REPORT

DECEMBER 2015

ICMC RECERTIFICATION SUMMARY AUDIT REPORT

Carlin Mine, Nevada, USA

Submitted to:
International Cyanide Management Institute (ICMI)
1400 I Street NW-Suite 550
Washington, DC 20005
United States of America

AND
Newmont Mining Corporation
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Golder Associates

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1.0 SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS

Name of Mine:	Carlin Mine
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2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

2.1 Mine Location

The Carlin Mine (Carlin) is located in north-central Eureka County, Nevada, between 6 and 21 miles north of the town of Carlin and 35 to 40 miles west of Elko. Mining originally began in 1965 in the Carlin and Gold Quarry open pits, and then extended to underground mining in 1994.

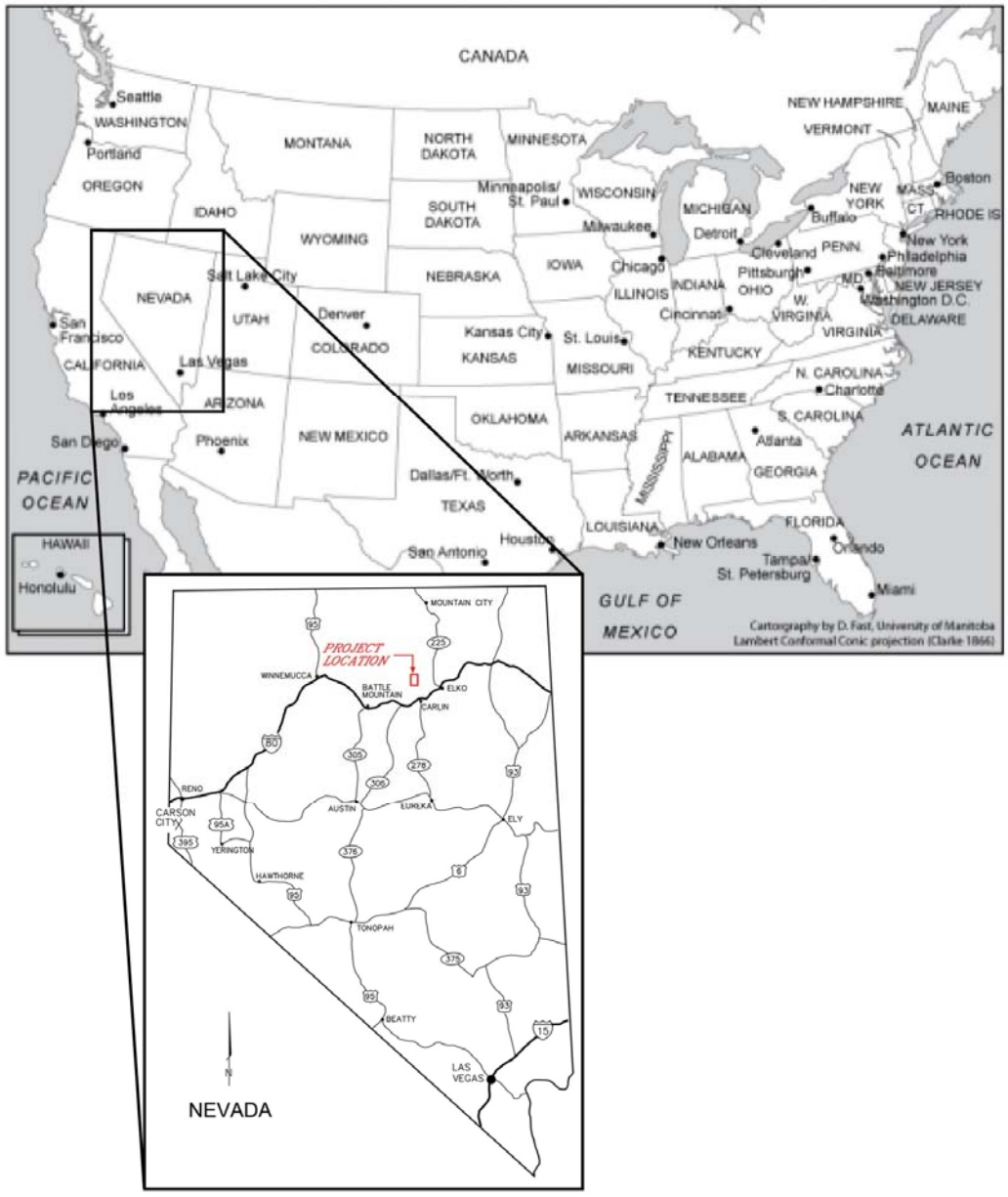

Figure 1: Regional Location Map

2.2 Background

Carlin is located in north-central Eureka County, Nevada, between 6 and 21 miles north of the town of Carlin and 35 to 40 miles west of Elko. Mining originally began in 1965 in the Carlin and Gold Quarry open pits, and then extended to underground mining in 1994.

Carlin is separated into the North and South Areas that are connected by a haul road and a public highway. The South Area is located in Eureka County, Nevada and consists of the following active facilities:

- The Gold Quarry open pit
- The Chukar underground mine
- Mill 5 including the reagent building, carbon in leach circuit (CIL), carbon in pulp (CIP) circuit, process laboratory, magnetic separator, and the carbon stripping circuit and regeneration kilns
- Mill 6 including the double rotating mill and roasters
- Mill 5/6 Tailings Storage Facility (TSF) and the West Expansion and associated slurry and reclaim pipelines
- Tailings Booster Pump Houses #1 and #2
- Caro's Acid Plant (located at the Tailings Booster Pump House #1)
- Dry Stack TSF (for tailings relocated from the James Creek TSF due to pit expansion)
- Milk of Lime Plant
- Refinery
- Metallurgical and assay laboratories
- South Area Leach (SAL) Facility – Property Pad and Non-Property Pad, including the pads, carbon in column (CIC) plant, process laboratory, ponds, and pipelines
- Overburden piles, topsoil stockpiles, access roads, and haul roads
- Support facilities such as warehouses, administration buildings, truck shops, maintenance shops, and fueling facilities

The South Area includes the following inactive or closed facilities:

- James Creek TSF (inactive and draining down, but used occasionally for upset conditions from the Tailings Booster Pump House #1)
- Gold Quarry Leach Facility (closed)
- Commercial Refractory Leach Facility (closed)

The circuits at the South Area include Mill 5, Mill 6, and two heap leach pads served by a single plant. Mill 5 is a pyrite floatation plant that processes sulfide and oxide ores that are ground in a sag mill and ball mills. The material is then sent to the floatation circuit where the sulfides are floated and dried for later processing in the autoclave or roaster. The oxide material remaining after floatation is sent to a set of carbon-in-leach (CIL) tanks

for gold recovery. Mill 6 consists of a double rotating mill and a roaster; sulfide material is fed to the roaster where the sulfides are volatilized. Material leaving the roaster is sent to a set of CIL tanks at Mill 5 for processing. Tailings from both CIL circuits is combined and sent through a Caro's Acid cyanide destruction circuit before disposal in the Mill 5/6 TSF. Gold-bearing solution from the SAL (i.e., Property and Non-Property Pads) drains to a series of pregnant ponds. Solutions from the pregnant ponds are pumped via pipeline to carbon-in column (CIC) circuits at South Area plant. Loaded carbon is transferred to the carbon handling facility and refinery for further processing.

The North Area is located in Eureka and Elko Counties, Nevada and consists of the following active facilities:

- East Carlin, Blue Star, and Silver Star open pit mines
- Leeville, Pete Bajo, Exodus, Turf, Full House, Star, and Fence underground mines
- North Area Leach (NAL) Facility, including the pad, CIC facility, process laboratory, ponds, and pipelines
- The Leeville Water Treatment Plant
- Overburden piles, topsoil stockpiles, access roads, and haul roads
- Support facilities such as warehouses, administration buildings, truck shops, maintenance shops, and fueling facilities

The North Area includes the following inactive or closed facilities:

- Mill 4/2 TSF (inactive and draining down)
- The Post 1 Leach Pad (inactive and draining down)

The circuits at the North Area include a heap leach pad and plant. The gold-bearing solution from the North Area Leach drains to a series of pregnant ponds. Solutions from the pregnant ponds are pumped via pipeline to CIC circuits at the North Area plant. Loaded carbon is transferred to the carbon handling facility at the South Area and refinery for further processing.

3.0 SUMMARY AUDIT REPORT

3.1 Auditors Findings

Carlin is:

☒ **in full compliance with**

☐ in substantial compliance with

☐ not in compliance with

The International Cyanide Management Code

This operation has experienced cyanide incidents during the previous 3-year audit cycle, which are discussed in this report under Standard of Practice 9.3. These incidents have not been "significant cyanide incidents" subject to the notification requirements in Item 6 of the ICMC signatory application; they do not affect the compliance status. Rather, these incidents included an exposure incident that did not require hospitalization, as well as minor releases of cyanide-bearing solutions to soil that were reported to regulators, and thus are subject to listing under Question 3 of Standard of Practice 9.3.

Audit Company: Golder Associates Inc.

Audit Team Leader: Kent Johnejack, Lead Auditor and Gold Mining Technical Specialist

Email: kjohnejack@golder.com

Name of Other Auditors

Name, Position	Signature
Ivon Aguinaga, Mining Technical Specialist, Golder Associates Inc.	Iván Aguinaga.
Sophie Wheeler, Third Auditor, Golder Associates Inc.	SWheeler.

Dates of Audit

The Recertification Audit was undertaken within four days from June 8 to 11, 2015.

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code 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 Verification Protocol for Cyanide Gold Mine Operations and using standard and accepted practices for health, safety and environmental audits.

Carlin Mine
Name of Facility

Signature of Lead Auditor

December 4, 2015
Date

PRINCIPLE 1 – PRODUCTION

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

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

☒ **in full compliance with**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 1.1, requiring the operation 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.

Carlin has committed to only purchase cyanide from a producer which is compliant with the Code (Cyanco). Provisions to the contract between Newmont and Cyanco state that Cyanco shall remain a signatory to the Code and comply with the Code's Production and Transportation Principles and Standards of Practice during the duration of the contract. Carlin only purchases cyanide that is manufactured at Cyanco's production facility, located in Winnemucca, Nevada, and does not use any independent distributors. Cyanco's production facility was most recently certified under the Code on July 12, 2013.

PRINCIPLE 2 – TRANSPORTATION
Protect Communities and the Environment during Cyanide Transport

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

☒ **in full compliance with**

Carlin is
☐ in substantial compliance with **Standard of Practice 2.1**
☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 2.1, requiring that the operation establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

Newmont has a sodium cyanide supply contract with the producer Cyanco, (a signatory to the Code) which specifies that the operation takes ownership of the cyanide at the time of delivery. Cyanco is by contract solely responsible for the production and transport of sodium cyanide to the delivery point at Carlin. Cyanco subcontracts TransWood for transportation of the cyanide to Carlin. TransWood is also a signatory to the Code and was recertified as fully compliant with the Code on July 12, 2013. Provisions to the contract between Newmont and Cyanco (signed on November 2005) establish clear lines of responsibility for safety, security release prevention, training and emergency response for Cyanco.

Code audit certification and recertification audit reports for Cyanco and TransWood indicate the designated responsibilities for Cyanco and TransWood.

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

☒ **in full compliance with**

Carlin is
☐ in substantial compliance with **Standard of Practice 2.2**
☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 2.2, requiring that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

Cyanco is by contract solely responsible for the production and transport of cyanide to the delivery point at Carlin. Cyanco is a signatory producer to the Code and subcontracts TransWood for transportation of the cyanide to Carlin. TransWood is a signatory to the Code and was recertified as fully compliant with the Code on July 12, 2013. Bills of lading from 2012, 2013 and 2015 were reviewed to verify that the cyanide delivered to Carlin was produced by Cyanco and transported by TransWood.

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**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 3.1, requiring that cyanide handling and storage facilities are designed and constructed consistent with sound, accepted engineering practices, quality assurance/quality control (QA/QC) procedures, spill prevention and spill containment measures.

Carlin receives only liquid cyanide. Carlin has three active and one inactive cyanide unloading and storage areas: NAL carbon columns (active); SAL carbon columns (active); Mill 5 (active); and SAL Non-Property Phase I Pregnant Pond (inactive). The cyanide tanks located at the Non-Property Phase I Pregnant Pond area have been on long-term standby since the previous audit. The tanks are empty. The valves are locked out and the pipes have been disconnected and capped, thus preventing use. No changes or modifications have been made to the offload and storage facilities since the initial certification audit and the previous recertification audit, and therefore the previous conclusions still hold. The offload and storage facilities have been designed and constructed with sound engineering practices.

The unloading and storage areas are located away from offices and areas where workers may congregate. There are no surface water bodies nearby. The NAL, SAL, and SAL Non-Property Phase 1 Pregnant Pond offload and storage areas are all located within fenced and locked areas. The Mill 5 storage area is located within the mill and a rollup door restricts access to the tanks. In addition, all of the offloading and storage areas are within the fenced and gated mine area with 24-hour security to restrict public access.

Liquid cyanide is unloaded either on concrete pads or on gravel surfaces underlain by HDPE liner to prevent seepage to the subsurface. The unloading pads are adequate barriers to prevent seepage to the subsurface.

The offloading pads and secondary containments provide containment for the recovery of liquid cyanide spills. The unloading areas are designed to contain, recover, or allow remediation of leakage from the tanker trucks.

For the NAL, SAL, and SAL Non-Property Phase I Pregnant Pond offload and storage areas, a spill would ultimately report to lined process ponds. For the Mill 5 offload and storage area, a spill would report to a sump and then back to the process circuit.

Carlin has constructed the secondary containments for all of the cyanide storage tanks out of cast-in-place reinforced concrete that is a competent barrier to leakage. The auditors observed these pads and containments to be in good condition.

Carlin has installed level indicators and high level alarms to prevent the overfilling of reagent-grade cyanide storage tanks. The level indicators are ultrasonic sensors set at 90 percent high and 95 percent high-high alarms. Alarms are audible, digital, and/or reporting to the control room. The auditors observed screen shots in the control room to verify that the level sensors were working. The auditors also reviewed the monthly preventative maintenance forms for the recertification period to verify compliance.

The cyanide storage tanks at NAL, SAL, and the SAL Non-Property Phase I Pregnant Pond are located outside with adequate ventilation. The two cyanide storage tanks at Mill 5 are located inside with a bay door to the outside and an exhaust fan for ventilation.

The NAL, SAL, and SAL Non-Property Phase 1 Pregnant Pond offload and storage areas are all located within fenced and locked areas. The Mill 5 storage area is located within the mill and a rollup door restricts access to the tanks. In addition, all of the offloading and storage areas are within the fenced and gated mine area with 24-hour security to restrict public access. The auditors observed that valves are properly locked out.

All the cyanide storage tanks are located apart from foods, animal feeds, acids, strong oxidizers, and explosives; smoking is prohibited and signed accordingly. The Mill 5 cyanide storage tanks are located within their own containment and away from the acid storage tank. The cyanide tanks at the SAL, NAL, and SAL Non-Property Phase I Pregnant Pond are also located within their own containments.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 3.2 requiring that cyanide handling and storage facilities are operated using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

Cyanide is delivered to Carlin as a liquid in tanker trucks; mixing is not required. The liquid is transferred from the tanker to the storage tanks and there are no empty cyanide containers that require disposal. Moreover, handling of containers and stacking of boxes are inapplicable. Even though mixing is not required, Carlin has written procedures for cleaning up spills.

Carlin has developed and implemented cyanide unloading procedures for the NAL, SAL, and Mill 5 that cover the responsibilities for the driver and plant operator. Also, Carlin has a copy of Cyanco's Cyanide Sodium Delivery Procedure. The required personal protective equipment (PPE) consists of a chemical suit, rubber hard-toe boots, polyvinyl chloride (PVC) gloves, face shield, and chemical goggles. The auditors observed that the specified PPE was used during an offload at Mill 5 and that the plant operator carried a radio and watched the driver during connections and disconnections. In addition, the Mill 5 offload is equipped with video surveillance from the control room.

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.**

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.1, requiring that the operation implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.

Carlin has implemented cyanide management and operating systems to protect human health and the environment. Carlin is certified under ISO 14001 for environmental management and the Newmont corporate Health, Safety, and Loss Prevention program is consistent with OSHAS 18001. Carlin has developed design documents, fluid management plans, permits, and procedures that describe the practices necessary for the safe and environmentally sound operation of the facility, including the specific measures needed for compliance with the Code and regulatory requirements.

Carlin has implemented a management of change procedure developed by Newmont at the corporate level. The procedure is accompanied by a form that must be signed off by supervisors, department heads, and managers depending on the risk rating, including safety and environmental staff. The auditors reviewed examples of the completed and signed forms to verify compliance.

Carlin has developed contingency plans via their Fluid Management Plans and Temporary Closure Plans, a requirement of the Water Pollution Control Permits issued by the Nevada Department of Environmental Protection. The Fluid Management Plans covers the operation's water management strategies for process facilities including any upset, malfunction or failure of the management fluid system. The Temporary Closure Plans includes contingency procedures for temporary or seasonal closure due to economic conditions, failure of leaching facilities, labor disputes, litigation, regulatory actions, supply issues, and Acts of God (e.g., earthquakes, floods).

Carlin inspects the cyanide facilities on an established round, shift, weekly, and monthly basis at Mill 5/6, NAL and SAL, which is sufficient to assure and document that they are functioning within design parameters. Inspections include cyanide tanks/columns, secondary containments, pipelines, pumps, valves, and leak detection sumps. Carlin evaluated the integrity of the cyanide storage tank annually via ultrasonic measurements of the wall thickness. The stormwater diversions are inspected in accordance with Emigrant's Stormwater Pollution Prevention Plan. Carlin documented these inspections using hard copy and electronic forms which include the name of the inspector, date, and deficiencies (if any). Corrective actions are tracked either on the forms, in the SAP software, or in the Cintellate software. The inspection frequency was per round (i.e., 2 hours), shift, day, month, year, and random depending on the facility being inspected and the department conducting the inspections. Regulators also conduct annual and/or random compliance inspections. The auditors reviewed completed inspection forms to verify compliance.

Carlin has implemented a preventative maintenance program to ensure equipment and devices function for safe cyanide management. Carlin manages planned (proactive) maintenance and corrective (reactive) maintenance with the SAP software. The auditors verified that maintenance activities are carried out by review of maintenance histories for randomly selected pieces of equipment related to cyanide management, as well as reviewing examples of completed work orders.

Carlin has seven emergency generators with a total of 14 megawatt capacity to operate critical functions at Mill 5/6, Tailings Booster Pump House #1, NAL and SAL during power outages. The auditors observed these generators and reviewed monthly start-up tests, as well as maintenance forms and generator log sheets to verify compliance.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.2, requiring that the operation limits the use of cyanide to that optimal for economic recovery of gold so that the waste tailings material has as low a cyanide concentration as practical.

Mill 5 and Mill 6 may receive ore for processing for four open pits (i.e., East Carlin, Gold Quarry, Blue Star, and Silver Star) and eight underground mines (i.e., Chukar, Leeville, Pete Bajo, Exodus, Turf, Full House, Star, and Fence). Carlin has performed metallurgical tests (e.g., bottle roll) on the various ore types and sources

throughout the recertification period to determine whether cyanide addition targets are to be adjusted. The cyanide targets (pounds per ton [lb/t] free cyanide) have not changed during the recertification period and vary from 0.20 to 0.30 pounds per ton (lb/t) for Mill 5 and from 0.15 to 0.25 lb/t for Mill 6. The pre-destruction target for the tailings is 0.15 to 0.20 lb/t.

Carlin has implemented is strategy of manual control, as set forth in the Mill 5 and Mill 6 CIL Operating Procedure, by sampling at six locations three times each shift. The samples are analyzed at the internal laboratory. The auditors verified compliance by reviewing examples of daily leach reports from throughout the recertification period.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.3, requiring the operation to implement a comprehensive water management program to protect against unintentional releases.

Carlin has developed three water balances to cover the NAL, SAL, and Mill 5/6 TSF. All three of these water balances use the GoldSim model, a dynamic systems model that probabilistically evaluates various scenarios. The water balances for the SAL and Mill 5/6 TSF have not changed since the previous audit because the existing models were developed for the life of the facilities; therefore, the findings regarding those water balances are still valid. The water balance for the NAL was updated in 2014.

The models are comprehensive in that they consider the factors applicable to the each facility. The models are probabilistic in that GoldSim is a dynamic systems model that stochastically represents input variables with distributions. The models consider long-term variability of precipitation (e.g., dry years, wet years), monthly and daily variability, and extreme events (e.g., 100-year, 24-hour storms). In addition, the Mill 5/6 Tailings Storage Facility evaluation considers the Probable Maximum Flood.

The water balance models for the NAL and the SAL consider the appropriate factors with reasonable values for the facility and site conditions. Solution application rates and irrigation cycles are defined. Power outages of 6- to 12-hours are considered, as well as the extreme event of the 100-year, 24-hour storm. Losses are conservatively limited to only evaporation. Upgradient run-on is diverted and no solutions are treated for

discharge. Freezing and thawing are not considered due to their short duration in the high desert climate. Groundwater is prevented from interacting with leach solutions by the liner systems.

The water balance model for the Mill 5/6 TSF and West Expansion considers the appropriate factors with reasonable values. Filling rates are defined. A power outage is not considered because slurry pumping to the facility would cease and drainage is slow and unaffected by short-term perturbations. Losses consist of underdrain drainage and evaporation. Upgradient run-on is diverted and no solutions are treated for discharge. Freezing and thawing are not considered due to their short duration in the high desert climate. Groundwater in the vicinity is at least 100 feet below ground surface.

Carlin inspects and monitors its ponds and impoundments to prevent overtopping in accordance with the Fluid Management Plans and Standard Operating Procedures. Carlin conducts annual inspections of the stormwater controls and diversions. The auditors verified compliance by reviewing examples of inspection forms.

Carlin has designed its ponds and impoundments with adequate freeboard above the maximum solution capacity. All process and stormwater ponds have been designed with 2 feet of freeboard. The tailings impoundments have been designed with 5 feet of freeboard above the operating levels and the levels to contain the Probable Maximum Flood. The auditors verified that water levels were properly managed throughout the recertification period by reviewing time series graphs of water levels in the process ponds, tables of weekly pond volumes for the stormwater ponds, and bathymetry/impoundment reports for the TSF.

Carlin measures precipitation at the Gold Quarry Meteorological Station and the North Area Meteorological Station. The auditors reviewed monthly precipitation graphs for the site stations (compiled from hourly data) to verify compliance. Carlin commissioned a consultant in 2013 to re-evaluate the weather data for the NAL; the weather data for the SAL and Mill 5/6 TSF areas were re-evaluated during the previous audit cycle. Carlin inputs the actual precipitation data into an operational water balances (i.e., an Excel spreadsheet) for the NAL and SAL with a monthly time step to manage operating water levels and volumes, thereby adjusting operating practices on an ongoing basis.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.4, requiring the operation implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

Carlin has implemented measures to control bird, wildlife, and livestock access to open waters regardless of whether the WAD cyanide concentration is greater than 50 mg/L. For process ponds, the measures consist of 8-foot high barbed wire fence with a tighter weave mesh at the bottom. For the tailings storage facilities, the measures consist of propane cannons, distress calls, and in the high activity season from April to October, hazing from an air boat. These measures have not changed since the previous audits and the auditors observed that they were in good condition and functioning.

Based on time series graphs and data tables, Carlin has maintained WAD cyanide concentrations in open water in ponds below 50 mg/L throughout the recertification period. There were minor and isolated excursions greater than 50 ppm WAD cyanide at the spigots to the Mill 5/6 TSF and West Expansion, but the supernatant pools consistently exhibited concentrations less than 50 ppm WAD cyanide.

The auditors reviewed quarterly reports submitted to the Nevada Department of Wildlife to verify that Carlin has not experienced significant wildlife mortality during the recertification period.

Carlin inspects for ponding on the leach pads on a shift basis using a standard task procedure. The auditors reviewed examples of these inspection forms from throughout the recertification period to verify that ponding, when it occasionally occurred, was managed in accordance with the procedure. The auditors did not observe puddles or ponding at the time of the site visit, except for one location that Carlin promptly remedied. Based on observations during the site visit, Carlin uses only drip irrigation on the heap leach pads, which avoids the potential for overspray.

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

☒ **in full compliance with**

Carlin is

☐ in substantial compliance with **Standard of Practice 4.5**

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.5, requiring the operation implement measures to protect fish and wildlife from direct or indirect discharges of cyanide process solutions to surface water.

Carlin does not have any direct or indirect discharge of cyanide solutions to surface waters. Carlin operates with zero discharge of process solutions. No perennial surface water bodies are present at or near the site.

However, Carlin monitors for cyanide in ephemeral runoff in the James Creek Diversion (downstream of the Mill 5/6 and SAL cyanide facilities), and in the intermittent Rodeo Creek (downstream of the NAL cyanide facilities). Analytical data from 2013 to 2015 from the monitoring stations in the James Creeks Diversion and in the Rodeo Creek showed that WAD cyanide concentrations are below laboratory detection limit (<0.010 mg/L). This value is below the 0.022 mg/L free cyanide threshold (assuming that all WAD cyanide exists as free cyanide).

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**

Carlin is

☐ in substantial compliance with **Standard of Practice 4.6**

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.6, requiring the operation implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

Carlin has implemented measures to protect groundwater below and downgradient of the operation. Although the details vary by facility, the heap leach pads generally consist of (from top to bottom) a drainage layer, underdrain solution collection piping, a protective layer, high-density polyethylene (HDPE) liner, and compacted subgrade. The main solution headers are underlain by HDPE-lined trenches with perforated pipes that report to collection sumps. Solution ponds are double-lined with geonet as a leachate collection and recovery systems. Stormwater ponds are single-lined with compacted subgrade. The SAL and NAL plants are constructed on concrete containment areas with stemwalls underlain by synthetic liners. All solution conveyances for the heap leach facilities are constructed of HDPE pipe underlain by HDPE secondary containment ditches.

The Mill 5/6 protects groundwater by concrete floors and stemwalls or with peripheral bermed or walled concrete containment with collection sumps. Mill pipelines are single-walled but either located on concrete containment or are above ground with secondary containment where they can be visually inspected. Buried pipelines within the mill have dual containment. The Mill 5/6 tailings and reclaim pipelines are HDPE and contained within HDPE lined channels. The Tailings Booster Pump House #1 is constructed of concrete stemwalls and floors, as is the adjacent Caro's Acid Plant. The Tailings Booster Pump House #2 is also constructed of concrete stemwalls and floors, but as it is located adjacent to the Mill 5/6 TSF, any releases would directly report to the tailings. The Mill 5/6 TSF and West Expansion are equipped with underdrains and lined underdrain ponds to help protect groundwater.

The Nevada Groundwater Standard for WAD cyanide is 0.2 mg/L for Primary and Secondary Drinking Water Standards. Review of the Carlin groundwater monitoring data from throughout the recertification period indicated no detectable WAD cyanide (<0.010 mg/L) in the groundwater at compliance points or monitoring wells downgradient of the Mill 5/6, SAL, and NAL cyanide facilities, except for one case of WAD cyanide detection that was far below the applicable standard. The operation is, therefore, protective of the designated beneficial use of groundwater.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.7 requiring that the operation provide spill prevention or containment measures for process tanks and pipelines.

Carlin has spill prevention and containment measures for the all of the cyanide-related storage and process tanks and vessels at Mill 5/6, Tailings Booster Pump House #1, NAL, and SAL. No changes have been made to the secondary containments for cyanide storage tanks, process tanks, and process columns since the previous recertification audit. The auditors observed that these tank secondary containments were in good condition.

The Mill 5/6 secondary containment areas, which are located within process buildings or within walled concrete containment, are hydraulically linked to provide in excess of the required 110 percent containment volume for the largest tank within the linked area. The NAL and SAL cyanide storage and process tanks are located within a concrete containment area that was constructed over a HDPE liner placed below grade to drain to a HDPE lined perimeter ditch that reports to the process solution pond systems. The NAL and SAL cyanide unloading areas, constructed over a HDPE liner, also reports to the process solution pond systems. The NAL and SAL secondary containments have been designed to contain at least 110 percent of the largest tank capacity and the design storm event. Procedures have been developed to address management of spill response and cleanup within the containments.

Carlin has constructed all pipelines with spill prevention and/or containment measures to collect leaks and prevent releases. The pipelines are constructed as pipe-in-pipe configuration, within lined ditches, and/or with flow deviation sensors and pressure sensors with alarms. Alarms are monitored at the Mill 5 control room or the SAL control room for their respective areas. The auditors observed that these pipeline secondary containments were in good condition.

Carlin upgraded pipeline containment measures during the current audit cycle. The tailings, reclaim, and underdrain lines between the Mill 5/6 and the Tailings Booster Pump House #1 were replaced, including the pipe-in-pipe crossing under the haul roads. The existing catch pond for pipeline releases (Pond #5, aka "Iggy's Pond") was repaired and upgraded. An additional catch pond for pipeline releases (Pond #4, aka "Lali's Pond") was installed.

There are three locations where solution pipelines cross the ephemeral James Creek Diversion and Carlin has installed special protection. At the crossings, the solution pipelines are contained within an HDPE secondary containment channel passing over the diversion culverts. In 2014, Carlin upgraded the crossing for the SAL process lines that pass over the James Creek Diversion. Additional catch ponds were constructed on either side of the culvert for the diversion. A slide gate was also installed on the upstream side of this culvert to further reduce the potential for a large release to continue flowing down the diversion.

Carlin uses carbon steel and HDPE pipelines for process solutions; HDPE pipelines for tailings and reclaim solutions; and stainless steel pipelines for reagent grade cyanide. These materials are compatible with cyanide and high pH conditions.

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.**

Carlin is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.8**

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.8 requiring that operations implement QA/QC procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

Carlin implemented QA/QC programs during construction of the cyanide facilities that are new or modified since the previous recertification audit. There were five new or modified cyanide facilities during the current audit cycle: South Area Leach Pad Expansion Non-Property Pad Phase VIII (2012); Mill 5/6 TSF West Expansion Phases II and III (2012-2014); North Area Leach Phase VIII Expansion (2013); Mill 5/6 Tailings Pipeline Containment Upgrades Project (2014); and South Area Solution Line Containment Upgrades (2014). The auditors reviewed record of construction reports, which include as-built drawings, and a letter to verify compliance.

The QA/QC documentation for the new cyanide facilities and the modifications to the existing facilities indicates that construction activities, testing and inspections were performed in general accordance with design drawings and technical specifications. QA/QC programs addressed and documented the suitability of materials, adequacy of soil compaction for earthworks, installation of geomembrane, and other components as applicable to each project.

Carlin has retained the QA/QC documentation in a library managed by the environmental department as well as electronically on the internal Newmont "Prospector" website. The auditors observed both the physical and electronic repositories to verify compliance.

Carlin used professional engineers licensed in the State of Nevada to approve the QA/QC work. These engineers stated in the reports that the project was constructed in general accordance with the approved design and specifications, as such meets the design intent.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 4.9 requiring that operations implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and groundwater quality.

Carlin has developed procedures for water sampling and monitoring, as well as two standard operating procedures related to wildlife monitoring and reporting. The water sampling and monitoring procedures were developed and are updated periodically by samplers with 20 years of experience, and reviewed by senior environmental managers with backgrounds in hydrology/geology and environmental engineering. Carlin documents sampling conditions that may impact sample quality in the field log book. Carlin monitors for cyanide in groundwater from monitoring wells downgradient of cyanide facilities. The operation also monitors for cyanide in ephemeral runoff in the James Creek Diversion through the South Area and the intermittent Rodeo Creek through the North Area.

Carlin inspects for wildlife mortalities on a shift basis at ponds, tailings impoundments, and heap leach pads. Mortalities are reported according to a standard operating procedure that includes specific procedures for cases where there is a suspicion that the death was cyanide-related. Carlin submits quarterly wildlife mortality reports to the Nevada Department of Wildlife.

Carlin generally monitors groundwater on a quarterly frequency, although some wells are monitored on a monthly, semi-annual, or annual frequency. Ephemeral runoff in the James Creek Diversion and the Rodeo Creek is monitored on a quarterly basis after precipitation. These frequencies are adequate to characterize the media being monitored. The auditors reviewed examples of field logs and chain of custody, water analytical data, and monitoring procedures 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**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 5.1 requiring that the site plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

Carlin has prepared reclamation plans and tentative permanent closure plans for both the North Area and the South Area in accordance with Nevada Department of Environmental Protection and US Bureau of Land Management regulations. These plans include the appropriate cyanide facilities and discuss process fluid stabilization, the process by which "contaminants in a material are bound or contained so as to prevent them from degrading waters of the state under the environmental conditions that may reasonably be expected to exist at a site". A standard operating procedure for closure of cyanide facilities, for Newmont mines in Northeast Nevada, contains additional details on removal of residual cyanide solutions, triple-rinsing materials that have contacted cyanide, and disposal of cyanide-contaminated materials.

A separate Gantt chart shows the reclamation schedule for the North Area and the South Area, including demolition activities and process fluid stabilization. Regulations require that Carlin update the plans at least every 3 years. Many of the plans have been updated in this current audit cycle. These current plans, in conjunction with those referenced in the two previous audits, support that Carlin updates plans and cost estimates regularly.

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

☒ **in full compliance with**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with the Standard of Practice 5.2 requiring that the site establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

Carlin has prepared reclamation cost estimates for both the North and South Areas using a state-wide "Standardized Reclamation Cost Estimator", which is validated and verified by the Nevada Department of Environmental Protection and the US Bureau of Land Management. The basis for the third party unit costs in the standardized spreadsheet are federal Bacon-Davis wage rates and local equipment rental rates. The spreadsheet assumes add-on percentages for third party administration, engineering design, contingency, insurance, performance bond, contractor profit, and indirect agency costs.

The most recent reclamation cost for the North Area is dated March 2013. The estimate includes the applicable cyanide facilities in the North Area (i.e., heap leach, ponds, CIC plant, and Mill 4/2 TSF), as well as other non-cyanide facilities. The estimated cost for decommissioning activities is approximately half that of the total financial assurance that was most recently approved by the Nevada Department of Environmental Protection in August 2013.

The most recent reclamation cost for the South Area is dated March 2013. The estimate includes the applicable cyanide facilities in the South Area (i.e., heap leach pads, ponds, Mill 5, Mill 6, CIC plant, and Mill 5/6 TSF and West Expansion), as well as other non-cyanide facilities. The estimated cost for decommissioning activities is approximately one-third that of the total financial assurance that was most recently approved by the Nevada Department of Environmental Protection in December 2014.

The Nevada Department of Environmental Protection and US Bureau of Land Management require that reclamation plans and cost estimates be updated every 3 years or more often if there are significant changes to the facilities. Carlin provided evidence of regular updates to the cost estimates since the previous audit in 2012 for both the North and South Areas.

PRINCIPLE 6 – WORKER SAFETY
Protect Workers' Health and Safety from Exposure to Cyanide

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

☒ **in full compliance with**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 6.1 requiring that the site identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

Carlin has developed written procedures and plans that describe the management and operation of the cyanide facilities located in the Mill5/6, NAL and SAL. These plans and procedures cover the safe operation of the cyanide facilities. The plans and procedures cover cyanide offloading, storage, process activities related to cyanide including operation of the tailings storage facilities and heap leach facilities, entry into confined spaces, and equipment decontamination. The procedures detail task specific PPE requirements, as applicable, and the required procedures to follow to appropriately conduct the cyanide related tasks.

Pre-work inspections prior to cyanide offloading are completed in the Mill 5, SAL and NAL offloading facilities. Also, daily operational and safety inspections of all cyanide facilities and activities are conducted.

Carlin uses the Newmont corporate procedure for management of change. The purpose of this procedure is to ensure that new of modified projects, processes, materials, equipment or organization are evaluated and controlled before being implemented. The proposed change is evaluated using a risk assessment and classified as moderate, high, or extreme. Controls are assigned to specific staff with target completion dates. The change is then approved using the Management of Change Form. The form is signed the area manager and depending on the change classification a variety of other managers. For high or extreme changes, the approvers include the safety and environmental managers. The approved change is communicated to workers and training is provided, if necessary, prior to the change implementation. The auditors reviewed completed management of change documentation for changes/modifications that occurred during the recertification audit period to verify compliance.

Carlin has safety meetings to provide information and refresher training to employees as well as to solicit input from employees on worker safety issues related to cyanide. Carlin also solicits input from employees on worker

safety issues through their continuous safety improvement program and daily workplace inspections. The auditors review meeting records, a list of suggestions/concerns from the continuous safety improvement program, and completed examples of daily workplace inspections to verify compliance.

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.

Carlin is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 6.2**

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 6.2 requiring that the site operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

Carlin monitors and maintains the proper pH to prevent the formation of hydrogen cyanide gas (HCN) as recommended in their Mill 5 and Mill 6 CIL Operating Procedure and the Oxide Leach Manual. Fixed hydrogen cyanide (HCN) gas monitors are installed in areas of potential exposure to cyanide in different areas of Mill 5, SAL, NAL and the Tailings Booster Pump House #1. In addition, operators use portable HCN meters to conduct maintenance work, confined space related work, and in other areas as required. The fixed HCN monitors are outfitted with visible and audible alarms, in addition to being connected to the control panels in the plant control room. Two alarm levels have been established for the HCN monitors: a low-level alarm at 4.0 ppm and a high-level alarm at 10 ppm. Low-level alarms require notification and investigation and high-level alarms require evacuation. Carlin maintains, tests, and calibrates the pH meters, fixed HCN meters, and portable HCN meters on a regular basis as recommended by the manufacturer.

Carlin has posted warning signs at Mill 5/6, SAL plant, NAL plant, the Tailings Booster Pump House #1, and other critical locations indicating that cyanide solutions may be present, eating and smoking are prohibited, and HCN alarms are set at red alert (for reporting and investigation) and audible alarm (for evacuation).

Showers, low-pressure eye wash stations, and non-acidic sodium bicarbonate fire extinguishers are located at strategic locations throughout the operation and are maintained, inspected and tested on a regular basis. Showers and eyewash stations were operational with sufficient volume and adequate pressure.

Signs are provided in all areas where cyanide is used, including offloading areas and process tanks. Pipes carrying cyanide are marked and the direction of flow is indicated with arrows on the pipe. Overall, the auditors judged the number, types, and locations of labelling to be acceptable.

Carlin makes Material Data Safety Sheets (MSDS) in English available to all staff via the mine intranet. In addition, cyanide first aid procedures are located with each of the cyanide antidote kits. Also, MSDS are located at the offloading areas. The MSDS and first aid procedures are in English, the language of the local workforce.

Carlin has implemented procedures that require incidents and accidents (including cyanide incidents) be investigated and evaluated to determine if its programs and procedures to protect worker health and safety and to respond to cyanide exposures are adequate or if changes are necessary. Carlin staff stated that only one cyanide related incident occurred during the recertification period. A NAL operator was exposed to HCN gas. Oxygen was administered and the operator was transported to the hospital as a preventative measure, but the operator was not admitted for treatment (i.e., there was no hospitalization). Carlin investigated the incident, identified corrective actions, and completed the corrective actions in a timely manner. Additional training was also provided to the operators. The auditors reviewed the investigation reports and also verified that all corrective actions had been implemented.

Verification was conducted by the review of pH values recorded at the cyanide areas; calibration records of the fixed and portable HCN monitors and the pH meters; inspections records of the emergency safety showers, eyewash stations and fire extinguishers; completed incident investigation report, as well as by visual observation during the site visit.

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

☒ **in full compliance with**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 6.3 which requires that the site develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

Carlin provides the necessary equipment for response to cyanide exposure and the communication means to coordinate their use. Carlin provides water via the eyewash stations and showers located throughout the mine. Carlin also has 11 locations where the cyanide antidote kits (amyl nitrite and oxygen) are stored. Carlin has three licensed ambulances. The auditors observed these items during the site visit. Carlin has a radio system for use during emergencies. Staff have a radio and/or access to landlines.

Cyanide antidote kits are inspected monthly by personnel from the Health, Safety, and Loss Prevention (HSLP) Department. The showers and eye wash stations are inspected daily and the licensed ambulances are

inspected weekly. The auditors confirmed that all antidote kits are stored at the correct temperature (temperature is checked on a regular basis) and that the antidotes have not expired.

Carlin has a well written Emergency Response Plan (ERP) and a Cyanide Medical Emergency Procedure detailing how to respond to emergencies including cyanide exposure.

Carlin has emergency equipment and personnel to respond to cyanide emergencies including trained Emergency Medical Technicians (EMTs), First Responders, three licensed ambulances, two fire trucks and two HazMat trailers. The auditors inspected the emergency equipment during the site visit.

The Carlin ERP describes how to dispatch one of Carlin's ambulances or the use of air evacuation (Summit Air) to transport exposed workers to off-site medical facilities. The auditors reviewed the plan and related procedures.

Carlin has a formalized arrangement with the Northeastern Nevada Regional Hospital in Elko for cyanide exposure treatment, if needed. This formalized arrangement has been confirmed in July 2014 as part of the renewal process for the Agreement to Operate Basic Life Support, grated to the operation by the State of Nevada, Division of Public and Behavioral Health, Emergency Medical Systems.

Carlin has conducted three mock drills during the recertification period. The scenarios included both exposures and releases. The auditors reviewed the mock drill reports, as well as supporting documentation, to verify that the corrective actions for the deficiencies identified during these drills have been implemented.

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.

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 7.1 which requires that the site prepare detailed emergency response plans for potential cyanide releases.

Carlin has developed plans and procedures that address emergency response to potential accidental releases of cyanide. Carlin plans contain procedures for potential scenarios such as: a) cyanide intoxication; b) accidents during cyanide transportation; c) releases during offloading; d) release of cyanide during fires and explosions; e) pipe, valve or tank ruptures; f) overtopping of ponds and impoundments; g) electrical power outages and pump failures; h) uncontrolled seepage; i) failure of the cyanide destruction system; j) failure of the tailings storage facilities and the heap leach facilities; k) cyanide spill control and clean-up; and l) emergency evacuation. The procedures address specific response actions for clearing site personnel from the area of exposure; use of cyanide antidotes and first aid measures for cyanide exposure; decontamination procedures; control of releases at their source and containment; as well as the assessment, mitigation and future prevention of releases. Verification was by review of these documents and interview with safety and process personnel.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 7.2 which requires that the site involve site personnel and stakeholders in the planning process.

Carlin staff are involved in cyanide emergency response planning via safety meetings, training sessions and mock drills. Stakeholders and local response agencies (e.g., local hospital, the Elko County ambulance and

Summit Air) are involved in cyanide emergency response planning via meetings related to the Elko County Local Emergency Planning Commission (LEPC), community breakfast meetings, and others.

Worker input in developing and evaluating health and safety procedures is via direct communication between supervisors and operators and during daily meetings and training sessions. In addition, process staff and the Mine Emergency Rescue Team (MERT) have participated in the cyanide-related mock drill conducted in November 2013, December 2014 and June 2015.

Carlin Mine is a signatory to a Mutual Aid Agreement that is organised by the Elko County LEPC. Representatives from Carlin attend LEPC quarterly meetings and the Carlin MERT provides HazMat and firefighting assistance to the County as required. The LEPC membership includes representatives from all state and county emergency response bodies as well as other non-government members including Elko County Fire Department, Elko County Fire Protection, City of Elko, Carlin City, City of Elko Police, Elko County Sherriff, County Commissioners, County Ambulance Services including Access Air Ambulance, Summit Air, Nevada State Highway Patrol, Bureau of Land Management Range Fires, Red Cross, Regional Crisis Intervention, and mining companies Newmont Mining Corporation and Barrick Gold.

Newmont has participated in both table top drills and full scale drills organised by LEPC, the most recent of which was a drill involving all LEPC members (including the Elko County ambulance and Summit Air) with a scenario of an earthquake in Elko that included train derailment behind Elko Jail with a hazardous material leak.

Carlin has a formalized arrangement with the Northeastern Nevada Regional Hospital in Elko for cyanide exposure treatment, if needed. This formalized arrangement has been confirmed in July 2014 as part of the renewal process for the Agreement to Operate Basic Life Support, grated to Carlin by the State of Nevada, Division of Public and Behavioral Health, Emergency Medical Systems.

The use of cyanide and emergency response has also been discussed during community breakfast meetings held by Newmont. These meetings have also included talks given by Cyanco (the cyanide producer) in February 2015 and a talk by Carlin about the Code in October 2014.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 7.3 which requires that the site designate appropriate personnel and commit necessary equipment and resources for emergency response.

Carlin has committed in their ERP and procedures the necessary emergency response equipment and first aid to manage cyanide incidents at the operation and to coordinate transportation to the local hospital for further treatment if necessary. The ERP describes the roles and responsibilities for the emergency response coordinators.

Carlin has identified its MERT and emergency coordinators, and has an updated list of them including their name and contact information in the Carlin Surface Mine Rescue Contact Sheet. The Emergency HazMat Trailer Inventory and the different equipment inspection checklists list the locations of the emergency response vehicles and equipment. All emergency vehicles and HazMat trailers are inspected weekly or every time they are used for training purposes. The cyanide antidotes including the oxygen are inspected monthly. Self-contained Breathing Apparatus (SCBA) units are tested annually. The auditors reviewed completed response equipment inspection forms to verify compliance.

Carlin has confirmed that the outside entities included in the ERP are aware of their involvement. Carlin has not designated a role for offsite responders in planning or response to cyanide emergencies except for the Northeastern Nevada Regional Hospital in Elko, the local ambulance and the Summit Air ambulance. Carlin has a formalized arrangement with the Northeastern Nevada Regional Hospital in Elko (letter dated March 14, 2012) for cyanide exposure treatment, if needed. This formalized arrangement has been confirmed in July 2014 as part of the renewal process for the Agreement to Operate Basic Life Support, grated to Carlin by the State of Nevada, Division of Public and Behavioral Health, Emergency Medical Systems.

The ERP includes the Sheriff Dispatch contact number to contact Summit Air as well as the air ambulance landing requirements and coordinates. In January 2015, Carlin had to evacuate an employee to the hospital via a Summit Air ambulance. During this event, Carlin has tested the response of the hospital and Summit Air ambulance.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 7.4 which requires that the site develop procedures for internal and external emergency notification and reporting.

The Carlin Surface Emergency Response Plan includes procedures for notifying management, regulatory agencies, outside response providers (i.e. the hospital, the ambulance and Summit Air), the media, and the communities. The Emergency Contact Call Checklist and the document called Section 8 Resources contain the contact information for the mine management, local hospital, ambulance, regulatory agencies, Summit Air, other mining companies, the sheriff dispatch, the county commissioners, and others.

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

☒ **in full compliance with**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 7.5 which requires that the site incorporate in response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

Carlin has written procedures to contain, recover and clean up liquid cyanide spills. These procedures are described in the ERP and in the Cyanide Spill Response and Cleanup Procedure. Procedures require that containment structures such as berms or dikes or other immediate measures will be taken to stop the release until the necessary equipment and personnel can be mobilized to clean up the release. Cyanide releases will be disposed of on the heap leach pad or as indicated by the Environmental Department. Spilled cyanide solution within the mill building or CIC buildings will be returned to the process circuit from the floor sumps. The ERP requires the monitoring of the affected area after cleaning. The ERP describes what final cyanide concentration will be allowed in residual soil as evidence that the release has been completely cleaned up. The Cyanide Spill Response and Cleanup Procedure details on exactly how to accomplish this soil monitoring.

The Carlin Operations Water Sampling and Monitoring Standard Operating Procedure details water sampling procedures including sampler duties, field quality control, field data, collection and preservation of samples, chain of custody procedures, well sampling equipment and data management.

Spill remediation plans and sampling strategies must be submitted to the Nevada Department of Environmental Protection for approval.

The ERP and the Cyanide Spill Response and Cleanup Procedure state that “no chemicals such as hypochlorite, ferrous and hydrogen peroxide will be used to detox a cyanide spill”.

The water supply well is located upgradient of the cyanide facilities. In the unlikely event of an incident that could affect the water supply, Carlin would only use bottled drinking water.

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

Carlin is

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 7.6, which requires that the site periodically evaluate response procedures and capabilities and revise them as needed.

Carlin evaluates and updates its ERP on a regular basis, and following mock drills and actual incidents as needed. Carlin conducts mock emergency drills based on likely cyanide release/exposure scenarios to test the response procedure, and incorporates lessons learned from the drills into its response planning. Mock drills are conducted on a regular basis. The auditors reviewed documentation related to the cyanide-related mock drills conducted by Carlin during the recertification period as well as the current version of the ERP (dated December 2014) 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**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 8.1 which requires that the site train workers to understand the hazards associated with cyanide use.

All Carlin staff are trained in cyanide hazard recognition as part of their Mine Safety and Health Administration New Hire Training and site specific training. Staff assigned to the plant or tailings, where cyanide is an integral part of the operation, are also trained on the safe use and handling of cyanide through a "process specific training module". Visitors receive an information handbook that mentions the possible presence of cyanide in ponds and facilities; however, visitors are always escorted by Carlin staff to ensure their safety. Cyanide hazard recognition refresher training is conducted periodically.

Carlin maintains records of employee safety training including training on cyanide subjects. These are in the form of both Mine Safety and Health Administration annual refresher training and safety meeting sign in sheets as well as an Excel spreadsheet detailing which employees and when they received the cyanide general awareness training. The auditors interviewed operators to confirm they had received annual refresher training.

The auditors reviewed the training records for a number of employees selected at random including those who were working at the mine at the time of the audit. All training records were found to be correct. The auditors also interviewed a number of employees and a contractor and it was found that both the employees and the contractor had a very high level of understanding of the hazards involved with working with the cyanide.

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**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 8.2 which requires that the site train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

Employees assigned to specific areas where cyanide is an integral part of the operation, such as unloading, processing, and maintenance activities, are trained on the safe use and handling of cyanide following the Eastern Nevada Process Operations Technicians System and Hourly Progression System. Training methods use on the job training, the process procedures and instruction on the proper use of the equipment. The employee is required to take a competency knowledge check, involving a detailed written and oral examination, prior to being signed off on an individual task. Additionally, there is supervisor observation of workers with the supervisor through' Safety Interactions'. A record is maintained demonstrating the level of training the employee has received.

All new employees are required to attend the 'Cyanide Safety New Hire' class as part of the New Hire Employee Training. Also, employees who work in areas where cyanide is used are trained on cyanide safety and are required to pass a written and oral examination before working in the area.

Carlin's employees are trained annually on hazards associated with cyanide. Cyanide safety annual refresher training is given through the on-line "process specific" training module individually or as a group. Additionally, training includes weekly safety meetings that periodically include instruction and training on cyanide safety.

Carlin maintains records on training for each employee throughout the entire period of their employment. The auditors reviewed the complete training records for a number of members of staff. The auditors also interviewed offload buddies and one contractor working in the processing plant.

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

☒ **in full compliance with**

Carlin is

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 8.3 which requires that the site train appropriate workers and personnel to respond to exposures and environmental releases of cyanide.

Employees assigned to a specific area where cyanide is an integral part of the process such as unloading, mill operations, and maintenance are trained on the safe use and handling of cyanide. Carlin staff receives annual refresher training that includes training on cyanide hazards and safety measures. Training records are retained documenting the employee training on cyanide use and safety. The auditors reviewed training records from the recertification period.

All employees working with cyanide receive training on elements of the ERP including first aid procedures and locations of emergency response equipment. All employees working with cyanide are trained to be first responders and this training is part of the annual cyanide refresher training. The cyanide safety presentation includes locations where cyanide is used, how to find the MSDS, goes through the details, emergency response procedures and resources, the Mayday procedures, cyanide exposure symptoms, and first aid treatment.

Representatives from Carlin's MERT attend meetings at the Elko County LEPC. This enables the operation to make off-site emergency responders, familiar with those elements of the ERP related to cyanide.

Carlin has conducted three mock drills involving cyanide exposures and releases during the re-certification period and has taken part in a county wide mock drill organized by the LEPC.

PRINCIPLE 9 – DIALOGUE
Engage in Public Consultation and Disclosure

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

☒ **in full compliance with**

Carlin is
☐ in substantial compliance with **Standard of Practice 9.1**
☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 9.1 which requires that the site provide stakeholders the opportunity to communicate issues of concern.

Stakeholders and the public may contact Carlin via advertised phone numbers and e-mail addresses. Carlin hosts community breakfasts, mine tours, and open houses. Public meetings are held when required for new or renewing permits. Carlin maintains an issues register to ensure stakeholder and public concerns are tracked and received responses.

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

☒ **in full compliance with**

Carlin is
☐ in substantial compliance with **Standard of Practice 9.2**
☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 9.2 which requires that the site initiate dialogue describing cyanide management procedures and actively address identified concerns.

Carlin hosts community breakfasts, mine tours, and open houses where cyanide-related information is disseminated orally and via handouts and presentations. Public meetings are held when required for new or renewing permits. Carlin also distributes cyanide-related information via its series of articles “Newmont Notes” in the Elko newspaper and via the “Beyond the Mine” website.

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

☒ **in full compliance with**

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

☐ not in compliance with

Summarize the basis for this finding:

Carlin is in FULL COMPLIANCE with Standard of Practice 9.3 which requires that the site make appropriate operational and environmental information regarding cyanide available to stakeholders.

Carlin has developed handouts, presentations, and videos that have been distributed to the public and stakeholders via meetings, tours, workshops, community breakfasts, and a website. Fact sheets associated with permits are available from the Nevada Department of Environmental Protection. The majority of the local population is literate; nonetheless, Carlin distributes a video on how gold is produced that provides information visually and orally. Information is also presented orally during tours and meetings.

Carlin makes information available regarding releases and exposures via the website "Beyond the Mine" (http://www.beyondthemine.com). This website reported no cyanide- exposures for 2013 and 2014. Carlin staff stated that had been one worker exposure incident in March 2015, which was not yet listed on the website. An operator was exposed to HCN gas. Oxygen was administered and the operator was transported to the hospital as a preventative measure, but the operator was not admitted for treatment (i.e., there was no hospitalization). The website showed that three cyanide-related spills were reported to regulatory authorities in 2014. Newmont classified all as moderate in accordance with their procedures. Carlin acted in good faith to control the releases, remediate the impacts, and implement preventative measures. The corrective actions and remediation were completed in a timely manner. None of the releases posed an immediate or substantial risk to health, safety, or the environment given that all had WAD cyanide concentrations less than 10 mg/L. Therefore, the auditors do not consider them to be significant cyanide releases.

Report Signature Page

GOLDER ASSOCIATES INC.

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Date: December 4, 2015

KJ/IA/SW/rt

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