GOLDER

REPORT

ICMC RECERTIFICATION SUMMARY AUDIT REPORT

Cripple Creek and Victor Gold Mine, Colorado, USA

Submitted to:

International Cyanide Management Institute (ICMI)
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United States of America

Submitted by:

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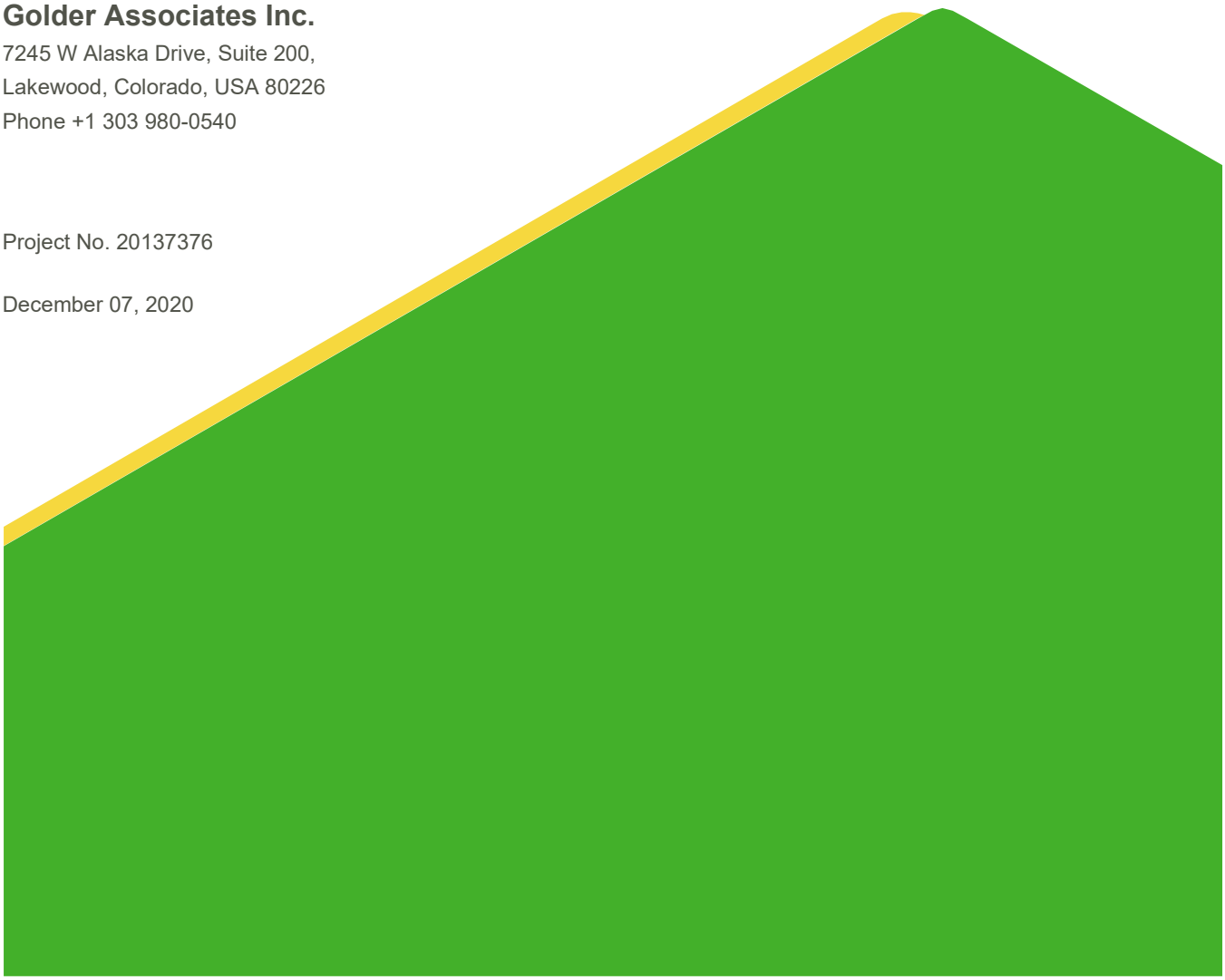
Project No. 20137376

December 07, 2020



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1.0 SUMMARY AUDIT REPORT FOR GOLD AND SILVER MINING OPERATIONS

Name of Mine:	Cripple Creek and Victor Gold Mine
Name of Mine Owner:	Newmont Mining Corporation
Name of Mine Operator:	Cripple Creek and Victor Gold Mining Company de R.L. de C. V.
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2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

2.1 Mine Location

Cripple Creek and Victor Gold Mine (CC&V) is located in Teller County, Colorado, southwest of Pikes Peak and currently employs approximately 700 personnel. It is located between the two small towns of Cripple Creek and Victor, Colorado. Cripple Creek is located 44 miles southwest of Colorado Springs near the base of Pikes Peak with a population of approximately 1000. Victor is further 5 miles southeast from Cripple Creek and has population of approximately 400.

2.2 Background

CC&V is 100% owned by Newmont Mining Corporation (Newmont). Newmont purchased the facility in August 2015 with the full control being handed to Newmont, officially, in January 2016.

CC&V began surface mining operations in 1976, with mining in its Cresson Project starting in 1995. The majority of ore is treated using a valley-type, heap-leach process to recover the gold. Pregnant solution from the Valley Leach Facilities (VLFs) reports to the Absorption, Desorption and Recovery Plants for recovery of gold. In 2015, CC&V commissioned a rod, ball, and flotation mill to process CC&V's higher grade, non-oxidized ore. The concentrate from the flotation circuit is currently sent to Nevada for final recovery. The dry tails pressed in the High Grade Mill (HGM) are reused (liquid part) and their sediments sent to one of the VLFs. Under approved permits, mining at current production rates will continue through 2025, with gold recovery carrying on for at least another eight years, followed by final reclamation and closure. In 2019, the mine produced over 322,000 ounces of gold. Current production comes from five open pits (Globe Hill, Schist Island, Wild Horse Extension, Cresson, and South Cresson).

The major components of the processing facilities are as following:

- Arequa Gulch Absorption, Desorption and Recovery Plant (ADR1)
- Arequa Gulch Valley Leach Facility (VLF1) (Phases 1, 2, 4 and 5)
- Squaw Gulch Absorption, Desorption and Recovery Plant (ADR2)
- Squaw Gulch Valley Leach Facility (VLF2) (Phases 1 and 2A)
- HGM
- Process Solution Enhancement System (PSES) Plant

All these facilities have or have had cyanide solutions greater than 0.5 mg/L Weak Acid Dissociable (WAD) cyanide over the recertification period, and therefore have been evaluated as part of this recertification audit. The HGM stopped receiving liquid cyanide in February 2018, and its cyanide offloading and storage area as well as Leach and Carbon-In-Pulp (CIP) circuits have been inactive and disconnected from the rest of the HGM circuits since June 2018. ADR1 and ADR2 are separate gold producing facilities that receive deliveries of liquid cyanide from Cyanco at least once per week. The bullets below list the cyanide facilities constructed since the 2017 recertification audit as well as the changes occurred to the existing cyanide facilities.

- VLF2: Construction and operation of Phase 2A (Part 1 and Part 2). Phase 2A Part 1 was constructed in July 2019 and Phase 2A Part 2 in September 2019.

- VLF1: In 2020 additional injection wells were added to Phase 2 of VLF1 to restart the hydro-jex process in conjunction with other injection wells previously installed.
- HGM: Cyanide offloading and storage area as well as Leach and CIP circuits became inactive and were disconnected from the rest of the HGM circuits since June 2018. The last cyanide offload occurred on February 15, 2018.
- PSES Plant: The process was modified to only treat pregnant solution in 2018. Before pregnant and barren solutions were used in this plant.

CC&V has not had any significant cyanide releases or exposures during this recertification period. However, CC&V had cyanide releases that were not considered significant and that fell under Standard of Practice 9.3.3. These cyanide releases have been presented in Newmont Beyond the Mine reports (available in Newmont's website: https://www.newmont.com/sustainability/sustainability-reporting/default.aspx) and reported to regulators as per permit requirements as indicated in Standard of Practice 9.3.3.

SUMMARY AUDIT REPORT
Auditors Findings

CC&V is:	☒ **in full compliance with**	**The International Cyanide Management Code**
	☐ in substantial compliance with	
	☐ not in compliance with	

The operation has not experienced compliance problems during the previous three-year audit cycle.

Audit Company: Golder Associates Inc.

Audit Team Leader: Ivon Aguinaga, Lead Auditor and Mining Technical Specialist

Email: Ivon_Aguinaga@golder.com

Name of Other Auditors

Name, Position	Signature
Jesse Steele, Mining Technical Specialist	

Dates of Audit

The recertification audit was undertaken over four days from August 10 to 14, 2020.

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute (ICMI) and that all members of the audit team meet the applicable criteria established by the ICMI for Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code (ICMC or Code) Mining Operations Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

CC&V Mine
Name of Facility

Signature of Lead Auditor

December 07, 2020
Date

PRINCIPLE 1 – PRODUCTION

Encourage Responsible Cyanide Manufacturing by Purchasing from Manufacturers that Operate in a Safe and Environmentally Protective Manner

Standard of Practice 1.1: **Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 1.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 1.1; purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

During the recertification period, the operation received liquid sodium cyanide from Cyanco (Winnemucca, Nevada). The Sodium Cyanide Purchase and Sale Agreement between CC&V and Cyanco is current. The agreement requires that the cyanide be produced at a facility that has been certified as complying with the Code. Cyanco's Winnemucca Production Facility was recertified in December 2019.

Bills of lading were reviewed to confirm receipt of cyanide from Cyanco. Cyanide was not purchased from independent distributors during this audit cycle.

PRINCIPLE 2 – TRANSPORTATION

Protect Communities and the Environment during Cyanide Transport

Standard of Practice 2.1: **Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 2.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 2.1; establish clear lines of responsibility for safety, security release prevention, training and emergency response in written agreements with producers, distributors and transporters.

CC&V has a written agreement with Cyanco (the cyanide producer and transporter) requiring that the seller "shall utilize an ICMC certified motor carrier for the product delivery to the Seller." Through this requirement it was confirmed that all entities involved in the transportation are certified with the Code and that designation of the transport-related responsibilities, including subcontractors, are addressed. Cyanco utilized the following entities to provide the liquid cyanide to the operation: Cyanco North American Rail and Truck Supply Chain, Cyanco Cheyenne Transloading facility and TransWood Inc. (TransWood) (transporter). Both the supply chain and the transporter have been certified by the ICMI. From the bills of lading reviewed, TransWood is listed as the only transporter.

Standard of Practice 2.2: **Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 2.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 2.2; require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

CC&V has a written agreement with Cyanco (the cyanide producer and transporter) requiring that the seller "shall utilize an ICMC certified motor carrier for the product delivery to the Seller." The operation has chain of custody records identifying all elements of the supply. Cyanco utilized the following entities to provide liquid cyanide to the operation:

- Cyanco North American Rail and Truck Supply Chain (recertified October 2018)
- Cheyenne Transloading facility (recertified January 2018)
- TransWood Inc. (TransWood) (transporter to site) (recertified December 2018).

All elements of the supply chain were checked and are certified under the Code.

PRINCIPLE 3 – HANDLING AND STORAGE

Protect Workers and the Environment during Cyanide Handling and Storage

Standard of Practice 3.1: **Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 3.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 3.1; design and construct unloading, storage and mixing facilities consistent with sound accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

CC&V has only received liquid cyanide over the last 3 years. CC&V has three cyanide offloading and storage facilities located at ADR1, ADR2 and the HGM, respectively. Each cyanide offloading and storage facility has two tanks: one cyanide mixing tank and one cyanide storage tank. These facilities were operating at the time of the site visit, except for the cyanide offloading and storage facilities at the HGM. The HGM stopped receiving liquid cyanide in February 2018. Since June 2018, the HGM cyanide offloading and storage area became inactive. All the lines from this area to the Leach and CIP circuits of the HGM have been disconnected and are maintained locked. CC&V has recently rinsed the cyanide tanks and pipelines of the cyanide offloading and storage facilities at the HGM to decontaminate this equipment. The HGM offloading facility is no longer a cyanide facility as of September 2020. No other changes or physical modifications have been made to the cyanide offloading and storage areas since the 2017 recertification audit.

CC&V has designed and constructed the offload and high-strength cyanide tanks in accordance with sound and accepted engineering practices. The design of the cyanide offloading and storage facilities at ADR1, ADR2 and HGM were evaluated in the 2014 and 2017 recertification audits and found compliant during those audits.

Cyanide is offloaded on concrete pads, underlain by a linear low-density polyethylene (LLDPE) geomembrane liner, that are adequate barriers to prevent seepage to the subsurface. In addition, the offload pads are sloped to drain to the secondary containments of the mixing and storage tanks. The secondary containments of these tanks have a sump with a dedicated automatic pump to return any spilled material to the process.

All cyanide mixing and storage tanks are located on reinforced concrete pads and within secondary containments of cast-in-place reinforced concrete, which are competent barriers to leakage and prevent seepage to the subsurface. The secondary containments are also underlain by a geomembrane liner. The auditors observed that the concrete tank pads and secondary containments were in good condition.

CC&V has installed level indicators and high-level alarms to prevent the overfilling of the cyanide mixing and storage tanks at ADR1, ADR2, and the HGM. In addition, interlock systems with automatic shut off valves that

prevent overfilling of the tanks have been installed at ADR2 and HGM (in use at the HGM until it was decommissioned.

The cyanide offloading and storage areas are all located away from people and surface waters and within the security perimeter of the mine. These areas are also within a locked gate. Only authorized personnel wearing the required PPE can access to these areas. To prevent the build-up of HCN gas the cyanide offloading and storage areas are located outside with adequate ventilation. Fixed HCN monitors are also installed at each of these areas to minimize any potential exposure to cyanide.

Cyanide is stored separated from foods, animal feeds, acids, strong oxidizers, and explosives. Smoking is prohibited and signed accordingly. The cyanide mixing and storage tanks at ADR1, ADR2, and the HGM are located within their own containments.

Standard of Practice 3.2: **Operate unloading storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 3.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 3.2; operate unloading storage and mixing facilities using inspections, preventative maintenance, and contingency plans to prevent or contain releases and control and respond to worker exposures.

CC&V receives liquid cyanide in fully enclosed tankers and has implemented procedures to manage empty tankers. The empty tankers are returned to Cyanco immediately after the offload is completed. Therefore, no empty cyanide containers require disposal. As required in the offloading procedures, once the offload is complete, the TransWood truck driver inspects the tanker to ensure that spillage or leaks have not occurred during the offloading and disconnecting activities. After that, the TransWood truck driver rinses the valve area on the tanker with freshwater. The auditors observed two offloads of liquid cyanide, one at ADR1 and the other at ADR2, to verify that these procedures have been implemented as required.

CC&V has developed procedures that include the operation of all valves and couplings for offloading of cyanide at ADR1 and ADR2 as well as the use of the buddy system when hooking up and unhooking the tanker. In addition, the CC&V reagent operator (acting as the observer during the offload) is familiar with the Cyanco delivery and emergency shut off procedures. CC&V has a procedure entitled “Cyanide Spillage” that defines response and actions to be taken to respond, clean up and remediate cyanide spills on containment and off containment. This procedure will be implemented in case of a cyanide spill of cyanide during offloading.

Procedures also specify the requirements for Personal Protective Equipment (PPE) for cyanide offloading. The PPE consists of a chemical suit with rubber boots, Neoprene/Nitrile/Butyl gloves, face shield, and a portable HCN monitor. The auditors observed two cyanide offloads, one at ADR1 and the other at ADR2, to verify compliance with the use of the appropriate PPE during the cyanide offload as well as the buddy system during connections and disconnections.

The current CC&V-Cyanco contract includes the requirement for the addition of colorant dye for clear identification of cyanide high strength solution. Also, the use of the colorant dye is included in training materials and in a Newmont CC&V Gold Safety Bulletin on Presence of Red Dye in Liquid Cyanide. Based on this and by interview with process and maintenance personnel who have observed the dyed solution on site, the auditors confirmed the use of colorant dye since July 2019.

PRINCIPLE 4 – OPERATIONS

Manage Cyanide Process Solutions and Waste Streams to Protect Human Health and the Environment

Standard of Practice 4.1: **Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.1; implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

CC&V has developed and implemented written management and operating plans and procedures for all their cyanide facilities. The cyanide facilities at CC&V are comprised (or have been comprised) of the following over the recertification period: ADR1, VLF1, ADR2, VLF2, the PSES Plant, the HGM, and associated concrete and lined secondary containment structures, process solution transfer pipes, valves, and pumps. The External Storage Pond (ESP) is not a process pond but process solution (only with prior approval from regulators and using a cyanide destruction treatment with hydrogen peroxide) could be transferred to this pond if needed during an upset condition at the VLF1 Process Solution Storage Areas (PSSAs) or at the barren tanks. This pond has not received any cyanide solutions over the recertification period and has only contained enough precipitation/freshwater to help maintain the pond bottom liner.

Since the previous recertification audit in 2017, the following modifications and new facilities have occurred:

- VLF1: In 2020 additional injection wells were added to Phase 2 of VLF1 to restart the hydro-jex process in conjunction with other injection wells previously installed.
- VLF2: Phase 2A Part 1 was constructed in July 2019 and Phase 2A Part 2 in September 2019. Phase 2A was constructed by placing a Soil Liner Fill, overlain with an 80-mil LLDPE double sided micro-spike geomembrane, and covered with Drain Cover Fill. Phase 2A is a new cyanide facility.
- The PSES Plant: In 2018, the PSES plant process has been adjusted to only treat pregnant solution.
- The HGM: The HGM stopped receiving liquid cyanide in February 2018. In June 2018 all the remaining high strength solution in the HGM cyanide storage tank was transferred by Cyanco (via TransWood) to ADR2. After that, the HGM cyanide offloading and storage area, and the Leach and CIP circuits became inactive and were disconnected from the rest of the HGM circuits. The cyanide tanks and pipelines of the cyanide offloading and storage facilities, and Leach and CIP circuits have been decontaminated in September 2020. Currently, the HGM does not have any cyanide solutions and it is no longer a cyanide facility.

Operating procedures includes the necessary measures for the safe and environmentally sound operation of these cyanide facilities, including the specific measures needed for compliance with the Code and regulatory requirements. The procedures include process descriptions, operating tasks, inspections, maintenance and shut

down procedures. The procedures have been updated, as needed, to reflect operational changes and new cyanide facilities during the recertification period (such as the addition of a new phase in VLF2). Procedures also include measures for situations where there is an upset in water balance at the PSSAs, when inspections and monitoring identify a deviation from design or standard operating procedures, and/or when a temporary closure or cessation of the operation. Also, the procedures and permit documents identify the assumptions and parameters on which the facility design was based and any applicable regulatory requirements. Verification of the written procedures included review of the procedures and plans, as well as interviews.

CC&V implements procedures for management of change. These are corporate procedures. The purpose of these procedures is to ensure that new or modified projects, processes, materials, equipment, systems, programs, or resources are evaluated and controlled before being implemented. The evaluation includes a risk assessment and involves key stakeholders and the change owner. Once approved, the change is communicated to workers and training is provided, if necessary, prior to the change implementation. The auditors reviewed examples of completed management of change forms and risk assessments conducted over the recertification period to verify compliance.

CC&V inspects their cyanide facilities on a shift, weekly, monthly, quarterly, and annually basis at ADR2, ADR1, the HGM, the PSES Plant, and the two VLFs. These inspections are sufficient to assure and document that the cyanide facilities are functioning within the design parameters. CC&V has developed specific forms to track these inspections. The inspections cover all cyanide facilities and activities including cyanide offloading and storage areas, tanks and related piping, secondary containments, pumps, and valves, leak collection systems at the PSSAs of the VLFs and the ESP, pond levels, stormwater ditches and sedimentation traps, level indicators in tanks and ponds, and others cyanide elements. Inspections are documented. The inspection forms include the name of the inspector, date and observed deficiencies. The nature and date of completion of the corrective actions are also documented. The auditors reviewed completed examples of the inspection forms to verify compliance. The auditors also observed that the cyanide facilities were generally in good condition, without leaks or other issues that would be related to inefficient inspections.

CC&V has implemented a maintenance program via the SAP software that includes both preventative (scheduled) maintenance and corrective (unscheduled) maintenance. The maintenance program includes the elements necessary for cyanide safety management including fixed HCN monitors, pH meters, Non-destructive Testing (NDT) on cyanide solution tanks, tank level indicators and interlock systems, pond level indicators, sump level indicators, tanks and pumps, back-up generators and others. The auditors reviewed examples of completed maintenance records from the SAP system for the recertification period to verify that the preventive and corrective maintenance programs were implemented during the recertification period. The nature and date of corrective actions are documented in the inspection forms or through the SAP records. The auditors randomly picked deficiencies noted on inspection forms for the recertification audit, and the maintenance staff were able to pull up the records in SAP to verify the completion date, the name of the staff involved, and the time it took to complete.

The primary power source for the CC&V operation is overhead line power from the local grid. CC&V has 11 fixed back-up generators to operate the critical components at the cyanide facilities in the event of a power outage. The generators will provide backup power to operate the pumping system of the process facilities at ADR1, ADR2, and the VLF PSSAs in the event of a power outage. In addition, backup pumps are available. Also, CC&V has designed the PSSAs of VLF1 and VLF2 to contain a 12-hour draindown volume due to power loss. The HGM has not used cyanide since 2018 and the equipment and tanks of all areas where cyanide was present has been decontaminated. However, the auditors confirmed that the power resources at the HGM were available and

inspected over the time cyanide was used at the HGM. The auditors observed the generators and reviewed maintenance records related to the generators to verify compliance.

Standard of Practice 4.2: Introduce management and operating systems to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 4.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.2; introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

CC&V has determined appropriate cyanide addition rates for the HGM. The HGM stopped receiving liquid cyanide in February 2018 because the addition of the cyanide to leach was not providing the level of recovery expected. In June 2018, all the remaining high strength solution in the HGM cyanide storage tank was transferred to ADR2. Since that, the HGM cyanide offloading and storage area, and the Leach and CIP circuits became inactive and were disconnected from the rest of the other HGM circuits. No changes in ore characteristics occurred between the 2017 recertification audit and the time CC&V stopped using cyanide. During this period, the cyanide targets (pounds per ton [lb/t] free cyanide) were 2 lb/t (1000 ppm) at the first leach tank and 1 lb/t (500 ppm) at the last leach tank.

CC&V evaluated control strategies for cyanide additions and implemented a manual sampling strategy at the HGM when cyanide was in use. The manual strategy consisted of conducting titration tests at four locations (leach tanks 1, 2,3 and 6) every four hours. The auditors reviewed examples of completed mill daily leach reports as well as interviewed metallurgical personnel to confirm that the strategy was used at the HGM when cyanide was used in 2017 and 2018.

Standard of Practice 4.3: Implement a comprehensive water management programme to protect against unintentional releases.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 4.3**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.3; implement a comprehensive water management program to protect against unintentional releases.

CC&V has a site wide water balance that was most recently updated in 2018 to incorporate new cyanide facilities (i.e., Phase 2 of VLF2) and future expansion of VLF2 (i.e., Phase 3). The water balance is a probabilistic model and is prepared using GoldSim. The model is comprehensive and includes leach application rates, monthly ore production, ore bulk density, maximum pumping rates, natural ore moisture content, monthly lined areas, loaded

height, precipitation and evaporation, pond capacities, a draindown volume resulting from 12 hours of power loss for the PSSAs, a storm event, and others. The model is also probabilistic since it was developed based on a stochastic analysis in GoldSim that represents input variables with distributions. The auditors reviewed a technical memorandum on the water balance model calibration as well as the Water Balance User's Manual to verify compliance.

Operating procedures incorporate inspection and monitoring activities to implement the water balance and prevent overtopping of the PSSAs. The ESP is not an operational pond but process solutions would be transferred to this pond (only with prior approval from regulators and using a cyanide destruction treatment with hydrogen peroxide) during an upset condition at the VLF1 PSSAs or at the barren tanks. Due to this, procedures to inspect and monitor the water level in the ESP are also implemented. CC&V has pond level indicators installed at all ponds and monitors pond levels every shift. Pond levels are automatically downloaded and integrated into the water balance model and are used to monitor pond levels and volumes daily.

The PSSAs have been designed to hold normal operating volume, 12-hour draindown volume during pump outages, solution accumulation due to seasonal climatic variation at a 95 percent confidence level, the 100-year, 24-hour design storm event and available pore space of the ore within the PSSA. Additional capacity is also maintained within the P-SSAs to accommodate a minimum freeboard of 5 feet. CC&V has developed an operating criterion for the PSSAs, established with the state regulators, to maintain operating solution levels in each PSSA at 80 percent capacity or less. This was done with the objective to maintain an adequate freeboard in the PSSAs (of more than 5 feet in each PSSA). An exceedance of the 80 percent capacity would be reported to the regulators. The auditors reviewed examples of completed inspection forms, and graphs of pond levels to confirm that the maximum operating volume level at the PSSAs was not exceeded throughout the recertification period. The auditor also reviewed data on water levels in the ESP as well as completed Environmental Resources Department Forms for the recertification period to confirm that no process solution was transferred to the ESP during the recertification period.

Precipitation and evaporation data have been collected from 3 meteorological stations (two established by CC&V and one local station) that represent site conditions. As part of the 2018 Goldsim Model update, measured precipitation was used for this update, and also was compared to design assumptions to confirm that design assumptions are still adequate.

Standard of Practice 4.4: **Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.4**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.4; implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

CCC&V has implemented measures to restrict access by wildlife and livestock to process areas. No open waters where the WAD cyanide concentration is greater than 50 mg/L are present at CC&V operations since all the

PSSAs are subsurface per design. CC&V has installed a fence around most of the property to prevent livestock access the VLFs and other process areas. The ESP is not an operational pond, but process solution would be introduced to this pond during an upset condition at the VLF1 PSSA or at barren tanks. This would only be done with prior approval from the regulators and using a cyanide destruction treatment in the ESP. This pond has not received any process solution during the recertification period and has only contained enough precipitation/freshwater to help maintain the pond bottom liner. The auditors reviewed data on levels in the PSSAs and in the ESP to confirm that no upset conditions have occurred. The auditors also interviewed environmental personnel and reviewed completed Environmental Resources Department Forms to confirm that no solution transfer to the ESP has been authorized. The auditors also requested a confirmatory sample from the water in the ESP to verify no presence of cyanide. The lab results showed WAD cyanide concentrations < 0.010 mg/L (Lab detection limit). Even though this pond is not an operational pond, this pond is completely fenced.

CC&V has experienced isolated wildlife mortalities during the recertification period. Three isolated wildlife mortalities occurred during the recertification period. CC&V notified Colorado Parks and Wildlife (CPW) of these mortalities as required in the Wildlife Protection Plan. The auditors reviewed the report for these mortalities to verify compliance.

Standard of Practice 4.5: **Implement measures to protect fish and wildlife from direct or indirect discharges of cyanide process solutions to surface water.**

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 4.5**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.5; implement a comprehensive water management program to protect against unintentional releases.

CC&V operates with zero discharge of process solutions and no discharge of cyanide solutions to surface waters have occurred during the recertification period. Under the Discharge Permit Number CO0043648, CC&V is authorized to discharge from two outfalls: 1) Outfall 001A: discharge to the Arequa Gulch from the sedimentation pond (i.e., water from the Arequa Gulch VLF underdrain system), and 2) Outfall 005B: discharge of treated process water from the ESP to the Arequa Gulch if extraordinary storm events cause the ESP capacity to be exceeded. The auditors reviewed monthly Discharge Monitoring Reports (DMRs) for the recertification period to confirm that no discharge of cyanide solutions to surface waters have occurred.

CC&V does not have any indirect discharge of cyanide solutions to surface waters. CC&V monitors for cyanide in compliance points downstream from the cyanide process facilities at Stations AG 2.0, GV-02, GV-03, and T-02. Analytical data from these stations for the recertification period showed that free cyanide concentrations were <0.010 mg/L (i.e., below laboratory detection limit). No impact to beneficial uses has occurred since there are no direct or indirect discharges of cyanide solutions to surface water.

Standard of Practice 4.6: **Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.**

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 4.6**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.6; implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

No physical changes have occurred to the cyanide facilities since the 2017 recertification audit except for the construction of a new phase of theVLF2 (Phase 2A). CC&V has implemented measures to protect groundwater below and downgradient of the operation including the following:

- VLF1 is a zero-discharge facility with four internal PSSAs (Phases 1, 2, 4 and 5). Solution within the PSSAs is piped to ADR1. The ore storage liner system consists of soil liner placed overlain by geomembrane, which is then overlain by a leachate collection system embedded in drainage cover fill material. The liner system within the PSSAs consists of soil liner, overlain by geomembrane, overlain by solution collection fill material,

overlain by geomembrane, which is then overlain by drainage cover fill material. Additionally, VLF1 is equipped with leak detection and collection systems.

- VLF2 (Phases 1 and 2A) is also a zero-discharge facility constructed with one internal PSSA. The ore storage area was constructed with a soil liner fill, overlain with an 80-mil LLDPE double-sided geomembrane, overlain by a pipe drain system, and covered with drain cover fill. The PSSA was constructed as an internal pond within the VLF2 area. Outside and inside of the PSSA sump, the liner system consists of soil liner fill overlain by a LLDPE bottom geomembrane overlain by a low volume solution collection system fill overlain by a LLDPE top geomembrane overlain by drain cover fill. A leak detection system has been installed beneath the soil liner fill component of the composite liner system.
- All cyanide tanks and pipes have been designed with secondary containments such as concrete or lined containments.
- The entire perimeter of the cyanide facilities is lined with a LLDPE geomembrane.
- Several monitoring wells immediately downgradient of the cyanide process facilities to monitor groundwater.

CC&V conducts weekly inspections of the underdrains and leak collection systems to ensure that the facility is functioning as designed and protective of the environment. The auditors reviewed engineering design documentation, completed inspection forms for underdrains and leak collection systems, and groundwater monitoring data to verify compliance.

Groundwater quality is regulated in accordance with the Mining and Reclamation Permit. The regulatory numerical standard for cyanide in groundwater, applicable to CC&V, is 0.20 mg/L WAD cyanide. CC&V currently monitors groundwater quality at several compliance wells surrounding the operation on a quarterly basis. The auditors reviewed quarterly groundwater monitoring data from the groundwater monitoring compliance wells (located downgradient from the process facilities) from February 2017 to May 2020. Over this period, WAD cyanide concentrations at all these compliance wells were less than the detection limit (<0.01 mg/L) and below the regulatory numerical standard for cyanide in groundwater. CC&V has not caused cyanide concentrations in groundwater to rise above levels protective of beneficial use.

CC&V does not use mill tailings as underground backfill.

Standard of Practice 4.7: **Provide spill prevention or containment measures for process tanks and pipelines.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.7**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.7; Provide spill prevention or containment measures for process tanks and pipelines.

CC&V has spill containment measures for all the cyanide-related storage and process tanks. There are no cyanide process tanks without secondary containment. No changes or modifications have been made to the secondary containments of the cyanide mixing and storage tanks, process tanks, and process columns since the 2017 recertification audit. All cyanide mixing and storage and process tanks are provided with concrete and/or

lined secondary containment. In addition, a geomembrane liner, keyed to the liner system at the VLF areas, underlies the entire process areas serving as tertiary containment for the concrete secondary containment facilities. The auditors observed that these containments were still in good condition and suitable for use.

CC&V has adequately sized the secondary containments for all cyanide and process solution tanks at ADR1, ADR2, the HGM and PSES Plant as accepted in the 2017 recertification audit and previous audits. CC&V has not added any cyanide or process tanks or modified any concrete containment areas of the cyanide and process tanks, and therefore the adequacies of the individual containment volumes at ADR1, ADR2, the HGM and PSES plant did not need to be reconfirmed during this recertification audit.

CC&V has implemented procedures to prevent discharge to the environment of any cyanide solution or cyanide-contaminated water that is collected in the secondary containment area (e.g., Procedure 16 – Inspection & Removal of Accumulated Precipitation from Cyanide Secondary Containment Areas). In addition, all cyanide and process tanks have in general their own sumps with automatic pumps to return any spills of solution collected in the secondary containment area back to the process circuit.

CC&V has constructed all pipelines with spill prevention and containment measures to collect leaks and prevent releases. The pipelines at ADR1, ADR2, the HGM, VLF1, and VLF2 are constructed within concrete secondary containments or lined ditches/areas, and/or differential flow/pressure and interlock systems. Based on this and considering that the nearest perennial stream is Cripple Creek (located approximately two miles south of the operation), there are no areas where cyanide pipelines present a risk to surface water.

Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions. Cyanide and process pipelines are made of carbon steel, stainless steel, and high-density polyethylene (HDPE). All cyanide process tanks are constructed of carbon steel. The auditors reviewed the VLF2 Phase 2A design report and Quality Control/Quality Assurance (QA/QC) documentation to verify compliance.

Standard of Practice 4.8: **Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.**

	☒ **in full compliance with**	
The operation is	☐ in substantial compliance with	**Standard of Practice 4.8**
	☐ not in compliance with	

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.8; implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

Construction QA/QC programs have been implemented for all the cyanide facilities. Construction QA/QC programs implemented for the cyanide facilities, constructed and in operation at the time of the 2007 initial certification audit, and the 2010, 2014 and 2017 recertification audits, were evaluated and found compliant during those audits.

For new facilities, QA/QC programs have been implemented during the construction of VLF2 Phase 2A. This is the only new cyanide facility constructed during the recertification period. Phase 2A Part 1 was constructed in July 2019 and Phase 2A Part 2 in September 2019.

Phase 2A was constructed by placing a Soil Liner Fill, overlain with an 80 mil LLDPE double sided micro-spike geomembrane, and covered with Drain Cover Fill. QA/QC programs during the construction of VLF2 Phase 2A addressed the suitability of materials and adequacy of soil compaction for earthworks and the installation of synthetic membrane liners and piping. QA/QC activities for VLF2 Phase 2A addressed clearing and grubbing, underdrains, site grading, subgrade preparation, leak detection trench, soil liner fill, geomembrane, anchor trench, high volume collection system piping, drain cover fill and others.

The record of Construction Reports for VLF2 Phase 2A Part 1 and Part 2 include a statement certifying that the construction was completed in compliance with the drawings and project Technical Specifications. The reports are signed and stamped by a professional engineer registered in the State of Colorado.

The auditors reviewed as-built drawings and Record of Construction Reports for VLF2 Phase 2A, as well as a letter from Division of Reclamation, Mining and Safety (DRMS) approving the technical revision application addressing the VLF2 Phase 2A Part2 Construction Quality Assurance (CQA) report.

CC&V has retained electronic and/or physical copies of the QA/QC documentation for the cyanide facilities. The auditors spot checked the list of evidence from the 2007, 2014, 2010 and 2017 audits against the hard and electronic copies on site to verify documents were retained.

Standard of Practice 4.9: **Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and groundwater quality.**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 4.9**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 4.9; implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and groundwater quality.

CC&V has developed written procedures for monitoring activities including surface water and groundwater sampling, and wildlife monitoring.

Surface water and groundwater monitoring procedures and QA/QC plan have been developed by appropriately qualified personnel with several years of professional experience in the environmental field. These documents have been developed using EPA protocols and submitted to the regulators for their review and comment. These procedures and plan include surface water and groundwater sampling techniques, sampling equipment, preparation of field log sheets, decontamination of sampling equipment, preservation of samples, chain of custody, shipping, monitoring locations, monitoring frequency and monitoring parameters.

CC&V documents sampling conditions and procedures during groundwater and surface water sampling activities in field sampling logs. The auditors reviewed field sampling logs and chain of custody forms to verify compliance.

CC&V does not have direct or indirect discharge of cyanide solutions to surface waters, however CC&V monitors for cyanide downstream from the cyanide process facilities at Stations AG 2.0, GV-02, GV-03, and T-02 (that are compliance monitoring locations). CC&V also monitors groundwater quality at several compliance wells surrounding the operation including CRMW 3A-35, CRMW 3B-63, CRMW 3C-124, SGMW-5, SGMW-6A-400, SGMW-6B-60, SGMW-7A-400, SGMW-7B-60, WCMW-3-134, and WCMW-6-234 (these are wells located downgradient from the process facilities).

In accordance with Colorado Discharge Permit CO0043648, discharge samples must be collected and analyzed for cyanide at the frequency established for each outfall in the permit. No process solution discharges have occurred during the recertification period.

The auditors reviewed surface and groundwater monitoring data and monthly DMRs for the recertification period to verify compliance.

CC&V monitors surface water and groundwater quarterly as required by permit. In addition, CC&V monitors the leak collection and underdrain systems at the PSSAs, VLFs and the ESP weekly. CC&V monitors wildlife daily. These frequencies are adequate to characterize the media being monitored and identify changes in a timely manner. The audits reviewed inspection records to verify compliance.

PRINCIPLE 5 – DECOMMISSIONING

Protect Communities and the Environment from Cyanide through Development and Implementation of Decommissioning Plans for Cyanide Facilities

Standard of Practice 5.1: **Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 5.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 5.1; plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

CC&V has developed written procedures related to the decommissioning of cyanide facilities. The operation has a Mine Land Reclamation Permit (Permit M-1980-244). The permit contains decommissioning procedures that are revised with each permit amendment. Currently the operation has Amendment 12 approved and is waiting for approval of Amendment 13. Each amendment addresses new constructions and major modifications to site therefore the cyanide facilities are in the relevant amendment. A specific section in each amendment details reclamation and closure. Over the recertification period, decommissioning procedures were reviewed and updated twice as part of Amendment 12 and Amendment 13 applications.

Decommissioning procedures cover the use of residual cyanide, rinsing of VLFs, and decontamination of cyanide equipment prior to demolition. The auditor interviewed environmental personnel and reviewed the Amendments 11, 12 and 13 applications to verify compliance.

Permit M-1980-244 includes an implementation schedule for reclamation activities including decommissioning activities. This schedule contains a general schedule of activities for each area, and the duration for each reclamation activity including start year and complete year. CC&V has also developed an implementation schedule for closure activities that is updated annually as part of the internal annual update of its closure costs. The auditors reviewed the schedule included in the closure cost spreadsheets to verify compliance.

Standard of Practice 5.2: **Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 5.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 5.2; establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

CC&V has developed a cost estimate to fully fund third party implementation of the cyanide related decommissioning measures.

The operation uses the Standardized Reclamation Cost Estimator (SRCE) Spreadsheet to estimate the closure costs. Costs are updated annually for internal requirements and have been submitted to the regulators for approval as part of each amendment application for Permit No. M-1980-244. Closure costs have been submitted to DRMS for approval over the recertification period as part of Amendments 11, 12 and 13. DRMS last review was completed in 2017 for Amendment 12. Amendment 13 is under review and has not been approved yet. Amendment 11 was approved in February 2017. The costs are based on third party rates. The auditors reviewed the closure cost spreadsheets and letters from the DRMS approving Amendments 11 and 12 including the closure cost included in these amendments to verify compliance.

The auditors reviewed the closure cost spreadsheets and letters from the DRMS approving Amendments 11 and 12 including the closure costs presented in these Amendments to verify compliance.

The operation has an established financial mechanism approved by DRMS that implements a performance bond system. This system is a full liability calculated for reclamation of all major project facilities and for reclamation of affected acreage for ancillary activities. The current liability for CC&V was calculated based on the application for Permit No. M-1980-244 Amendment 12. The application for Permit No. M-1980-244 Amendment 13 was submitted in December 2019 but has not been approved yet. A letter from DRMS entitled “Cresson project, Permit No. M-1980-244, Amendment Approval, Revision No. AM-12” and dated November 14, 2017, specifies the required financial liability and the bond currently held by CC&V. The bond amount held is more than the required liability, adequately covering the costs of cyanide decommissioning activities, which in any case is a subset of the overall closure costs.

PRINCIPLE 6 – WORKER SAFETY

Protect Workers' Health and Safety from Exposure to Cyanide

Standard of Practice 6.1: **Identify potential cyanide exposure scenarios and take measures as necessary to eliminated, reduce and control them.**

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 6.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 6.1; identify potential cyanide exposure scenarios and take measure as necessary to eliminate, reduce and control them.

The operation has developed procedures describing how cyanide-related tasks such unloading, mixing, plant operations, entry into confined spaces, and equipment decontamination prior to maintenance should be conducted to minimize worker exposure.

The operation has developed a set of 25 procedures "Cyanide Code Procedures Task Training Outline (NA-CCV-PROC-FORM-1819)" which provides training in specific areas where employees are exposed to cyanide. The procedure includes a matrix of job positions: ADR1 and ADR2, HGM Operators; Assay Lab/Met Lab Technicians; Maintenance Personnel; Leach Pad Operators; Admin Personnel; and Cyanide Drivers and the procedures relevant to the job function

The procedures require employees to don appropriate PPE and to conduct pre-work inspections. Procedure 2 for Personal Protection Equipment details the specific PPE to use in standard conditions as well as in spill clean-up/HCN/CN detox conditions. Additionally, other procedures refer the reader to Procedure 2 where and when required. The requirement for PPE is also signposted around the work areas.

Pre-work inspections are completed each shift for each work area. The auditors reviewed examples from throughout the recertification period to verify compliance.

The operation has procedures to review proposed process and operational changes and modifications for their potential impacts on worker health and safety and incorporate the necessary worker protection measures. CC&V uses the Newmont corporate standard for management of change as well as the Corporate Management of Change Guidance. The purpose of these procedures is to ensure that new or modified projects, processes, materials, equipment, systems, programs, or resources are evaluated and controlled before being implemented. The approved change is communicated to workers and training is provided, if necessary, prior to the change implementation. The auditors reviewed examples of completed management of change forms and assessments within the Newmont intranet (Prospector).

The operation does solicit and consider worker input in developing and evaluating health and safety procedures. CC&V has several processes where worker input is solicited. CC&V has an SOS program, See it, Own it, Solve it. In addition to the SOS program, there are weekly safety meetings. These meetings allow workers to provide input into the procedures and safety onsite. The site has also established Vital Behaviors committees which are select

groups of employees who meet twice per month to report back on safety issues as well as progressing safety initiative to promote safe production.

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

	☒ **in full compliance with**	
The operation is	☐ in substantial compliance with	**Standard of Practice 6.2**
	☐ not in compliance with	

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 6.2; operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

The operation has determined the appropriate pH for limiting the evolution of HCN gas during mixing and production activities. The operations procedures detail the importance of maintaining the solutions above pH 9.5 to minimize the potential for HCN gas formation. The pH levels are monitored in the control room and samples are taken with a pH monitor to confirm instrumentation is working effectively. The auditors reviewed examples of daily operator checklists over the recertification period to verify that the pH values have been maintained as recommended in the procedures over the recertification period.

CC&V has identified activities and areas where the exposure to harmful concentrations of cyanide is possible. For such activities, the operation has operating procedure, Procedure 2 for Personal Protective Equipment in place that states the PPE requirements for key activities in both standard conditions and spill cleanup/HCN/CN detox conditions. Examples of conditions where a HCN monitor is required include, Solution > 1%, Dry Lab, Truck Unloading, Spill Clean-up of Solution <1% and Cyanide Detox. SCBA is required where HCN Gas > 10ppm.

The operation has a procedure that dictates what employees must do when the HCN monitor alarm sounds. The HCN monitors, both static and personal, are set to alarm at 4.7 ppm and 10 ppm. The operation has dictated the actions to be taken in the event of an alarm including actions to re-enter the area. A low-level alarm requires employees to open the doors to the building, open ventilation louvers and ensure exhaust fans are running. A high-level alarm requires immediate evacuation and barricading of the area. Access is allowed again once the HCN gas levels have dropped below 10 ppm.

The operation uses a combination of fixed and personal monitors for HCN level monitoring. A fixed HCN detection system, SensAlert is in place at the operation. The monitors are located at the ADR1, ADR2, PSES Plant, and HGM. The SensAlert system is complemented by Drager fixed monitors at ADR1 and ADR2 Cyanide offloading areas. The operation also utilizes portable gas monitors (MX6 multi-gas detectors), which are used to measure HCN in the person's immediate environment. They are available for use in the ADR control rooms, PSES control room, process laboratory, crusher control room, millwright shop and in the warehouse. Both the fixed and portable units alarm at 4.7 ppm low and 10.0 ppm high. Fixed units include both audible and visual alarms.

Portable and fixed HCN monitors are maintained, tested, and calibrated as per manufacturer requirements. All fixed monitors are calibrated monthly as part of the preventative maintenance program and there is a guiding Cyanide Code Procedure. All portable monitors are calibrated when docked through an online system. Calibration records and preventative maintenance records were reviewed by the auditors.

Warning signs in English have been placed where cyanide is used, advising workers that cyanide is present. There is also a specific procedure detailing the required PPE for activities in standard and spill conditions. No smoking, eating, or drinking signs are posted throughout the operational areas.

Use of the colorant dye is included in the ADR-1 and ADR-2 plant operator training checklists as well as the annual refresher training cyanide awareness module. Interviews with the Process Maintenance Superintendent, and the ADR2 Control Room Operator confirmed use of the colorant dye since July 2019.

Showers, low-pressure eyewash stations, and dry-powder fire extinguishers are strategically located throughout the operation in the cyanide areas. The showers and eyewash stations are checked daily and monthly and the fire extinguishers monthly.

The operation labelled cyanide tanks and lines and clearly indicated by strategically placed signage that cyanide is present. Flow direction is included on all piping. Additionally, 'Danger Cyanide' signage is located at the entrances to all facilities where cyanide is present.

Safety Data Sheets (SDSs), first aid procedures, and informational materials on cyanide safety were available in the language of the workforce in areas where cyanide is managed. SDSs (as part of the Emergency Response Plan [ERP]) are located in each of the control rooms and on the site intranet. First aid materials and information on cyanide safety is included in the ERP with a copy is kept in every control room.

Procedures are in place to investigate and evaluate cyanide exposure incidents. These procedures determine if the operation's programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or need revising. CC&V has an incident reporting and investigation procedure used for all incidents and an electronic database for recording the incidents and investigations. A review of the Cintellate database shows that the system has been implemented and incidents involving cyanide have been recorded and investigated.

Standard of Practice 6.3: Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 6.3**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 6.3; develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation has water, oxygen, a resuscitator, automated external defibrillators (AEDs), antidote kits, and a means of the communication readily available in the event of an emergency. Communication in the event of an emergency is primarily via radio with mobile phone (backup). Alarms in the plant areas indicate when to evacuate the area.

The operation inspects its first aid equipment regularly to ensure that it is available when needed. Cyanide antidotes are stored as directed by their manufacturer. The operation has four cyanide antidote kits (Cyanokits

and 250 mL solution) on site (PSES Plant, ADR1, ADR2, Mine Rescue Team [MRT] Kit) that can be administered by members of the MRT. The kits are stored in the air-conditioned control rooms along with oxygen. Both are checked regularly by emergency response team members as part of their monthly inspections. Inspections are scheduled using the MRT Inspection Assignment Sheet which determines who is responsible to complete the inspection. The auditors observed all cyanide antidote kits, solution, and oxygen to be available and in date. The operation has developed specific written emergency response plans and procedures to respond to cyanide exposures. The procedures provide specific guidance to all employees on what to do in the event of an emergency related to cyanide exposure. It is a requirement that all employees be trained on this procedure. The procedure covers the emergency calling process, personal protections, removal of victim to safe area, removal of clothing, provision of oxygen and clearing of the area. The auditor interviewed several employees onsite about the emergency process and they responded correctly. There is further specific guidance and training provided to all MRT employees.

The operation has its own onsite capability to provide first aid or medical assistance to workers exposed to cyanide. The MRT are the primary responders to an emergency, however all employees are instructed in basic first aid in the event of a cyanide exposure. The MRT has the capability to provide cyanide exposure first aid including decontamination and the administering of oxygen. At least two MRT employees are onsite at all times that can provide this role.

Three MRT employees, including the emergency response coordinator, have completed sufficient training and are qualified to administer IV and therefore the Cyanokit.

The South West Teller County Emergency Medical Service (Ambulance) is located in Cripple Creek, about 5 to 7 mins away. They have paramedics available 24/7 who can administer the antidote if needed. They will provide patient transfer with an estimated response time of 10 minutes.

A CC&V medical emergency response vehicle contains general first aid and rescue equipment. First aid related to cyanide exposure, e.g., cyanide antidote kit and oxygen is located at the three locations where a likely exposure will occur (ADR1, ADR2, and the PSES Plant).

The operation has made formal agreements with medical providers. The operation is confident that the medical facilities are aware of their need to treat patients for cyanide exposure and has the appropriately qualified staff and equipment to deal with an exposure.

Mock and field emergency drills are periodically conducted to test response procedures for various cyanide exposure and release scenarios. Lessons learned from the drills are incorporated into response planning.

The operation has undertaken a number of worker exposure exercises in addition to the routine skills training undertaken by the MRT. The operation undertakes field training drills monthly at the process areas with process employees and the MRT. The recording of the drill includes a summary of the drill (positives and negatives, corrective actions). All drills are unannounced.

In addition, roundtable Scenarios (CC&V coordinated meetings to discuss the ERP and responder's role) have been conducted with outside responders to ensure they are prepared to assist in a cyanide release and exposure incident. Attendees at these scenarios included those parties that may be allocated a role in the ERP (e.g. Cyanco Teller County Emergency Medical Services).

PRINCIPLE 7 – EMERGENCY RESPONSE

Protect Communities and the Environment through the Development of Emergency Response Strategies and Capabilities

Standard of Practice 7.1: Prepare detailed emergency response plans for potential cyanide releases.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 7.1; prepare detailed emergency response plans for potential cyanide releases.

The operation uses several emergency documents to address potential releases of cyanide with the primary document being the ERP. These documents combined provide guidance for responding to cyanide emergencies. The ERP does consider the potential cyanide failure scenarios appropriate for its site-specific environmental and operating circumstances (such as catastrophic hydrogen cyanide release; spills from the cyanide tanker; overtopping of leaching impoundment; power outages; runoff from heap leach pads; releases during fire and explosions; pipe, valve and tank ruptures; pump failures; uncontrolled seepage, and others as applicable).

The ERP and other emergency documents outline general responses to cyanide releases as well as information for scenarios specific to this site. The information provided details the response actions of MRT employees and considers on-site transportation emergencies. The ERP and associated documents describe specific response actions (as appropriate for the anticipated emergency situations) such as clearing site employees and potentially affected communities from the area of exposure, use of cyanide antidotes and first aid measures.

Standard of Practice 7.2: Involve site personnel and stakeholders in the planning process.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 7.2; involve site personnel and stakeholders in the planning process.

The operation has involved its workforce and stakeholders, including potentially affect communities, in the cyanide emergency response planning process. This was undertaken continually through several methods.

The operation has in place mechanisms to consult with its workforce who are the main stakeholders for cyanide related emergencies. Additionally, the workforce is involved in the planning process through participation in drills, discussions that occur after drills or events as well as training presentations on the ERP.

The community and outside stakeholders are involved in a number of ways, including Roundtable Scenarios (CC&V-coordinated meetings to discuss the ERP and responder's role). Attendees at these scenarios include those parties allocated a role in the ERP.

Additionally, the emergency response coordinator's attendance at the Teller County EMS Council, Local Emergency Planning Committee (LEPC), and Teller County Chiefs meetings provides additional clarification on their expected responses to cyanide emergencies as well as CC&V's responsibilities.

The operation engages its workforce through mock exercises and through health and safety management system meetings where revisions to procedures and plans are discussed.

The ERP was revised during the audit period, and evidence was provided that the updated document was communicated to the workforce.

Standard of Practice 7.3: **Designate appropriate personnel and commit necessary equipment and resources for emergency response.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.3**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 7.3; designate appropriate personnel and commit necessary equipment and resources for emergency response.

The elements of the ERP and procedures:

- Designate primary and alternate emergency response coordinators who have explicit authority to commit the resources necessary to implement the plan and identifies emergency response teams. Emergency Response Team Members list is located with security and senior employees. This list is updated annually and identifies the lead MRT members, trainer/coordinator and team captains.
- Require appropriate training for emergency responders. The ERP and the North America MRT Procedure details the minimum training requirements for MRT members.
- Include call-out procedures and 24-hour contact information for the coordinators and response team members. Appendix A of the ERP contains information regarding who to call in an emergency and lists numbers for key employees. Additionally, the Emergency Response Team Members list contains key numbers.
- Specify the duties and responsibilities of the coordinators and team members. Section 4.2 of the ERP details the responsible roles and positions holders. It provides details on the role of Emergency Response Trainer/Coordinator, Emergency Team Captains and Emergency response Team. In addition to this, the North American MRT Procedure provides addition clarification on roles and responsibilities.
- List emergency response equipment, including personal protective gear, available along transportation routes and/or on site. No written procedures exist, but an informal process is in place where each MRT member is required to undertake inspections. Completed inspections were reviewed by the auditor.
- Describe the role of outside responders, medical facilities, and communities in the emergency response procedures.

Outside responders are delegated a role in emergency response in the ERP including, treatment, transport and offsite response. Patients will be transferred from site response vehicles to offsite responders prior to be taken to medical facilities. Representatives from facilities have participated in drills and desktop exercises as well as providing a written commitment to assist in an emergency.

Standard of Practice 7.4: Develop procedures for internal and external emergency notification and reporting.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 7.4**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 7.4; develop procedures for internal and external emergency notification and reporting.

The operation's emergency documentation includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the cyanide emergency.

The ERP details the Communication and Emergency Notification and callout process. Notification of and numbers for contacting management, regulatory agencies, outside responders and medical facilities are detailed. Appendices A and B contain key contact numbers. Contact numbers for the MRT is included in the Emergency Response Teams Sheet. Environmental regulatory call-out procedures are documented within the Environmental On-Call Procedure (NA-CCV-SER-SOP-2881)

CC&V would implement the Newmont Rapid Response incident management in the event of a serious incident. Cyanide emergencies are always classified high in this system. This system details the procedures for notifying outside stakeholders (including any affected communities) and communication with the media.

For incidents outside the gates of the operation, Cyanco would lead the incident response process.

Standard of Practice 7.5: Incorporate in response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 7.5**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 7.5; incorporate in response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

The operation has a specific procedure that provides information related to remediation and monitoring measures for cyanide spills and releases. This procedure addresses specific responses that related back to those listed in the ERP. The procedure provides the following guidance:

- Any pools or puddles of pumpable solution will be pumped to process circuits, whichever is closer. All affected soil will be placed on the VLF area in consultation with environmental and processing employees. All contaminated soils will be excavated in large scoops and will be removed in layers and disposed of until all contaminated soil has been removed and soil sampling indicates that the freshly exposed earth is below the 0.20 ppm WAD cyanide limit.
- The procedure states that the rare event that the only option for cleanup and remediation is neutralization, CC&V stores calcium hypochlorite in several different locations throughout the mine site. Detailed information on storage locations of calcium hypochlorite and the use of calcium hypochlorite can be found in the Cyanide Code Procedures Task Training Outline, Procedure 4.
- Decontamination and washing of tools and equipment used in incident response will be in an area where wash water will enter one of the ADR sumps. It advises to thoroughly wash all PVC and rubber PPE, shovels, Loader bucket, tires etc. with process water initially, then rinse with freshwater. Following completion of the recovery operation and removal of wet weather PPE, the disposable overalls shall be burnt with the persons burning standing upwind.
- Monitoring of soils and groundwater, including details regarding soil sampling, sampling locations and what to do if groundwater is observed above 0.20 ppm WAD cyanide. Cleanup of the release is completed when the analysis results are <0.20 ppm WAD cyanide.

The procedure does not specifically prohibit the use of chemicals such as calcium hypochlorite, sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide that has been released into surface water because it is not reasonably expected that a spill would enter surface water. The nearest perennial stream is Cripple Creek, located approximately two miles south of the operation. Therefore, this prohibition is not applicable based on the location of the facility.

The operation also has a “Surface and Ground Water Sampling” document and a “Cripple Creek and Victor Water Monitoring Quality Assurance Project Plan and Field Sampling Guidance”. These documents describe procedures for surface water and groundwater sampling techniques, sampling equipment, monitoring locations and parameters (including species of cyanide). The auditors reviewed these procedures to verify compliance.

Provision of an alternate drinking water supply is not addressed as no drinking water supplies are in proximity to the operation. Victor and Cripple Creek are on municipal water supply from reservoir sources. CC&V uses bottled water.

Standard of Practice 7.6: **Periodically evaluate response procedures and capabilities and revise them as needed.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.6**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 7.6; periodically evaluate response procedures and capabilities and revise them as needed.

The operation reviews and evaluates the cyanide related elements of its ERP for adequacy on a regular basis. The ERP requires regular audits of the plan to keep the plan current as well as reviewing the plan annually or after emergencies. The ERP was last updated November 26, 2019.

The operation conducted a number of multi-agency cyanide exposure and spill response drills as part of its emergency response plan evaluation during the audit period. Drills included cyanide spill response, worker cyanide exposure and rescue, and fire. The drills are conducted at varying scales and debrief reports are compiled following each exercise.

The operation undertakes monthly site drills or ‘table-top’ emergency scenarios with employees to test their knowledge of the ERP. Exercises include employees from either ADR1, ADR2 or the PSES Plant along with members of the MRT. The drill report includes a summary of the drill (positives and negatives, corrective actions). All drills are unannounced.

Provisions are in place to evaluate and revise the ERP after any cyanide related emergency requiring its implementation. The plan requires members of the operation to conduct a formal investigation of the incident including identification of immediate and root causes, corrective actions, and communication of the findings. There were no cyanide incidents over the period that required revisions to be made to the emergency response procedures.

PRINCIPLE 8 – TRAINING

Train Workers and Emergency Response Personnel to Manage Cyanide in a Safe and Environmentally Protective Manner

Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 8.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 8.1; train workers to understand the hazards associated with cyanide use.

The operation provides training for employees and contractors who encounter cyanide. Inductions include cyanide awareness training (New Miner Cyanide Recognition) and annual refresher training, which includes cyanide awareness and associated hazard identification. All employees must complete this training. Visitors receive basic cyanide awareness at the access gate and are escorted at all times while onsite. The auditors reviewed the April 2019 refresher-training package as well as attendee sheets.

Additionally, foremen from each working area discuss the cyanide code procedures and discuss updates/reviews and key messages yearly. This is completed as part of the health and safety management system meeting.

Training records have been retained. The operation keeps hard copies with all records also available in in the electronic database (Prospector). A review of the electronic training records for employees across processing and maintenance revealed that records are maintained.

Standard of Practice 8.2: Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 8.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 8.2; Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community, and the environment.

The operation trains workers to perform their normal production tasks, including unloading, mixing, production, and maintenance with minimum risk to worker health and safety and in a manner that prevents unplanned cyanide releases.

The training elements necessary for tasks involving cyanide are identified in the Cyanide Code Procedures Task Training Outline. Each separate procedure includes an introduction to the process and step by step task information on how to complete the task including specific equipment required.

New starters complete a general induction that provides information on safety and the environment including hazard and risk assessment tools (Job Hazard Assessment, etc.).

Once process workers have completed the inductions they are teamed with a “buddy,” an experienced operator, and provided on the job training. Workers are trained and assessed on the Cyanide Code Procedures relevant to their work area.

Employees are not permitted to work unsupervised until they have been deemed competent on the tasks and the supervisor is satisfied that they understand the task and work area. The training and signoff by the supervisor are supported by the 5000-23 Mine Safety and Health Administration (MSHA) Certificate of Training Form. This form provides a means for mine operators to record and certify Part 48 mandatory training received by miners. It is a requirement that only a competent trainer signs off on completed training.

The operation evaluates the effectiveness of cyanide training by testing, observation or other means. This includes:

- Annual cyanide awareness fresher training including a knowledge assessment and practical evaluation
- On the job training through the buddy system which includes observation and demonstration as part of the assessment process
- A final interview and competency check undertaken by the process trainer and supervisor.

Training records are retained throughout an individual’s employment documenting the training they receive. The records include the names of the employee and the trainer, the date of training, the topics covered, and if the employee demonstrated an understanding of the training materials. Hard copy files of training records are kept with the Process Training Department. Records are also available electronically on the site intranet (Prospector).

Standard of Practice 8.3: Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 8.3**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 8.3; train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

Employees that undertake cyanide unloading, mixing, production and maintenance activities are trained in the procedures to be followed if cyanide is released, including decontamination and first aid procedures. All employees working are trained in the Cyanide Code Procedure Task Training Procedure 3 (Emergency Response Procedure), Procedure 4 (Cyanide Spillage) as well as the ERP. All employees also receive instruction and training on emergency response and raising the alarm. Annual refresher training on this is provided. The primary response actions for employees is to raise the alarm and evacuate the area. The auditors confirmed this through interviews with employees.

Emergency response coordinator and members of the emergency response team are trained in the procedures included in the ERP regarding cyanide, including the use of necessary response equipment.

The MRT members will be called to respond to an incident. They are trained in the process in the ERP and have undertaken specific MRT training scenarios as well as participating in operation wide drills. Site employees, including unloading, mixing, production and maintenance workers, are trained in decontamination and first aid procedures and take part in routine drills to test and improve their response skills.

The MRT are the primary responders and undertake regular skills training. The MRT have regular training in both the theory and practical aspects of emergency response. General response to chemical incidents is covered through external hazardous materials training and site-specific training. Training on equipment use is undertaken through practical training and mock exercises.

Outside responders do have a role in providing support in an emergency and the operation has made offsite emergency responders familiar with their roles. The role of the outside responders and medical facilities is communicated and clarified in the desktop exercises (roundtables) and the emergency coordinators attendance at community/stakeholder meetings. Evidence of communication between the emergency response coordinator and facilities has been provided confirming their acceptance to assist in an emergency.

The operation provides training for employees and contractors who encounter cyanide. Training include cyanide awareness training (New Miner Cyanide Recognition) and annual refresher training, which includes cyanide awareness and basic first-aid response to cyanide exposure.

The operation conducted several multi-agency field cyanide exposure drills as part of its emergency response plan evaluation during the audit period including spill response, worker rescue, and fire. The operation also undertakes monthly site field drills or ‘table-top’ emergency scenarios with employees from either ADR1, ADR2 or the PSES along with members of the MRT. The drill report includes a summary of the drill (positives and negatives, corrective actions). All drills are unannounced. A review of the drills completed showed they included worker exposure and spill (environmental release) scenarios.

Records are retained throughout an individual’s employment documenting the training they receive. The records include the names of the employee and the trainer, the date of training, the topics covered, and if the employee demonstrated an understanding of the training materials. Hard copy files of training records are kept with each area foreman while also being stored on the site intranet, Prospector.

The emergency response coordinator scans and keeps all electronic copies of training certificates for all MRT as well as tracking their expiry on a spreadsheet. This allows him to track each MRT member’s level of training and therefore what role they can have in an emergency incident. A review of a sample of training files of employees from ADR1, ADR2, the PSES Plant, the HGM, Maintenance, and MRT members showed that records are retained.

PRINCIPLE 9 – DIALOGUE

Engage in Public Consultation and Disclosure

Standard of Practice 9.1: Provide stakeholders the opportunity to communicate issues of concern.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 9.1**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 9.1; provide stakeholders with the opportunity to communicate issues of concern.

The operation undertakes many community consultation activities that provide its external stakeholders opportunities to communicate issues of concern regarding the management of cyanide. These avenues include an open-door policy, quarterly community breakfasts, monthly city meetings, membership in the Chamber of Commerce a Facebook page, and open houses. Internal stakeholders have many avenues open to communicate concerns, including regular health and safety meetings.

Standard of Practice 9.2: Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 9.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 9.2; initiate dialogue describing cyanide management procedures and responsively address identified concerns.

CC&V has created opportunities for the operation to interact with stakeholders and provide them with information regarding cyanide management practices and procedures. These opportunities include the visitor center in Cripple Creek, an open-door policy, quarterly community breakfasts, monthly city meetings, membership in the Chamber of Commerce a Facebook page, open houses, mine tours, and fact sheets. Internal stakeholders have many avenues open to communicate concerns, including regular health and safety meetings, annual refresher training and newsletters.

Standard of Practice 9.3: Make appropriate operational and environmental information regarding cyanide available to stakeholders.

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 9.3**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 9.3; make appropriate operational and environmental information regarding cyanide available to stakeholders.

CC&V has developed written descriptions, fact sheets and site brochures of how their activities are conducted and how cyanide is managed. These are available to employees, local communities, and interested parties through the tours and the visitors center. CC&V also disseminates information verbally via meetings, open houses, and mine tours. The operation has the mechanisms to make information publicly available on the cyanide release or exposure incidents.

CC&V are required to report any actual or potential cyanide releases or exposure incidents to regulators as part of their licensing requirements. Also, Newmont's website Beyond the Mine includes a sustainability report, which reports on cyanide management including incidents and Code summary data. These data provide information to the public on incidents and releases. CC&V had three incidents during the recertification period that met the criteria "cyanide released on or off the mine site required reporting under applicable regulations". None of these spills were considered significant as per Newmont classification matrix. These spills occurred within the mine property. The auditors reviewed the investigation reports on these cyanide spills to confirm that they were reported to the regulators as required.

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