Newmont
CRIPPLE CREEK & VICTOR

Permit M-1980-244

Cresson Project Amendment 14

Exhibit U

Environmental Protection Plan

TABLE OF CONTENTS

1 INTRODUCTION

This Exhibit presents a description of Environmental Protection Facilities (EPFs) operating at the Cresson Project and the Environmental Protection Plan (EPP) and related documents. The purpose of the facilities and the plan are to protect areas of the mine site that have the potential to be affected by designated chemicals, toxic or acid forming materials, or acid mine drainage. This Exhibit U satisfies Part 6.4.21 of the Hard Rock/Metal Mining Rule.

The Cresson Project is a Designated Mining Operation (DMO) as defined by Section 1.1(14)(a) and (b) of the Hardrock /Metal Mining Rule, because of both the use of designated chemicals in the metallurgical processing areas, and the potential for toxic or acid forming materials to be exposed or disturbed as a result of mining operations.

The information contained in this EPP includes:

- A description of the designated chemicals used in the metallurgical processes;
- A summary of the EPFs at the Site;
- A summary of prior studies used to identify acid generating potential and the processes used to control acid mine drainage; and
- The Emergency Response Plans (ERPs) used to respond to an environmental incident should one occur.

Environmental protection is a foundation of operations for the Cripple Creek & Victor Gold Mining Company (CC&V). The Cresson Project has an Environmental Management System, which is independently certified under the International Standards Organization (ISO) 14001:2015 standard. Furthermore, the operation has been re-certified under the voluntary International Cyanide Management Institute (ICMI) through a third-party recertification audit that occurred in 2017. The most recent re-certification audit was conducted in 2023 with the recertification received in February 2024. A copy of the most recent International Cyanide Management Code (Code) Audit report and certificate may be found on the ICMI's website at the following link.

https://cyanidecode.org/wp-content/uploads/2021/06/NewmontCCVSAR2024.pdf

2 EVALUATION OF PROJECT COMPONENTS

The Cresson Project activities associated with Amendment 14, and other ongoing operations associated with the Cresson Project, meet the requirements of a DMO discussed above. CC&V uses certain chemicals in the gold recovery process and exposes materials through mining that have potential for acid generation. Such chemicals are presently in use within the areas of the Valley Leach Facilities (VLFs), High Grade Mill (HG Mill), Process Solution Enhancement System (PSES), and the Adsorption, Desorption and Recovery (ADRs) facilities exclusively. The HG Mill Building and associated infrastructure will be decommissioned and demolished prior to commencement of Amendment 14 construction activities (VLF2 Phase 4), anticipated in 2025. Information related to the Mill facilities, including chemical use and storage, is included in this Exhibit to describe the environmental protection protocols used until and through decommissioning.

The chemicals in use at the Cresson Project and stored for use within the VLFs, ADRs, Mill facilities, and underground operations are listed on Table U-1, which includes information on the chemical use, typical storage volumes, and the fate of the chemical. There are no proposed changes to chemicals used or dosage rates in Amendment 14.

Table U-1: Designated Chemicals

Chemical Name	Use at the Site	Location for Use	Location for Storage	Typical Quantities Used and/or Stored on Site	Secondary Containment Provided	Fate of Chemical
Sodium Cyanide	Delivered to the site as liquid cyanide and either mixed or direct-offloaded to the ADRs and/or HG Mill facilities. Used as a dilute solution for leaching and product recovery.	VLFs, ADRs, and HG Mill facilities	The sodium cyanide is delivered as a liquid to the ADRs and the HG Mill facilities via tanker truck. The tanker truck parks within containment during mixing and offloading to holding tanks.	There are two holding tanks for sodium cyanide at the ADR1, two holding tanks at the ADR2, and one holding tank at the HG Mill facility. Each holding tank is 20,000 gallons in size. At least one 7,500-gallon tanker is staged at each facility on any given day.	The offloading of cyanide occurs within secondary containment at the ADRs and HG Mill facilities. The holding tanks also are located within secondary containment on concrete foundations with curbing. The ADR1, ADR2, and HG Mill facilities are underlain by a geomembrane liner system for tertiary containment.	Is consumed in the dilute sodium cyanide solution leach circuit – see next row for ultimate fate of sodium cyanide process solutions.
Dilute Sodium Cyanide Solution	Barren solution is piped from storage locations to the VLFs and pregnant solution is piped from VLFs to PSES and ADRs. Dilute sodium cyanide solution is used in the HG Mill facilities to bring the gold into solution from both the ground product and the carbon.	VLFs, ADRs and HG Mill facilities	ADRs, cyanidation, and Carbon in Pulp (CIP) tanks in HG Mill and in PSSAs within the VLFs.	At each of the ADRs: - Internal barren tank of 20,000 gallons - Strip pregnant tank of 20,000 gallons - Strip barren tank of 20,000 gallons - Two Strip intermediate tanks of 20,000 gallons each - Two barren enrichment tanks of 80,000 gallons each at VLF1 only 29,100 gpm being applied at VLF1 at a strength of less than 250 mg/L sodium cyanide. 17,000 gpm to be applied at VLF2 at a strength of less than 250 mg/L sodium cyanide. Solutions are continuously re-circulated between the VLFs and ADRs. At the HG Mill facilities: -20,000 gallons mixing tank 211 gpm (77 tons of slurry per hour) being continuously circulated within the HG Mill facilities at a strength of 2,500 mg/L sodium cyanide At the PSES: - Pregnant Solution Stabilization Tank – 850,000 gallons - CoMag Clarifier – 660,000 gallons - Gravity Thickener– 285,000 gallons	Dilute sodium cyanide solutions have primary, secondary, and tertiary containment at the VLFs, ADRs, and HG Mill facilities. Piping is within secondary containment or double-walled when outside of containment. See Exhibit D for complete details of the containment.	The VLFs will be rinsed as will any tanks and lines that have contained sodium cyanide process solutions. Dilute sodium cyanide solutions are expected to breakdown during rinsing. Upon completion of rinsing, the dilute solutions will be treated with hydrogen peroxide or circulation enhanced to allow evaporation of water.
Sodium Hydroxide (Caustic Soda)	Used for pH control	VLFs and ADRs	Stored in liquid form at ADRs	20,000-gallon tanks at each ADR	Tanks are within concrete containment and also located on the lined area of the VLFs. Concrete containment is equipped with a float-activated pump that would return fluid to the plant in the	Is consumed in pH control for process solutions.

Chemical Name	Use at the Site	Location for Use	Location for Storage	Typical Quantities Used and/or Stored on Site	Secondary Containment Provided	Fate of Chemical
					event of release. Outside of concrete containment releases would flow onto VLF liner systems.	
Hydrochloric Acid	Used to acid wash carbon in carbon columns in the ADRs.	ADRs	Stored in mixing tanks at ADRs. Stored inside ADRs in holding and concentrated tank	At each of the ADRs: - 8,200 gallons stored in mixing tank - 7,000 gallons in holding tank - 8,000 gallons in concentrated tank	Mixing tanks are double walled and within concrete containment outside of ADRs. Holding and concentrated tank are within the ADR containment including concrete floor and curbing with sumps and pumps. All is underlain by liner that drains to VLFs.	Acidic solutions that have become neutralized through rinsing of the carbon and are no longer useable, are added as make up water to process solutions.
Potassium Amyl Xanthate	Used in the flotation circuit	HG Mill facilities	Covered storage on containment outside of the HG Mill building	Anticipated shipment of 4 trucks/year of 20 tons/truck Shipped in barrels typically containing about 300 pounds at 10% xanthate 700-gallon collector mix tank 700-gallon collector storage tank Concentration @ 0.07 lbs. per ton of feed ore	Primary containment is barrel and secondary containment is the concrete pad on which the barrels are stored. Tertiary containment is the liner system underlying the HG Mill platform that will drain to the VLF2.	Gets carried with floated material in the froth and then is destroyed in process solutions with the addition of lime and sodium cyanide.
Dithiophosphate	Combines with xanthates to float the gold in the flotation circuit (particularly effective for native gold)	HG Mill facilities	Stored within containment inside HG Mill building to prevent freezing	Anticipated shipment of 4 trucks/year with 20 tons/truck Shipped in totes of approximately 1800 pounds each Concentration @ 0.07 lbs. per ton of fee ore	Primary containment is tote and secondary containment is the concrete floor and curbing within the HG Mill building where the totes will be stored. Tertiary containment is the liner system underlying the HG Mill platform that will drain to the VLF2	Gets carried with floated material in the froth and then is destroyed in process solution with the addition of lime and sodium cyanide.
Frother	Used to form stable bubbles for floating the gold in the flotation circuit	HG Mill facilities	Stored within containment inside HG Mill building to prevent freezing	Anticipated shipment of 2 trucks/year with 20 tons/truck Shipped in totes of approximately 1800 pounds each Concentration @ 0.01 lbs. per ton of feed ore	Primary containment is tote and secondary containment is the concrete floor and curbing within the HG Mill building where the totes will be stored. Tertiary containment is the liner system underlying the mill platform that will drain to the VLF2	Recycled with water from flotation circuit, eventually breaking down into non-toxic forms.

Notes: 1. Tanks sizes are approximate. mg/L = milligrams per liter, gpm = gallons per minute, lbs = pounds

3 LOCATION FOR STORAGE OF DESIGNATED CHEMICALS

The areas for storage and use of designated chemicals are shown on Drawing C-4 provided in Exhibit C. Areas for storage and use of designated chemicals are within the VLF1, ADR1, VLF2, and ADR2, the HG Mill facilities, and the PSES facilities.

4 ENVIRONMENTAL MEASURES REQUIRED BY OTHER AGENCIES

CC&V will obtain other State and Local permits as needed per Amendment 14 and as discussed in the following section. Each of these permits will have specific environmental protection measures for their regulatory jurisdiction.

4.1 Other Permits and Licenses

Other permits and licenses that may include environmental protection measures relative to the designated chemicals are provided in Exhibit M. Copies of the applicable permits and monitoring or environmental protection measures required by these permits are available to the DRMS, upon request. The various environmental monitoring and/or management plans provided in appendices to this amendment address the protection measures specified by these permits.

5 DESIGNATED CHEMICALS MATERIALS EVALUATION

There are no new designated chemicals used in the processing of ore associated with Amendment 14 that have not already been identified in prior permits, Amendments and Technical Revisions (TRs). Current Safety Data Sheets (SDSs) for designated chemicals used are included in Appendix 10.

DESIGNATED CHEMICAL(S) AND MATERIAL(S) HANDLING

Final closure of the VLFs will include double rinsing of the ore with recirculated solution from the VLFs, followed by a hydrogen peroxide-assisted rinsing cycle, if needed, to complete removal of sodium cyanide, as described in Exhibit E. As a result of recirculation and rinsing, associated process equipment will be rinsed and rendered suitable for demolition and salvage. The Mined Land Reclamation Board (MLRB) has approved a standard of an average concentration of weak acid dissociable cyanide (CN_{WAD}) less than 0.2 mg/L in the rinse water or in results from meteoric water mobility testing of the neutralized ore material. Data supporting achievement of this standard will be provided to the DRMS for review and concurrence. Following concurrence, physical reclamation of the VLFs will proceed.

The HG Mill facilities will be decommissioned prior to construction of the VLF2 Phase 4. Chemicals associated with the HG Mill will be removed as part of facility demolition. Rinse water from decontamination of the equipment will be recirculated into the VLF through makeup water. The pH modifiers and dilute sodium cyanide solutions also will be recycled through this process.

During periods of temporary cessation, adequate staffing will be maintained to continue to circulate solutions and monitor and maintain water balances associated with the VLFs. Power and emergency back-up power will be maintained. Monitoring and associated reporting activities also will continue during temporary cessation.

6 FACILITIES EVALUATION

EPFs are maintained to effectively manage and contain designated chemicals and acid generating materials. The additions of VLF1 Phase 6 and VLF 2 Phase 4 are considered expansions to the existing approved VLF1 and VLF2 EPF, respectively.

A monitoring program for surface and groundwater monitoring is presented in Exhibit G. The emergency response, spill prevention, control, and countermeasures, and emergency and spill reporting requirements, are contained in the Spill Response Plan (SRP) and the Emergency Response Plan provided in Appendix 11 and Appendix 12 of this amendment, respectively.

The EPFs discussed in this EPP are shown in the attached Figure U-1, and a list is provided in Table U-2**.** In addition to the EPFs presented in this section, a number of systems throughout the site operate to control and contain chemicals and materials. While these systems serve an important function, they do not exist as final containment for designated chemicals, acid mine drainage, or toxic or acid-forming materials; therefore, are not considered EPFs.

Table U-2- Environmental Protection Facilities

Facility	Designated Chemicals/Acid Mine Drainage	Sampling Frequency	Release Response Procedures
VLF1 (Liner and Toe Berms)	Sodium Cyanide, Dilute Sodium Cyanide Solution, Sodium Hydroxide, Hypochloric Acid	Weekly inspections of the Leak Detection System, Quarterly sampling of down-gradient monitoring wells	Outlined in ERP
ADR1	Sodium Cyanide, Dilute Sodium Cyanide Solution, Sodium Hydroxide, Hypochloric Acid	Weekly inspections of the Leak Detection System, Quarterly sampling of down-gradient monitoring wells	Outlined in ERP
VLF1 Underdrain/Pumpback System	Possible Sodium Cyanide, Dilute Sodium Cyanide Solution, Sodium Hydroxide, Hypochloric Acid	Weekly inspections. Sampled if flow is observed in underdrain	Outlined in ERP
Enrichment Building & Assay Laboratory	Sodium Cyanide, Dilute Sodium Cyanide Solution, Sodium Hydroxide, Hypochloric Acid	Weekly inspections of the Leak Detection System, Quarterly sampling of down-gradient monitoring wells	Outlined in ERP
Off-liner Process Pipelines	Dilute Sodium Cyanide Solution	Weekly inspections of the Leak Detection System, Quarterly sampling of down-gradient monitoring wells	Outlined in ERP

PSES Liner	Dilute Sodium Cyanide Solution	Weekly inspections of the Leak Detection System, Quarterly sampling of down-gradient monitoring wells	Outlined in ERP
VLF2 (Liner and Toe Berms)	Sodium Cyanide, Dilute Sodium Cyanide Solution, Sodium Hydroxide, Hypochloric Acid	Weekly inspections of the Leak Detection System, Quarterly sampling of down-gradient monitoring wells	Outlined in ERP
VLF2 Underdrain Pond	Possible Sodium Cyanide, Dilute Sodium Cyanide Solution, Sodium Hydroxide, Hypochloric Acid	Weekly inspections	
HGM Liner	Sodium Cyanide, Dilute Sodium Cyanide Solution, Sodium Hydroxide, Potassium Amyl Xanthate, Dithiophosphate, Frother	Quarterly sampling of down-gradient monitoring wells	Outlined in ERP
External Storage Pond (ESP)	Dilute Sodium Cyanide Solution	Quarterly sampling of down-gradient monitoring wells	Outlined in ERP

7 GROUNDWATER INFORMATION

Information on regional groundwater, including identification of tributary water courses, wells, springs, stock water ponds, reservoirs, and ditches within two miles of the affected lands boundary, are shown on Figure G-1 provided in Exhibit G and they are discussed in Exhibit G. The discussion addresses the regional groundwater system and the transport of groundwater from the area. The regional geology is shown on Drawing C-7 provided in Exhibit C. The igneous lithology in the area consists predominantly of phonolite, lapilli breccia, and granodiorite. Much of the breccia is cemented by a dolomitic carbonate, which, with small pyrite crystals, has replaced the original mineral fragments and impregnated the other minerals. The volcanic diatreme is lineated with faults, fractures, veins, joint structures, and underground workings, which have been drained by tunnels built between 1903 and 1941 to decrease water levels within the Cripple Creek Mining District (District). The regional groundwater system is intersected by the Carlton Tunnel, which conveys that regional groundwater six miles to the southwest, to its outlet near the confluence of Fourmile Creek and Cripple Creek. An evaluation of the current effects of project activities on regional groundwater was provided in Amendment 11 documentation (December 2015). The average regional groundwater flow from the Cripple Creek Mining District has not increased due to current mining and no increase is anticipated to occur due to proposed Amendment 14 activities.

7.1 Groundwater Quality Data

Groundwater quality data are discussed in Exhibit G and supporting data are provided in Appendix 6 of this Amendment 14 permit. Figures G-1 and G-2 (Exhibit G) show groundwater wells, surface water bodies and springs filed with the Office of the State Engineer within a two-mile radius of the affected lands boundary. Groundwater monitoring information includes at least five successive calendar quarters of data for existing wells, which have been summarized for 29 monitoring wells in the Cresson Project area (one of which, PGMW-2 has been consistently dry).

8 SURFACE WATER CONTROL AND CONTAINMENT INFORMATION

Stormwater for the Cresson Project is managed under the Stormwater Management Plan (SWMP), which is reviewed and updated annually. The SWMP details mining activities, effluent limitation guidelines, stormwater management controls, identification of potential pollutant sources, best management practices, schedules and procedures, and comprehensive inspection requirements. As designated by this plan, all stormwater management features are inspected on a quarterly basis and following significant precipitation events. The SWMP is provided in Appendix 3.

In 2018, an evaluation of the SWMP and stormwater control features was completed by Knight Piesold Consulting, as approved under TR-101. Outcomes of this evaluation included:

- Updated design event precipitation values (National Oceanic and Atmospheric Administration (NOAA) 2013 Atlas 14, Volume 8).
- Updated curve number assignments per the Natural Resources Conservation Service (NRCS) SCS curve number runoff method.
- Recommended improvement of some stormwater management features to comply with updated curve numbers and design events.
  Improvements for several features will be completed in 2019 and the SWMP will be updated to reflect these changes.

Enhanced management practice (EMP) ponds have been configured to be less than 10 feet in height when measured from the existing grade at the downstream toe to the spillway, and excavated an additional five feet below grade to provide the optimum depth of 15 feet. Embankments of less than 10 feet in height are not regulated by the Division of Water Resources, Office of the State Engineer under the Dam Safety Regulations.

8.1 Surface Water Quality Data

Regionally, surface water flows from the Cresson Project area are tributary to the Upper Arkansas River basin. Surface water flows into Grassy Valley, a tributary to Beaver Creek on the north side. Surface water flows into Theresa Gulch and Bateman Creek, both tributaries to Wilson Creek, which flows into Fourmile Creek on the south. The drainages flowing west are Poverty Gulch, Maize Gulch, and Arequa Gulch, from north to south. These streams are all tributaries to Cripple Creek, which also flows into Fourmile Creek. A discussion of surface water quality is provided in Exhibit G and supporting data is provided in Appendix 6. These data include at least five successive calendar quarters. Figure G-2 in Exhibit G shows the surface water rights for a two-mile radius around the Affected Lands boundary.

9 WATER QUALITY MONITORING PLAN

A water quality monitoring plan for both surface and groundwater is described in Exhibit G and provided in Appendix 7.

10 CLIMATE

Information on the climate at the site is contained in Exhibit K. Generally, the climate at the Site is characterized by a semi-arid, high mountain environment with relatively short summers and longer, but moderate winters. Climatological data are available from four stations: a historic station referred to as the Victor station with a data record from February 1966 through February 1976, a station established by CC&V in the vicinity of Bateman Creek with a data record since 1994, and the Rigi station with a data record since 1999. In addition, there is a seasonal rain gauge located in Grassy Valley that collects precipitation data during the warmer months. Gaps within the climatic data have been filled using climate records from the Western Regional Climate Center.

A water balance is included with the *Valley Leach Facility Expansion Detailed Design Report*, included as Appendix 1.

11 GEOCHEMICAL DATA AND ANALYSIS

An updated geochemical model for the entire site was provided to DRMS under the Amendment 11 permit amendment application (Amendment 11, December 2015). Prior studies have evaluated the acid-generating potential and acid-neutralizing potential of sulfur oxidation of the rock mass within the District. The environmental effects of weathering of overburden and exposed rock slopes were evaluated through detailed testing of rock samples from the District. A 2011/2012 study updated the regional hydrology and geochemistry of MLE2/Amendment 10 and was provided with the Amendment 10 application. An update to this study was performed in 2015 and provided additional information on the hydro-geochemical model for the site. A copy of the 2015 study was provided as Attachment 2 to the Amendment 11 application. In addition to prior testing, CC&V has conducted a recent waste rock characterization study with ITASCA Consulting Group (ITASCA), the results of which were shared with DRMS in September 2019. The results of the recent ITASCA study support the prior findings of previous evaluations.

The study was split into two phases. Samples were selected for the Phase I and Phase II static and kinetic geochemical characterization testing based recent prospecting drilling holes and a review of the extensive site geochemical database. The Phase I testing consisted of static testing on 29 samples. The Phase I testing results were used as a baseline, along with the existing characterization data, for the selection of samples for comprehensive characterization testing. Twelve samples were selected for Phase II testing. Additionally, Phase II samples were selected to represent the overall population of life-of-mine waste rock. The twelve samples were subjected to the following tests; net neutralization potential net acid-generation, meteoric water mobility procedure and humidity-cells.

Of the twenty-nine samples selected in Phase I study, twenty-seven had acid-generating net neutralization potential (NNP) values (less than 0 tons of calcium carbonate per kiloton [t CaCO3/kt]) of which seven had negative NNP values that were between -20.0 and 0 t CaCO3/kt, indicating that their potential to generate acidity is uncertain. Two samples had NNP values that are greater than zero but less than 20.0 t CaCO3/kt, demonstrating that the samples are net neutralizing.

The results of the Phase II testing differ noticeably within each rock-type. However, acid generation potential (AGP), acid neutralization potential (ANP), and NNP distributions are similar across the rock-type groups in both studies. Seven of the twelve samples leaned towards acid generating while the other five were circumneutral neutral, therefore demonstrating that acid-generating and acid-neutralizing materials are not specifically limited to rock-type. CC&V and ITASCA believe that the results of the Phase I and Phase II testing are sufficient to characterize the overall behavior of waste rock.

The geochemical evaluations also have included an analysis of the reasonable sources, probable fate, and transport mechanisms of metal and acid-producing minerals that may be mobilized during development and reclamation of the Cresson Project. Using the hydrologic and geochemical information developed for the District, an evaluation was conducted of the fate and transport of water infiltrating to the subsurface through mines, mine backfill, and overburden storage areas. The results of the analysis were verified by checking against the observed behavior of the hydraulics and chemistry of the diatreme since Cresson Project surface mining began in 1993, using the measured vertical hydraulic gradients in and near the diatreme, and the flow rate and chemistry of the regional groundwater exiting the Carlton Tunnel portal.

12 CONSTRUCTION SCHEDULE INFORMATION

Construction on VLF2 Phase 4 is expected to commence in 2026, and construction on VLF1 Phase 6 is expected to commence in 2029. Additional mine sequencing information is provided in Exhibit D. As with other VLFs at CC&V, VLF2 Phase 4 and VLF1 Phase 6 will be constructed in stages or "phases". The schedule of construction is influenced by weather conditions, contractor availability and funding considerations. CC&V will update the DRMS with anticipated construction schedules as they become available.

13 QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

As the construction schedule is established, VLF2 Phase 4 and VLF1 Phase 6 QA/QC data will be submitted to the DRMS either in its entirety, or in phases, consistent with prior submittals. CC&V will receive the DRMS' acceptance of the QA/QC data prior to leaching ore placed on any portion of the expanded facilities.

To meet the requirements of section 7.3 of the Rules, all VLF Construction Quality Assurance Reports (CQA) will be limited to the following sections;

- **INTRODUCTION**
  - Project Description
  - Parties Involved
  - Construction Quality Assurance/Construction Quality Control
  - Design Drawings and Technical Specifications
  - Use of this Report
- **VLF CONSTRUCTION ACTIVITIES**
  - Clearing and Grubbing
  - Underdrains *
  - Closure Drain*
  - Site Grading
  - Subgrade Preparation
  - Leak Detection Trench*
  - Soil Liner Fill
  - Pregnant Solution Storage Area (PSSA) Composite Liner System*
  - Geomembrane
  - Solution Collection System) Piping*
  - Solution Collection System Riser Foundation*
  - Drain Cover Fill
- **QUALITY ASSURANCE/QUALITY CONTROL**
  - Testing Standards
    - Earthworks Testing Standards
    - Geomembrane Testing Standards
  - Earthworks Construction Quality Assurance
    - Underdrain Fill*
    - Select Structural Fill
    - Structural Fill
    - Leak Detection Fill*

        - Soil Liner Fill
        - Drain Cover Fill
    - Geomembrane Construction Quality Assurance
        - Geomembrane Third Party Conformance Testing
        - Geomembrane Panel Deployment
        - Geomembrane Fusion Seaming
        - Geomembrane Extrusion Seaming
        - Geomembrane Destructive Testing
        - Geomembrane Pressure Testing
        - Geomembrane Defects and Repairs
        - Geomembrane Acceptance
- **PROJECT DEVIATIONS**
- **ENGINEER'S OPINION** Stamp

ISSUED FOR CONSTRUCTION DRAWINGS

- COVER SHEET Stamp
- PROJECT SITE PLAN VIEW Stamp
- EXISTING SITE CONDITIONS Stamp
- GRADING PLAN Stamp
- GRADING PLAN ISOPACH Stamp
- LINER LIMITS Stamp
- VALLEY LEACH FACILITY SECTIONS AND DETAILS SHEET Stamp
- UNDERDRAIN DETAIL SHEET Stamp *
- LEAK DETECTION & EROSION CONTROL DETAILS Stamp *
- SOLUTION CONCENTRATION PIPING LAYOUT Stamp
- SOLUTION COLLECTION SYSTEM DETAILS Stamp

RECORD OF CONSTRUCTION DRAWINGS

- TOP OF SOIL LINER FILL AS-BUILT Stamp
- UNDERDRAIN AS-BUILT Stamp *
- SOLUTION COLLECTION SYSTEM AS-BUILT Stamp *
- LEAK DETECTION TRENCH AS-BUILT Stamp *
- GEOMEMBRANE PANEL LAYOUT AS-BUILT Stamp
- DRAIN COVER FILL AS-BUILT ISOPACH Stamp

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

  - Geomembrane Extrusion Welding Summary
  - Geomembrane Destructive Testing Summaries
    - Geomembrane Fusion Destructive Testing Summary
    - Geomembrane Extrusion Destructive Testing Summary
  - Geomembrane Pressure Testing Summary
  - Geomembrane Defect/Repair Summary
- Third Party Geomembrane Conformance Testing Results

**Will be included as part of CQA Report when these features are included as part of approved design*

Stamp Drawing or Report Sections that require a Professional Engineer or Professional Licensed Surveyor Stamp

14 PLANT GROWTH MEDIUM

A soil survey and vegetation survey report are discussed in Exhibits I and J, respectively. A soil and vegetation study was completed for the Affected Lands Area as part of Amendment 10. A copy of that study along with a map of the different soil types is included in Appendix 5. Mining has occurred in the area of the Cresson Project for over 100 years and as such, many areas have had soils disturbed by previous mining activities.

CC&V collects and stores growth medium whenever possible and will use stored materials in reclamation, prioritizing use in accordance with the plan presented in Exhibit E.

15 WILDLIFE PROTECTION

A description of the measures to protect wildlife from coming into contact with designated chemicals is provided in Exhibit H as well as in the Wildlife Protection Plan included as Appendix 8. The designated chemicals principally are contained in the internal PSSAs at the VLFs, in the ADR facilities, in the HG Mill facility, and the PSES. There are no new designated chemicals used in the processing of ore associated with Amendment 14 that have not already been identified in prior amendments.

The leach tanks and thickener for solutions from the CIP process are located exterior to the HG Mill building and consist of open-top tanks. As of the submittal of this amendment application, the leach tanks are not currently being used in their original designed capacity. Rather, as of TR-109, the tanks are used as additional capacity for the process ore thickener tanks. If the mill processes require, the tanks may be used for their originally designed, permitted, and approved function. The PSES has three open-top tanks containing leach pad solution. If necessary, bird mitigation measures will be implemented such as netting or bird balls although, past experience with dilute sodium cyanide solution leach tanks has shown that birds do not tend to use these as a water source due to the small open area of each tank, the noise associated with the agitation, and the level of activity of the milling operations.

16 DISPOSAL OF TAILINGS AND SLUDGES IN MINE WORKINGS

No tailings or sludges will be disposed in underground or surface mine workings as part of this permit amendment. However, development rock removed from underground workings may be used to backfill stopes and other workings as underground mining progresses. Previous approvals from DRMS allow development rock to be used for site road maintenance, backfill or placement on overburden storage areas.

17 EMERGENCY RESPONSE PLAN (ERP)

CC&V has developed an ERP for use by employees as a guide for the prevention, control, and reporting of releases of chemicals and hydrocarbon products at the Cresson Project and to respond to potential fires. The ERP is comprised of several documents including the Spill Prevention, Counter, and Countermeasures (SPCC) Plan, the Cyanide ERP, the Fire Protection Plan, the Geotechnical Code 90 Plan, and the Crisis Communication Plan. A copy of the ERP is provided in Appendix 12. The plan is based on the current operations at the Cresson Project and will be updated for expected future storage and use of chemicals, if any, for Amendment 14, once approved.

17.1 Events Requiring Reporting

Scenario	Permit Criteria	Reporting Timeframe	Additional considerations
Release of process solution, containing designated chemicals as identified in the EPP, outside of an EPF*	None specified	Within 24 hours of the event	None
Release of hydrocarbon product > 1000 gallons	None specified	Within 24 hours of the event	None
Release of any chemical > CERCLA RQ**	None specified	Within 24 hours of the event	None
Any other release required to be reported by other agencies	None specified	Within 24 hours of the event	None
Failure or imminent failure of impoundment, embankment, stockpile or slope that poses potential	None specified	Within 24 hours of the event	None

Scenario	Permit Criteria	Reporting Timeframe	Additional considerations
danger to human health, property or the environment			
Failure or imminent failure of an EPF identified in the EPP*	None specified	Within 24 hours of the event	None
Exceedance of permit conditions			
Underdrains	The 30-day running average of CN_{WAD} monitoring data for an underdrain exceeds 1.0 mg/L and the 30-day running average pH value from monitoring data for the same underdrain for the same period exceeds 9.0.	After confirmation of the initial monitoring results	Refer to section 3.3 of Exhibit G
Leak Detection System (LDS)	The 30-day running average of CN_{WAD} monitoring data for a LDS exceeds 0.5 mg/L and the 30-day running average pH value for the same LDS monitoring data for the same period exceeds 9.0.	After confirmation of the initial monitoring results	Refer to section 3.3 of Exhibit G
High Volume Solution Collection System (HVSCS)	The average of the water level monitoring data in the PSSAs exceeds 80	After confirmation of the initial monitoring results	Refer to section 3.3 of Exhibit G

Scenario	Permit Criteria	Reporting Timeframe	Additional considerations
	percent of the total capacity of the PSSA in a sustained manner.		
Low Volume Solution Collection System (LVSCS)	The transducers monitoring data in the LVSCS or the Leak Detection Collection Recovery System exceed two feet in a sustained manner.	After confirmation of the initial monitoring results	Refer to section 3.3 of Exhibit G

* Facilities identified as an EPF in the EPP are: AGVLF (lined area), VLF2 (lined area), HG Mill Platform (lined area), ESP (lined area), ADR1 (lined area), external storage pond

**Comprehensive Environmental Response, Compensation, and Liability ACT (CERCLA): Reportable Quantities (RQ)

In the event of a failure or imminent failure of a designated EPF, CC&V will provide notification to the Division within 24 hours. The notification will include the following information;

1. Identify that this is a notification of an emergency condition
2. The nature of the condition including any chemicals and toxic or acid producing materials involved
3. An estimate of the quantity of any chemical, toxic or acid-forming material that has been or could be released
4. The time and duration of the occurrence and if it is on-going, or urgency of the pending situation
5. Any known or anticipated impacts to human health, property or the environment
6. Precautions and corrective actions taken by CC&V
7. CC&V's contact information

For spills requiring reporting to another agency, as identified in Rule 3.1.13 of the Hard Rock, Metal and DMOs, CC&V commits to notifying the division and providing the following information;

1. Operation name, DRMS permit number and name of person reporting the spill,
2. Telephone number of a responsible company official for the Office staff to use as a contact,
3. Date and time of spill,
4. Type of material spilled (CAS number if applicable, from the safety data sheet (SDS) form),
5. Estimate of the amount spilled, whether any material has left the permit area, and where the spilled material went, and
6. Initial measures taken to contain and clean up spill.

18 REFERENCES

Asch, G. and Harris, T.,1994, “Geologic Report Cresson Leach Pad Foundation in Golder Associates, 1994, Final Report Cresson Project Quality Assurance Monitoring and Test Results Heap Leach Pad 1994 Construction Season”, Teller County, Colorado Amendment No. 6, Volume IV, Appendix S.

“Baseline Technical Report for Soils and Biological Resources” Arcadis, Highlands Ranch, CO, Tech. Rep. November 2007

“Baseline Technical Report for Soils and Biological Resources, Cresson Project Mine Life Extension 2 Project Area,” Arcadis, Highlands Ranch, CO, Tech. Rep. November 2011.

“Baseline Technical Report for Soils and Biological Resources”, Arcadis, Highlands Ranch, CO, Tech. Rep. Cresson Project M-1980-244, Amendment No. 11. October 2015.

Colorado Mined Land Reclamation Board, Colorado Mined Land Reclamation Act, 34-32-101 et seq., C.R.S. 1973 as amended.

Cripple Creek & Victor Gold Mining Company, Cresson Project Mine Life Extension 2, Amendment 10 to the MLRB Permit No. M-1980-244, Volumes I – VII, February 2012.

Cripple Creek & Victor Gold Mining Company, Amendment 11 to the MLRB Permit No. M-1980-244, Volumes I – IV, December 2015.

“Cripple Creek & Victor Gold Mining Company, Valley Leach Facility Expansions Detailed Design Report”, Newfields, February 2024.

“CC&V Spill Response Plan including the Spill Prevention, Control, and Countermeasure (SPCC) for the Cresson Project,” signed July 2015. Developed by Geosyntec Consultants. 2015.

“Crisis Communication Plan”, CC&V, September 22, 2015.

“Cyanide Emergency Response Plan (CERP) for the Cresson Project,” CC&V, September 2015.

“East Cresson Overburden Storage Area Design and Stability,” NewFields, November 2015.

“Fire Protection Plan for the Cresson Project,” CC&V, signed November 2015

“Geotechnical Code 90,” CC&V. September 24, 2015.

"Hydrogeochemical Evaluation," Adrian Brown Consultants, Denver, CO, Tech. Rep. Cresson Project Extension for Amendment No. 8, 1998

"Hydrogeochemical Evaluation," Adrian Brown Consultants, Denver, CO, Tech. Rep. Amendment No. 10, Mine Life Extension, 2008

"Hydrogeochemical Evaluation," Adrian Brown Consultants, Denver, CO, Tech. Rep. Amendment No. 11, December 2015

"Soil Survey," Greystone Environmental Consultants, 1999.

"Soil Survey," Newport Minerals, 1985.

"Soil Survey," Nerco Minerals Company, 1984.

"Soil Survey," USDA Natural Resources Conservation Service, 1993.

"Soil Survey," USDA Natural Resources Conservation Service, 1995.

"Summary Audit Report for the 2013 International Cyanide Management Code Audit", Visus Consulting Group, Inc., Tech.Rep. March 13, 2014.

Wildlife Protection Plan, Cripple Creek and Victor Gold Mining Co., Cresson Project, updated September 10, 2019.

A complete list of Technical Revisions is provided in Appendix 2.

KEY

- VLF 1 Phase 6
- VLF1
- VLF 2 Phase 4
- VLF2
- High Grade Mill Liner
- Enrichment Building
- ADR 1
- Lab
- PSES Liner
- External Storage Pond
- A14 Boundary

NEWMONT CORPORATION

Cripple Creek and Victor Gold Mining Company

Figure U-1. Environmental Protection Facilities

N

Author: S. Walker	Date: 4/2024
0 250 500 1,000 1,500 2,000 Feet	1 inch = 417 feet

File: 20240424_EPFs_A14