



OCTOBER 2014

## ICMC RECERTIFICATION SUMMARY AUDIT REPORT

# EL SAUZAL MINE CHIHUAHUA, MEXICO

REPORT

**Submitted to:**

International Cyanide Management  
Institute (ICMI)  
888 16th Street, NW-Suite 303  
Washington, DC 20006  
United States Of America

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México

**Project Number:** 1400889

**Distribution:**

ICMI – 1 PDF  
El Sauzal – 1 PDF





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### 1.0 SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS

**Name of Mine:** El Sauzal Mine  
**Name of Mine Owner:** Goldcorp Inc.  
**Name of Mine Operator:** Minas De La Alta Pimeria SA de CV  
**Name of Responsible Manager:** Bill Humphrey  
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Signature of Lead Auditor

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## 2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

### 2.1 Mine Location

The El Sauzal Mine (El Sauzal), operated by Goldcorp Inc.'s wholly owned subsidiary Goldcorp Mexico, is located in Chihuahua, Mexico approximately 250 kilometers (km) southwest of the state capital Chihuahua City (Figure 1). The climate is semi-tropical with hot summers (as high as 42 degrees Celsius [C]) and mild winters (10-15 degrees C). The El Sauzal region is mountainous, forming part of the Sierra Madre mountain chain with elevations ranging above 2,000 meters (m) in certain parts. The mine is accessed from the city of Los Mochis located near the Pacific Coast at the intersection of Highways 15 and 23 to the City of Choix along Highway 23. El Sauzal has constructed an access road from Choix approximately 100 km to the mine. El Sauzal receives approximately 800 millimeters (mm) of precipitation per year with most of the rainfall occurring during July and August. The maximum mean monthly precipitation occurs in July and is approximately 250 mm. Average annual evaporation is estimated at 2,400 mm per year.

In general, the area surrounding the mine is sparsely populated due to the rugged terrain. There are approximately 22 communities within approximately 100 km of the mine, although the majority of these communities are small with only hundreds to a thousand residents. The largest community is Choix with approximately 20,000 residents. The Town of Urique is the district center. Most residents are comprised of indigenous tribes (Tarahumara) and persons of Hispanic descent.

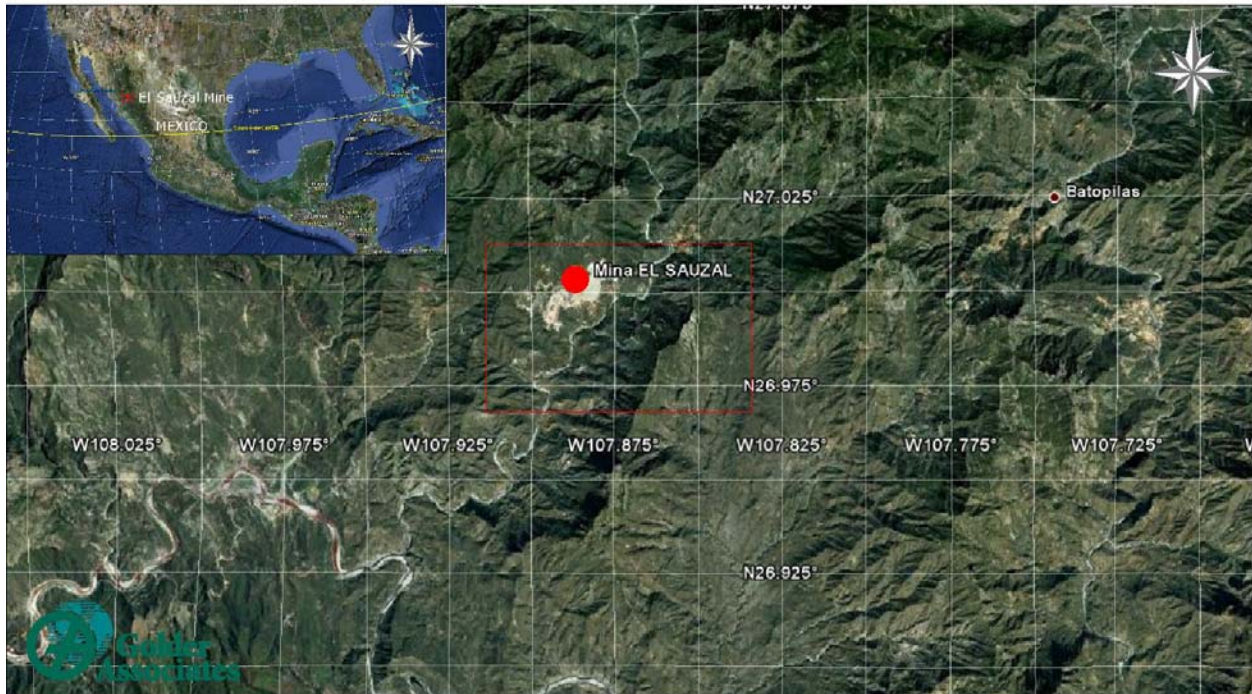



Figure 1: Regional Location Map

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### 2.2 Background

El Sauzal is comprised of an open pit mine, waste rock storage areas, a cyanide leach process with carbon-in-pulp processing, tailings cyanide detoxification plant using both Caro's acid and INCO SO<sub>2</sub> processes, tailings dewatering filter press facility to develop dry tailings, and an Adsorption, Desorption and Recovery (ADR) processing plant to recover gold and silver. The open pits have been developed by conventional mining methods using trucks and loaders to extract gold-bearing ore. The waste is transported by trucks to the storage area developed specifically for this purpose. Ore is processed through the milling and grinding circuit prior to leaching in process tanks. El Sauzal receives solid sodium cyanide from DuPont De Nemours & Co., Inc. (DuPont) delivered to the site in flobins within transport containers. The process area is constructed within concrete secondary containments that cascade to the tailings detoxification plant and filter press with an emergency overflow to the emergency pond. The tailings detoxification plant at El Sauzal treats the slurry from approximately 150 milligrams per liter (mg/L) free cyanide to below 2 mg/L total cyanide. After the detoxification step, the tailings slurry is thickened and then pumped to filter presses for the removal of free moisture. The dry tailings have a moisture content of approximately 13 percent. The detoxified dry tailings are conveyed from the filter presses to the dry stack tailings facility. The dry stack facility is developed in an ephemeral drainage below the process facilities with upstream surface water controls. There is no open water associated with the dry stack tailings. The underdrain water from the dry stack discharges to a rockfill where it infiltrates into an ephemeral watercourse. There is a sedimentation basin located approximately 2 km downstream in the ephemeral watercourse, prior to its confluence with the Rio Urique.

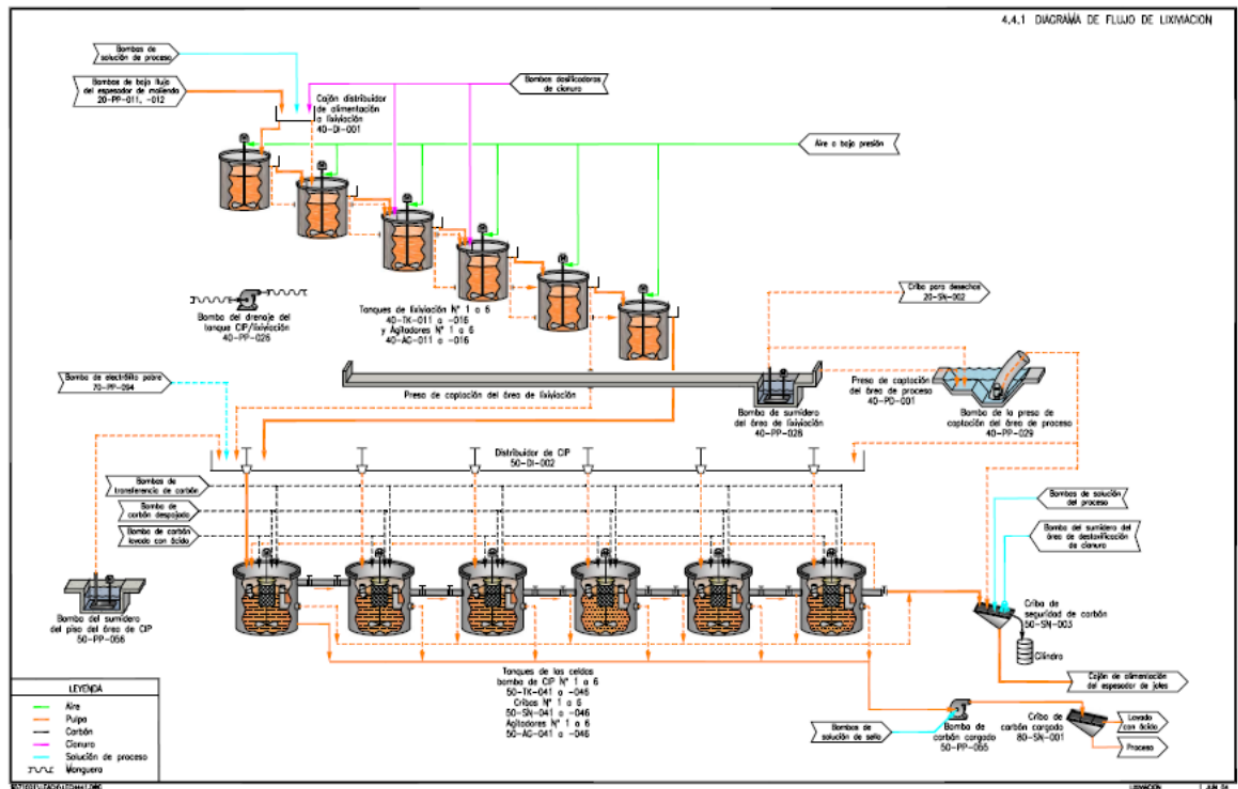


Figure 2: Process Flow Diagram

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*Kat R. John*  
Signature of Lead Auditor

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SUMMARY AUDIT REPORT
Auditors Findings

El Sauzal is: [X] in full compliance with The International Cyanide Management Code
[ ] 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
Audit Team Leader: Kent R. Johnejack, Lead Auditor and Mining Technical Specialist
Email: kjohnejack@golder.com

Name of Other Auditors

Table with 2 columns: Name, Position and Signature. Row 1: Bruno Pizzorni, ICMI Pre-certified Mining Technical Specialist; [Signature]

Dates of Audit

The recertification audit was undertaken over 4 days, between July 8 and 11 of 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 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.

El Sauzal Mine Name of Facility [Signature] Signature of Lead Auditor October 8, 2014 Date

El Sauzal Mine Name of Facility [Signature] Signature of Lead Auditor October 8, 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.

El Sauzal purchases cyanide only from DuPont who manufactures it at their plant in Memphis, Tennessee. Clause 13 of the El Sauzal contract requires that the cyanide manufacturer and its supply chain be certified under the Code. 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 bills of lading showing that El Sauzal purchased cyanide from only DuPont during the recertification period.

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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.

El Sauzal purchases cyanide only from DuPont, who manufactures it at their plant in Memphis, Tennessee. Clause 13b of the contract covers all of the Code requirements for establishing clear lines of responsibility, safety, security, release prevention, training, and emergency response. Clauses 13a and 18 state that the designated responsibilities extend to all parties in the supply chain.

Standard of 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.

El Sauzal purchases cyanide from DuPont, who manufactures it at their plant in Memphis, Tennessee. El Sauzal purchased cyanide under two different agreements (i.e., 2009-2012 and 2012-2015) during the recertification period. Clause 13d of both contracts requires the use of certified distributors and transporters.

El Sauzal 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 bills of lading provided by El Sauzal to confirm that they only received cyanide via the certified DuPont supply chain throughout the mine's recertification period.

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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 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.

The cyanide unloading, storing, and mixing facilities consist of a warehouse, a mixing tank, and a storage tank. El Sauzal receives solid cyanide in flobins. These facilities are the same as were certified in 2008 and 2011. The auditors observed them to be in good condition during the 2014 site visit. Therefore, the conclusions of the previous certification reports remain valid.

The cyanide unloading and storage areas are located away from people and surface water. The warehouse and plant are located away from the mine camp and there are no villages in the immediate vicinity of the mine. The nearest perennial watercourse is the Rio Urique some 2 km away.

El Sauzal has installed level sensors in the mixing and storage tanks to prevent overflows. The auditors observed the tank levels on the control room panel to confirm the sensors were functioning. Both tanks have overflow pipes that report to the sump in the secondary containment.

El Sauzal has installed the mixing and storage tanks on concrete bases within concrete secondary containment that prevent seepage to the subsurface. The auditors observed them to be in good condition.

El Sauzal stores the solid cyanide in flobins within the warehouse. The warehouse is open at the roofline to provide adequate ventilation, and has a roof, walls, and a concrete floor sloped to a sump to prevent contact with water. The warehouse door is kept locked and the warehouse itself is located within the secure mine compound. The flobins are stored within their own containment area away from incompatible materials, foods, feeds, and tobacco.

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.

[X] in full compliance with

The operation is

[ ] in substantial compliance with

Standard of Practice 3.2

[ ] not in compliance with

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### Summarize the basis for this finding/deficiencies identified:

The operation is in full compliance with 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.

El Sauzal has developed and kept current three standard operating procedures (SOPs) for safely operating cyanide unloading, storage, and mixing facilities. They have SOPs for unloading the flobins from the truck into the warehouse, for transferring the flobins from the warehouse to the mixing area, and for preparing the 25 percent liquid cyanide in the mixing tank. Flobins are stacked no more than two levels high in the warehouse and are tracked according a first-in first-out method. Pre-mixing inspections are documented on a checklist. Two operators, wearing appropriate personal protective equipment (PPE), are used for mixing with one as an observer. Operators follow a written procedure to operate pumps and valves during mixing and to rinse off the flobin and tank after the mixing event. Empty flobins are rinsed, secured, and returned to the supplier. The auditors observed a transfer from the warehouse to the mixing area, as well as a mixing event, to confirm compliance. The auditors also reviewed checklists from throughout the recertification period.

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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.

El Sauzal has adopted or developed management and operating systems to protect human health and the environment. El Sauzal operates under three management systems: Clean Industry (Industria Limpia); Socially Responsible Company (Empresa Socialmente Responsable), and the Goldcorp Sustainability Excellence Management System (SEMS). The first two systems are national programs in Mexico and the third is an internal Goldcorp system that contains policy statements for occupational health and safety; environmental and sustainability, social responsibility, human rights, conduct, and security. It includes standards to implement each of those policies, including EP-1 related to cyanide management. EP-1 specifies that all Goldcorp operations will be certified and operated under the Code.

El Sauzal has developed over 20 SOPs that describe the standard practices for safe and environmentally sound operation of the cyanide facilities. SOPs include the following items: change control, work objective, scope, responsibilities, definitions, materials, equipment, tools, PPE, precautions, waste management, detailed process description, references and distribution.

There have been no significant changes to the cyanide facilities, and therefore the assumptions, parameters, and operating criteria are the same as the initial audit in 2008 and the recertification audit in 2011. These assumptions, parameters, and operating criteria are well understood at El Sauzal, as indicated by a diagram of installations and equipment showing the typical concentrations for free cyanide (e.g., 220 to 300 mg/L in the leaching area, less than 2 mg/L after cyanide destruction). The safe pH for mixing is 11.5 to 12 standard units (su), as defined in the procedure for preparing 25 percent liquid sodium cyanide. El Sauzal has only one pond, the emergency pond for the plant. This pond is kept dry except in upset conditions. Freeboard is 0.5 m and neutralization procedures to keep WAD cyanide below 50 mg/L are described in the procedure for removal of slurry or solution.

El Sauzal has a change management that addresses the potential impacts of the proposed changes on the environment, as well as health and safety, and the control measures to mitigate them. The procedure is accompanied by a form that requires supervisor approval. The auditors reviewed completed change management records for two minor changes to verify compliance.

El Sauzal has developed contingency procedures for situations related to upsets, deviations, and temporary closures/cessation of operations. These include the Plan for Attention to Contingencies, the Emergency Response Plan (ERP), and a specific SOP, accompanied by a PowerPoint presentation, for

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upsets and/or spills related to the Emergency Pond. The site closure plan addresses temporary closure or cessation of operations.

El Sauzal inspects the cyanide facilities on a daily, weekly, and monthly frequency (depending on the type of inspection and department completing the inspection) to assure and document that they are functioning properly. The inspections include secondary containments, pipelines, pumps, and valves at the plant. The inspections also include the freeboard in the emergency pond (in the event that it is not dry) and the condition of the upstream embankment, downstream embankment, and underdrain of the dry tailings facility. The operation does not have any facilities that require a leak detection, collection, and recovery system. El Sauzal commissions a consultant to perform non-destructive testing on cyanide tanks and vessels every 2 years, with the latest testing completed in 2012 and 2014. The auditors reviewed examples of completed inspection forms and testing to verify compliance.

El Sauzal documents inspections using variety of forms that contain the date of inspection, the name of the inspector, and observed deficiencies. The nature and date of corrective actions are tracked in the MINEBOSS program as part of the maintenance program.

El Sauzal has implemented a maintenance program using the MINEBOSS software that includes planned (preventative) and unplanned (reactive) maintenance. The maintenance process includes weekly planning, daily scheduling, work order generation, work order closure, and monthly reporting. The auditors reviewed examples of the weekly plans, daily schedules, and monthly reports from throughout the recertification period to verify compliance, as well as the maintenance history for a specific cyanide distribution pump. El Sauzal also has redundant equipment, installed and ready to run, for key cyanide components and spare parts in the warehouse and workshop.

El Sauzal has five generators of 1.25 megawatts each to operate pumps and other equipment in the event the primary power source is interrupted. El Sauzal contracts with an outside contractor, MASQA, to maintain the generators. In addition, the plant maintenance staff visually inspect the generators on a daily basis. The auditors reviewed examples of completed service reports and daily generation reports from throughout the recertification period 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.**

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.

The ore characteristics have not varied much throughout the recertification period and therefore El Sauzal has not needed to re-evaluate the standard addition rate of 220 to 300 mg/L free cyanide that was established early in the mine life. El Sauzal has adopted one control strategy for making real-time adjustments: manual titration followed by adjustments to the dosification pump. El Sauzal has implemented this strategy by measuring free cyanide in six tanks at three times per shift and adjusting the cyanide addition rate as needed. At the time of the site visit, the dosification rate was between 270 and

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300 mg/L free cyanide, which is within the range of the initially determined standard addition rate of 220 to 300 mg/L free cyanide. The auditors reviewed examples of the control room daily reports from throughout the recertification period to verify compliance.

**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.

El Sauzal has developed a water balance that is both comprehensive and probabilistic. This is the same water balance that was found compliant in the 2008 and 2011 audits. It should be noted that a water balance is less important at El Sauzal than at many mines because leaching takes place in tanks (rather than a heap leach), the tailings are placed as a dry stack (rather than as a slurry with a permanent pool), and there is only one small emergency pond for the plant.

The spreadsheet model includes water inflows for direct precipitation, more moisture content, makeup water, and recovered water from the dried tailings. It includes water outflows for residual water in the dried tailings and evaporation. Four precipitation scenarios are considered in the model. Run-on is inapplicable because the plant and pond are raised and curbed. Freezing and thawing are also inapplicable given the hot climate. The model does not consider power outages because all solution flows in the plant would stop in a power outage and because backup generators are designed to automatically start in an outage.

Given the simplicity of the water balance at El Sauzal, the regular plant inspections and monitoring of the process circuits from the control room are adequate to prevent unplanned discharges. The small emergency pond is normally dry and actively managed according to a written procedure when it does contain solution or slurry.

El Sauzal measures precipitation at two onsite rain gages located at the mine office and the mine camp. The model is updated monthly with the current data. The auditors observed that the model included 2014 precipitation up to the time of the site visit.

**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 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.

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The physical and operational measures instituted by El Sauzal have prevented significant wildlife mortality during the recertification period. The mine property is fenced to the extent the rugged topography allows. El Sauzal does not have a heap leach facility and the dry stack tailings facility does not have any open water. The only open water is the emergency pond, which is surrounded by a chain link fence. This pond is available for plant upsets of tailings slurry or process solution. The emergency pond is typically dry and El Sauzal has a procedure to empty it within 24 hours or neutralize its contents if the concentration of WAD cyanide is greater than 50 mg/L. El Sauzal provided sampling data for the limited periods when the Emergency Pond had water that showed the concentrations of WAD cyanide were less than 50 mg/L during the recertification period.

The only reported mortality was a cow in 2011. The incident investigation stated that the cow apparently was exposed to a toxin, perhaps cyanide, somewhere in the plant rather than at the emergency pond, the only open water at the site. El Sauzal conducts weekly wildlife inspections that document the presence of wildlife, birds, and cattle, as well as mortalities should there be any.

**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.

El Sauzal does not have a direct discharge to surface water. El Sauzal has a potential indirect discharge to surface water from the underdrain/seepage from the dry stack tailings. This water is absorbed by a rock filter at the toe of the facility and has the potential to travel as subsurface flow in an ephemeral arroyo for approximately 2 km to the Rio Urique. El Sauzal provided monthly sampling results from the Rio Urique downstream of the ephemeral arroyo showing non-detect WAD cyanide levels throughout the recertification period. Given that free cyanide is considered a subset of WAD cyanide, the auditors concluded it is highly unlikely that the concentration of free cyanide is in excess of 0.022 mg/L in surface water downstream of the confluence of the ephemeral arroyo and the Rio Urique.

**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 to implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

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El Sauzal is located on a mountainside with thin soils underlain by bedrock, and as such does not have an aquifer with beneficial uses of groundwater beneath the mine or even immediately downgradient of the mine. The shallow alluvium of the Rio Urique, some 2 km downhill from the mine, constitutes an aquifer, but the source of the groundwater is likely to derive from the surface water-groundwater connection along the river.

El Sauzal has implemented measures to protect groundwater. The plant has concrete floors and the Emergency Pond is lined with geomembrane. Tailings are treated to approximately 2 mg/L WAD cyanide and the tailings are dried in the filter plant before placement in the dry stack tailings facility. The auditors reviewed a time series graph for monthly samples of the treated slurry that showed a maximum of 2.25 mg/L WAD cyanide throughout the recertification period.

El Sauzal does not have a point of compliance or monitoring wells along the river, and as such there is no applicable numerical standard. Nonetheless, El Sauzal collects quarterly samples from its two active groundwater extraction wells along the river. These wells are located approximately 2 km downhill from the mine in the alluvium along the Rio Urique. The auditors reviewed a time series graph of quarterly results for these wells that showed the concentrations of WAD and total cyanide were non-detect at <0.01 mg/L throughout the recertification period.

**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.

El Sauzal has provided concrete secondary containments for all mixing, storage, and process tanks, as well as level sensors for spill prevention. Containments have sumps to return solutions to the process circuit. The plant overall has a series of interconnected containments that in the end report to the Emergency Pond. El Sauzal verified that the capacity of the Emergency Pond is at least 110 percent of the largest process tank. El Sauzal has a written procedure for removal of solution or slurry from the Emergency Pond.

Pipelines outside the containments are located on pipe rack trays or have half pipe containments that drain back to concrete containment. A pipeline leaves the leach circuit to convey tailings slurry to the detox plant located approximately 50 m away. Another pipeline brings the detoxified solution back to the leach circuit. The overall process area is compact and self-contained so there are no long pipeline runs.

El Sauzal has not implemented special protection for surface water over and above the existing secondary containment measures because the nearest perennial watercourse is the Rio Urique approximately 2 km away from the site.

All tank and pipeline materials were observed to be steel and HDPE in good condition, which are compatible with cyanide and high pH.

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**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.

El Sauzal has not constructed any new cyanide facilities, or modified any existing cyanide facilities, during the recertification period. The embankments of the dry stack tailings facility have not changed. Although this facility continues to receive filtered uncompacted tailings, the auditors consider this process to be operational rather than construction that would require a quality control or quality assurance program. In summary, the cyanide facilities are the same as were certified in 2008 and 2011 and the conclusions of the previous certification reports remain valid with respect to quality control and quality assurance programs, their content, and their review. The auditors verified that El Sauzal has retained documentation although it is distributed in several locations and as a combination of paper and electronic copies.

**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.

El Sauzal has developed, and kept current, a plan for environmental monitoring. This plan is the same as was found compliant in the 2008 and 2011 audits; the most recent version is dated June 2013. This plan describes sampling locations, sampling frequency, sampling methods (i.e., filtration, containerization, and preservation), chain of custody procedures, shipping instructions, and analyte lists with cyanide species. The plan was developed and updated by El Sauzal staff with education and experience in environmental science and chemistry. El Sauzal sends samples to Silver Valley Laboratories Inc., a laboratory certified for cyanide analyses.

El Sauzal monitors surface water at two stations in the ephemeral arroyo downstream of the dry stack tailings and at two stations in the perennial Rio Urique. There is no groundwater resource at the mine itself due to the mountainous terrain, but El Sauzal monitors groundwater at two water supply wells near the Rio Urique. These wells are located approximately 2 km downhill from the mine in the shallow alluvium along the Rio Urique. Field parameters and observations during sampling (e.g., weather, wildlife, livestock, and human factors) are recorded on field forms during sampling. El Sauzal monitors surface water at weekly to monthly frequencies, depending on the station, and groundwater at a quarterly

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frequency. The auditors reviewed examples of completed chain of custody forms and completed field forms from throughout the recertification period to verify compliance.

El Sauzal inspects for wildlife mortalities on a weekly basis using a field form. This frequency is adequate given that there is only one small pond with open water and WAD concentrations are maintained at less than 50 mg/L in the pond and treated dry stack tailings.

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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.

El Sauzal has a Closure Plan updated by Goldcorp in 2011. The Closure Plan details the mine closure activities and procedures, including the activities to remove remaining cyanide and decontaminate equipment and areas in contact with cyanide by triple rinsing. The Closure Plan covers the dry stack tailings facility, emergency pond, process plant, and cyanide storage warehouse. The Closure Plan contains a schedule showing that the closure process will start in February 2015 and lists the activities to be conducted on a yearly basis, including the activities planned for the cyanide facilities. El Sauzal last updated the Closure Plan in 2011, which is acceptable given that there have been no changes in the cyanide facilities since that time.

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.

El Sauzal has developed a closure cost model including decommissioning of the cyanide facilities. The auditors confirmed that the cost estimate includes the relevant facilities and activities. The closure cost model uses third-party costs to perform the work, based on quotes from Mexican suppliers and contractors. The closure plan indicates that the closure costs are to be reviewed and updated as appropriate on an annual basis and the auditors reviewed earlier versions of the cost model confirming that this is true. The Mexican government does not require financial guarantees and therefore El Sauzal has selected self-guarantee as the financial assurance method. The auditors reviewed a 2011 letter issued by Deloitte & Touche which considers the sum of US\$ 7.0 million (M) for closure, which is higher than the amount required in 2013 of US\$ 3.49 M for El Sauzal decommissioning, which implies that the 2011 self-guarantee remains valid.

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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 site 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.

El Sauzal has developed and implemented the SOPs for all cyanide-related activities such as: "Sodium cyanide discharge", "Preparation of 25% Strength Liquid Sodium Cyanide", "Management of Pulp in the Carbon in Pulp Circuit", and "Cyanide Destruction", and generally all SOPs needed to safely operate the Process Plant. In order to enter confined space, it has the SOP "Pulp and cyanide solutions in open or closed tanks" and for equipment decontamination, it has the SOP "Decontamination during Maintenance of the Cyanide Process Equipment". All SOPs include sections listing the PPE required to perform the work. Areas where cyanide is used are marked with the mandatory PPE to be used in such work area. Additionally, cyanide training materials contain information about the PPE requirements for cyanide-related work. Operators perform pre-work inspections for cyanide mixing including verification of Flo-bin seal and status, PPE, showers and eyewash stations, pH monitors, hydrogen cyanide (HCN) gas monitors, and tank levels, among others.

El Sauzal has a change management procedure for its processes, the SOP "Changing the operating, metallurgical and maintenance design parameters in the process." The procedure addresses the potential impacts of the proposed changes on workers’ health and safety and the necessary control measures to mitigate them. The procedure applies to all areas where workers may be in contact with cyanide such as the area of liquid mixing, grinding, leaching, filtering, and detoxification circuits. The auditors reviewed two completed change management records for minor changes to verify compliance.

El Sauzal requests and takes its workers’ feedback into account to review its work procedures. The means to receive this feedback is the daily 5-minute briefings, daily meetings of the work area, Health and Safety Committee meetings, and especially the annual review of the safe operating procedures, which is carried out in a working group meeting.

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:

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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.

El Sauzal has determined the appropriate pH to limit the HCN gas evolution during mixing and production activities, and controls the pH on a regular basis. The SOP "Preparation of 25% liquid cyanide" indicates that the pH should be greater than 11.5 su. El Sauzal monitors the solution pH before and after preparing liquid cyanide, and monitors the pH in the leaching, adsorption and detox areas.

El Sauzal has fixed cyanide detectors installed in critical areas where cyanide of reagent grade is managed. The detectors are calibrated to emit a light alarm that flashes when HCN formation is detected from 4.7 parts per million (ppm); in these cases, the personnel shall move away until the HCN concentration decreases. When cyanide monitors detect values above 10 ppm, an audible alarm and a visual alarm are activated in the control room display, in addition to the light alarm; in this case, the personnel shall evacuate. They are located in the cyanide mixing and detoxification area. They also have portable HCN detectors in the ADR area, another one in the leaching area and the third one is available in the control room.

El Sauzal has identified areas and activities where workers may be exposed to HCN concentrations greater than the thresholds of 4.7 ppm (prevention) and 10 ppm (evacuation). Work operating procedures and instructions define the required HCN monitoring activities and necessary PPE.

El Sauzal maintains and calibrates its HCN detectors according to the manufacturers' specifications. Using the Mine Boss equipment maintenance software, instrument technicians receive monthly work orders to service this equipment. The three portable monitors are calibrated every 6 months with the "bump test" method.

During the visit to the process plant, auditors verified that El Sauzal has installed signs in critical areas where cyanide is used, such as the reagent warehouse, liquid cyanide mixing area, cyanide pipelines, point of cyanide addition (leaching) and detoxification. Signs warn workers of cyanide presence and the prohibition on eating, drinking and smoking, required PPE, restricted areas and hand-washing.

El Sauzal has eyewash stations/showers and fire extinguishers in strategic places: the cyanide mixing area, ADR, leaching, detox and filter area. The auditors verified that eyewash stations/showers are inspected every week and the health and safety personnel visit and check these facilities on a regular basis.

Dry chemical extinguishers are in strategic locations across the plant. The security personnel inspect the extinguishers every month, and recharge them annually or as required according to the inspection results.

El Sauzal has correctly marked tanks and piping containing cyanide. Similarly, high strength pipes with cyanide solution between the distribution tank and the plant are properly labelled indicating contents and flow direction.

The operation has first aid instructions and cyanide Material Safety Data Sheets (MSDS) in accessible and visible places in Spanish, the language of the reagent store workforce. They are located in the ADR area, cyanide preparation, control room, detoxification area, ambulance, and clinics. The first aid instructions are located with the cyanide emergency kits. The auditor also noted these instructions posted on a big sign in the process plant.

El Sauzal has developed and implemented a written procedure for reporting and investigating incidents, non-conformances, corrective actions and preventive actions. The actions taken to investigate, evaluate, and report work-related incidents, fires, environmental accidents or incidents (spills/leaks) are described in this report, which applies to all types of incidents, including those related to cyanide. The investigation

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reports indicate that monitoring of preventive actions includes adjustments to the maintenance procedures, where applicable. The auditors reviewed investigation reports for two cyanide-related incidents to verify compliance.

**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.

El Sauzal has the necessary emergency response equipment to treat workers exposed to cyanide. The equipment includes portable oxygen tanks, amyl nitrite, first aid kits, sodium nitrite, and sodium thiosulfate. Antidote kits are in the mixing area (ADR circuit), plant control area, metallurgical laboratory, medical facilities and security office. They have a defibrillator (resuscitator) in the control room and another one in the medical facilities.

El Sauzal has radios and the personnel have easy access to the communication systems in a number of locations in the process plant. The list of emergency telephone contacts is posted in visible places in the control room, offices and clinics.

El Sauzal conducts inspections of the first aid equipment and controls the required parameters for cyanide kits, activated carbon, oxygen tank and mask on a regular basis. The auditors reviewed examples of inspection records related to cyanide exposure emergency kits covering the period from 2011 to 2014. First aid kits are in the mixing area (ADR circuit), plant control area, metallurgical laboratory, medical facilities and industrial security office. The medical staff inspects the cyanide kits, oxygen cylinders, and equipment and ambulances on a weekly basis using a checklist.

El Sauzal has developed an ERP to meet all kinds of emergencies in general, including those produced by cyanide events. The ERP indicates the location of cyanide kits, poisoning symptoms and what to do in case of cyanide exposure / poisoning, what to do in situations of potential cyanide releases, contact details in case of incidents, response and clean measures, required PPE, reporting, corrective actions for specific accidents involving cyanide and water sampling locations to detect cyanide leaks.

The ERP indicates that there is air transportation to evacuate injured workers to medical centers outside the facilities. The Aerojomacha Air Carrier from Guachochi Chihuahua has planes for rental 15 minutes by plane. El Sauzal medical services handle the injured evacuation procedure, which indicates that cyanide victims shall be transported either to Fatima hospital or Agraz hospital in the town of Los Mochis, 1 hour by plane or 8 hours by land.

El Sauzal has a contract with Fatima hospital in Los Mochis for medical services that include medical care of patients exposed to cyanide. The contract confirms that the hospital has medical equipment and facilities to treat cyanide poisoned workers. Before 2014, although there was no formal agreement with hospitals, El Sauzal was in constant contact with Fatima and Agraz hospitals as verified by the auditors through letters and emails sent to/received from the hospitals for coordination, including emergency response training by DuPont and delivery of cyanide emergency kits to each hospital. The medical

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facilities have qualified staff, equipment and expertise to respond to cyanide exposures. DuPont trained Fatima and Agraz hospitals doctors and nurses in July 2013 and 2014.

El Sauzal conducts emergency drills based on probable cyanide release/exposure scenarios to test the response procedure and incorporates lessons learned from drills into response planning. El Sauzal performed six cyanide emergency drills during the 3-year recertification period. After each drill, the crew members meet to evaluate the drill performance and incorporate possible improvements into the ERP. The drill results are disseminated to workers during refresher lectures about the ERP.

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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.

[X] 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.

El Sauzal has developed an ERP and supporting procedures for responding to cyanide releases, as well as other types of incidents. The ERP identifies the critical areas and covers potential accidents as a consequence of cyanide releases. It also has work procedures in which emergency response actions have been specified for tasks with cyanide presence. El Sauzal ERP considers the actions required in order to protect workers, communities and the environment in diverse scenarios as a consequence of cyanide spills. The plan describes in sufficient detail response actions to protect people and the environment and to control the spill from its origin, containment measures, assessment of the contaminated area and mitigation.

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

[X] 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.

El Sauzal involves its workforce and the potentially-affected communities in its ERP. Its personnel participate in the emergency response drills and analyze the results to identify upgrade opportunities and if needed add them to ERP. During the monthly meetings of the Health and Safety Committee of the mine, emergency response issues are covered, as verified by review of meeting minutes. El Sauzal provides cyanide training talks to communities near their operation.

El Sauzal has informed the communities that may be affected by the nature of cyanide-related risks. The auditors checked records of talks in the various communities of the Urique municipality, Chihuahua, covering the 3-year term of the audit.

El Sauzal has involved in its ERP, and maintains contact with third-party entities in many ways depending on the seriousness of the event. The ERP contains the list of telephone numbers of contacts with external assistance entities. Officers from SEMARNAT and Cruz Roja Mexicana participated as observers in the cyanide emergency drill conducted in October 2012. In 2014, El Sauzal provided Cruz Roja Mexicana of Los Mochis with an emergency vehicle driving course. In the same year, El Sauzal has

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provided 5-hour courses to medical personnel from Agraz and Fatima hospitals in Los Mochis. The courses covered first aid for sodium cyanide intoxication, thus evidencing the interactions with the third-party entities for emergency response.

El Sauzal maintains communication with the stakeholders in order to keep the ERP updated. The operation personnel revises ERP on an annual basis identifying the resources available and updating the evacuation routes and the emergency response actions from the lessons learnt during drills.

**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.

El Sauzal has appointed the pertinent personnel and allocated equipment and resources for emergency response. In ERP, main and substitute response coordinators are appointed. Coordinators belong to different managerial areas of the operation: mine, plant, laboratory, and medical staff. Only qualified personnel are allowed to perform containment and cleaning activities for releases and/or spills of various chemical products. No employee that has not received training is allowed to respond to highly dangerous releases or spills. The ERP has a telephone list of the operation internal contacts, including the 24-hour Main Alpha Security Booth for emergency communication. The ERP states that the shift foreman will be the first person responsible for emergency management until the Incident Commander assumes control. The latter will be the individual with the highest rank in the department or area where the emergency occurs, until it is substituted by a person of higher rank or the General Manager. The ERP has a list of emergency equipment and their locations and requires that inspections be performed periodically. The auditors reviewed examples of inspections made to eye wash stations, showers, first aid kits, ambulances, and fire extinguishers over the 3-year audit term.

El Sauzal has its own resources to attend to emergencies at the mine since Choix, the closest population, is located 100 km via unpaved mountain roads. Nevertheless, the operation has made arrangements with outside entities included in the ERP such as the Cruz Roja Mexicana, SEMARNAT, and Agraz and Fatima Hospitals in Los Mochis. These outside responders could be involved in transportation emergencies outside of the mine. El Sauzal interacts with them by giving courses related to cyanide emergencies and including them in cyanide spill or intoxication drills performed over the 3-year term of the audit.

**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:**

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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.

The ERP includes procedures and contact information to notify the management, the regulatory agencies, outside response suppliers and medical facilities in case of a cyanide-related emergency. It has a complete telephone list of the external assistance entities and the telephone numbers of public entities. The ERP describes the mine organization for emergencies, and shows a flow chart where, depending on the seriousness of the event, it indicates that communication should be maintained with governmental agencies, local emergency agencies, external expert groups, and the media.

The ERP includes procedures for notifying the media and contacts in order to warn the potentially affected communities of cyanide related incidents and chemical product spills. The community relations coordinator is responsible for notifying the communities through community leaders. The General Manager is responsible for contacting 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.

The ERP and Plan for Attention to Contingences describe specific clean up measures in case of possible cyanide spills, how to recover or neutralize solutions and solids, and covers cases of cyanide spills in the plant facilities, leach tank rupture, pipe rupture or disconnection. The SOPs "Sodium Cyanide Neutralization in Spills Applying 13% Sodium Hypochlorite" and "Removal of Tailings Slurry or Solution from the Emergency Pond", detail the necessary measures to neutralize and recover cyanide solutions or solids.

Soil decontamination and management and/or disposal of debris contaminated by cyanide spills are included in ERP and in the Plan for Attention to Contingences, indicating in detail how to recover and dispose the contaminated material.

Regarding the provision of an alternate drinking water supply in case of the water source contamination by cyanide spills, El Sauzal has its own water treatment plant to supply drinking water to the mine personnel. Water supply wells are located approximately 2 km away and upstream of the process activities. No communities or inhabitants water supplies would be endangered and an alternate water supply is unlikely to be required.

Section 3.7 of the ERP prohibits the use of chemicals such as sodium hypochlorite, ferrous sulfate, and hydrogen peroxide to treat cyanide released into surface water. Section 3.7 of the ERP also describes environmental monitoring to identify the extent and effects of a cyanide release, and includes sampling methodologies, parameters and locations.

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**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.

El Sauzal revises and updates, on an annual basis, or as deemed necessary, the cyanide-related elements in its ERP. The auditors reviewed previous versions of the ERP covering the 3-year audit term. In the 2014 version, it was verified that the list of telephone numbers, the emergency brigade member names and their contact numbers (telephone and radio frequency) and the list of emergency equipment were updated.

El Sauzal performs mock cyanide-related emergency drills on an annual basis in order to assess the ERP effectiveness. The auditors reviewed reports of three drills of emergency response as a consequence of cyanide spills and intoxications during 2012, 2013, and 2014.

El Sauzal has not had emergencies where they have had to deploy the ERP, so there have been no opportunities for post-incident review. However, El Sauzal has developed provisions to do so. On page 37 of the ERP "Upgrades to the Emergency Response Plan for Future Versions", it indicates that the ERP upgrade opportunities shall be reported for assessment and modification after a cyanide-related emergency.

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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.

El Sauzal trains all personnel who may contact cyanide to recognize hazards associated with it. Before starting work in the operation, all newcomers, both employees and contractors, attend the induction course. The initial induction includes the following cyanide-related topics: "First Aid for Sodium Cyanide Poisoning", which lasts 3 hours and "Safety Induction", which lasts 2 hours.

El Sauzal annually provides refresher training on hazards associated with cyanide "First Aid for Sodium Cyanide Poisoning Retraining", as shown in the annual training plan. El Sauzal tracks the refresher courses through the training matrix worksheet "2014 Training Course Data". The auditors reviewed the training matrices for the 3-year audit period, and verified that the refresher course in first aid for cyanide poisoning is being provided. The auditors also reviewed examples of attendance records related to the refresher courses covering the 3-year audit period and interviewed field personnel who confirmed that the course has been consistently provided.

El Sauzal keeps records of the cyanide training in the employees' work area and Human Relations keeps records of the employees' training history through a training matrix. The auditors reviewed the matrices and the records for selected staff to verify compliance.

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

[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:

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.

El Sauzal trains its employees to perform their normal production tasks, including unloading, mixing, production and maintenance. The immediate supervisor is responsible for providing this training, using the SOPs as training material. Then the supervisor accompanies the employee or assigns a companion to work together during the first days until he/she is able to perform on his/her own. However, the

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employee is under a supervisor's ongoing observation so that tasks are carried out in a manner that prevents exposures and releases.

El Sauzal uses its SOPs as task training material. They identify all the necessary elements to train employees in the cyanide related job. The auditors reviewed the SOPs and verified that they include safety objectives, measures and inspections before performing the job, identification of hazardous materials, required PPE, tools, detailed description of the process, emergency controls, and procedures. Additionally, the auditors interviewed field personnel to verify their knowledge of the operating procedures.

In El Sauzal, task training related to cyanide management activities is provided by qualified personnel. Training is in charge of the operations personnel and supervisors with years of experience in the operation. In the process plant, trainers are grinding supervisors, filter supervisors, and the cyanide champion, who have five to ten years of experience in the operating procedures. Through interviews and review of the training records, the auditors confirmed that task training is provided by trainers in operating positions and process plant supervisors with effective communication skills, as stated by the personnel during the interview.

El Sauzal trains its personnel before being allowed to work with cyanide without supervision. Section 5.3 of all SOPs states that no person shall operate equipment if he/she has not been properly trained, unless in the training period he/she is accompanied by an operator certified on the equipment. Through interviews with field personnel, the auditors confirmed that the personnel are trained before they are allowed to work.

El Sauzal provides annual refresher courses on cyanide management to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. The course is called "First Aid for Sodium Cyanide Poisoning Retraining" and it is aimed at all personnel who are in the mine, including contractors. According to the training plans, the 2014 training is scheduled to be provided in August and September by the mine medical staff. The auditors reviewed the training data matrix for 2011, 2012 and 2013 and verified that this course has been consistently provided on an annual basis.

El Sauzal evaluates the effectiveness of cyanide task training by observation of employees while on the job after an initial training. Once the employee has been 3 months in the position, the supervisor sends Human Resources the employee's evaluation: "Request for Temporary Personnel Contract Renewal." In this report, contained in the employee's dossier, the supervisor reports the employee performance and learning.

El Sauzal keeps records showing that each employee is trained while working for the company. The records include the names of the employee and the trainer, date of training, the topics covered, and if the employee demonstrated an understanding of the training materials. Both the matrix and training records include data required to adequately document the employee's training. Training records consist of the list of attendees and results of evaluation tests at the end of the course.

**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:**

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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.

El Sauzal trains all personnel responsible for cyanide unloading, mixing, production, and maintenance in the procedures to be followed if a cyanide release occurs. Each shift has trained operators who are members of the emergency response team; they will be the first responders to a cyanide release. In addition to the required core courses, first responders take the following courses: basic life support, advanced first aid, resuscitation after sodium cyanide poisoning, and HAZMAT.

The emergency response teams, including employees in charge of unloading, mixing, production, and maintenance, are trained in decontamination procedures and first aid for cyanide exposure and take part in emergency drills to evaluate and improve their emergency response skills. Coordinators and emergency response team members are trained in the ERP in general, including procedures and use of equipment required for cyanide related emergencies. The auditors verified such training through examples of training records for the 3-year audit period and through field interviews.

El Sauzal has made offsite emergency responders familiar with its ERP with respect to offsite transportation incidents; offsite responders have not been designated onsite responsibilities. El Sauzal has provided briefings on cyanide and emergency response actions in communities of the municipality of Urique, invited agencies such as SEMARNAT, firefighters and the Red Cross to take part in the emergency drills. It has provided courses to the Mexican Red Cross and medical personnel of Agraz and Fatima hospitals in Los Mochis, on "Medical Treatment in case of Sodium Cyanide Poisoning" and "First Aid for Sodium Cyanide Poisoning".

El Sauzal annually conducts refresher training on response to cyanide exposure and releases. All the operation personnel attend the course "First Aid for Sodium Cyanide Poisoning Retraining" on an annually basis. Additionally, the members of the emergency response team attend refresher courses in advanced first aid, HAZMAT, and evacuation techniques.

El Sauzal annually conducts emergency drills for training purposes and evaluates the ERP effectiveness. The auditors reviewed reports on three response drills to cyanide release and poisoning emergencies conducted in 2012, 2013, and 2014. After the drill, members of the emergency response team meet to evaluate their performance and incorporate possible improvements in the ERP and determine any additional training requirements. For example, some of the required actions after the 2012 drill include action items to upgrade the emergency response team training program and additional training in the proper use of PPE to the team. In the 2013 drill, additional training in the ERP was required for the plant personnel to improve the emergency response time.

El Sauzal keeps records of training related to cyanide emergency response, including the names of the employee and the trainer, date of training, the topics covered, and evaluation test at the end of the course. The auditors reviewed the training matrix and examples of training records in the emergency response plan, first aid, cyanide training for emergency response teams, HAZMAT, fire prevention, release inspections, and control, covering the 3-year audit period.

El Sauzal Mine  
Name of Facility

October 2014  
Project No. 1400889

Signature of Lead Auditor

October 8, 2014  
Date





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.

El Sauzal has maintained a continuous community relations program throughout the recertification period. The program includes approximately 22 communities located within approximately 100 km of the mine and along the transport route. Opportunities for communication are provided by an open door policy, suggestion boxes, signs with phone numbers for key mine departments, and a system for tracking complaints and follow up. Opportunities are also provided during regular community meetings. The auditors observed records of approximately 40 meetings held throughout the recertification period. The El Sauzal community relations program also supports projects throughout the region, such as schools, clinics, sports fields, team sponsorships, and micro-businesses.

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.

El Sauzal has maintained a continuous community relations program throughout the recertification period. The program includes approximately 22 communities located within approximately 100 km of the mine and along the transport route. The program creates opportunities for communication by holding regular community meetings, hosting occasional tours of the mine, distributing a tri-fold pamphlet on cyanide first aid, and participating in occasional mining-related conferences. The auditors observed records of approximately 40 meetings and tours held throughout the recertification period.

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

[X] in full compliance with

The operation is

[ ] in substantial compliance with

Standard of Practice 9.3

[ ] not in compliance with

El Sauzal Mine
Name of Facility

[Handwritten Signature]
Signature of Lead Auditor

October 8, 2014
Date





## ICMC RECERTIFICATION SUMMARY REPORT

### 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.

El Sauzal has developed written descriptions related to cyanide transport, use, and first aid. A standard presentation is regularly provided to local communities, accompanied by the distribution of a tri-fold pamphlet on cyanide first aid. These documents are written in Spanish, which is either the first or second language for most local residents. A high percentage (97.3 percent) of the population in the Mexican State of Chihuahua is literate. However, there may be a lower literacy rate in the communities of the Sierra Madre given their remote location. Therefore, El Sauzal provides information in verbal form during community meetings; i.e., the written presentation, which includes pictures, is accompanied by a verbal explanation.

Goldcorp classifies incidents, including cyanide-related incidents, into five categories (in ascending order of severity from Category I to Category V). Incidents are assessed based on their actual or potential impact. Incidents in Category III and above are reported to the corporate level ("reportable incidents"). Category I and II incidents are collected by the local operation to assist in incident trend analysis. El Sauzal experienced three cyanide-related incidents during the recertification period. Two incidents were spills of tailings slurry and the other incident resulted in the mortality of a cow. All were classified as Category I Incidents requiring only internal investigation corrective action, and tracking.

The operation's Emergency Response Plan (ERP) states that if a cyanide spill were to exceed its reportable quantity and if it were to go off site, then El Sauzal's environmental superintendent would inform the property owners through the community leaders. Communications about accidents involving loss of time and emergency responses involving environmental impacts are regulated by SEMARNAT whereby discharge limits and reporting requirements to the ministry are set. In addition, El Sauzal submits an annual report to PROFEPA and quarterly reports to SEMARNAT that summarize all reportable incidents, whether cyanide related or not. This report would be available to the public via PROFEPA or SEMARNAT. Finally, Goldcorp summarizes significant environmental incidents on its website (<http://www.goldcorp.com/>).

El Sauzal Mine  
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October 2014  
Project No. 1400889

Signature of Lead Auditor

October 8, 2014  
Date





## Report Signature Page

GOLDER ASSOCIATES INC.

A handwritten signature in black ink, appearing to read "Kent R. Johnejack".

Kent R. Johnejack  
ICMI Lead Auditor and Mining Technical Specialist

A handwritten signature in blue ink, appearing to read "Bruno Pizzoni".

Bruno Pizzoni  
ICMI Mining Technical Specialist

Date: October 8, 2014

KJ/BP/sj

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