Newmont
NORTH AMERICA

Cripple Creek & Victor Gold Mining Company
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April 19, 2021

ELECTRONIC DELIVERY

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: **Permit No. M-1980-244; Cripple Creek & Victor Gold Mining Company; Cresson Project - Fourth Quarter 2020 GW/SW Report and Water Monitoring Program Review Response**

Dear Mr. Lennberg,

On February 17, 2021, Newmont Corporation's Cripple Creek & Victor Gold Mining Company (CC&V) received the Division of Reclamation, Mining, and Safety's (DRMS) response to the fourth quarter 2020 groundwater and surface water report, requesting responses to seventeen questions regarding the report submission dated January 28, 2021. Below are DRMS' comments in italics followed by CC&V's responses in bold.

1. *In the QAPP, Appendix 7 of Amendment 13 Table 3-1, it shows that chloride (dissolved) will be a groundwater monitoring parameter. All groundwater samples collected in 2020 were analyzed for total chloride. Explain why dissolved chloride was not analyzed in collected groundwater samples. Provide the dissolved chloride results for all groundwater samples for all 2020 quarterly sampling events.*

CC&V analyzed all quarterly groundwater samples collected in 2020 for chloride. CC&V has reached out to the laboratory to update the parameter list to include dissolved chloride. During that conversation the contracted laboratory explained that the analysis being completed is the correct analysis for Chloride. The laboratory explained that the analysis should not be labeled total, or dissolved for the EPA Method 300.0 analysis for chloride. CC&V will update the reporting nomenclature for chloride in the quarterly report.

2. *The Division requests an updated table be provided that lists the groundwater and surface water parameters and the corresponding applicable standard concentration to which the parameter is being compared and/or any site specific standards that currently exist.*

CC&V is committed to continuing to work with DRMS and Colorado Department of Public Health and Environment (CDPHE) on rationalizing Numeric Protection Limits (NPLs) to take into consideration naturally occurring constituents and/or impacts from legacy mining. CC&V's most recent submission for demonstration of groundwater compliance, submitted in 2018, provides detail and data regarding groundwater at CC&V. Please see Table 1 below for the applicable groundwater parameters and limits. Please see Attachment A with the applicable surface water standards for monitored drainages at CC&V.

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Table 1. Groundwater Parameters and associated limits			
Parameter	mg/L	Parameter	mg/L
Aluminum	7	Manganese (WCMW-3)	0.5
Antimony	0.006	Manganese (VIN-2B)	4
Arsenic	0.01	Mercury	0.002
Barium	2	Molybdenum	0.21
Beryllium	0.004	Nickel	0.2
Boron	0.75	Nitrate as N	10
Cadmium	0.005	Nitrite + Nitrate as N	11
Chromium	0.1	Nitrite as N	1
Cobalt	0.05	pH	6.0 - 8.5
Copper	0.2	pH (CRMW-3B, WCMW-3)	6.0 - 9.0
Cyanide [FREE]	0.2	pH (GVMW-8A, WCMW-6, VIN-2B)	6.5 - 8.5
Cyanide [WAD]	0.2	Selenium	0.024
Fluoride	2	Silver	0.05
Iron	14	Sulfate (CRMW-3B)	1070
Lead	0.05	Sulfate (VIN-2B)	800
Lithium	2.5	Sulfate	250
Manganese	3	Thallium	0.002
Manganese (CRMW-3B)	8.1	Uranium	0.03
Manganese (GVMW-8A)	1	Vanadium	0.1
Manganese (WCMW-6)	0.2	Zinc	2

3. *In the QAPP, Appendix 7 of Amendment 13 Section 5.1, it states "A trip blank is submitted quarterly to the contracted laboratory for analysis. One well per quarter will have a duplicate sample collected and submitted to the contracted laboratory for analysis. The field technician will collect a minimum of 5 rinse blanks per quarter to submit to our contracted laboratory for analysis." The Division considers these QA/QC samples as collected samples and should be reported as part of the quarterly report. Provide the results for these samples. Additionally, provide the relative percent difference between the parent sample and the duplicate sample. It should be noted that it is industry standard practice to indicate on the field sheets where QA/QC samples were collected. In the future include this information on the field sheets.*

During Q4, 2020 CC&V failed to collect blanks or duplicate samples, and as such cannot submit the results of these samples to the Division. CC&V has submitted two blank samples and a monitoring well duplicate sample to the contracted laboratory in Q1, 2021 for analysis. Going forward, CC&V will strive ensure that all specified duplicate and blank samples are collected and submitted to the laboratory for analysis and included within the quarterly report.

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4. *A review of the previous 2020 quarterly groundwater and surface water reports it was determined that the aforementioned QA/QC samples were not reported to the Division. Provide the results of these samples and provide the relative percent difference between all parent and the duplicate samples.*

   CC&V reviewed the data set and determined that duplicate and blank samples were not submitted to the contracted laboratory for analysis in 2020. As referenced in response to question 3, going forward CC&V will ensure that the specified samples are collected and submitted to the laboratory for analysis, and included within the quarterly report.

5. *On the field sheets there is a section titled "O/G Visible" what is the definition of this item?*

   The term "O/G Visible" is used as shorthand in the field notes template for visible "oil or grease" in the water sample.

6. *The section on the field sheets related to equipment decontamination clarify what three (3) rinse means and please address whether or not Alconox, Liquinox or similar detergent was used in the decontamination procedure? If so this needs to be reflected on the field sheets.*

   (3) rinse is a shorthand term used in place of "triple rinse" which is a standard rinse technique for field equipment. Going forward CC&V will specify on the field sheet when a detergent is used during the decontamination procedure.

7. *Why were wells CRMW-3B and -3C not purged for casing volumes or parameter stabilization but had samples collected via "grab"?*

   Monitoring wells CRMW-3B & CRMW-3C have dedicated pumps installed within the well bore. Level indicator switches automatically turn the pumps on and off. As such, the water within these wells is continuously purged and the samples are collected from the discharge of the monitoring well system and are therefore considered "grab" samples.

8. *Wells CRMW-3A and 3B both report an odor emanating from the wells. The Division considers this an anomalous reading for the wells and should have been covered in the text of the report. Considering the recent history of these wells related to bio-fouling please elaborate what, if anything, is being done at these wells.*

   Subsequent to the letter from the Division regarding the Q4 2020 water quality report, CC&V inspected monitoring well CRMW-3A and found remnants of a bird nest under the well cap. This debris was removed, and it is hypothesized that the activities associated with a bird nesting under the well cap within the well bore caused the foul smell coming from the well bore. For monitoring well CRMW-3B, as communicated to the Division, CC&V has recently replaced the pump within the well due to a pump failure, which occurred in Q1 of 2021. With removal of the bird nest material from monitoring well CRMW-3A and repaired submersible pump within monitoring well CRMW-3B, CC&V will continue to monitor the well locations including noting of any observed anomalous data within the narrative for the quarterly report.

9. *The field sheet for CRMW-3A states that the pump has shut off. Does this affect the pump back system that*

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is in place to mitigate potential off-site impacts? Additionally, the field sheet appears to indicate that there may have been insufficient water to pump or was the pump fouled and unable to pump, this requires further explanation? What is the total depth of the well?

The statement contained on the field sheet that the "pump shut off" is in reference to the deployed portable submersible pump used to collect the sample, as the pump automatically shut off when attempting to pump the well due to a lack of water and submergence. Monitoring well CRMW-3A does not have a dedicated submersible pump installed within the well bore on level switches as CRMW-3B and CRMW-3C do. Generally, CRMW-3A is dry or has insufficient water within the well bore to collect a sample. The total depth of monitoring well CRMW-3A is 35 ft deep.

10. *What is the total depth of CRMW-5D, ESPMW-1, PGMW-2, PGMW-4, SGMW-5, SGMW-6A, and SGMW-7A? According to the QAPP submitted with Amendment 13 Appendix 7 a dry well should be recorded as "Dry at X feet" to assure the indicator did not hang up in the well.*

Requested Monitoring well depths are summarized in Table 2, below. CC&V will update field sampling sheets to include "Dry at X feet" requirement if well is evaluated to be dry upon inspection.

Table 2: Requested Monitoring Well Depths

Monitor Well ID	Depth (in Feet)
CRMW-5D	27
ESPMW-1	220
PGMW-2	218
PGMW-4	39
SGMW-5	256
SGMW-6A	400
SGMW-7A	400

11. *Well GVMW-8B and -25 were pumped dry, this is considered a low yielding well, was there an attempt to collect a sample within 24 hours of purging in accordance with the QAPP submitted with Amendment 13, Appendix 7, Section 8.5 Well Sampling?*

During Q4, 2020 there was not an attempt to resample these wells the following day. Going forward should a well be purged dry, and sufficient water volume have been evacuated to complete the necessary purging and sampling, CC&V will return to the purged well the next day to attempt to collect a sample for water quality analysis.

12. *For the following wells PGMW-3, SGMW-7B, and VIN-2A the field sheets state there insufficient volume to pump. For these wells provide both the water level and total depth of the well to verify there was insufficient volume to collect a sample. Also, what is the criteria for insufficient volume to sample?*

Insufficient volume to pump is a term used when there is not enough water present within the well bore to produce enough volume necessary to pump the well for sample collection. This is

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determined by water not reaching the surface, or an insufficient volume of water produced from the well for the necessary sampling volume for analysis.

Table 3. Well Depths & Recorded Water Levels

Well ID	Well Depth	Recorded Depth to Water
PGMW-3	56 ft.	51.2 ft.
SGMW-7B	60 ft.	59.8 ft.
VIN-2A	270 ft.	260 ft.

13. *Explain why no sample was collected at SGMW-7B and the well was labeled dry when the field sheet indicates a water level of 58.9 feet and at the bottom of the sheet it states the pump is at 399.94 feet, showing there was at least 341 feet of water in the well?*

Monitoring well SGMW-7B has a total depth of 60 feet, and the water level for the well was recorded to be 59.8 feet. The bottom of the sheet where the pump is referenced to be at level 399.94 is the hertz value. This is the pump frequency setting used by the Technician in an attempt to get water to the surface.

14. *Explain why the field sheets for CRMW-5B and 5C indicate there are dedicated pumps yet a 3 rinse decontamination was done, compared to the field sheets for GVMW-8A and SGMW-6B which indicate dedicated pumps yet no decontamination was completed.*

After review of the sheet and discussion with the Technician who collected the sample, the triple-rinse decontamination procedure was done on the equipment used to filter the required sample and not the pump in the well.

15. *Clarify why the field sheet for well VIN-2B was not completely filled out.*

After review of the sheet and discussion with the Technician who collected the sample, this was a mistake and failure to transcribe the data from the final time step to the final parameters box in the lower portion of the form. CC&V will continue to strive to ensure errors are minimized for sample collection.

16. *Clarify what the 3 bucket decontamination procedure is, as indicated on the field sheets for WCMW- 3 and WCMW-6.*

After review of the sheet and discussion with the Technician who collected the sample, the "3 bucket" written in the decontamination procedure is synonymous with (3) rinse, or triple rinse.

17. *Field sheets for surface water sampling locations AG-2.0, GV-02, GV-03, T2 and WC5W-1 were completed on groundwater sampling forms. Please create a separate surface water sampling field sheet to be used in future sampling campaigns and resubmit on the new form the 4th quarter 2020 surface water sampling field sampling records.*

Surface water sample collection sheets have been created, and the recreated Q4, 2020 surface

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water locations on surface water forms are included in Attachment B.

Sincerely,

Justin Raglin
Sustainability & External Relations Manager
Cripple Creek & Victor Gold Mining Co

JR/rp

Ec: M. Cunningham – DRMS
E. Russell – DRMS
P. Lennberg - DRMS
J. Raglin – CC&V
R. Parratt – CC&V
K. Blake – CC&V
N. Townley – CC&V

Enc. (2)

File: S:\CrippleCreek\na.cc.admin\Environmental\New File Structure\2-Correspondence\DNR\DRMS\2021\Outgoing

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Attachment A

REGULATION #32 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
Upper Arkansas River Basin

22a. Mainstem of Arequa Gulch from the source to the confluence with Cripple Creek.

COARUA22A	Classifications
Designation	Agriculture
UP	Aq Life Cold 2
	Recreation N

Qualifiers:

Other:

*Uranium(acute) = See 32.5(3) for details.
*Uranium(chronic) = See 32.5(3) for details.

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.0 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	0.05	---
Phosphorus	---	0.11
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	11000	11000
Arsenic	340	---
Arsenic(T)	---	100
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III(T)	---	100
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron(T)	---	1000
Lead	TVS	TVS
Manganese	5903	3674
Mercury(T)	---	0.01
Molybdenum(T)	---	150
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	varies*	varies*
Zinc	3500	600

22b. Squaw Gulch from the source to the confluence with Cripple Creek.

COARUA22B	Classifications
Designation	Agriculture
UP	Aq Life Cold 2
	Recreation N

Qualifiers:

Other:

*Uranium(acute) = See 32.5(3) for details.
*Uranium(chronic) = See 32.5(3) for details.

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630

Inorganic (mg/L)	acute	chronic
Ammonia	---	---
Boron	---	5.0
Chloride	---	---
Chlorine	---	---
Cyanide	0.2	---
Nitrate	100	---
Nitrite	10	---
Phosphorus	---	0.11
Sulfate	---	---
Sulfide	---	---

Metals (ug/L)	acute	chronic
Arsenic(T)	---	200
Cadmium(T)	---	50
Chromium III(T)	---	1000
Chromium VI(T)	---	1000
Copper(T)	---	500
Iron	---	---
Lead(T)	---	100
Manganese	---	---
Mercury(T)	---	10
Molybdenum(T)	---	150
Nickel	---	---
Selenium(T)	---	50
Silver	---	---
Uranium	varies*	varies*
Zinc(T)	---	25000

All metals are dissolved unless otherwise noted.
T = total recoverable
t = total
tr = trout

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 32.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #32 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
Upper Arkansas River Basin

23. Mainstem of Wilson Creek (Teller County), including all tributaries and wetlands, from the source to the confluence with Fourmile Creek.

COARUA23	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E

Qualifiers:

Other:

*chlorophyll a (mg/m^2)(chronic) = applies only above the facilities listed at 32.5(4).
*Phosphorus(chronic) = applies only above the facilities listed at 32.5(4).
*Uranium(acute) = See 32.5(3) for details.
*Uranium(chronic) = See 32.5(3) for details.

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	0.05	---
Phosphorus	---	0.11*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Arsenic	340	---
Arsenic(T)	---	100
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III(T)	---	100
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron(T)	---	1000
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury(T)	---	0.01
Molybdenum(T)	---	150
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	varies*	varies*
Zinc	TVS	TVS

24. Mainstem of East and West Beaver Creeks, including all tributaries and wetlands, from the source to the confluence with Beaver Creek; mainstem of Beaver Creek from the source to the point of diversion to Brush Hollow Reservoir.

COARUA24	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

*Uranium(acute) = See 32.5(3) for details.
*Uranium(chronic) = See 32.5(3) for details.

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	0.05	---
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Arsenic	340	---
Arsenic(T)	---	0.02
Cadmium	TVS(tr)	TVS
Cadmium(T)	5.0	---
Chromium III	---	TVS
Chromium III(T)	50	---
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron(T)	---	1000
Lead	TVS	TVS
Lead(T)	50	---
Manganese	TVS	TVS/WS
Mercury(T)	---	0.01
Molybdenum(T)	---	150
Nickel	TVS	TVS
Nickel(T)	---	100
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	varies*	varies*
Zinc	TVS	TVS

All metals are dissolved unless otherwise noted.
T = total recoverable
t = total
tr = trout

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 32.6 for details on TVS, TVS(tr), WS, temperature standards.

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Attachment B

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Surface Water Sampling Log

Location : WCSW-01 **Date:** 10-14-20

Technician: Gannon McCormick **Quarter:** 4

Time	pH (S.U.}	Cond. (uS/cm)	DO (%/mg/L)	Temp. (°C)	Notes
11:00 am					DRY

Sample Method: _____

Oil/Gas visible [Y / N]

Turbid [Y / N]

Clear [Y / N]

Weather: Clear & Cool

Signature: 

Comments:

DRY

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Surface Water Sampling Log

Location : T-2 **Date:** 10-5-20

Technician: Gannon McCormick **Quarter:** 4

Time	pH (S.U.}	Cond. (uS/cm)	DO (%/mg/L)	Temp. (°C)	Notes
8:15am					DRY

Sample Method: _____

Oil/Gas visible [Y / N]

Turbid [Y / N]

Clear [Y / N]

Weather: Clear & Cool

Signature: _____

Comments:

DRY

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Surface Water Sampling Log

Location : AG 2.0 **Date:** 10-20-20

Technician: Gannon McCormick **Quarter:** 4

Time	pH (S.U.)	Cond. (uS/cm)	DO (%/mg/L)	Temp. (°C)	Notes
1120					DRY

Sample Method: _____

Oil/Gas visible [Y / N]

Turbid [Y / N]

Clear [Y / N]

Weather: MC & Cool

Signature: _____

Comments:

DRY

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Surface Water Sampling Log

Location : GV-02 **Date:** 10-6-20

Technician: Gannon McCamick **Quarter:** 4

Time	pH (S.U.}	Cond. (uS/cm)	DO (%/mg/L)	Temp. (°C)	Notes
					DRY

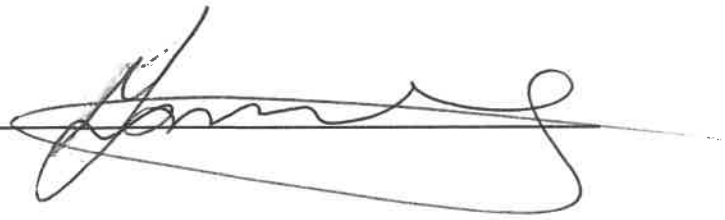
Sample Method: _____

Oil/Gas visible [Y / N]

Turbid [Y / N]

Clear [Y / N]

Weather: _____

Signature: 

Comments:

DRY

6.

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Surface Water Sampling Log

Location : GV-03 **Date:** 10-5-20

Technician: Gannon McCormick **Quarter:** 4

Time	pH (S.U.}	Cond. (uS/cm)	DO (%/mg/L)	Temp. (°C)	Notes
9:00 am					DRY

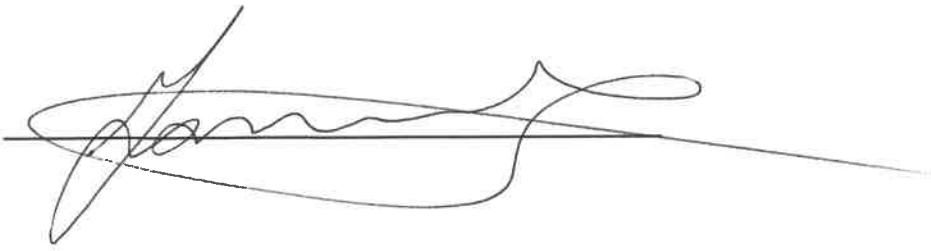
Sample Method: _____

Oil/Gas visible [Y / N]

Turbid [Y / N]

Clear [Y / N]

Weather: Clear & Cool

Signature: 

Comments:

DRY