outside previously recorded concentrations.
10. Comment: The results from the March 2020 event indicates that fluoride is still at or near historical high concentrations and while manganese has decreased it is still above historical averages, and concentrations of both constituents are above Table Value Standards.

This concludes the Division's second review of your notification. The Division reserves the right to further supplement this document with additional items and/or details as necessary.

The due date for your response has been set for May 8, 2020.

If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8114**, or by email at patrick.lennberg@state.co.us.

Sincerely,



Patrick Lennberg
Environmental Protection Specialist

cc: Justin Raglin, Cripple Creek & Victor Gold Mine
Ronald Parratt, Cripple Creek & Victor Gold Mine
Tim Cazier, Division of Reclamation, Mining & Safety
Michael Cunningham, Division of Reclamation, Mining & Safety
Jared Ebert, Division of Reclamation, Mining & Safety