REPORT

ICMC Recertification Summary Audit Report

Wharf Mine, South Dakota, USA

Submitted to:

International Cyanide Management Institute (ICMI)

1400 I Street, NW - Suite 550
Washington, DC 20005
United States of America

Submitted by:

WSP USA Inc.

7245 W Alaska Drive, Suite 200
Lakewood, Colorado, USA 80226

+1 303-980-0540

US0038471.0627-002-RPT-1

February 24, 2025

Distribution List

WHARF - 1 PDF

ICMI - 1 PDF

Table of Contents

FIGURES

1 SUMMARY AUDIT REPORT FOR GOLD AND SILVER MINING OPERATIONS

Name of Mine:	Wharf Mine
Name of Mine Owner	Coeur Mining, Inc.
Name of Operator:	Wharf Resources (USA), Inc.
Name of Responsible Manager:	Mr. Ken Nelson, Mine General Manager
Address:	Wharf Resources (USA), Inc 10928 Wharf Road, Lead, South Dakota 57754
State/Province:	South Dakota
Country:	United States
Telephone:	+1 605-584-1441
E-Mail:	knelson@coeur.com

2 LOCATION DETAIL AND DESCRIPTION OF OPERATION

2.1 Mine Location

The Wharf Mine (Wharf) is located in the Northern Black Hills of South Dakota; approximately five miles west of the town of Lead in Lawrence County, USA (Figure 1).

Figure 1: Regional Location Map

2.2 Background

The Wharf mine is an open-pit, heap leach, gold operation. Coeur Mining, Inc. (Coeur) acquired Wharf from Goldcorp Inc. in February 2015. Wharf Resources (USA), Inc., a subsidiary of Coeur, is the operator of Wharf, which was under Coeur management over this entire International Cyanide Management Code (ICMC or the Code) audit cycle. The property consists of several areas of adjoining gold mineralization, mined as a series of open pits.

Haul trucks transport run-of-mine ore to the crushing plant where a three-stage crushing circuit reduces the ore to a nominal size of 80% minus ½-inch diameter. Granulated lime, added to the ore during crushing, provides control of the pH in the leach solution during processing.

Haul trucks transport crushed ore to one of five on/off heap leach pads for placement in 20-foot lifts to a maximum height of 150 feet above the pad liner. The five leach pads used for ore processing cover approximately 70 acres with a capacity of nine million tons. The pad design includes double synthetic liners on top of an eight-inch-thick layer of compacted clay, with a leak detection, collection, and recovery system (LDCRS) located between the two synthetic liners. Drip emitters on the top of each lift and wobbler-type sprinklers and/or emitters on the side slopes distribute a dilute, alkaline sodium cyanide solution (i.e., barren process solution) through the crushed ore. Buried drip lines are the primary solution distribution method, which mitigates potential freezing, reduces evaporation and minimizes ponding. As the solution percolates down through the ore, gold leaches from the ore into solution and

the gold bearing (pregnant) process solution gravity flows through pipelines to the Adsorption, Desorption and Refining (ADR) plant (Process Plant). The leaching process is usually complete (i.e., full economic recovery of gold from the ore) within approximately 12 to 18 months after the leach pad is completely loaded with ore.

Following completion of active leaching, the pad enters the neutralization/denitrification stage. Pad neutralization utilizes hydrogen peroxide to destroy the sodium cyanide in the pad effluent to target levels required for denitrification plant influent, which is a weak acid dissociable (WAD) cyanide concentration below 0.5 milligrams per liter (mg/L).

Wharf then utilizes a carbon-in-column (CIC) circuit at the Process Plant to remove metals from the pad effluent to meet surface water quality for discharge. From the CIC circuit, the solution reports to the denitrification circuit for nitrate destruction, comprised of two biological denitrification plants and a heated pond, which acts as a biological reaction cell. The biological denitrification process utilizes bacteria to remove the oxygen from the nitrates and nitrites, chemically reducing them to inert nitrogen gas. Upon completion of nitrate destruction in the solution stream, solution reports back to the leach pads through the same piping network used to convey the original barren process solution. The five-pad system allows the availability of one pad (at minimum) for each phase of the processing cycle at any given time.

Denitrification continues until the spent ore meets the criteria for off-loading. The State of South Dakota and Wharf both sample the pad effluent solution and verify the results through third party analysis. The spent ore is trucked to an approved spent ore storage area (i.e., the mine pits) when approved for removal from the leach pad. Approval for removal includes a WAD cyanide concentration below 0.5 mg/L in the draindown solution.

Pregnant Leach Solution (PLS), collected in the dams at each leach pad, reports to the PLS Sump located at the Process Plant. From the PLS Sump, the solution reports to the adsorption circuit, which consists of four separate CIC trains (three when neutralization is ongoing) containing activated coconut shell carbon to remove the dissolved metals (primarily gold and silver) from the PLS. Once the metals adsorb onto the carbon, the “loaded” carbon is transferred to the elution circuit where gold and silver are stripped from the loaded carbon using a modified Zadra process. Stripped carbon is then acid washed utilizing concentrated acetic acid, pH adjusted with caustic, reactivated at 1,300 degrees Fahrenheit, and then returned to the CIC process.

The modified Zadra process incorporates a heated sodium hydroxide solution under high pressure, which forces the precious metals back into solution at high concentrations, creating a rich electrolyte solution. The electrolyte solution then passes through a series of electrowinning cells where the precious metals are plated, producing a precious metal sludge. Wharf then ships the sludge to a third-party refinery for further processing. Alternatively, Wharf has the capability to produce gold/silver doré in the on-site refinery using a furnace to smelt the sludge.

Wharf ships carbon fines off site for precious metals removal. Wharf also ships spent environmental carbon, used for either cyanide or mercury collection, off site for approved disposal.

Over this current audit cycle, Wharf has purchased: 1) liquid sodium cyanide from Cyanco Company, L.L.C. (Cyanco), delivered to the site in tankers mounted on trailer chassis from 2022 to March 2024, and 2) sodium cyanide briquettes delivered in ISO tanks, produced by Draslovka Mining Solutions (Draslovka) since April 2024. Liquid sodium cyanide was delivered as a 30% aqueous solution and sodium cyanide as briquettes to be dissolved into a 30% aqueous solution. Thus, the WAD cyanide concentration of the solution delivered to the site is 300,000 mg/L or parts per million (ppm). Aside from this reagent-grade cyanide, Wharf targets the cyanide concentration of

the barren solution to maintain WAD cyanide concentrations in the PLS below 50 mg/L in open waters throughout the process circuit.

A simplified Process Plant flowchart is presented in Figure 2.

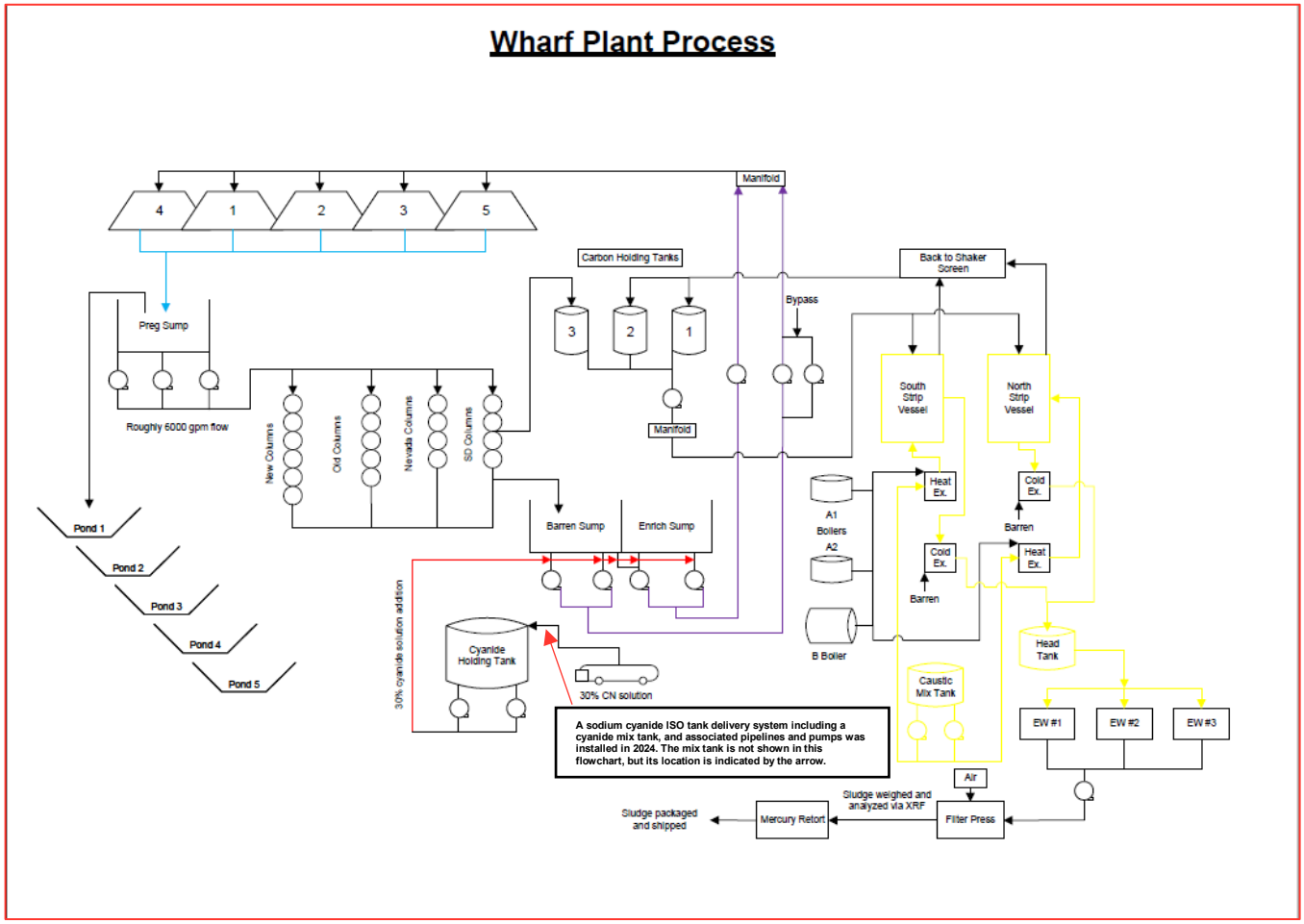


Figure 2: Simplified Process Plant Flowchart

2.3 Cyanide Facilities

The cyanide facilities (as per Code's definition as any facility containing solution with a WAD cyanide concentration of 0.5 mg/L or greater) consist of the following:

- Cyanide offloading and storage area (cyanide offloading pad, cyanide mix tank, cyanide storage tank and corresponding secondary containments, pipelines, pumps, hoses and valves)
- Process Plant including:
  - Process tanks and sumps
  - CIC Tanks: New Columns (6), Old Columns (5), Nevada Columns (4) and South Dakota Columns (4)
  - Associated pumps, piping, valves, supports, transfer and handling systems

- Associated concrete secondary containments (floors, curbs, stem walls, sumps)

- Heap leach facilities including:
  - Pads (1, 2, 3, 4 and 5)
  - Process ponds: Pregnant Pond, Barren Pond, Overflow Pond and Contingency Pond
  - Process solution pipelines and secondary containment channels
  - Associated pumps, piping, and LDCRS
- Cyanide treatment system including the neutralization tank, Neutralization Pond and associated pumps, piping, concrete secondary containment and LDCRS.

The Neutralization Pond, located near the Process Plant is used to denitrify plant influent. Water from the process ponds reports either to the Process Plant or alternatively is transferred from the Neutralization Pond (only if WAD cyanide concentration is below 0.5 mg/L) to either the Reliance Pond or Ross Valley Holding Pond (non-cyanide process ponds). Wharf currently operates under Surface Water Discharge Permit No. SD0025852. Under this permit, there are two allowable discharge points from the Ross Valley Treatment Plant (a non-cyanide facility): Station 006A (Annie Creek downstream of Reliance Pond) and Station 006B (Ross Valley Creek downstream of Ross Valley Pond). Wharf can also discharge treated water via land application under a technical revision to its Large Scale Mining Permit with the South Dakota Department of Agricultural and Natural Resources (DANR) via the Portland Spray System located at the old Deep Portland Pit.

Laboratories and refineries are two uses of cyanide at gold mines not required to be evaluated under the Code, and therefore they have been excluded from this audit.

Wharf was initially certified with the Code on January 03, 2013, and last recertified on April 08, 2022. This recertification cycle covers the period from April 2022 to the present.

Of the cyanide facilities mentioned above, the only new cyanide facility installed and put in operation since the 2022 recertification audit was a sodium cyanide ISO tank delivery system. The system allows for the delivery of sodium cyanide in briquettes and included the installation of a cyanide mix tank and associated pipelines, pumps, hoses, overhead metal platform and valves to dissolve the briquettes into an aqueous solution. Wharf installed this new system in April 2024 to allow the ability to receive sodium cyanide briquettes in ISO tanks in addition to liquid cyanide in tankers. Wharf started to use a new cyanide producer and transporter in April 2024 as discussed in Section 3.0 of this report.

Wharf has not had any “significant cyanide incidents” subject to the notification requirements of the ICMI (as per Section VI.A of the Code's Signatory and Certification Process document) during this recertification period. Wharf had one on-site cyanide release, not considered significant as per Code’s definition, which is discussed as a reportable release in Standard of Practice 9.2. This cyanide release has been reported to regulators as per permit requirements as indicated in Standard of Practice 9.2.

3 SUMMARY AUDIT REPORT

Auditors Findings

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

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

Audit Company: WSP USA Inc.

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

Email: ivon.aguinaga@wsp.com

Name of Other Auditors

Name, Position	Signature
None	

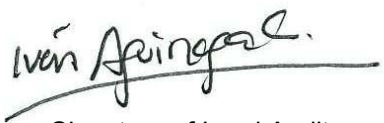
Dates of Audit

The recertification audit was undertaken over four days, from September 16 to 19, 2024.

I attest that I meet the criteria for knowledge, experience, and conflict of interest for Code Verification Audit Team Leader, established by the 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 Mining Operations Verification Protocol and using standard and accepted practices for health, safety, and environmental audits.

Wharf Mine
Name of Facility



Signature of Lead Auditor

February 24, 2025
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.

The operation is

☒ **in full compliance with**

☐ 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.

Over this audit cycle, Wharf has purchased sodium cyanide manufactured by Cyanco in its production facility in Winnemucca, Nevada until March 2024 as well as by Draslovka in its production facility in Memphis, Tennessee from April 2024 to the present.

The Cyanco production facility was initially certified in October 2006 and most recently recertified with the Code in January 2023. The Cyanco transloading facility in Cheyenne, Wyoming, was initially certified in February 2017, and most recently recertified in March 2024. The Draslovka production facility (including its packaging facilities in Woodstock, Tennessee and Carlin, Nevada) was initially certified in June 2006 (under a previous owner) and most recently recertified with the Code in May 2023. Therefore, Wharf has only purchased sodium cyanide manufactured at facilities certified with the Code.

The auditor verified compliance through the review of the Cyanco and Draslovka summary audit reports posted on the ICMI website. The auditor also reviewed examples of bills of lading to confirm the origin of the sodium cyanide delivered to Wharf.

PRINCIPLE 2 – TRANSPORTATION

Protect Communities and the Environment during Cyanide Transport

Standard of Practice 2.1: **Require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training, and emergency response.**

☒ **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; require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training, and emergency response.

Wharf has maintained copies of bills of lading from Cyanco and Draslovka describing the entire cyanide transportation supply chain from their production facility to the mine site. Also, a letter from Draslovka described the Draslovka cyanide transportation supply chain. In addition, the summary audit reports posted on the ICMI website identify all the elements of the cyanide supply chain.

The Cyanco cyanide transportation supply chain elements included the Cyanco production facility in Winnemucca, Nevada; the Cyanco North American rail and truck supply chain; the Cyanco transload facility in Cheyenne, Wyoming; and transportation to the mine site by TransWood. The Draslovka cyanide transportation supply chain elements include the Draslovka production facility in Memphis, Tennessee and its adjacent packaging facility in Woodstock, Tennessee; the Draslovka US and Canada rail and barge supply chain; the Draslovka packaging facility in Carlin, Nevada; and transportation to the mine site by Quality Carriers. All are certified with the Code.

Compliance was verified by reviewing the summary audit reports (related to all the elements of the cyanide supply chain) posted on the ICMI website, as well as the Draslovka letter and examples of bills of lading for the recertification period.

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.

Wharf has designed and constructed their cyanide offload and storage facilities in accordance with cyanide producers' guidelines, applicable jurisdictional rules and sound and accepted engineering practices. In April 2024, Wharf completed the installation and commissioning of a sodium cyanide ISO tank delivery system for the delivery of sodium cyanide in briquettes. This new system included the installation of a cyanide mix tank (within the existing concrete secondary containment of the cyanide storage tank) and associated pipelines, pumps, hoses, overhead metal platform and valves. The new system can 1) dissolve the briquettes into an aqueous solution by recirculating water through the ISO tank and cyanide mix tank until the briquettes are fully dissolved, and 2) transfer the dissolved solution from the ISO tank to the cyanide mix tank, and then from the mix tank to cyanide storage tank. Wharf installed this new system to allow the ability to receive sodium cyanide briquettes in ISO tanks in addition to liquid cyanide in tankers (as delivered historically). This is the only new cyanide facility that was installed and commissioned since the 2022 recertification audit. The sodium cyanide ISO tank delivery system was designed by following the design criteria provided by Draslovka, the current cyanide producer. The mechanical and structural design of the system including the cyanide mix tank was developed by TSP Inc. and the piping design was developed by Rasmussen. The design and as-built drawings of the system are stamped by professional engineers. Draslovka conducted a comprehensive review of the design and construction quality control measures and has confirmed that the system was designed and constructed to meet all their specifications. The auditor reviewed a letter from Draslovka confirming this. The auditor also reviewed a document and drawing with Draslovka design recommendations and the stamped design and as-built drawings.

Besides the new ISO tank delivery system, no other physical changes have occurred to the offload and storage facilities evaluated during this audit cycle. As indicated in the 2022 and 2019 recertification audit reports, the design of the original cyanide offload and storage facilities were evaluated and found fully compliant during the 2013 initial audit and 2016 recertification audit; and remain compliant this audit cycle. The auditor observed the cyanide offload and storage facilities to be in good condition at the time of the site visit.

The cyanide offload and storage facilities are located away from people and surface water bodies. These facilities are also located in a secure area with adequate ventilation to prevent the build-up of HCN gas. The cyanide offload area is located outside on the north side of the Process Plant. The cyanide storage tank and the cyanide mix tank

are also located outside on the west side of the Process Plant. A fixed hydrogen cyanide (HCN) gas monitor is located inside the pump house shed (a small, prefabricated plastic structure) housing the distribution pumps for the cyanide storage tank. The cyanide storage tank, the cyanide mix tank and their associated pumps are within a chain link fence with a locked gate. During cyanide offload events, Wharf barricades all access points to the cyanide offload and storage facilities. All the cyanide valves of the cyanide offload and storage areas are secured (via locks and blind flanges) to prevent inadvertent opening and potential exposures. There is no public access near the Process Plant and process ponds. Only authorized personnel can enter the area of the cyanide storage tank and the cyanide mix tanks. Therefore, the offload and storage areas are secure and away from people.

The cyanide offload pad is a reinforced concrete slab placed over a polystyrene barrier that, in combination, minimizes seepage to the subsurface. The low point of the offload pad contains a drainpipe inside a larger diameter pipe that runs to the adjacent Overflow Pond, thus providing secondary and tertiary containment of any leakage from the tanker. Wharf also installed the cyanide storage tank and the cyanide mix tank within a reinforced concrete secondary containment that prevents seepage to the subsurface. Both tanks rest on several railroad rails to allow detection of leaks from the insulated tank. A pipe-in-pipe drain, located at the low point of the storage tank secondary containment area, reports to the adjacent Overflow Pond. Also, the newly installed pipelines associated with the new ISO tank delivery system are either located over the concrete secondary containment of the cyanide storage and the mix tanks or have a half-pipe as secondary containment to prevent any release to the environment. During the site visit, the auditor observed the offload pad, the tank secondary containment and the secondary containment of the overhead pipelines related to the ISO Tank Delivery System to be in good condition.

Wharf has implemented a method to prevent the overfilling of the cyanide storage tank and the cyanide mix tank by installing a level sensor and alarms (both audible alarms and flashing lights) at each tank. Wharf indicated that they monitor cyanide consumption and compares the consumption rates to the readings provided by the tank level instrumentation to verify that the instrumentation is functioning properly. Also, tank levels are checked before and after a cyanide offload and documented on the cyanide offload checklist.

The cyanide storage tank and the cyanide mix tank are in an isolated area separate from incompatible materials such as acids, oxidizers, and explosives, as well as separate from foods, animal feeds, and tobacco products.

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.**

☒ **in full compliance with**

The operation is

☐ 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.

Wharf has received liquid sodium cyanide in tankers or sodium cyanide briquettes in ISO tanks, which are dissolved via an enclosed dissolving system.

The empty tankers and ISO tanks are returned to the cyanide producer immediately after the offload is completed. Therefore, no empty cyanide containers require disposal.

Once the offload is complete, the driver and the spotter inspect the tanker or ISO tank to ensure that the offload pad is free of debris and drips, that the tanker or ISO tank is not dented or leaking, that all valves are closed, and caps are back in place. If any drips or spills occurs, they will be cleaned up as part of this inspection.

Wharf has implemented procedures to prevent exposures and releases during cyanide offloading. These procedures address operating valves, timely cleanup of spills, required personal protective equipment (PPE), and the use of a spotter for safety during the offload. These procedures also cover the inspection of the hoses, valves and couplings used for offloading sodium cyanide, which is done by the delivery driver before the offload starts. The maintenance of the hoses, valves and couplings used for offloading sodium cyanide in briquettes is conducted by Wharf, but it was done by Cyanco when Wharf received liquid cyanide. Over the recertification period, Wharf received sodium cyanide with Carmoisine dye from Cyanco until March 2024 as well as with the FD&C #40 red dye from Draslovka starting in April 2024.

A cyanide offload event was observed during the site visit to verify the implementation of the offload procedures. Process personnel and the cyanide offload spotter were also interviewed. In addition, the auditor reviewed the bills of landing from Draslovka, and the Cyanco and Draslovka Safety Data Sheets (SDSs) for sodium cyanide solution indicating the addition of the dye.

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.**

☒ **in full compliance with**

The operation is

☐ 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.

Wharf has developed and implemented written management and operating plans and procedures for all their cyanide facilities. The cyanide facilities (i.e., facilities with concentrations of WAD cyanide greater than or equal to 0.5 mg/L) evaluated during this audit cycle include the following:

- Cyanide offloading and storage area (cyanide offloading pad, cyanide mix tank, cyanide storage tank and corresponding secondary containments, pipelines, pumps, hoses and valves)
- Process Plant including:
  - Process tanks and sumps
  - CIC Tanks: New Columns (6), Old Columns (5), Nevada Columns (4) and South Dakota Columns (4)
  - Associated pumps, piping, valves, supports, transfer and handling systems
  - Associated concrete secondary containments (floors, curbs, stem walls, sumps)
- Heap leach facilities including:
  - Pads (1, 2, 3, 4 and 5)
  - Process ponds: Pregnant Pond, Barren Pond, Overflow Pond and Contingency Pond
  - Process solution pipelines and secondary containment channels
  - Associated pumps, piping, and LDCRS
- Cyanide treatment system including the neutralization tank, Neutralization Pond and associated pumps, piping, concrete secondary containment and LDCRS (WAD cyanide concentrations at this system have been below 0.5 mg/L over the entire recertification period but is listed as cyanide facility in this report since this system can handle cyanide solution in case of an upset condition)

The Neutralization Pond, located near the Process Plant is used to denitrify plant influent. Water from the process ponds reports either to the Process Plant or alternatively is transferred from the Neutralization Pond (only if WAD cyanide concentration is below 0.5 mg/L and a Pond Transfer Permit is approved) to either the Reliance Pond or Ross Valley Holding Pond (non-cyanide process ponds). The auditor reviewed a representative set of Pond Transfer Permits to verify that WAD cyanide concentrations were less than 0.5 mg/L for the transfers occurred during this recertification period.

Operating procedures cover procedures for the safe operation of the entire cyanide management at Wharf. The procedures include process descriptions, operating tasks, inspections, maintenance, and contingency procedures. Each procedure details task-specific measures and PPE requirements.

Wharf has procedures that identify the assumptions and parameters on which the facility design was based and that address any applicable regulatory requirements including pond freeboards, pond capacities, action levels for different precipitation events (rain and snow events), monitoring requirements, discharge limits, and others. In addition, Wharf has developed procedures for non-standard operating situations that have the potential for cyanide exposures and releases including actions. These contingency procedures include actions for water balance upset conditions, different scenarios of flow into the LDCRS at the ponds and pads, contaminated surface flow down a dry drainage, contaminated groundwater, contaminated surface water, and others. Wharf has a procedure that provides actions for short-term and long-term temporary shutdown scenarios. The auditor verified compliance by reviewing written procedures and by interviews with process and safety personnel.

Wharf has developed a procedure that describes the measures to ensure that changes are evaluated for potential environmental, safety and health risks, and that appropriate actions are taken to ensure existing performance levels are not compromised. This procedure also addresses the requirements for managing planned and unplanned or emergency changes. The procedure includes a form to be filled out for evaluation of the proposed changes by the proposer with sign-off by supervisors up to the Mine General Manager, based on the level of the change. Wharf provided the completed management of change form and associated risk assessment conducted to evaluate and approve the installation of the ISO Tank Delivery System. This change was evaluated and signed by the various department managers including the process, environmental, and health and safety managers.

Wharf has inspected the cyanide facilities on an established frequency sufficient to assure and document that they are functioning within design parameters. The inspection frequencies are every shift, daily, weekly, monthly or annually depending on the facility. The inspections cover all cyanide facilities and activities including cyanide offloading and storage areas, the Process Plant, ponds and the heap leach pads. Wharf conducts inspections of process tanks, pipelines, pumps, valves and secondary containments for physical integrity, the presence of leaks, available capacity for the secondary containments, and others. Wharf also conducts inspections of the LDCRS for the ponds and heap leach pads. In addition, Wharf inspects the ponds for water levels and for wildlife presence and mortality. The heap leach facilities are located on a ridge top that is the headwaters for several drainages. As such, there are no upgradient surface water diversion structures that require inspection.

Inspections are documented. The inspection forms include the name of the inspector, date and observed deficiencies. Corrective actions are documented through work orders. The auditor reviewed completed examples of the inspection forms to verify compliance. During the site visit, the auditor also verified that the facilities were in good condition.

Wharf has implemented a maintenance program to ensure that equipment and devices function as necessary for safe cyanide management. Wharf uses a written procedure for Preventative Maintenance and Oracle software to manage its maintenance activities, which includes both preventative (scheduled) maintenance and corrective (unscheduled) maintenance. The program includes cyanide facilities in all process areas, including the cyanide offloading and storage areas, Process Plant, ponds, and heap leach pads. The program covers the fixed HCN monitors, tanks, pumps, back-up generators, and others.

Wharf has three backup generators (two 1,750-kilowatt generators and a 600-kilowatt generator) to prevent unintentional releases and exposures. The generators can power the entire solution management system during power outages, as well as both process and administrative operations. Wharf has regularly maintained the backup generators throughout the recertification period, as evidenced by a maintenance schedule and examples of completed maintenance forms.

Standard of Practice 4.2: Introduce management and operating systems to minimize 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.

Standard of Practice 4.2 is not applicable because Wharf does not have a mill or generate tailings.

Standard of Practice 4.3: Implement a comprehensive water management program 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.

Wharf developed a comprehensive and probabilistic water balance in 2011. Wharf has continued to use this water balance model without changes since 2011. In 2024, Wharf contracted Haley & Aldrich Inc. (Haley & Aldrich) to conduct a review of the 2011 water balance model. Haley & Aldrich has confirmed that: 1) the water balance model remains a valid tool for assessing the status of the capacity of the cyanide facilities for storage of expected fluid volumes associated with the leaching circuit and meteoric event inputs; and 2) that the water balance model logic employed reflects the current working of the heap leach pads, ponds and fluid management systems.

No physical changes have occurred to the Wharf fluid management systems including the heap leach pads and ponds or to the operational parameters since the 2022 recertification audit; therefore, the findings presented in the 2022 recertification audit report remain valid. The model is comprehensive in that it considers the application rate at which solutions are applied to leach pads, an ore loading schedule, on-site measured precipitation data, and the effects of unplanned power outage. The model also incorporates discharges to surface water via the treatment system and considers freezing and thawing via the rain-on-snow event. The mine is located on a ridge and the cyanide facilities do not have uphill run-on areas. The water balance is probabilistic in that it includes extreme events and climate wet cycles. The extreme events include the 100-year, 24-hour storm event of 5 inches and the state-mandated storm event of 19.6 inches (nearly the Probable Maximum Flood of 22.5 inches) between all the ponds on site (process and non-process ponds).

Wharf has designed and operated ponds with adequate freeboard above the maximum design storage capacity. Wharf maintains three feet of freeboard in the Contingency Pond. The process ponds are configured with spillways such that the Pregnant Pond overflows to the Barren Pond, which in turn overflows to the Overflow Pond, which in turn overflows to the Contingency Pond. Additionally, the Neutralization Pond overflows to the Contingency Pond. Wharf pumps water from the Contingency Pond to the Neutralization Pond after destruction of the cyanide in the Contingency Pond. Therefore, the Contingency Pond is the only process pond with the potential to overtop. Wharf also maintains a target pond capacity of 19.6 inches (nearly the size of the 6-hour Probable Maximum Flood) as required by the DANR. Wharf has discharged water via approved permit following proper treatment during periods of 2022, 2023 and 2024 to maintain the target pond capacity of 19.6 inches. Wharf conducts inspection and monitoring activities to implement the water balance and prevent overtopping of ponds and unplanned discharge of cyanide solutions to the environment. Each process pond is equipped with an automated sensor for monitoring pond levels. Also, pond levels are recorded by the operators during daily inspections. Wharf updates the water balance daily with both precipitation and pond levels specifically to avoid overtopping incidents. The auditor reviewed pond level and capacity data for the recertification period to verify compliance.

Wharf maintains one weather station located at the Process Plant equipped with a rain gauge that records precipitation daily. These records are tracked and used on the daily updates of the water balance, which provides continual comparison of results to design and operating parameters. In 2014, Haley & Aldrich conducted a review of the meteorological data and hydrologic analysis (prepared by FMG Inc. in 2009) considered in the water balance model based on the most recent meteorological data available for the site and has confirmed the adequacy of the hydrologic analysis and the storm events considered in the water balance model.

The auditor reviewed the letters from Haley & Aldrich confirming the adequacy of the climate data and the water balance model, the Water Balance Training Manual, the water balance model in Excel and the Excel file “Leak Detection rev 5.xlsm”. The auditor also interviewed environmental personnel to verify compliance.

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.

Wharf has installed an eight-foot high, wire-mesh game fence surrounding the perimeter of the mine site to restrict access by wildlife. Wharf maintains the fence and inspects it annually as part of the Game/Fence/Gate Inspections. In addition, Wharf maintains the WAD cyanide concentrations in open waters below 50 mg/L as required under the procedure entitled “Maintain WAD in Open Waters below 50 PPM”. Wharf has demonstrated that the WAD cyanide concentrations have been less than 50 mg/L in open waters (i.e., Pregnant Pond, Barren Pond, Overflow Pond, Contingency Pond and Neutralization Pond) without physical restrictions over the recertification period with a few isolated exceptions. The auditor reviewed WAD cyanide data for the ponds over the recertification period to verify compliance.

Wharf has prevented significant wildlife mortality by maintaining WAD cyanide concentrations less than 50 mg/L. Wharf has reported eight wildlife mortalities. Wharf has prevented significant wildlife mortality by maintaining WAD cyanide concentrations less than 50 mg/L. Wharf has reported eight wildlife mortalities. However, only two of the wildlife mortalities were related to contact with open waters associated with the cyanide facilities and occurred in the Contingency Pond (one in August 2022 and the other in October 2024). The WAD cyanide concentration in the Contingency Pond was 0.04 mg/L and 0.25 mg/L, respectively, at the time of these two wildlife mortalities.

Wharf applies process solution to both the top surface and side slopes of the heap leach pads. Wharf applies cyanide solution to the top surface of the leach pads via aboveground distribution headers and buried drip emitters. Emitters are also used on the side slopes of the heap leach pads. This approach inherently limits the potential for ponding and eliminates the overspray from the top surface. Wharf applies process solution to the side slopes of the heaps using spray wobblers located on benches occasionally during summer months.

Wharf implements the Procedure for Ponding and Secondary Containment to manage ponding on the pads if it occurs. The auditor observed the leach pads that were being actively leached during the site visit to verify compliance. The auditor did not identify any areas of significant ponding or areas of overspray off the leach pad liner.

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

Wharf currently operates under Surface Water Discharge Permit No. SD0025852. Under this permit, there are two allowable discharge points from the Ross Valley Treatment Plant (not a cyanide facility): Station 006A (Annie Creek downstream of Reliance Pond) and Station 006B (Ross Valley Creek downstream of Ross Valley Pond). Wharf has only discharged treated water from Station 006A during this audit cycle. Wharf has sampled the discharged water and reported the sample results in monthly Monitoring Reports to DANR. The auditor reviewed WAD cyanide data at Station 006A, which showed all results were below the detection limit of 0.010 mg/L over the recertification period.

Wharf has also discharged treated water via land application under a technical revision to its Large Scale Mining Permit with DANR via the Portland Spray System located at the old Deep Portland Pit. Wharf provided the written reports for land application submitted to DANR for each discharge episode this audit cycle. The reports showed all WAD cyanide results were below the detection limit of 0.010 mg/L over the recertification period.

Surface Water Discharge Permit No. SD0025852 does not include any established mixing zones. The permit includes acute (daily maximum) and chronic (30-day average) surface water standards for WAD cyanide. In accordance with Permit No. SD0025852, surface water is monitored at Stations 001, 002, 003, and 005. These stations are also established to detect indirect discharges to surface water, if any. Station 003 has not had any flowing water during the recertification period, and consequently, there are no data. WAD cyanide data for Stations 001, 002 and 005 showed that all results were below the detection limit of 0.010 mg/L and below the acute and chronic surface water standards for WAD cyanide. Since the free cyanide component in a sample cannot be greater than the WAD cyanide component; the water quality data demonstrate that if any indirect discharge to surface water has occurred, it has not resulted in a free cyanide concentration greater than 0.022 mg/L.

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.

Wharf has implemented measures to manage seepage from cyanide facilities to protect the beneficial uses of groundwater. The leach pads are constructed with a double liner and an LDCRS wherein collected solutions are pumped from the underdrain system to the process ponds. Pipes associated with the heap leach pads are contained within HDPE-lined secondary containment channels that flow back to the process ponds in the event of leakage. The process ponds are triple-lined with an LDCRS consisting of a primary (upper) and secondary (lower) layer. The entire leach pad, channel, and pond areas are an integral liner and LDCRS. The Process Plant and the cyanide offload and storage facilities have concrete secondary containments for tanks. Also, cyanide pipelines are located over concrete containment, within HDPE-lined containment channels, constructed as pipe-in-pipe systems or within a half-pipe as secondary containment in the case of 31 feet of overhead pipelines associated with the ISO Tank Delivery System. The concrete secondary containments all ultimately drain to the process ponds, thus providing tertiary containment and further protection of groundwater. Wharf conducts regular inspections and monitoring of all process facilities to ensure to ensure physical integrity of these protective systems.

Wharf's facilities are located within the Madison aquifer, which has a designated use of drinking water. DANR has established a standard of 0.75 mg/L for WAD cyanide in groundwater. The standard for free cyanide in drinking water at the point of use is 0.2 mg/L (However, there are no nearby actual points of use downgradient of the cyanide facilities as determined through interviews with environmental personnel). There is no standard established for total cyanide. Wharf monitors groundwater at the cyanide facilities (i.e., the heap leach pads and process ponds) at nine monitoring wells and downgradient of these facilities at three monitoring wells. The auditor reviewed WAD cyanide data that showed results for all the wells were less than the detection limit of 0.010 mg/L during the recertification period.

The question regarding use of mill tailings as underground backfill is not applicable because the operation does not have a mill or underground workings.

Wharf has not caused cyanide concentrations of groundwater to rise above levels protective of beneficial use and therefore is not engaged in groundwater remediation.

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.

Wharf provides spill prevention or containment measures for all cyanide-related tanks and pipelines.

The cyanide storage tank and the cyanide mix tank reside within a reinforced concrete secondary containment. The process tanks located inside the Process Plant building also reside within secondary containment provided by the building's reinforced concrete floor and stem walls. The secondary containment provided for the cyanide offload pad, the cyanide storage tank, the cyanide mix tank, and the process solution tanks inside the Process Plant building all ultimately drain by gravity to the Overflow Pond, which acts as a tertiary containment.

The secondary containment for the cyanide storage tank and the mix tank has a capacity to approximately hold 138% of the largest tank volume (Note that the secondary containment of the 25, 000 gallon cyanide storage tank was originally designed to hold three tanks in total [two tanks of 25,000 gallons and a smaller tank], and therefore the installation of the 25,000-gallon cyanide mix tank in 2024 with the same volume of the cyanide storage tank has not reduced the design capacity of this secondary containment).

The secondary containment provided by Process Plant floors and stem walls was not designed with a specific containment capacity; however, the Overflow Pond, acting as a tertiary containment, provides adequate containment capacity for all of the process tanks. In addition to these containment measures, Wharf implements the Procedure for Ponding and Secondary Containment, which provides measures for characterizing the spilled solution and pumping it back into primary containment. The auditor observed the secondary containment areas to be in good condition during the site visit. The auditor also reviewed the Procedure for Ponding and Secondary Containment and interviewed process personnel to verify compliance.

Wharf has constructed all pipelines with spill prevention or containment measures to collect leaks and prevent releases. All reagent-grade cyanide pipelines are located over concrete containment, constructed as pipe-in-pipe systems or within a half-pipe as secondary containment in the case of 31 feet of overhead pipelines associated with the ISO Tank Delivery System. These overhead pipelines and their secondary containment are located between the cyanide offload pad and the area of the cyanide storage and mix tanks, and above an area that is partially lined adjacent to the Overflow Pond. All leach solution pipelines reside within HDPE-lined containment channels that report to the Pregnant Pond. The leach pads, containment channels, and process ponds form an integral liner system without long runs of process pipelines. Additionally, the pipelines running between the Process Plant and leach pads are equipped with spill prevention in the form of high/low flow alarms linked to the Process Plant control room. There are no areas where cyanide pipelines present a risk to surface water that might require special protection needs. Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions. The cyanide tanks and pipelines are stainless steel and HDPE. These materials are compatible with cyanide and high pH conditions. This was confirmed by visual observations during the site visit and through interviews with process personnel.

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 quality assurance and quality control (QA/QC) programs have been implemented for all the cyanide facilities.

Construction QA/QC documentation for the cyanide facilities in operation at the time of the 2022 recertification audit, including their content, were evaluated and found compliant during the 2013 initial certification audit, and the 2016 and 2019 recertification audits.

Construction QA/QC programs were implemented in 2024 for the installation of the ISO Tank Delivery System for the delivery of sodium cyanide in briquettes (the only new cyanide facility installed during the recertification period). This system included the installation of a cyanide mix tank (within the existing concrete secondary containment of the cyanide storage tank) and associated pipelines, pumps, hoses, overhead metal platform and valves. QA/QC programs implemented for this system included pressure testing, visual inspections and other welding inspections performed by Ramussen as well as an ultrasonic testing conducted at the mix tank by Olsson.

Qualified personnel have reviewed and approved the QA/QC documentation. The auditor observed the cyanide facilities to be in good condition at the time of the site visit. The auditor reviewed QA/QC documentation as well as the design and as-built drawings of the system, stamped by professional engineers.

Wharf has retained the QA/QC records identified in the initial audit report and the 2016, 2019 and 2022 recertification audits as well as the QA/QC records for this audit cycle. Wharf has a master table of design and QA/QC evidence. The auditors checked the links in this master table to verify that electronic versions of the documents were retained.

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

Wharf has developed written procedures for water and wildlife monitoring. Written procedures for water monitoring include collection of groundwater and surface water samples, as well as for preservation, storage, handling, and documentation. Procedures also includes surface water and groundwater sampling techniques, sampling equipment, preparation of field log sheets, decontamination of sampling equipment, identification of monitoring locations, and establishment of frequencies. Also included in this documentation are the cyanide species to be analyzed as well as QA/QC requirements for cyanide analysis. Written procedures for wildlife monitoring include procedures for wildlife mortality monitoring, retrieval, and reporting. Sampling and analytical protocols been developed by appropriately qualified personnel. Sampling and analytical protocols are also annually audited by the State of South Dakota. The auditor reviewed the written procedures and interviewed environmental personnel to verify compliance.

Wharf has documented sampling conditions and field parameters (such as weather conditions, turbidity, conductivity, pH, water temperature and dissolved oxygen) in a field notebook. Chain of custody forms also include the names of the sampler and the date and time of sampling.

Wharf has conducted monitoring at frequencies adequate to characterize the medium being monitored and to identify changes in a timely manner. LDCRS are inspected daily at the ponds and weekly at the heap leach pads. Discharges and surface water have been monitored biweekly. Groundwater has been monitored monthly to quarterly. Wildlife has been monitored daily. The auditor reviewed monitoring data 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.

The Wharf Mine Cyanide Facilities Decommissioning Plan includes written procedures to decommission the cyanide facilities. Section 4.0 of this plan provides decommissioning procedures for the heap leach facilities (leach pads and process ponds), Process Plant (tanks, plant components and piping), cyanide offload and storage facilities, concrete foundations, and structures. The plan describes measures to decontaminate cyanide-related equipment by rinsing until WAD cyanide concentrations are less than 0.5 mg/L. It also describes measures for disposition of residual cyanide, neutralization of process solutions, rinsing of the pad spent ore, and management of heap leach draindown solutions by treatment (i.e., cyanide neutralization, carbon treatment, biological denitrification, and discharge via discharge permits).

The decommissioning plan also includes an implementation schedule for decommissioning activities. Wharf will commence draindown and offload of the heaps and closure of the cyanide offload and storage facilities once ore processing ceases in Year 1 and Year 2 of closure. During Year 3 to Year 5, process solution will be denitrified and discharged. Dismantlement and foundation demolition of the process facility will be completed by Year 6. Currently the end of operations is planned for 2031.

Wharf has regularly reviewed and revised its decommissioning procedures for cyanide facilities as per South Dakota bonding program requirements. The October 2021 version of this plan was updated in September 2024 during this audit cycle.

The auditor reviewed the 2021 and 2024 versions of the decommissioning plan and interviewed environmental personnel 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.

Wharf has developed closure costs for fully funding third party implementation of the cyanide-related decommissioning activities. The cost estimate covers the appropriate cyanide facilities. The costs have been calculated using the model “BONDCALC Program”, developed by the State of South Dakota. The model includes third party costs for the closure of all cyanide facilities.

Wharf has reviewed and updated its closure cost estimate annually as part of its annual ARO process. Also, the closure costs have been reviewed and approved by the State of South Dakota every three years as part of the site reclamation bond obligation. The auditor reviewed the Asset Retirement Obligation (ARO) estimates for 2022 and 2023 to verify compliance. The auditor also reviewed the 2023 Reclamation Bond Recalculation, approved by the State of South Dakota.

Wharf has established a financial mechanism through reclamation bonds, approved and held by the State of South Dakota, to cover the estimated costs for cyanide-related decommissioning activities. Wharf provided copies of nine bond instruments, approved by the State of South Dakota, that cover the reclamation bond obligation.

The auditor reviewed the bond instruments, and the 2022 and 2023 cost estimates to verify compliance.

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 eliminate, 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.

Wharf has developed and implemented procedures that describe the practices to minimize worker exposure during offloading and plant/pad operations, entry into confined spaces, and equipment decontamination. The procedures describe the specific procedures to conduct each task and adequately describe safe work practices. The procedures also detail PPE and inspection requirements. The auditor reviewed the procedures and interviewed the process and safety personnel to verify the implementation of these procedures. The auditor observed signage requiring PPE and workers wearing the appropriate PPE during the site visit.

Wharf has conducted pre-work inspections prior to cyanide offload. These pre-inspections are documented in a checklist and include the verification of the offload pad, confirmation of the cyanide solution concentration and pH (in the case of the sodium cyanide briquettes the verification of the pH is done based on the amount of caustic added to the ISO tank to reach the required pH), inspection of the tanker, verification of the cyanide storage level before and after offloading, and others. In addition, Wharf has conducted regular inspections of all its cyanide facilities including the cyanide offload and storage facilities, the Process Plant, the pads, and the ponds.

Wharf has solicited and actively considered worker input in developing and evaluating procedures. This is accomplished through direct communication between the operator and the supervisor, weekly safety meetings, and job hazard assessments. During weekly meetings procedures and safety issues are discussed. Through job hazard assessments, safety procedures and concerns are evaluated. Identified hazards/concerns are tracked and evaluated with corrective actions developed when applicable.

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.

Wharf has developed procedures that specify the pH for limiting the evolution of HCN gas during cyanide offload and production activities. Procedures specify a pH rage of 9.5 to 13.2 for the offload of liquid sodium cyanide and a pH of 12.5 for the offload of sodium cyanide briquettes (to be provided by the addition of 350 pounds of caustic to the ISO tank by the cyanide producer). Process forms specify a pH target of 9.5 to 10.5 for production facilities. The auditor reviewed bills of lading from the cyanide producers and pH data for production activities to confirm that the pH was maintained in the specified range or target value.

Wharf has identified areas and activities with potential exposure to HCN gas and has required appropriate PPE for these areas and activities. Wharf has installed fixed HCN monitors in these identified areas and requires workers to wear portable HCN monitors while performing cyanide-related activities. In addition, when a fixed or portable HCN meter goes off in the process areas, a near miss is entered in Intelex and an evaluation is conducted to identify the cause of this event and assess if additional measures are needed to prevent a potential exposure to HCN. An example of this is the installation of a barrel of bleach solution under the overflow pipe of the cyanide mix tank to mitigate any potential exposure to HCN fumes from the overflow pipe of this tank as a response to two events in 2024 associated with HCN fumes from the overflow pipe when blowing out compressed air into the mixing system during the ISO tank offload. Wharf is also in the process of executing a project to pipe both the overflow and the vent pipes of the cyanide mix tank to the Overflow Pond (located adjacent to this tank) as a long-term mitigation action associated with the HCN flume events.

The procedures also include the use of the required PPE including the use of a portable HCN meter in the areas where the cyanide is being used and during the activities described in the procedures such as cyanide offload, and plant and maintenance activities. Wharf maintains portable HCN monitors in the Process Plant and the Safety Manager's Office and other locations. The auditor observed the HCN monitors and verified the readouts were functional. The auditor also observed workers wearing the portable HCN monitors. The fixed HCN monitors alarm at 4.7 ppm. The portable monitors alarm at 4.7 ppm and 10 ppm. Both alarm settings trigger a MAYDAY event and require evacuation.

Wharf has maintained, tested, and calibrated HCN gas monitoring equipment at a frequency recommended by each manufacturer. Wharf has calibrated the fixed monitors every 90 days. Portable HCN monitors are bump tested prior to their use and calibrated every 90 days. Wharf has retained the calibration records for at least three years.

Wharf has installed signage around the cyanide offload and storage areas, Process Plant, ponds and the heap leach pads advising workers that cyanide is present, and that smoking, flames, eating, and drinking are not allowed. In addition, Wharf has labelled cyanide related tanks and piping to alert workers of their contents and the direction of flow. The auditor observed that all other cyanide related pipelines were appropriately labelled.

Wharf has installed safety showers and eyewash stations, and dry powder fire extinguishers in strategic locations throughout the process areas. The safety showers, eyewash stations and fire extinguishers are tested, inspected, and maintained on a regular basis. The auditor randomly tested selected safety showers and eyewash stations during the site visit to confirm they were operational and that water pressure in the eyewashes was not too high. Also, the auditor randomly checked selected fire extinguishers to verify they were the correct type.

SDS information for on-site chemicals is available to all employees electronically (24 hours per day, via the Wharf intranet). Additionally, hardcopies of the SDSs, and emergency and first aid procedures for cyanide exposure and releases are available in every department and in the Process Plant control room. SDS information is in English, the language of the workforce. The auditor observed the SDSs and procedures to verify compliance.

High strength cyanide solution is dyed for clear identification. Over the recertification period, Wharf has received liquid sodium cyanide from Cyanco with Carmoisine dye as well as sodium cyanide briquettes in ISO tanks from Draslovka with FD&C #40 red dye. The auditor reviewed a letter from Cyanco that indicates that they have shipped sodium cyanide with a red dye incorporated into the solution. The auditor also reviewed the bills of landing from Draslovka indicating the addition of FD&C #40 red dye. In addition, the auditor reviewed both the Cyanco and Draslovka SDSs for sodium cyanide solution that indicate the use of the Carmoisine dye and FD&C #40 red dye, respectively.

Wharf has developed and implemented procedures for investigating and evaluating all incidents, including cyanide exposures and releases, with the intent to determine if the operation's policies and programs to prevent such incidents are adequate or whether they require revision. These procedures are included in the Coeur Wharf Site Emergency Response Plan (ERP) and in the presentation entitled "Incident Reporting and Investigation". Currently, the incident investigation procedures are described and implemented through Intelex. This electronic data management program provides a variety of avenues to identify the root cause(s) of incidents, identify corrective actions, and identify actions to prevent reoccurrence. No cyanide related exposure incidents have occurred during this audit cycle. The auditor reviewed the investigation procedures as well as the Intelex report and the spill report submitted to DANR for one on-site cyanide related spill that occurred during this audit cycle to verify the implementation of the investigation procedures.

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.

Wharf has its own on-site capability (equipment and trained staff) to provide first aid assistance to workers exposed to cyanide. Wharf has water, medical oxygen, a resuscitator, cyanide antidotes, radio system, telephones, and an alarm system readily available for use at the Process Plant and the administration building. Wharf maintains cyanide antidote kits (Cyanokits and oxygen) at various locations on-site. Wharf previously had amyl nitrite ampules in the process areas and the administration building, but the ampules expired in March 2024 and were removed from the site. Automated external defibrillators (AEDs) are also available on site. Wharf has a trained Emergency Response Team (ERT) to provide first aid to workers exposed to cyanide. Wharf also has a fully equipped Mine Rescue Truck with medical oxygen and an AED to facilitate the administration of first aid treatment during cyanide exposure incidents.

Wharf inspects the first aid equipment on a regular basis. The Cyanokits and oxygen are inspected monthly by safety personnel. The Cyanokit and the oxygen located at the Plant Control Room is also inspected daily. The onsite Mine Rescue Truck is inspected twice a month. The auditors reviewed completed inspection forms to verify compliance and visually observed the Cyanokits and oxygen. The auditors had operators open the oxygen tank

valves to verify the tanks were charged. The auditors verified that the Cyanokits were stored at the temperature specified by the manufacturer and were not expired.

Wharf has developed written procedures that describe how to respond to cyanide exposures. These procedures are included in the ERP. The procedures contain sections on cyanide symptoms, first aid for cyanide exposure, decontamination, emergency transportation, and advanced medical attention. The procedures detail the necessary response to cyanide exposure through ingestion, inhalation and absorption through the skin and eyes.

The ERP indicates that the Cyanokits are to be administered by a paramedic and professional medical staff only. Wharf has developed procedures to transport workers exposed to cyanide to local hospitals for further treatment, if needed. Wharf relies on outside ambulance services for transport of cyanide exposure victims to local hospitals. Victims will be transported via ground ambulance to the Lead/Deadwood Regional Hospital (located approximately 20 minutes from the mine site) or via air ambulance (Black Hills Life Flight and Medical Air Rescue) to the Rapid City Regional Hospital. Wharf will use its Mine Rescue Truck to transport victims to the on-site helipad or other designated rendezvous location, either on-site or off-site. Wharf will provide a Cyanokit to the ambulance paramedics for transport with the exposure victim.

Wharf has made formalized arrangements with three local hospitals: Rapid City Regional Hospital, Lead/Deadwood Regional Hospital and Spearfish Regional. Wharf provided a letter to these three hospitals to inform them of the use of sodium cyanide at the Wharf Mine and to verify that the hospital staff is qualified to treat cyanide exposure patients. The three hospitals signed the letters and returned them to Wharf, verifying that the hospital staff understands the potential for cyanide exposure incidents at the Wharf Mine and that the staff is available to respond to cyanide poisoning incidents. The auditor reviewed copies of the letters sent by Wharf to the three hospitals and interviewed the Health and Safety Manger to verify compliance.

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.

Wharf has prepared an ERP and other response plans covering all areas of the mine and various types of incidents. The ERP and procedures cover scenarios applicable to the site including HCN gas release; transportation accidents; releases during offloading; releases during fires and explosions; leaks from rupture of tanks, valves, and pipes; pond overtopping; power outages and pump failures; seepage from cyanide facilities; and slope failure at the heap leach pads. Wharf utilizes a hydrogen peroxide system to destruct cyanide at the Contingency Pond and, if necessary, in the Neutralization Pond and uses the neutralized solution to rinse the pads. The Procedure for Pond Transfer includes actions for the failure of this system.

Planning for response to transportation emergencies has been addressed by both Wharf and their Code certified cyanide producer/transporter, Cyanco until March 2024 and Draslovka from April 20024 to the present. By contract, the cyanide producer/transporter is responsible for all aspects of the transport of sodium cyanide, including emergency response and cleanup/remediation, up to the delivery point at the mine site. By virtue of the certification of cyanide supply chain from the cyanide production facility to the mine site, factors such as chemical form, transportation method, road/rail conditions, and design of the transport vehicle, have been considered. Procedures for releases during offloading are addressed in the ERP.

The ERP and procedures also include procedures for evacuation of site personnel and neighboring stakeholders, cyanide first aid (including the administration of the oxygen and personnel decontamination), transport to local hospitals, qualified personnel to administer the Cyanokit, and management of cyanide spills. Procedures for spills include control of the spills at their source, spill containment, neutralization, cleanup, and monitoring. The auditor reviewed the ERP and procedures as well as interviewed the Health and Safety Manager to verify compliance.

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.

Wharf has involved its workers, stakeholders, and nearby communities in the cyanide emergency planning process and has engaged in consultation or communication with stakeholders to keep their ERP current.

Wharf has involved its workforce through weekly safety meetings, mock drills, and training. During the weekly safety meetings cyanide-related topics are discussed. Process staff and ERT members have participated in the 2022, 2023 and 2024 mock drills and have received emergency response training.

The primary involvement of outside stakeholders in cyanide-related emergencies is ambulance response and administration of the Cyanokit antidote by trained medical professionals or paramedics. Also, local hospitals will provide medical treatment as needed. The local Fire Departments would support any emergency response related to evacuation, Hazmat and offsite cyanide transportation incidents as needed. Wharf provided cyanide awareness training to the local emergency agencies through Draslovka in November 2024. This training was attended by the Deadwood Fire Department and the Lawrence County Emergency Management Department (the local ambulance service is part of this management department). Also, Wharf has tested the response of the local ambulance during actual non-cyanide related emergencies occurred on site during this audit cycle as confirmed through interview with the Health and Safety Manager.

Wharf attends quarterly Lawrence County Local Emergency Planning Committee (LEPC) meetings. LEPC members include local emergency agency representatives from Lawrence County Emergency Management, Lawrence County Search and Rescue, Spearfish Police Department, Lawrence County Sherriff, South Dakota Highway Patrol, local Fire Departments (Deadwood, Lead, Spearfish and Whitewood), Lead/Deadwood Regional Hospital, Spearfish Regional Hospital, Spearfish Ambulance Service, Black Hills Life Flight and others. During the LEPC meetings, response planning activities are discussed. Wharf sends a hard copy of their ERP annually to the LEPC (confirmed by interview with the Health and Safety Manager).

Wharf also attends the bimonthly meetings for the Terry Valley Trojan Water Project District with the Terry Valley Landowners Association (TVLA), representing the residential community located closest to the mine site (approximately 2.5 miles southeast of the cyanide facilities). During these TVLA meetings, updates regarding the mining operation and cyanide questions and/or concerns are discussed.

Wharf has made formalized arrangements with three local hospitals: Rapid City Regional Hospital, Lead/Deadwood Regional Hospital, and Spearfish Regional Hospital. Wharf provided a letter to these three hospitals to inform them of the use of sodium cyanide at the Wharf Mine and to verify that the hospital staff is qualified to treat cyanide exposure patients. The three hospitals signed the letters and returned them to Wharf, verifying that the hospital staff understands the potential for cyanide exposure incidents at the Wharf Mine and that the staff is available to respond to cyanide poisoning incidents.

The auditor reviewed mock drill reports, copies of the letters sent to the hospitals, records of training to local emergency response agencies, and records of weekly safety meetings and LEPC and TVLA meetings.

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 Site Crisis Management Plan outlines membership, roles and responsibilities of the Site Crisis Management Team (SCMT), and details specific actions the SCMT should take during crisis situations in order to minimize the impact on people, the environment, assets and reputation. This plan details the primary and alternate SCMT members, and their contact information. Wharf has an ERT Contact List that lists the ERT members per crew and includes their work area and contact information. The ERP provides the procedures for initiating and releasing a MAYDAY. Training requirements for the ERT are included in the ERT training tracking files. Wharf requires that ERT members complete training on cardiopulmonary resuscitation (CPR)/first aid, cyanide related incidents and ropes, airway and oxygen, patient assessments, life flight, self-contained breathing apparatus (SCBA) and vitals, confined space, rescue/ equipment, and others. Wharf has identified its emergency response equipment in various inspection checklists covering cyanide antidote kits, medical oxygen, the spill response kit, fire extinguishers, SCBAs, shower and eyewash stations, HCN monitors, and the Mine Rescue Truck. Wharf uses the checklists to document inspections of the emergency response equipment.

Wharf has on-site response capability for cyanide first aid, evacuation and spill control, including the use of SCBAs. Thus, Wharf relies on outside medical services (ambulance and local hospital) for transport and treatment of cyanide exposure victims as indicated in the ERP. Local response agencies for Hazmat and fire response would also provide support in the case of evacuation and offsite transportation emergencies. Wharf has confirmed that external entities identified in the ERP are aware of their involvement through written agreements with local hospitals and cyanide response training to the local emergency agencies. Wharf has invited the local ambulance to participate in the annual mock drills, but they had to cancel their participation. However, Wharf has tested the response of the local ambulance during actual non-cyanide related emergencies occurred on site during this audit cycle. The ERP also provides current contact information for outside responders, medical facilities, agencies and response consultants.

The auditor reviewed the ERP, the Site Crisis Management Plan, and training and inspection records to verify compliance.

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.

Wharf has developed an ERP and a Site Crisis Management Plan that contain procedures and contact information for notifying management, regulatory agencies, and medical facilities. These plans also contain procedures and contact information for notifying nearby communities and for communicating with the media.

Wharf has developed a procedure for notifying ICMI of any significant cyanide incidents as defined in ICMI's Definitions and Acronyms document. At the time of the audit, Wharf had not experienced any significant cyanide incidents. The auditor reviewed the procedure and the reports related to the only cyanide spill that has occurred during the recertification period (as described in Principle 9) to verify compliance.

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

Wharf has developed and implemented specific remediation measures as appropriate for the likely cyanide release scenarios. Wharf's procedures include measures to contain, recover and clean up liquid cyanide spills. Spilled cyanide solutions within the Process Plant will be returned to the process circuit. Emergency containment structures would be constructed, if necessary and possible, to minimize the extent of the release. The spill will be neutralized with sodium hypochlorite (a.k.a., bleach). The procedures describe the steps to mix the bleach solution and state the required endpoint for soil decontamination. The Spill Contingency Plan identifies where the sodium hypochlorite is stored on site to enable a rapid remediation response. The procedures also include actions to manage and/or disposal of spill clean-up debris.

The water supply well used by Wharf is located upgradient of the cyanide facilities. Wharf indicated that there are no other drinking water wells located in the immediate vicinity that could potentially be impacted by a cyanide release. Nonetheless, the ERP discusses the distribution of bottled water, as required, in the event Wharf detects

cyanide in water supplies. The supply of bottled water would continue until the well water is deemed fit for human consumption based on chemical sampling and analysis.

The Spill Contingency Plan indicates that sodium hypochlorite (bleach), hydrogen peroxide, ferrous sulfate or any other treatment chemical are not to be used to treat a cyanide release to surface water, and that this also applies to dry drainages.

Wharf has developed procedures that address the potential need for environmental monitoring to identify the extent and effects of a cyanide release. These procedures require monitoring of the affected area after cleanup and describe the final cyanide concentration allowed in residual soil as evidence that the release is adequately remediated. Wharf will consult with DANR regarding the frequency and duration of surface and groundwater monitoring in the event of a spill. Sampling and analysis of water and/or soil will follow proper United States Environmental Protection Agency protocols as outlined in the Wharf's monitoring procedures.

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.

Wharf has reviewed, evaluated, and updated its ERP at least once a year during this audit cycle. The ERP includes a table listing the history of the document. The ERP was most recently revised in September 2024. The ERP considers a review of the emergency procedures to prevent future accidents following an accident investigation as needed. This can also be applied after mock drills (per interview with Wharf's Health and Safety Manager). Wharf staff stated that such reviews have not been needed during this recertification period. The auditor reviewed the 2022 and 2024 versions of the ERP and interviewed Wharf's Health and Safety Manager to verify compliance.

Wharf has conducted mock drills to test response procedures for cyanide exposures and spills in 2022, 2023 and 2024. In addition to these annual cyanide mock drills, Wharf has had one uncontained cyanide spill over this audit cycle (as indicated under Standard of Practice 9.2). During the site's response to this spill, the site tested their entire cyanide spill response including spill containment, cleanup, neutralization, sampling, and reporting to DANR. The 2022, 2023 and 2024 mock drills have tested the entire response sequence for cyanide exposure. Each drill was accompanied by a report and an evaluation form that included follow-up actions to improve response planning. Response time was also evaluated. The estimated response time of the Lead-Deadwood ambulance with paramedics has been confirmed by actual transport via ambulance during non-cyanide related accidents (By interview with the Health and Safety Manager). The spill reports associated with the only cyanide spill outside containment that Wharf has had (during this audit cycle) also included an evaluation of the spill, as well as corrective actions to prevent a similar spill. The auditor reviewed the spill reports, the mock drill reports and evidence that follow up actions were addressed (e.g., training records) to verify compliance.

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.

Wharf has trained mine personnel and contractors that may encounter cyanide in cyanide safety and emergency response procedures. This was done through a cyanide awareness training and a spill prevention training (provided as part of Mine Safety and Health Administration [MSHA] training). The cyanide awareness presentation covers the cyanide materials present on site, cyanide physical characteristics, when HCN is present, HCN alarms, environmental exposures and spill response, potential hazards, symptoms of cyanide exposure, potential health effects, dangers of cyanide salts and solids, PPE, and first aid measures. The spill prevention training includes cyanide spill response including spill response kits, spill notification, response and clean-up procedures, and required PPE. Refresher training has been provided annually.

Wharf has retained records of cyanide training that include the names of the employee and the trainer, training dates, topics covered, and test results demonstrating an understanding of the training.

The auditor reviewed training presentations and videos. The auditor also reviewed initial training records for new employees and a contractor as well as annual refresher training records and completed quizzes to verify compliance.

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.

Wharf has task trained workers involved in offloading, production (Process Plant, process ponds and heap leach pads), and maintenance to work safely with cyanide and prevent cyanide releases using the operating procedures. Workers were trained prior to working with cyanide. Training consists of observing and learning the procedures as

well as hands-on performance. Wharf documents the training for each operating procedure on a task training checklist. Each worker has a unique checklist registering each procedure and documenting the training completion date for each procedure along with the signatures of the instructor and trainee. Wharf has developed these checklists for each operator level and process area. In addition to task specific training, safety specific training for the process areas is provided and documented in the Wharf Plant & Pad Site Specific training forms. The procedures serve as the training materials and include the necessary training elements including the purpose, required PPE, safety considerations and the individual task-specific procedures. The auditor reviewed the task training checklists of process technicians that received cyanide related task training over this audit cycle, including their completed quizzes, to verify compliance.

Wharf has used qualified staff to task train staff. Senior process personnel such as supervisors, with several years of experience in process activities, have provided the task training. Training personnel indicated that Wharf uses qualified trainers under its approved MSHA Training Plan (e.g., the Training Coordinator and Health and Safety Manager) for cyanide first aid and emergency response training.

Wharf has provided refresher task training to ensure that operators continue to perform their tasks in a safe and environmentally protective manner. This refresher training has been provided through safety meetings, and annual refresher training for cyanide awareness and spill prevention. Refresher training has also been provided by continuous training and evaluation of the process personnel as part of the process needed to graduate to a higher job classification level. The auditor reviewed the training histories for two process technicians. The auditor also reviewed the cyanide awareness and spill prevention refresher training records and examples of weekly meetings to verify that the required refresher training was provided.

Wharf has evaluated the effectiveness of training by both testing and observation. Wharf administers written quizzes to evaluate the effectiveness of the cyanide awareness training. Additionally, following task-specific training, operators work with a group of experienced personnel for several weeks. Supervisors observe and evaluate job performance prior to training approval. As part of the evaluation, process workers also participate in an interview with Wharf's Tech Review Board and must pass a written exam demonstrating knowledge required for the job classification.

Wharf has retained records of cyanide training that include the names of the employee and the trainer, training dates, topics covered, and test results demonstrating an understanding of the training. The auditor reviewed examples of completed quizzes and interviewed the Process Plant Supervisor and Health and Safety Manager to verify compliance.

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

☒ **in full compliance with**

The operation is

☐ 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.

Wharf has trained personnel whose tasks involve cyanide with cyanide first aid and response measures as part of the cyanide awareness training and spill prevention training. Personnel has also received task training in the Procedure for Cyanide Spill Decontamination, which includes procedures for spill containment, neutralization, decontamination, and cleanup. Operators have been trained to stop and contain the release (if safe to do so), remove and decontaminate the victim (if safe to do so) and administer the oxygen. This has also included practical training. The auditor reviewed the training presentations and videos, and training records, as well as interviewed Wharf's Health and Safety Manager, to verify compliance.

Wharf has provided training to the ERT members in CPR /first aid, cyanide related incidents and ropes, airway and oxygen, patient assessments, life flight, SCBA and vitals, confined space, rescue/ equipment, and others. In addition, emergency response coordinators and ERT members have received annual training on the procedures in the ERP through the required annual cyanide awareness and spill prevention trainings. Also, training in the Crisis Management Plan was provided to the SCMT.

Wharf provides refresher training to operators and ERT members through the annual refresher training on cyanide awareness and spill prevention. The ERT members also receive training monthly on various emergency response topics, and each year the topics are repeated.

Wharf has retained records of cyanide training that include the names of the employee and the trainer, training dates, topics covered, and test results demonstrating an understanding of the training.

Wharf has made external responders familiar with the elements of the ERP related to cyanide. The primary involvement of external responders in cyanide-related emergencies is ambulance response and administration of the Cyanokit antidote by trained medical professionals and paramedics. Also, local hospitals will provide medical treatment as needed. The local Fire Departments would support any emergency response related to evacuation, Hazmat and offsite cyanide transportation incidents as needed. Wharf provided cyanide awareness training to the local emergency agencies through Draslovka in November 2024. This training was attended by the Deadwood Fire Department and the Lawrence County Emergency Management Department (the local ambulance service is part of this management department). Wharf attends quarterly Lawrence County LEPC meetings. LEPC members include local emergency agency representatives from Lawrence County Emergency Management, Lawrence County Search and Rescue, Spearfish Police Department, Lawrence County Sherriff, South Dakota Highway Patrol, local Fire Departments, Lead/Deadwood Regional Hospital, Spearfish Regional Hospital, Spearfish Ambulance Service, Black Hills Life Flight and others. During the LEPC meetings response planning activities are discussed. Wharf sends a copy of their ERP to the LEPC annually. Wharf has made formalized arrangements with three local hospitals: Rapid City Regional Hospital, Lead/Deadwood Regional Hospital and Spearfish Regional Hospital.

The auditor reviewed training materials and training records for cyanide awareness and spill prevention. The auditor also reviewed copies of the letters sent to the hospitals, records of training to local emergency response agencies, and records of LEPC meetings.

PRINCIPLE 9 – DIALOGUE

Engage in Public Consultation and Disclosure

Standard of Practice 9.1: Promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.

☒ **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; promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.

Wharf has provided stakeholders with information on its cyanide management practices and engaged with them regarding their concerns. This has been accomplished through meetings and presentations to local communities, DANR Board of Minerals and Environment, and Lawrence County, as well as tours of the mine site.

Wharf provides annual mining update presentations to the DANR Board of Minerals and Environment and to the Lawrence County Commissioners, which are open to the public. During these presentations, Wharf provides an update on their production, projects, reclamation activities, spill information, and pad denitrification and leach activities. Also, Wharf attends quarterly Lawrence County LEPC meetings and bimonthly meetings with the TVLA, representing the residential community located closest to the Wharf Mine. During these meetings, response planning activities and operations related questions and/or concerns are discussed.

In addition, Wharf has offered tours of the mine facilities including the cyanide facilities in 2023 and 2024. The auditor reviewed meeting and tour records and interviewed environmental personnel to verify compliance.

Standard of Practice 9.2: 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 9.2**

☐ not in compliance with

Summarize the basis for this finding:

The operation is in full compliance with Standard of Practice 9.2; make appropriate operational and environmental information regarding cyanide available to stakeholders.

Wharf has developed written descriptions of how their activities are conducted and how cyanide is managed, and these descriptions have been made available to communities and other stakeholders. These descriptions are available on the Coeur website. Information on the operation has also been included in the presentations to Lawrence County and DANR Board of Minerals and Environment, which are open to the public.

According to the United States Census Bureau, the population in the mine area is largely literate. Nonetheless, Wharf disseminates information in verbal form via a video of the operations (available on Coeur website), open meetings, presentations, and tours.

The auditor reviewed the Coeur website and the presentations to Lawrence County and DANR Board of Minerals and Environment to verify compliance.

Wharf makes information publicly available on cyanide exposures and releases. Federal regulations require that Wharf report accidents and fatalities to MSHA within certain time limits depending on the nature of incident, which would include cyanide hospitalizations and fatalities. This information would be available to the public via the MSHA website. Wharf indicated that no cyanide-related exposures requiring hospitalization or fatalities occurred during this audit cycle. Wharf personnel also indicated that DANR requires reporting of process solution outside of containment, regardless of the amount. At the time of the audit, Wharf had experienced one on-site process solution spill outside of containment within Wharf property over the recertification period. Wharf provided the spill reports for this incident. These reports submitted to DANR became public information. The auditor reviewed the spill reports submitted to DANR and interviewed environmental personnel to verify compliance.

Signature Page

WSP USA Inc.

Ivon Aguinaga
Lead Auditor and Mining Technical Specialist

https://wsponlinenam.sharepoint.com/:w:/r/Sites/US-WharfCNCodeRecertAud/Shared%20Documents/Project%20Files/6_Deliverables/002-RPT-Recertification_Summary_Rpt/Rev1/US0038471.0627-002-RPT-1-Recertification_Summary_Report_24FEB25.docx

wsp.com