

March 13, 2024

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

**Re: Additional Information Required No. 2, Grassy Valley Groundwater and Surface Water  
Monitoring Report December 2023; Permit No. M-1980-244**

Dear Ms. Smith:

On February 29 2024, the Division of Reclamation, Mining and Safety (Division/DRMS) received your responses to the Division's Additional Information Required for the Grassy Valley Groundwater and Surface Water Monitoring Report for December 2023. After review of the submission the Division has additional items that need to be addressed or clarified.

1. Provide an update on the investigation into wells GVMW-4A and GVMW-15A, have samples been collected and what were the results of the pumping? If samples were collected provide the results.

If the Operator has not performed the investigation provide a time frame for when it will occur and commit to informing the Division when the field investigation is complete.

Has the Operator acquired a water level meter that can gauge GVMW-15C? If so, please provide that information and if not, when is that equipment expected?

2. In response to the Division's question about the Operator not sampling GVMW-7B the Operator provides a quote from the USGS National Field Manual for the Collection of Water Quality Data Book 9 Chapter A4 Section 4.2.2 that recommends against sampling wells with 5 feet or less water in them because of detritus in the bottom of the well may bias analytical results. What the Operator omitted from this citation is the following *"Any reported interpretations of chemical analyses when sampling under such conditions must be clearly qualified and the well conditions documented."* Clearly, there is a USGS procedure in place to address sampling a well with less than 5 feet of water in it and the Operator did not follow it. The majority of the sample collected from GVMW-7B is analyzed for dissolved constituents which requires field filtering water to remove most of the non-dissolved particles from the water sample mitigating potential impacts from the detritus.



Regardless of the incomplete USGS citation the approved QAPP for Grassy Valley clearly defines the procedure for sampling a well like GVMW-7B and the Operator did not follow the approved plan. Furthermore, if there is a concern about detritus in the bottom of the well the Operator can redevelop the well to remove any debris that may have accumulated over time or may potentially bias analytical results.

It is noted the Operator has sampled GVMW-7B six times since March 2023. Provide the GVMW-7B field sheets for samples collected on March 14, July 19, September 26, October 17 and November 13, 2023.

3. For the list of wells below, provide a summary table that lists each well diameter (inches), well location (x, y in decimal degrees), ground surface elevation, top of casing elevation, total depth (feet below ground surface) and screened interval (feet below ground surface).

Grassy Valley	GVMW-8A	GVMW-4A, GVMW-4B	GVP21
	GVMW-8B	GVMW-6A	GVP22
	GVMW-22A	GVMW-7A, GVMW-7B	GVP23
	GVMW-22B	GVMW-10	GVP24
	GVMW-25	GVMW-15A, GVMW-15B	
		GVMW-15C, GVMW-21A	
		GVMW-23A, GVMW-23B	
		GVMW-24A, GVMW-24B	
		OSABH-12	
		OSABH-14	
		OSABH-16	
		OSABH-17	
		OSABH-18	

4. Provide an explanation on where the sediment built up to prevent sampling of GVMW-24A and how a similar situation will be avoided in the future.
5. The Division agrees that graphs are intended to be a depiction of trends in concentrations over time. However, those trends need to be accurate or at the very least provide clear information. In the case of Thallium in GVMW-25, there are numerous spikes in the graphs and as depicted lead the reviewer to believe that Thallium has actually been detected when in fact it is a product of routine laboratory dilution of the sample. A reviewer has to take additional time to locate the lab data sheet for that analyte to determine if it was actually detected or follow up with an adequacy question inquiring about the detection. The Operator has an opportunity to update graph symbols or provide a brief narrative to address these dilution instances.

Please respond to these items within 30 days of the date on this letter, by **April 12, 2024**. 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 email at [patrick.lennberg@state.co.us](mailto:patrick.lennberg@state.co.us).

Sincerely,



Patrick Lennberg  
Environmental Protection Specialist

cc: Katie Blake, CC&V  
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