Newmont
NORTH AMERICA

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SENT VIA ELECTRONIC COMMUNICATIONS

December 21, 2023

Mr. Patrick Lennberg
Environmental Protection Specialist
Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Office of Mined Land Reclamation
1313 Sherman Street, Room 215
Denver, Colorado 80203

RE: Additional Information Required and Issuance of Corrective Action, Grassy Valley Groundwater and Surface Water Monitoring Report September 2023; Permit No. M-1980-244

Dear Mr. Lennberg:

Cripple Creek and Victor Gold Mining Company (CC&V) received the Division of Reclamation, Mining, and Safety's (DRMS) *Additional Information Required and Issuance of Corrective Action, Grassy Valley Groundwater and Surface Water Monitoring Report September 2023*; Permit No. M-1980-244. CC&V has reviewed the additional information required and corrective actions issued in the letter dated November 22, 2023 from DRMS and has prepared the following responses for each comment. The DRMS comment (*in italics*) and CC&V's corresponding response (**in bold**) is presented below.

1. *The Division believes the extent of seepage from the ECOSA has been poorly defined to date. The Operator will provide to the Division their estimate of the aerial extent of seepage from the ECOSA and a narrative for describing the reasoning for that extent. The due date for this item is December 22, 2023.*

   Based on water quality data, CC&V hypothesizes that potential seepage of mine impacted water from ECOSA has been observed at groundwater monitoring wells GVMW-25 & OSABH-17 on the ECOSA (southwest) side of the thalweg of Grassy Valley. It is uncertain whether or how far beyond these wells the seepage may extend, but there is no indication of seepage observed on the opposite (northeast) side of the thalweg as seen from water quality data at monitoring

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wells GVMW-7A/B, GVMW-8A/B, & GVMW-22A/B based on the groundwater quality results. Likewise, monitoring wells OSABH-18, GVMW-4, and GVMW-15 at the north western end of Grassy Valley are typically dry and do not contain groundwater influenced by ECOSA seepage. There has also been no indication of seepage at the new Point of Compliance Wells GVMW-26A and GVMW-26B. A map of the estimated areal extent is provided in Attachment 1.

2. *On September 2, 2021 the Division performed an inspection of the site and in the inspection report, issued on October 14, 2021, the Division cited several problems. Specifically, Problem #1 addressed Seep 1 expressing at the toe of the ECOSA. On November 15, 2021 the Operator provided their initial responses to the corrective actions. On December 13, 2021 the Operator provided detailed responses to the problem citations. In the response to the Corrective Action No. 5 – A formal plan on how the new seep will be monitored and managed for Problem Citation No. 1 the Operator responded "Following the discovery of the new expressions in August 2021, CC&V developed a scope of work for a project at ECOSA that would provide a longer-term solution for managing seepage expressions. The scope includes a gap assessment of existing data at ECOSA/Grassy Valley, evaluation and development of recommended management solutions options, and a work plan. On October 21st, Golder Associates was awarded a bid to carry out this scope of work on behalf of CC&V. Golder has since performed a site visit and developed a draft gap assessment memo outlining critical data needs. A final work plan to mitigate and manage ARD at ECOSA is expected to be developed by February 2022. Implementation of recommended solutions will be initiated following finalization of the work plan."*

   The Operator shall provide a detailed discussion of the findings of the data gap assessment memo or provide a copy of the memo itself. Additionally, the Operator shall provide details on the status of the final work plan to mitigate and manage ARD at the ECOSA that was to be developed in February 2022. If the Operator has no plan, then provide a detailed explanation as to why no plan has been developed despite knowing and committing to one over the past 2 years. The due date for this item is December 22, 2023.

   The Investigation Memo, "*East Cresson Overburden Storage Area Acid Rock Drainage Sustainable Solutions Evaluations; Cripple Creek and Victor Mine, Shallow Groundwater Investigation Work Plan*" completed by WSP Golder was based on a review of historical drilling records, borehole logs, technical reports prepared during ECOSA design and permitting, and water quality monitoring data and identified the following gaps:

   - **Detailed lithologic descriptions of Grassy Valley colluvium**
     - **including grain size and sorting**

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- **Detailed lithologic descriptions of Grassy Valley shallow and deep bedrock**
  - **including crystal size, mineralogy, and fractures**
- **Reliable depths to the colluvium-bedrock contact across the Grassy Valley**
- **Temporally consistent groundwater elevation records to demonstrate groundwater flow behavior over multiple years**
  - **differences between the shallow and deep groundwater regimes are not discernable, if present**
  - **not enough monitoring locations are known to be screened in colluvium to ascertain the presence/extent of a shallow colluvial groundwater regime that behaves independent of the bedrock groundwater regime.**

The remainder of the phases outlined in the Work Plan provided were developed to specifically address these data gaps. The additional data was intended to inform future evaluation and design of shallow groundwater remediation alternatives to inform management and prevent off-site migration of potentially impacted groundwater. The following phases consisted of: performing geophysical surveys to support evaluation of subsurface ground conditions, which CC&V completed in August 2022 (focus on shallow groundwater within 16 ft of ground surface that could easily be intercepted by a trench) and again in July 2023 (evaluation of potential deep groundwater flow paths); installation of additional monitoring wells within Grassy Valley to supplement the existing network; and continuation of routine sample collection from newly installed monitoring wells and relevant pre-existing wells. Golder concluded the investigation with conceptual remedial solutions for consideration to prevent migration of potentially impacted groundwater. The first conceptual solution identified included installation of a series of groundwater interception wells which was the basis for CC&V's ECOSA Long Term Plan (TR-138) submitted to the Division on June 29, 2023.

CC&V first committed to providing the long term work plan in the submission of TR-132 ECOSA Monitoring Plan on October 28, 2022. TR-132 committed to developing and submitting a long term plan for ECOSA by June 30, 2023. CC&V met this commitment by submitting TR-138 ECOSA Long Term Plan on June 29, 2023, that was later withdrawn on July 27, 2023 at the request of DRMS. Since the withdrawal of TR-138, CC&V continued to communicate with the Division to progress the development of a mutually agreeable conceptual solution to

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progress into design and construction. CC&V has recently submitted TR-141 Grassy Valley Monitoring Well Installation as part of the plan for mitigating seepage from ECOSA. CC&V is in the process of selecting a consultant to develop the design for the ECOSA Seepage Management Plan that includes the groundwater interception well and collection system. It is anticipated that a subsequent TR will be submitted in 2024 for construction of a groundwater interception and collection system, following the completion of engineered designs.

3. *The Operator shall collect groundwater samples from the following wells during the next monthly (December 2023) round of sampling to get an accurate depiction of groundwater quality throughout Grassy Valley at the same point in time. The wells to be sampled are GVMW-4A and 4B, GVMW-7A and 7B, GVMW-8A and 8B, GVMW-10, GVMW-15A, B, and C, GVMW-22A and 22B, GVMW-24A and 24B and GVMW-25. Every attempt needs to be made to sample the wells. The Operator shall use the water levels collected from the monthly sampling event to develop groundwater surface map(s) (multiple maps may be needed due to differing screened intervals) for Grassy Valley and submitted along with the other routine monthly report materials. The Division will require monthly sampling of these well locations for a minimum of one year. Samples will be collected in accordance with the Grassy Valley and Site QAPP (currently under review as TR-139). The due date for this item is monthly sampling and submission of the data per the monthly monitoring schedule.*

   CC&V will make every attempt necessary to monitor and collect samples from the requested locations. Upon initial reconnaissance of the requested locations, CC&V notes the following:

   - **Monitoring well locations GVMW-4B and GVMW-15C have been plugged**
   - **Monitoring well locations GVMW-4A and GVMW-15A are at depths that are beyond the capabilities of CC&V's sampling equipment. Dedicated pumps must be installed within those wells to collect a proper sample within the screened interval.**
     - **CC&V is working to procure and install pumps but may not be able to collect a sample in December 2023 or January 2024, depending on lead times to acquire the necessary materials. However, it is anticipated that samples can be collected by February 2024.**

4. *The Operator shall note all seep collection structures, including Seep 1 and 2, are and will be considered Environmental Protection Facilities and need to be constructed to be compliant with Exhibit U and Rule 7.3 requirements. The Operator will submit a Technical Revision to provide a discussion of the Seep 3 collection area, how it will be constructed, and a construction schedule.*

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Included in the revision will be relevant details and schedule to bring seep collection locations 1 and 2 into compliance. The due date for this item is January 21, 2024.

CC&V intends to include the Environmental Protection Facilities (EPF) design of the seep collection structures as part of the ECOSA Seepage Management Plan that includes installation of a groundwater interception well system. CC&V is in the process of selecting a consultant to begin the design work for the system. Upon selection of a consultant, CC&V will communicate with the Division regarding a schedule for design of the system, that includes the seep collection structures as EPFs. CC&V is committed to fulfilling this requirement and will work with DRMS to provide updates as the project progresses, but will not be able to complete the design required to develop a TR by the January 21, 2024 due date. CC&V anticipates that designs for seep collection structure upgrades can be completed by March 2024.

5. *There are several EMP basins located along the toe of the ECOSA that are currently holding water. The water within these basins needs to be characterized during the monthly sampling events. For each basin sampled, it needs to be clearly stated if that basin is lined or not. Samples collected from these locations will be analyzed for groundwater constituents. Additionally, surface water sampling locations GV-01, -02 and -03 will be added to the monthly sampling event. The Division will require monthly sampling of these locations for a minimum of one year. Samples will be collected in accordance with the Grassy Valley and Site QAPP (currently under review as TR-139). The due date for this item is monthly sampling and submission of the data per the monthly monitoring schedule.*

   CC&V will make every attempt necessary to monitor and collect samples from the requested locations. Upon initial reconnaissance of the requested locations, it was determined that Surface Water location GV-01 no longer exists due to the construction of the WHEX Pit, and the former stream channel at this location has remained dry for at least four years. The GV-01 monitoring location was intended to monitor potential flows from Upper Grassy Valley. Monitoring location GV-02 (located on the thalweg) is approximately 2,200 ft downgradient from the previous GV-01 location. Surface flows from Upper Grassy Valley report to GV-02 and will be monitored/sampled at that location, if present.

6. *During the waterline replacement was additional groundwater encountered that was similar to that water in Seeps 1 and 2? If so, please provide a map showing those locations or a description of the water and whether or not it was sampled. The due date for this item is December 22, 2023.*

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CC&V only encountered groundwater in a short (~100 ft) section of the temporary pipeline installation trench near the Seep 2 location. The groundwater quickly infiltrated after it was encountered and was not able to be sampled. No other water was encountered during the pipeline installation. A map presenting the approximate location of the encountered water is provided as Attachment 2.

Should the Division required further information regarding the above responses, please do not hesitate to contact Antonio Matarrese at 719-851-4185 or Antonio.Matarrese@Newmont.com or me at 719-851-4048 or Katie.Blake@Newmont.com.

Sincerely,

DocuSigned by:
Katie Blake
5A3D013B629844B...

Katie Blake
Sustainability & External Relations Manager
Cripple Creek & Victor Mine

EC: M. Cunningham – DRMS
E. Russell - DRMS
K. Blake - CC&V
J. Gonzalez – CC&V
A. Matarrese – CC&V

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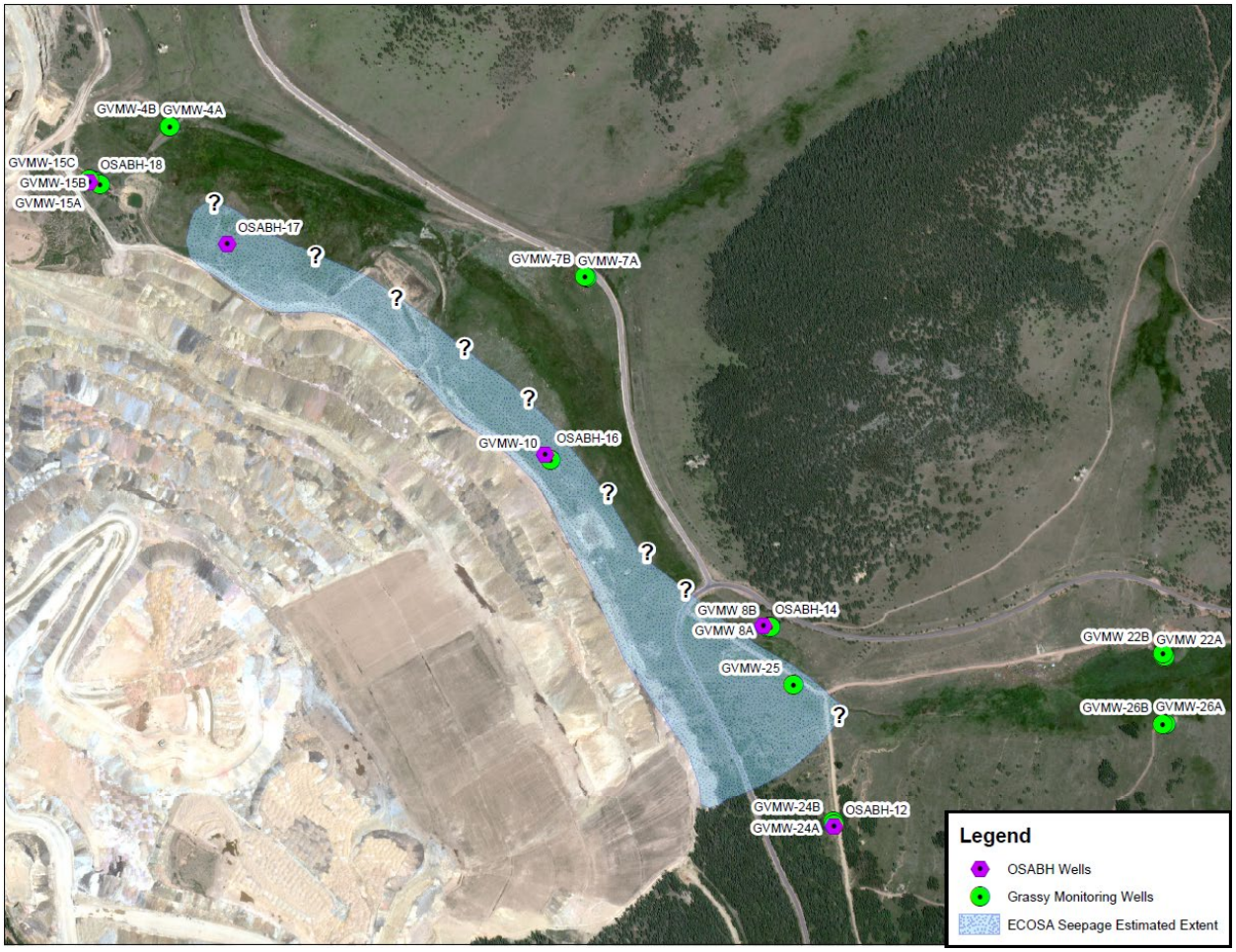
Attachment 1



- *Question marks (?) indicate uncertainty with whether or how far beyond the potentially impacted wells seepage may extend*

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Attachment 2