



SEPTEMBER 2014

ICMC RECERTIFICATION
SUMMARY AUDIT REPORT

La Herradura Mine
Sonora, Mexico

REPORT

Submitted to:

International Cyanide Management
Institute
888 16th Street, NW - Suite 303
Washington, DC 20006 USA

Minera Penmont S de RL de CV
Callejon Sin Nombre,
209 Oeste Entre Ave. N y P
Col. Centro, CP 83600
H. Caborca, Sonora MX

Submitted by:

Golder Associates Inc.
4730 N. Oracle, Suite 210
Tucson, AZ 85705 USA

Project No.

1400913

Distribution:

ICMI - PDF
La Herradura - PDF
Golder Associates Inc. – PDF





Table of Contents

1.0 SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS	2
2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION	3
2.1 Mine Location	3
2.2 Background.....	3
3.0 SUMMARY AUDIT REPORT	7
Auditors Findings	7
Name of Other Auditors	7
Dates of Audit	7
PRINCIPLE 1 – PRODUCTION.....	8
PRINCIPLE 2 – TRANSPORTATION	9
PRINCIPLE 3 – HANDLING AND STORAGE	11
PRINCIPLE 4 – OPERATIONS	14
PRINCIPLE 5 – DECOMMISSIONING	22
PRINCIPLE 6 – WORKER SAFETY	24
PRINCIPLE 7 – EMERGENCY RESPONSE.....	28
PRINCIPLE 8 – TRAINING.....	33
PRINCIPLE 9 – DIALOGUE.....	37
FIGURES	
Figure 1: Regional Location Plan	4
Figure 2: Local Location Plan	5
Figure 3: Process Flow Diagram (supplied by La Herradura).....	6



1.0 SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS

Name of Mine: La Herradura Mine
Name of Mine Owner: Fresnillo Plc
Name of Mine Operator: Minera Penmont S de RL de CV
Name of Responsible Manager: José Arturo Arredondo Morales
Address: Minera Penmont S de RL de CV
Callejon Sin Nombre 209 Oeste Entre Ave. N y P
Col. Centro, CP 83600
State/Province: H. Caborca, Sonora
H. Caborca, Sonora
Country: Mexico
Telephone: + 52 637 373-2204
Fax: + 52 637 372-2044
E-Mail: arturo_arredondo@fresnilloplc.com

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date



2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

2.1 Mine Location

La Herradura is operated by Minera Penmont S de RL de CV (Penmont) which is a joint venture between Newmont Mining Corporation (Newmont) and Fresnillo Plc (Fresnillo). Fresnillo is the majority partner (56 percent) and Newmont is the minority partner (44 percent).

La Herradura is located in the Altar Desert approximately 80 kilometers (km) northwest of the city of Caborca and 20 km from the coast of the Gulf of California in the state of Sonora, Mexico (Figures 1 and 2). Approximately 1,000 employees and 300 contractors worked at La Herradura in 2013, based on data available from the Fresnillo website. The nearest village (Ejido Juan Alvarez) is located approximately 5 km to the northeast of La Herradura. The Altar Desert is extremely arid and there is no surface water.

2.2 Background

Exploration at La Herradura dates back to 1987. La Herradura began construction in 1997 and began operation in 1998. The reserves were found to reach 50 million tons with a gold grade of 1 gram of gold per ton, amounting to 1.15 million recoverable ounces.

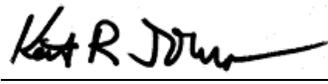
La Herradura is an open pit gold mine with a heap leach pad, Merrill Crowe Plant, a pregnant pond, three contingency ponds, and associated pipework. A new underground mine was being developed in 2013, along with a Dynamic Leaching Plant and tailings impoundment. These new facilities will undergo startup in mid-2014 with production in the latter half of 2014, and therefore are not included in the 2014 audit cycle.

La Herradura receives cyanide via isotankers from E. I. du Pont de Nemours (DuPont), but also occasionally receives solid cyanide in flobins from DuPont as a backup to the isotanker deliveries.

The run-of-mine mineral from the open pit is sent directly to the heap leach pad. The mine has one heap leach pad which has been sub divided into 11 phases. The leach pad was constructed with a composite liner of compacted clay and geomembrane. Once in the leach pad, a cyanide solution is applied by drip irrigation.

The pipelines between the leach pad and plant are contained within a geomembrane liner. The pump stations are constructed of concrete with leak detection sumps. There is one pregnant pond and three contingency ponds. Three of the contingency ponds present in the 2011 audit were converted into a single “mega-pond” in 2013 to increase storage capacity. The pregnant pond is double lined (geomembrane) with leak detection, collection, and recovery, as well as a floating liner. The contingency ponds are single lined (geomembrane).

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date



ICMC RECERTIFICATION SUMMARY REPORT

The lixiviate (i.e., pregnant solution) from the pad is processed in a Merrill Crowe (Figure 3). This plant has a new isotanker installation constructed in 2013 for preparing cyanide, but has retained the former flobin mixing facilities as backup. The new isotanker facility has a dilution tank, storage tank, and distribution tank within a single secondary containment, while the flobin facility has a mixing tank, a storage tank, and a feed tank, also within a single secondary containment. The Merrill Crowe plant also has a pregnant solution column, filter wash tanks, clarifiers, a deoxygenation tank, a zinc cone, and barren tank. There is no barren pond and no carbon in leach is required due to the composition of the ore. The barren tank is within a separate secondary containment along with the clarifiers and pressure filters. The tanks are constructed of stainless steel and pipelines are constructed with stainless steel and HDPE. The plant, including all areas with tanks, is lined with reinforced concrete. Two new concrete sedimentation ponds were constructed in 2013 to manage the washdown solution and sediments from the clarifiers.



Figure 1: Regional Location Plan

La Herradura Mine
Name of Facility

Kurt R. Jones
Signature of Lead Auditor

September 24, 2014
Date



ICMC RECERTIFICATION SUMMARY REPORT



Figure 2: Local Location Plan

La Herradura Mine
Name of Facility

Kat R. Jones

 Signature of Lead Auditor

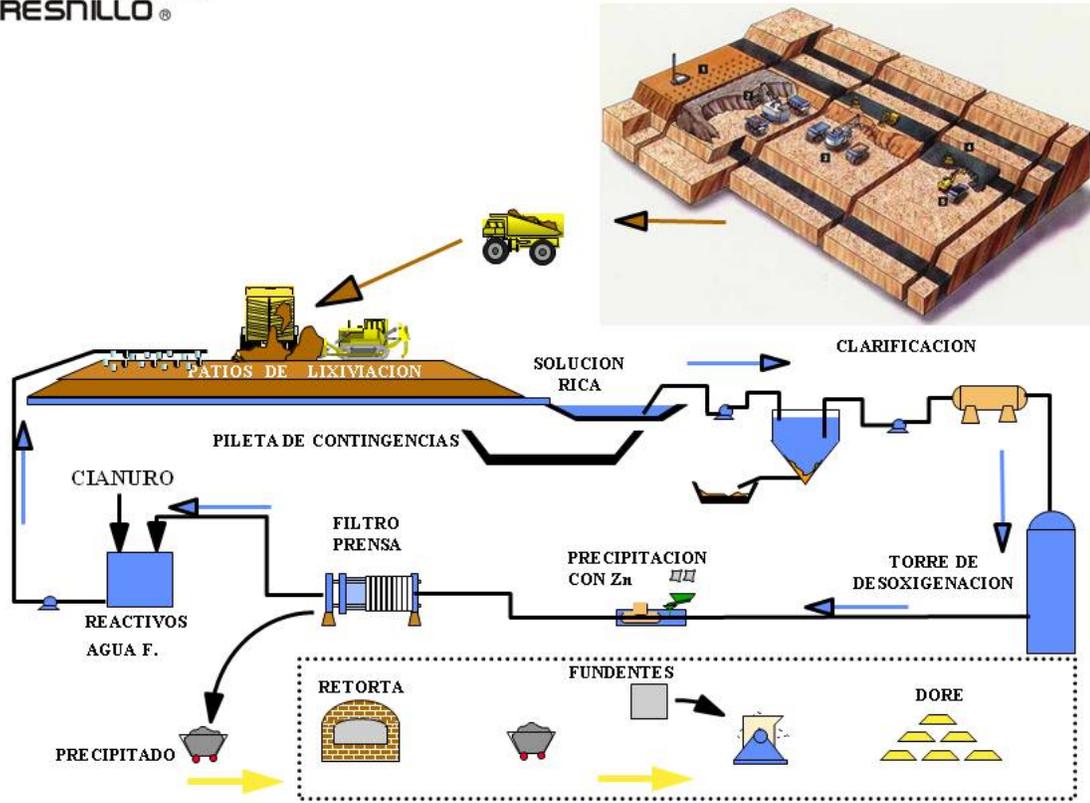
September 24, 2014
Date

September 2014
Project No. 1400913





DIAGRAMA GENERAL DE PROCESO



Legend:

- Cianuro – Cyanide
- Patios de Lixiviacion – Heap Leach Pad
- Solucion Rica – Pregnant Solution
- Torre de Desoxigenacion – De-oxygenation Tank
- Filtro Prensa – Filter Press
- Precipitacion con Zn – Zinc Cone
- Pileta de Contingencias – Contingency Ponds

Figure 3: Process Flow Diagram (supplied by La Herradura)

La Herradura Mine
Name of Facility

Karl R. Jones
Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





3.0 SUMMARY AUDIT REPORT

Auditors Findings

in full compliance with

The International Cyanide Management Code

La Herradura Mine is: in substantial compliance with

not in compliance with

No significant cyanide incidents or cyanide exposure incidents were noted as occurring during the audit period.

Audit Company: Golder Associates Inc.

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

Email: kjohnejack@golder.com

Name of Other Auditors

Name, Position	Signature
Bruno Pizzorni, Mining Technical Specialist	
Rick Frechette of Knight Piesold Inc. participated as a second auditor on selected aspects of Standards of Practice 4.1.2, 4.3, and 4.8 to avoid a Golder conflict of interest.	

Dates of Audit

The recertification audit was undertaken in over four days from April 8 to 11, 2014.

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 I 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.

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date





PRINCIPLE 1 – PRODUCTION

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

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 1.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

During the recertification period, La Herradura purchased cyanide only from DuPont who manufactures it at their plant in Memphis, Tennessee. La Herradura’s agreement with DuPont does not contain language requiring that the cyanide be produced at a facility that has been certified as being in compliance with the Code. Nonetheless, La Herradura is in full compliance because it does, in fact, purchase the cyanide from a certified producer. DuPont’s Memphis plant has been certified since 2006 and was most recently recertified in 2013. DuPont’s warehouse in Hermosillo, Sonora has been certified since 2010 and was most recently recertified in 2014. The auditors reviewed chain of custody and invoice records to confirm that La Herradura purchased cyanide from only DuPont during the recertification period.

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date





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.

[X] 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/Deficiencies Identified:

The operation 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.

La Herradura purchases cyanide from DuPont, who manufactures it at their plant in Memphis, Tennessee. La Herradura purchased cyanide under two different agreements (i.e., 2010 and 2014) during the recertification period. Both agreements state that La Herradura does not take responsibility for the cyanide until it is received in the warehouse at La Herradura. Neither agreement specifically addresses the requirements for packaging, labeling, storage, route selection, security, interim loading, transporting, maintenance, training, and emergency response; likewise, neither contract specifically addresses the responsibilities of any subcontractors, distributors, transporters, or other transport-related operators. Nonetheless, La Herradura is in full compliance because the entire DuPont supply chain from their plant in Tennessee, through Mexico, and to the mine, has been certified throughout the recertification period. The auditors reviewed the various supply chain audit reports on the ICMI website to confirm compliance.

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

[X] in full compliance with

The operation is

[] in substantial compliance with

Standard of Practice 2.2

[] not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura Mine
Name of Facility

[Handwritten Signature]
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

La Herradura purchases cyanide from DuPont, who manufactures it at their plant in Memphis, Tennessee. La Herradura purchased cyanide under two different agreements (i.e., 2010 and 2014) during the recertification period. Both agreements state that La Herradura does not take responsibility for the cyanide until it is received in the warehouse at La Herradura. Neither agreement specifically requires that transporters be certified under the Code. Nonetheless, La Herradura is in full compliance because the entire DuPont supply chain from their plant in Tennessee, through Mexico, and to the mine has been certified throughout the recertification period. The auditors reviewed the various supply chain audit reports on the ICMI website to confirm compliance. The auditors also reviewed chain of custody and invoice information provided by La Herradura to confirm that they only received cyanide via the certified DuPont supply chain throughout the mine's recertification period.

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



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.

[X] 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/Deficiencies Identified:

The operation is in full compliance with Handling and Storage 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.

During the current audit cycle, La Herradura constructed a new isotanker offloading facility at the Merrill Crowe Plant. The flobin system observed in the 2011 audit remains as a backup system, but the isotanker system is now the primary offloading system. Both the isotanker and flobin systems are located within the fenced area for the Merrill Crowe Plant, which is located approximately 5 km from the nearest village. Because of the extreme aridity at the site, there is no natural surface water.

The new isotanker facility was professionally designed and constructed. DuPont inspected the facility at various stages during construction and issued a letter finding it acceptable for use. The isotankers are offloaded on a below-grade concrete ramp with a sump, thus minimizing the potential for seepage to the subsurface and providing a means to recover any leaked solution. The dilution, storage, and dosification tanks are equipped with level sensors monitored from the plant control room. La Herradura provided monthly maintenance records for the level sensors for the recertification period. Each tank was installed on a concrete floor within a concrete ring, thus providing a competent barrier to seepage. The three tanks were installed within concrete secondary containment with a sump that reports to the dosification tank or contingency pond. The isotanker facility is in the open air and within the fenced and guarded plant, thus providing adequate ventilation and security. The isotanker facility is located separate from the plant and warehouse, thus eliminating the potential for mixing with incompatible materials. The auditors observed that the isotanker facility was in good condition.

La Herradura Mine
Name of Facility

[Handwritten Signature]
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

The flobin system, consisting of the cyanide storage warehouse and the mixing, storage, and feed tanks at the Merrill Crowe Plant were evaluated in the 2011 audit and found fully compliant. There have been no changes to the warehouse and tanks since 2011. Solution levels in the tanks are monitored automatically from the plant control room, thereby preventing overflows. La Herradura provided monthly maintenance records for the level sensors for the recertification period. The tanks were installed on solid concrete bases within secondary containment consisting of reinforced concrete with an industrial sealant, thus providing a competent barrier to leakage. The secondary containment reports to a sump that returns solutions to the process circuit. The flobins are stored in a locked warehouse inside the secure plant area. The warehouse is roofed and well ventilated. The potential for contact with water is limited by curbs and drainage ditches around the warehouse. Cyanide is stored by itself in an area separated from the rest of the warehouse by a chain link wall. During the 2014 audit, the auditors observed the warehouse, tanks, and secondary containment to be in good condition.

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/Deficiencies Identified:

The operation is in full compliance with Handling and Storage 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.

During the current audit cycle, La Herradura constructed a new isotanker offloading facility at the Merrill Crowe plant. The flobin system observed in the 2011 audit remains as a backup system, but the isotanker system is now the primary offloading system. For both systems, La Herradura has developed and implemented procedures to prevent or respond to releases and worker exposures.

La Herradura began using the isotanker facility in 2012. The new isotanker facility eliminates the potential for improper reuse of containers, as well as the need to manage empty containers. The written procedure for isotanker offloading prescribes that the top of the isotainer be washed off after disconnecting from the dilution tank. The written procedure also prescribes steps for safe operation of valves and couplings, as well as proper personal protective equipment (PPE) and observation. A separate written procedure describes the measures for cleaning up spilled solution. The auditors observed the initial part of an isotanker offload to verify use of the offloading procedure, the presence of

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

an observer, and use of the proper PPE. The auditors also reviewed completed checklists for isotanker offloads in 2013 and 2014 to verify compliance.

La Herradura used the flobin system in 2011 and 2012. La Herradura tracks the flobins to ensure that the empty flobins are returned to DuPont and not used for other purposes. There are no plastic bags or liners that would require rinsing and disposal. La Herradura has developed written procedures for handling and storing the flobins, mixing the solid cyanide, and cleaning up spills of solid cyanide. The auditors observed that flobins were stacked no more than two layers high in the warehouse, in accordance with the written procedure. The written procedure for mixing solid cyanide prescribes the proper PPE, the operation of valves, and the presence of an observer. The auditors reviewed completed checklists for offloading flobins to the warehouse, as well as checklists for mixing solid cyanide, to verify compliance.

La Herradura Mine
Name of Facility



Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



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.

[X] 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/Deficiencies Identified:

The operation 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.

The La Herradura facilities with WAD cyanide greater than 0.5 ppm are:

- Heap leach pad, consisting of 10 phases
■ One pregnant pond
■ Three contingency ponds (i.e., Contingency Pond 1, Contingency Pond 6, and the Megapond)
■ Primary reagent cyanide system, including an isotanker offloading facility with a dilution tank, storage tank, and dosification tank
■ Backup reagent cyanide system including a cyanide storage warehouse for flobins and a cyanide preparation facility with a mixing tank, storage tank, and feed tank
■ Merrill Crowe plant, including a barren tank, zinc cone, deoxygenation tower, clarifiers, and filter presses; reagent-grade cyanide is added at the barren tank and the zinc cone
■ Seven booster stations (without tanks)
■ Associated pipelines, pumps, valves, and appurtenances

La Herradura has developed three high-level management systems relevant to cyanide and/or environmental management with the goal of preventing or controlling releases to the environment and exposures to the workers and communities: ISO-14001 Environmental Management Certification; Clean Industry program; and Socially Responsible Company program. To implement these high-level programs, La Herradura has developed the following detailed plans and programs identifying assumptions, parameters, and regulatory requirements: a MAXIMO database for managing maintenance; program for environmental monitoring; emergency response plan; design reports and drawings; and a set of more than 24 standard operating procedures.

La Herradura Mine
Name of Facility

[Handwritten Signature]
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

La Herradura has prepared a written procedure for management of change that applies to physical and operational changes. The procedure is accompanied by a form for sign-off by the initiator of the requested change and the environmental/safety manager. La Herradura provided five signed examples to verify compliance.

La Herradura has developed and implemented five procedures that address upset conditions and contingencies. These procedures address general preparation and response to emergencies; contingency pond emergencies; slope failure; pipeline breaks; spill from secondary containment; stopping and starting the plant; immediate spill response; and spill clean-up.

La Herradura inspects cyanide facilities on an established frequency sufficient to ensure, as well as document, that equipment and facilities are functioning as intended. La Herradura has developed a written procedure to govern inspections. The procedure is accompanied by five forms to document the inspections. La Herradura inspects the cyanide facilities at frequencies that vary from daily to monthly, as well as per event. Wildlife inspections take place daily at the plant, pad, and ponds.

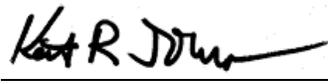
La Herradura inspects the unloading, storage, mixing, and process areas and documents those inspections with forms. Tanks, secondary containments, pipelines, pumps, sumps, valves, and leak detection systems are inspected by process staff on a daily to weekly basis. La Herradura conducted tank integrity testing in 2010 and 2013 and all cyanide-related tanks and vessels were found suitable for their intended use.

La Herradura documents inspections, including the date of the inspection, the name of the inspector, items inspected, observations, and corrective actions. Corrective actions are tracked via the MAXIMO software for maintenance. The auditors reviewed examples of completed inspection forms from throughout the recertification period to verify compliance.

La Herradura has implemented a maintenance program via the MAXIMO software that includes both proactive (scheduled) maintenance and reactive (unscheduled) maintenance. La Herradura classifies maintenance based on the potential for harm or contamination using a four-tier system. The auditors reviewed examples of scheduled maintenance from throughout the recertification period to verify compliance. The auditors also reviewed an example of unscheduled maintenance resulting from an inspection where a leak was observed. The repair was entered into MAXIMO and the closed work order showed that the leak was fixed in a single day.

La Herradura does not maintain backup power at the site. They have constructed one large pond and two smaller ponds that provide up to 83 hours of capacity. The auditors consider that amount of time

La Herradura Mine
Name of Facility



Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



ICMC RECERTIFICATION SUMMARY REPORT

adequate to either restore power or bring in portable generators, given the mine's proximity to vendors in the United States.

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/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.2, requiring that the operation limit 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.

Although La Herradura is in the process of building a mill and tailings impoundment, they were not operational at the time of the site visit and therefore were excluded from the scope of the audit.

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/Deficiencies Identified:

The operation 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.

Knight Piesold Review

The existing water balance and operational monitoring practices address climate, operational modifications and provides for maintaining adequate freeboard. The water balance can be considered to be comprehensive and probabilistic. The water balance considers leaching application rates, a design storm event, representative climate data, diversion of upgradient runoff, adequate pond sizing and backup pumping for contingency events. Monitoring is provided to track pond levels and assess freeboard maintenance. Actual versus design-based climate data are compared and will be used to consider changes in the water balance inputs.

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 4.4

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation is in substantial 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.

To restrict wildlife and livestock access, La Herradura has installed a fence around the perimeter of the mine, fences around the ponds and plant, and netting over the headworks to the pregnant pond. La Herradura provided analytical data that showed WAD cyanide concentrations were less than 50 mg/L in open water in the pregnant pond, contingency ponds, and sedimentation cells throughout the recertification period. Based on their daily inspections, La Herradura has not experienced any wildlife mortality during the recertification period. La Herradura has implemented written procedures for leaching to prevent over application and leaks, as well as for corrective action if ponding occurs. The auditors did not observe any significant ponding on the leach pad during the site visit. The use of drip irrigation at the leach pad eliminates 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

The operation is

in substantial compliance with

Standard of Practice 4.5

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

Standard of Practice 4.5 is inapplicable because of the extreme aridity in the vicinity of the mine and there is no discharge to surface water.

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

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/Deficiencies Identified:

The operation 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.

La Herradura has implemented measures at the cyanide facilities to protect groundwater. These measures include geomembrane lining for the leach pad (composite liner), pregnant pond (double liner), contingency ponds (single liner), and pipeline routes (single liner). The sedimentation cells are concrete lined. The plant floor is constructed of concrete, as are the floors of the new isotanker facility and the backup flobin facility. The pump stations are constructed of concrete. The pregnant pond and pump stations are equipped with leak detection sumps; the pregnant pond sump is equipped with a pump to return solution to the process circuit.

As shown on the groundwater monitoring summary tables submitted annually to regulators, the beneficial use of groundwater is irrigation and the applicable standard is 0.02 mg/L total cyanide. There are three monitoring wells downgradient of the pad, ponds, and plant, but two of them were out of service during the recertification period because of the pit expansion. The analytical results for the third monitoring well were less than the applicable standard of 0.02 mg/L total cyanide throughout the recertification period.

La Herradura does not backfill tailings in underground workings. Seepage has not affected groundwater and remedial action is unnecessary.

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 4.7

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

La Herradura has provided secondary containments for the tanks in the new isotanker facility, the backup flobin mixing area, and the Merrill Crowe Plant. All tanks are installed on solid concrete bases. The secondary containments are constructed of reinforced concrete. The secondary containments have capacity for at least 110 percent of the volume of their largest tanks, as supported by calculation packages. All of the secondary containments report to sumps with dedicated pumps to return solutions to the process circuit; accordingly, no written procedures are needed. La Herradura does not have any cyanide-related tanks without secondary containment. All cyanide-related pipelines have been installed within secondary containment channels, pipes, and conduits constructed of geomembrane liner, outer HDPE pipe sleeves, or reinforced concrete. Special protection measures for surface water are inapplicable, as there is no surface water due to the extreme aridity. The auditors did not observe any tank or pipeline materials incompatible with cyanide or high pH.

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/Deficiencies Identified:

The operation 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.

La Herradura has implemented construction quality assurance (CQA) procedures that confirm cyanide facilities were constructed properly. Because the 2011 audit evaluated the CQA programs for the following facilities, they did not need to be re-evaluated for the 2014 recertification audit:

- The cyanide storage warehouse
- The flobin mixing facility
- The Merrill Crowe Plant
- Phases 1 to 8 of the heap leach pad
- The pregnant pond, contingency pond 1, and contingency pond 2

Golder, via its affiliate in Mexico (Geomex), has been involved in certain types, but not all types, of the CQA for the new or modified cyanide facilities at La Herradura during the recertification period. Golder provided earthwork, liner, and piping CQA services for Phases 9 and 10 of the heap leach pad, as well as for the Megapond. Consequently, a conflict of interest exists and an independent auditor (i.e., Mr. Rick

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

Frechette, PE, of Knight Piesold) was retained. However, no conflict exists for Golder to review the CQA evidence for the new isotanker offload facility and the new sedimentation cells.

Golder Review

The auditors reviewed the documentation for the isotanker facility and the sedimentation cells to confirm the existence of CQA programs. In general, the programs for these facilities addressed the suitability of materials and consisted of welding inspection; borrow source testing, compaction testing, and concrete testing. The CQA reports contained the names of the engineer(s) responsible for the report. The reports also included statements that the project work was carried out according to generally accepted professional standards and practices. The auditors observed that La Herradura has retained the CQA records referenced in the 2011 audit in bookshelves in the Safety and Ecology Office Building.

Knight Piesold Review

CQA documents exist and are maintained on site to demonstrate the facilities have been constructed to meet the required standards. These contain evidence of addressing materials suitability, compaction testing and liner installation CQA relative to the leach pads and ponds. These documents have been certified by qualified parties.

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 4.9

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura has implemented written procedures for groundwater and wildlife monitoring; surface water monitoring is inapplicable given the extreme aridity at the site and the absence of surface water. Monitoring is conducted at frequencies adequate to characterize the medium being monitored and to identify changes in a timely manner.

La Herradura monitors groundwater downgradient of the cyanide facilities at a 6-month frequency. The groundwater monitoring procedures were prepared by a commercial laboratory certified by the Mexican government. The laboratory also provides a qualified geologist to conduct the field sampling. The written procedures specify each step of the groundwater sampling, including containerization, preservation,

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

chain-of-custody, transport, and the list of constituents. Conditions at the time of sampling are documented in the field forms. The auditors verified compliance by reviewing the monitoring procedure, certifications, field forms, and laboratory data from throughout the recertification period.

La Herradura monitors for wildlife mortalities daily at the pad, ponds, and plant in accordance with a written procedure. Inspections are documented on field forms. The auditors reviewed completed forms from throughout the recertification period to verify compliance.

La Herradura Mine
Name of Facility



Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



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.

[X] 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/Deficiencies Identified:

The operation 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.

La Herradura commissioned SRK Consulting to develop the closure plan titled 'La Herradura Mine and Soledad-Dipolos Mine Conceptual Closure Plan' (January 2013). The plan includes the all phases of the heap leach pad, the Merrill Crowe plant, and the process ponds, as well as activities related to disposition of residual chemicals, decontamination, and demolition. The SRK Conceptual Closure Plan includes a schedule in the form of a Gantt chart. Section 2.4 of the SRK Conceptual Closure Plan states that the plan is to be updated every 5 years. The auditors viewed the previous version of the plan (2009) and the current version of the plan (2013) to confirm that the plan had been updated at least every 5 years.

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

[X] 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/Deficiencies Identified:

The operation 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.

The 2013 SRK Conceptual Closure Plan includes an estimate of the cost to fully fund third party implementation of cyanide-related decommissioning measures at La Herradura. Although the report is dated January 2013, the costs were estimated in 2012. The auditors viewed two versions of the plan (2009 and 2013) to confirm that the plan had been updated at least every 5 years. La Herradura provided

La Herradura Mine
Name of Facility

[Handwritten Signature]
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

a 2012 letter from Ernst & Young, an external financial auditor, to verify a self-guarantee mechanism to cover the estimated costs for cyanide-related decommissioning activities. The letter includes the financial auditor's certification number and results from the financial test. The self-guarantee amount for closure of both La Herradura and Soledad-Dipolos is approximately 15 times greater than the estimated costs for decommissioning the cyanide facilities at La Herradura alone.

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



PRINCIPLE 6 – WORKER SAFETY

Protect Workers’ Health and Safety from Exposure to Cyanide

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 6.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura has procedures and work instructions for the cyanide-related activities at plant, process ponds, leach pads, and other areas where they handle cyanide. The procedures cover cyanide unloading, storage and preparation, plant and leach pad operations, confined spaces, decontamination, and other cyanide-related activities. Each procedure covers the work objective, scope, responsible persons, definitions, risks and hazards, environmental issues, the necessary tools and equipment, PPE, safety equipment, procedural steps, emergency procedures and telephone contact list. Areas where cyanide is used also have signs listing the PPE requirements. The operation’s general safety training and task training discuss the requirements for PPE, as do the cyanide refreshing training materials. La Herradura completes pre-work inspections using checklists for offloading flobins, mixing of solid cyanide, and offloading liquid cyanide from isotankers.

La Herradura has implemented a procedure to be used when an operational or process change/modification is proposed. The procedure considers the involvement of process, environmental and safety personnel in the assessment of the proposed changes. The procedure is accompanied by a form that must be signed by the initiator of the requested change and the environmental/safety manager. The auditors reviewed five completed change management forms related to the cyanide facilities for the 3-year recertification period to verify that La Herradura is implementing the written procedure.

La Herradura provides many opportunities for workers to provide input to the procedures through the following: 1) daily 5-minute meetings conducted at the process areas, 2) weekly safety meetings, 3) monthly H&S talks by the leaders between different areas, 4) Stop Cards for safety observations between co-workers, and 5) review of and changes to work procedures where workers and supervisors participate. The auditors reviewed examples of these items from throughout the recertification period to verify compliance.

La Herradura Mine
Name of Facility

Kurt R. Johnson
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

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/Deficiencies Identified:

The operation 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.

La Herradura monitors to ensure that pH is higher than the target levels to prevent the formation of HCN as recommended in the operating plans. The work procedures require an operating pH greater than 10 su for the leach solution and a pH of 11 su for the mixing solution. The auditors reviewed time series graphs for the in-line pH monitors to verify that these targets were met throughout the recertification period.

La Herradura has installed eight fixed HCN monitors in areas of potential exposure to cyanide. In addition, operators use portable HCN meters to conduct maintenance work, confined space related work and other cyanide tasks. HCN sensor alarms are set at 4.0 ppm (low level alarm) and 10 ppm (high level alarm). Both portable and fixed HCN monitors are maintained, calibrated and inspected as recommended by the manufacturer, as verified by calibration and maintenance records.

The auditors observed that warning signs are posted in areas where cyanide is used to alert workers that cyanide is present, that smoking, eating and drinking are not allowed and that the necessary cyanide-specific PPE must be worn. Pipes carrying cyanide are marked and the direction of flow is indicated with arrows on the pipe. Signage for confined spaces in tanks has also been placed.

Showers, low-pressure eye wash stations and dry powder fire extinguishers are located at strategic locations throughout the operation and are maintained, inspected and tested on a regular basis. The auditors randomly inspected showers and eyewash stations to verify they were operational. First aid procedures and MSDS are also available in the Process, Environmental and Safety Departments. The instructions are in Spanish, the language of the workforce. La Herradura implemented procedures that require all incidents and accidents involving cyanide exposure 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. The auditors verified compliance by reviewing the incident

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

report for a minor cyanide-related incident, which was the only incident that La Herradura reported during the recertification period.

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 6.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

Cyanide antidote kits are located in the process control room, the observation room for the flobin mixing system, the observation room for the isotanker offloading facility, and the medical clinic. Cyanide antidote kits include amyl nitrite, sodium nitrite, sodium thiosulfate, oxygen, and a first aid kit. In addition, automated external defibrillators and an ambulance are located in the medical clinic. Amyl nitrite is stored at the manufacture’s recommended temperature and is within expiration dates. All operators carry a radio. The auditors reviewed examples of inspection records from throughout the recertification period to verify that first aid equipment was inspected regularly.

La Herradura has developed written emergency response standard operating procedures (SOPs) and plans for cyanide exposures. These documents include the following SOPs and Plans: ‘Preparation and Response to Emergencies’, ‘Review of Emergency Equipment for Fires and Hazmat’, ‘Contingency Pond Emergency’, ‘Cleanup of Solid Cyanide Spills’, ‘Attention to Spills of Cyanide Solutions’, ‘Use of the Cyanide Antidote for Poisoning Treatment’ and the ‘Accident Prevention Program’. The procedures and plans address response measures for cyanide exposures and releases, decontamination procedures, evacuation, emergency contact information, clean-up measures, reporting requirements and others.

La Herradura has its own on-site medical clinic staffed with a physician and paramedic to provide first aid or medical assistance to workers exposed to cyanide. La Herradura has developed procedures to transport workers exposed to cyanide to Caborca clinics for further treatment, if needed. In January 2014 La Herradura made an agreement with the Magisterial Clinic of Caborca to treat patients for cyanide poisoning. Previous agreement was held with Santa Fe Clinic in July 2008. La Herradura has determined that Magisterial Clinic is adequate, and has qualified medical physicians and the cyanide antidote (sodium thiosulfate and sodium nitrite) to respond to cyanide exposures. Auditors reviewed a copy of the letter sent by Magisterial Clinic which stated that Dr. Ricardo Romero is trained in hazardous

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



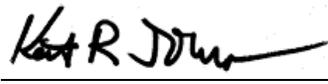


ICMC RECERTIFICATION SUMMARY REPORT

material treatment, including cyanide. The letter also stated that the hospital has medical and paramedic staff trained to provide care to patients with a diagnosis of cyanide poisoning and has adequate equipment to determine cyanide levels in blood.

La Herradura conducted three cyanide-related mock drills during the recertification period. These drills tested the relevant cyanide related emergency procedures on a regular basis. The auditors reviewed the drill reports to confirm that lessons learned were communicated and corrective actions completed to resolve deficiencies.

La Herradura Mine
Name of Facility



Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



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.

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 7.1

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.1 which requires that the site prepare detailed emergency response plans for potential cyanide releases.

La Herradura has developed SOPs, an Emergency Response Plan, and an Accident Prevention Program that together address the potential cyanide failure scenarios for the site-specific environmental and operating circumstances. The Emergency Response Plan addresses accidental releases of cyanide. Emergency response is described in the SOP 'Preparation and Response to Emergencies' where they identify the potential emergency situations and the activities and components that must be prepared before the emergency. The plan, SOPs, and program consider the following potential cyanide failure scenarios according to the mine environment and operation: catastrophic releases; transportation accidents; releases during mixing, unloading, fires, and explosions; pipe, tank, and valve ruptures; pond overtopping; power outages and pump failures; and heap leach pad failure. Failure of cyanide treatment systems is not addressed because La Herradura does not have a destruct circuit. Segutal, DuPont's transporter, has responsibility for transportation accidents until actual delivery to the warehouse (flobins) or dilution tank (isotainers), although La Herradura would assist in the event of a transportation accident. The Emergency Response Plan, SOPs and Accident Prevention Program describe the specific actions to be taken in case of emergency such as the use of cyanide antidotes and first aid measures, first responders, responsibilities, telephone contact lists, call for external help and recovery after the emergency.

La Herradura Mine
Name of Facility

Handwritten signature of lead auditor
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 7.2

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

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

La Herradura solicits the input of its workforce and local response agencies in the emergency response planning through safety meetings, training sessions and mock drills. Workers input in developing and evaluating health and safety procedures is via direct communication between supervisors and operators and during daily 5-minute meetings and monthly safety meetings. La Herradura has involved local response agencies in the cyanide emergency response planning through training sessions and mock drills.

The operation made potentially affected communities aware of the nature of the risks associated with accidental cyanide releases even though La Herradura provided evidence that these communities would not be affected by cyanide releases. La Herradura has established communication channels with the communities located around the mine site through community meetings and through their contractors and brigade members and workforce who live in Ejido Juan Alvarez, Sahuaro, and Caborca. Mine workers and contractors, many of them from Caborca, Juan Alvarez, and Sahuaro, have received cyanide related training as part of the general training required by La Herradura.

The operation involves local response agencies in the cyanide emergency planning and response process. The Caborca Firemen Department and Civil Protection authorities participated in the mock drill of March 2011, February 2012 and 2014. Some of La Herradura brigade members are also members of the Caborca Fire Department. La Herradura has a letter of the Magisterial Clinic of Caborca, from January 2014, which states they have the staff and resources to provide emergency aid for cyanide poisoning.

La Herradura solicits the input of various stakeholders in emergency response mock drills conducted with the participation of the Caborca Fire Department, Civil Protection authorities and the La Herradura Emergency Response Team (ERT). Debriefs were conducted to discuss lessons learned and the necessary corrective actions were incorporated into the Emergency Response Plan to keep it current.

La Herradura Mine
Name of Facility



Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 7.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura designates the personnel and the necessary equipment and resources for emergency response. The Accident Prevention Program, its appendices and the SOP 'Preparation and Response to Emergencies' identify the ERT, required training for the emergency responders, include 24-hour contact information for the coordinators and response team members, specify their duties and responsibilities, list the emergency response equipment, include requirements for inspection of emergency response equipment, and describe the role of outside responders. The auditors reviewed the brigade member list, updated in 2014, with information on its 28 team members: complete name, home address, telephone number and working area. La Herradura maintains a copy of this list in the Safety Department and with the mine dispatcher.

Through the participation of outside entities in meetings, training sessions, and mock drills, La Herradura has confirmed that these entities are aware of their involvement. La Herradura performed mock drills with the participation of the Caborca Fire Department, Civil Protection authorities, and in coordination with Caborca medical center. La Herradura doctors are in frequent communication with the medical staff of the Magisterial Clinic of Caborca. La Herradura has trained the clinic staff in 'Hazardous Materials Emergencies and Sodium Cyanide' in January 2014 and February 2012. Local communities do not have a role assigned in the Emergency Response Plan.

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/Deficiencies Identified:

The operation 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.

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

The SOP 'Preparation and Response to Emergencies' includes a contact list with 24-hour response telephone and radio numbers for emergencies. The list includes the names of internal first responders, security, medical services, and the ERT. For external aid, the list contains contact information of the Caborca Fire Department, the Magisterial clinic, police and emergency center at Caborca. The auditor also observed this information available in the Merrill Crowe Plant, in the Safety Department, and the brigade coordinator's office. This SOP also states that the command center for an emergency would be in charge of internal and external communications. The La Herradura public relations manager, who would be involved with any emergency, has contact information of the members of the local communities and the media.

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 7.5

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura has prepared cyanide response and remediation plans for potential cyanide releases. Section 6 of SOPs 'Clean up of Solid Cyanide Spills' and 'Attention to Spills of Cyanide Solutions' describes procedures to recover solid cyanide spills and cyanide solutions. These documents include procedures to neutralize contaminated soils as necessary with hypochlorite solution. The procedures describes how the chemical solution is to be prepared to the appropriate concentration, and what final cyanide concentration will be allowed in residual soil as evidence that the release has been completely cleaned up. Contaminated soil will be disposed of in the leach pad area. La Herradura confirmed the operation only uses bottled water for drinking water supply and stated that well water is brackish.

By interview with environmental personnel, they confirmed there is no surface water at la Herradura and that groundwater table is located at a depth of approximately 100 meters. La Herradura does not consider the use of any chemicals to treat cyanide that may be released into ephemeral runoff.

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





ICMC RECERTIFICATION SUMMARY REPORT

La Herradura has developed plans to sample and monitor soils and groundwater in the event of spills. The SOPs 'Cyanide Solution Spills' and 'Clean up of Solid Cyanide Spills' require that contaminated water and/or soils are monitored as necessary after a cyanide spill.

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 7.6

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura reviews and evaluates the cyanide-related elements for emergency response on a regular basis. During the 3-year recertification period, La Herradura provided the 2010 and 2012 versions of their SOPs to demonstrate that procedures are reviewed every 2 years or when it is necessary, for example after the mock drills exercises or changes in the process. The 'Accident Prevention Program' is reviewed and updated every year or whenever personnel changes occur in the Emergency Response Team.

La Herradura conducted three cyanide-related mock drills during the 3-year recertification period. These were drills based on likely cyanide release/exposure scenarios.

La Herradura reviews and updates their emergency procedures annually, as required by a statement in the Accident Prevention Program. The auditors reviewed annual updates of the major components of the Accident Prevention Program, such as the emergency equipment list and its location, the names of the brigade members, and the emergency contact list, to verify compliance.

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913





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.

[X] 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/Deficiencies Identified:

The operation 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.

La Herradura provides cyanide-related training to visitors, contractors, workers, and brigade members. New employees, including contractors and visitors, are required to attend to cyanide training before being able to work or visit the mine site. The general induction training addresses properties of sodium cyanide, as well as the health effects and symptoms of cyanide poisoning. The auditors reviewed the records of the general cyanide training and examples of its exam results for new hires, contractors and visitors from March 2011 through April 2014 to verify compliance.

La Herradura requires workers to complete refresher training periodically. The auditors reviewed examples of training records for the 3-year recertification period to verify compliance. The auditors also reviewed the training tracking spreadsheets to verify compliance.

La Herradura retains the training records. The auditors reviewed examples of training records for the 3-year recertification period, as well as training matrices where La Herradura tracks the attendee name, working area, instructor name, date, and the grade they received.

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.

[X] 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/Deficiencies Identified:

La Herradura Mine
Name of Facility

[Handwritten Signature]
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

The operation 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.

La Herradura provides task training to process staff (plant and pad) so that they perform their duties with minimum risk for exposure and releases. It is a formal training program that includes graded examinations and observation. Training elements necessary for each job involving cyanide management are identified in the corresponding cyanide SOP. Appropriately qualified personnel provide cyanide task training at La Herradura. Task specific training to new operators is provided by various process area supervisors with years of experience in work process related to cyanide. On-site doctors/paramedics and emergency responders, provide cyanide general training on intoxication and spill response. La Herradura provides refresher training on cyanide management to ensure that staff continue to perform their jobs in a safe and environmentally protective manner.

La Herradura requires that all employees be trained before working with cyanide and the staff must successfully complete the training before they work independently. Before that time, new staff must be accompanied by more experienced staff. The auditors confirmed compliance by review of records and interviews.

La Herradura evaluates the effectiveness of cyanide task training by written tests to evaluate the effectiveness of learning. Following classroom training, an employee is first supervised in all activities. The supervisor will determine when that individual is then able to perform the task on their own.

La Herradura tracks the task training with an Excel spreadsheet titled 'Procedures Matrix' per year that lists the procedures applicable to each worker of the plant and leach pad areas. Training records are retained throughout an individual's employment. The records include the names of the employee and the trainer; the date of training; the topics covered; and test results demonstrating an understanding of the training materials. The auditors reviewed the spreadsheet and records from 2011 to 2014, and interviewed staff, 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/Deficiencies Identified:

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

The operation 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.

La Herradura trains all plant and leach pad personnel in the procedures to be followed if cyanide is released, covering first aid for exposures, control and clean up measures for environmental releases. This task training contains the response for environmental releases via several scenarios, the use of antidotes, and the response to emergencies.

La Herradura cyanide response personnel, including personnel responsible for cyanide related tasks and maintenance, are trained in decontamination and first aid procedures in case of a cyanide emergency. Task specific SOPs, the 'Emergency Response Procedure' and the document called 'Accident Prevention Program' describe first aid, decontamination and remediation procedures for cyanide-related exposures and releases. Site cyanide response personnel have taken part in the mock drills to test and improve their response skills.

La Herradura has a brigade trained in emergency procedures regarding cyanide, including the use of response equipment. The auditor reviewed the mine brigade list of 28 members to verify they are provided with the required knowledge and are trained to respond to different emergencies that may arise. La Herradura has developed a schedule to ensure brigade members are available for all shifts. The brigade training consists of 17 courses, covering cyanide emergencies among others.

La Herradura has coordinated the emergency procedures with local responders: fire department, Red Cross, Civil Protection, and hospitals in Caborca and with community authorities in Ejido Juan Fernandez and Sahuaro.

La Herradura provides refresher training in the emergency response procedures for cyanide related emergencies response and procedures for cyanide spills to the environment and intoxication. La Herradura requires that all staff working at the cyanide facilities are responsible to respond to cyanide emergencies at least at a basic level. All staff are required to receive training in emergency response procedures and response to cyanide spills procedures each year, which contain basic response measures for exposures and releases.

La Herradura conducted three cyanide-related emergency drills during the 3-year recertification period. Both the March 2011 and February 2012 mock drills, involved a cyanide exposure and a spill next to La Herradura Club House in Caborca. The February 2014 mock drill involved a sodium cyanide spill while unloading an isotanker, where two workers were intoxicated. The auditors reviewed records of these drills at the Emergency Response Department.

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



ICMC RECERTIFICATION SUMMARY REPORT

La Herradura evaluates training needs as part of the opportunities for improvement identified in the mock drills. La Herradura uses checklists to evaluate the efficiency and effectiveness of the groups participating in the emergency response. The auditor reviewed the drill reports from March 2011, February 2012, and February 2014, and in all cases the brigade's performance was evaluated and corrective actions were completed.

Training records are retained throughout an individual's employment documenting the cyanide training they receive. The records include the names of the employee and the trainer, the date of training; the topics covered, and test results demonstrating an understanding of the training materials.

La Herradura Mine
Name of Facility



Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



PRINCIPLE 9 – DIALOGUE

Engage in Public Consultation and Disclosure

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

[X] 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/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 9.1 which requires that the site Provide stakeholders the opportunity to communicate issues of concern.

La Herradura provides opportunities for stakeholders to communicate issues of concern through an open door policy, tours, and with social interest assistance activities to local communities. Community leaders have the phone numbers and e-mail addresses for La Herradura community relations staff. La Herradura has a written procedure with a form for documenting and resolving the issue. La Herradura led 10 tours of the mine during the recertification period, thus providing other opportunities for stakeholder engagement. A variety of personnel is available to answer questions including the company doctor, and staff from the human resources and environmental departments. The auditor reviewed visit reports for tours provided to schools, universities, and workers' families. The auditors reviewed monthly reports that describe interactions with surrounding communities and tours to the mine site throughout the 3-year recertification period.

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

[X] 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/Deficiencies Identified:

The operation 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.

La Herradura creates opportunities to interact with stakeholder and to provide them with information regarding cyanide management by means of an open door policy, mine tours, interacting with the surrounding communities, and sponsoring events of social interest through the Community Center of Caborca. In addition, La Herradura reached out to community leaders in 2012 and 2013 via coordination

La Herradura Mine
Name of Facility

[Handwritten Signature]
Signature of Lead Auditor

September 24, 2014
Date





ICMC RECERTIFICATION SUMMARY REPORT

meetings for cyanide and explosives emergencies. La Herradura also sponsored two training sessions dealing with hazardous materials and emergencies in Caborca. The auditors reviewed written reports for these meetings and training records.

The auditors reviewed articles published in magazines and newspapers of regional circulation describing La Herradura’s activities with the communities, Fresnillo’s mining activities, health and safety care. Penoles has an office in Caborca which is used for community meetings and may be visited by stakeholders seeking more information about La Herradura. The websites for Fresnillo and Penoles have contact information and information about the use of cyanide at La Herradura community relations.

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

in full compliance with

The operation is

in substantial compliance with

Standard of Practice 9.3

not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The operation 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.

La Herradura provides operational and environmental information regarding cyanide to stakeholders. The auditors reviewed articles published in different magazines and newspapers of regional circulation that describe La Herradura’s mine activities, health and safety care and community relations. During the mine site tours the public can see the video ‘La Herradura Mine’ describing the mine activities including the process and use of cyanide. Penoles has an office in Caborca where a pamphlet entitled ‘Safe and Responsible Management of Cyanide in Minera Penmont’ is available to the public. The Fresnillo and Penoles websites have contact information and information about the use of cyanide at La Herradura.

The operation disseminates information on cyanide in verbal form, although most of the people from the communities around the mine speak, read, and write in Spanish. The mine has been involved with the Community Center of Caborca since 2009, and has also held coordination meetings for cyanide and explosives emergencies with authorities of nearest villages, Juan Alvarez and Sahuaro, in 2012 and 2013. The auditors reviewed the monthly human resources reports describing activities with the surrounding communities for the 3-year recertification period.

La Herradura has not had any on- or off-site cyanide spills, releases of cyanide, or incidents of exposure to cyanide requiring response or remediation during the recertification period. A La Herradura procedure

La Herradura Mine
Name of Facility


Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913

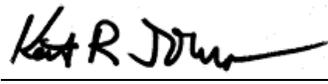




ICMC RECERTIFICATION SUMMARY REPORT

for spill management states that details of a spill would be reported to PROFEPA within 3 days of the incident in the event of an exposure incident. La Herradura would report details of the exposure to IMSS and STPS. These federal agencies would make the information available to the public.

La Herradura Mine
Name of Facility



Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913



Report Signature Page

GOLDER ASSOCIATES INC.

Kent R. Johnejack
Lead Auditor and Mining Technical Specialist
Senior Consultant/Principal

Bruno Pizzorni
Mining Technical Specialist
Senior Project Engineer

Date: September 24, 2014

KJ/BP/sj

x:\tucson\projects\14proj\1400913 penmont la herradura recert\cpt\2nd icmi submittal\1400913_lh recert sar_rpt 2nd to icmi _20140924.docx

La Herradura Mine
Name of Facility

Signature of Lead Auditor

September 24, 2014
Date

September 2014
Project No. 1400913

Established in 1960, Golder Associates is a global, employee-owned organization that helps clients find sustainable solutions to the challenges of finite resources, energy and water supply and management, waste management, urbanization, and climate change. We provide a wide range of independent consulting, design, and construction services in our specialist areas of earth, environment, and energy. By building strong relationships and meeting the needs of clients, our people have created one of the most trusted professional services organizations in the world.

Africa	+ 27 11 254 4800
Asia	+ 852 2562 3658
Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 56 2 2616 2000

solutions@golder.com
www.golder.com

Golder Associates Inc.
4730 N. Oracle, Suite 210
Tucson, AZ 85705
Tel: (520) 888-8818



Engineering Earth's Development, Preserving Earth's Integrity

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation