Mining Operations

Summary Audit Report

For The
International Cyanide Management Code

Mina Los Filos

May 2019

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IRCA CERTIFICATED AUDITOR
OCCUPATIONAL HEALTH AND
SAFETY MANAGEMENT SYSTEMS

SUMMARY AUDIT REPORT

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SUMMARY AUDIT REPORT

Mining Operation:	Mina Los Filos
Mine Owner	Leagold Mining Corporation, Canada
Mine Operator:	Desarrollos Mineros San Luis, S.A. de C.V.
Name of Responsible Manager:	Peter Burger
Address and Contact Information:	Domicilio Conocido, Mezcala, Guerrero Mexico, C.P. 40191 Telephone: + 52 733 33 39500 E-Mail: peter.burger@Leagold-OPS.com Website: http://www.leagold.com/los-filos-mine/los-filos

Location and Description of the Operation

Leagold Mining Corporation owns and operates Los Filos Gold Mine (Los Filos) located in Guerrero State, Mexico, through its 100% owned Mexican subsidiary, Desarrollos Mineros San Luis, S.A. de C.V. Los Filos is approximately 180 km southwest of Mexico City.

Location Map of the Los Filos Property

The mine property is in a tropical arid zone. Average annual temperature ranges are approximately 18°C to 22°C. The area is characterized by distinct dry and wet seasons. Climate conditions during the wet season (June through October) are hot and humid. Guerrero is a zone that can be affected by tropical storms and hurricanes.

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The average annual precipitation and evaporation is approximately 900 mm and 1,900 mm, respectively. The months with the most rainfall are June through September. Very little precipitation (less than 5% of the average annual rainfall) occurs from November to April. The mine property area can also be affected by tropical storms and hurricanes that can result in short-term high-precipitation events. Mining operations are conducted year-round and are not impacted by climate conditions.

The closest local communities are Carrizalillo, Mezcala, Mazapa and Xochipala, with the larger populated centers of Chilpancingo and Iguala nearby. All are accessible via gravel and/or paved roads. Over 1,500 people are employed on site as unionized workers, non-unionized employees, and independent contractors, and over 65% of workers and employees are from the local communities.

The Balsas river, located approximately four kilometers from the northern boundary of the mine property, supplies water to the mine from the Mezcala pumping station near the town of Mezcala. This river is the only perennial surface water course near the mine property. The most important tributaries in the area are the Mazapa and Xochipala streams, both of which are seasonal, and join the Balsas river on its southern margin.

Water from the Balsas river basin is used for water supply in ore beneficiation processes. The estimated volume of water obtained from the Balsas river basin is 46 l/s, which is primarily used for freshwater makeup purposes. Current demand is 2 Mm3/y and permitted capacity is 4.6 Mm3/y.

Los Filos mine comprises two open pits producing a combined average of 20 Mt of ore and one underground mine that produces an average of 0.4 Mt of ore per year. Open pit mining is conventional drill and blasting with loading by excavator and haulage by trucks to a crusher station or run-of-mine hauled directly to the heap leach pads. Underground mining employs either overhand or underhand cut and fill or chevron mining or long-hole stopping mining methods. All underground ore is trucked by contractors to the crusher station.

Mineralization from the open pit and underground operations is classified as either low-grade or high-grade ore as follows:

- Medium - to high-grade ore is currently classified as material with gold grades greater than 0.5 g/t Au for either Bermejal or Los Filos Open Pit ores and all Los Filos Underground ore.
- Low-grade ore is currently classified as material with gold grades between 0.198 to 0.5 g/t Au for Bermejal Open Pit and 0.241 to 0.5 g/t for Los Filos Open Pit ores.

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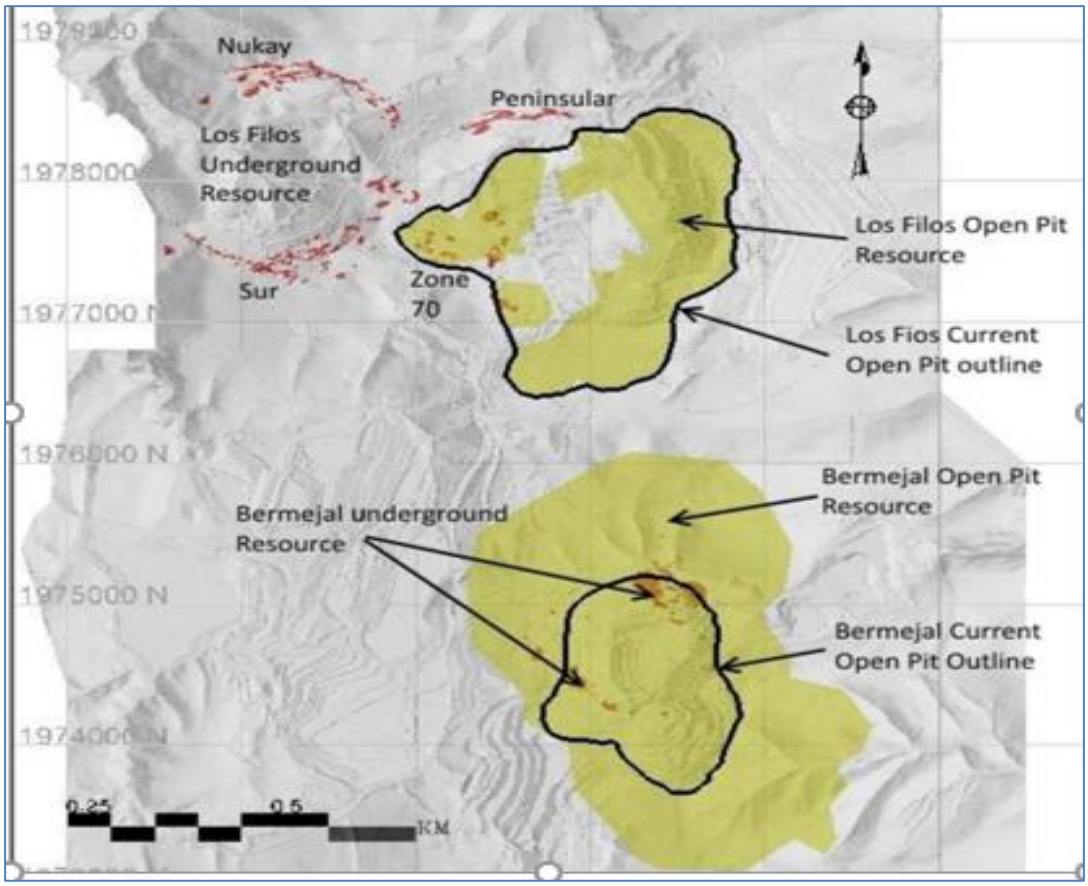
Plan View of Los Filos and Bermejal Mineral Resource Areas



All ore is processed via heap leaching. Heap Leach Pads 1 and 2 (Pad 1 and Pad 2) are currently in operation, each with a separate leachate collection system. Pad 1, the original heap leach pad, has been historically loaded with both Crush ore and Run of Mine (ROM) ore but is presently only loaded with ROM ore. Pad 2, which became operational in 2013, was initially loaded with ROM ore for the first one to two lifts, but currently is only being loaded with Crush ore at 5 m lift heights.

Medium to High-Grade ore is sent to a crushing system consisting of a primary jaw and two secondary cone crushers, and is reduced to a target particle size of 80% passing minus 19 mm. This ore is known at the Los Filos site as “Crush” ore. The Crush ore is mixed with cement, lime and water on the conveyor belt system for agglomeration purposes and is transported overland to the heap leach pad(s) via a combination of conveyor/stacking and haulage trucks to Pad 2. Once placed in a uniformly thick lift on the heap leach pad, the agglomerated ore is cyanide leached for gold extraction using conventional drip irrigation techniques.

Low-grade ore is hauled by mine trucks and placed separately on Pad 1 as Run-Of-Mine (ROM) material for leaching, following the addition of lime at a rate of 3 kg/t on each loaded haul truck. No ore sourced from Los Filos Underground is classified as low grade.

Gold is recovered from crushed and run-of-mine ore via a conventional, low-cost heap leach and ADR (adsorption-desorption-recovery) process. Infrastructure on site includes primary and secondary

crushing plants with 18,000 t/d capacity, an overland conveyor system, agglomerator, two heap leach pads (one for ROM and one for crushed ore, with associated conveyors and stackers), two pregnant solution collection ponds (one for each heap), one recirculation pond and two contingency water ponds, and an ADR plant and gold refinery.

Low grade ore from the pits is transported on the ROM roads and, after addition of lime from silos during haulage, is deposited on Pad 1 and Pad 2. High grade ore from the Los Filos open pit and the underground mine is crushed and then placed on Pad 1 or Pad 2. The crushing operation includes primary crushing with a jaw crusher and secondary crushing with two cone crushers. The crushed ore is transported by conveyor where cement and lime is added for agglomeration before placement on the leach pads.

The ponds system for the leaching pads consists of two pools filled with gravel; the ponds of rich solution for leaching (north and south), a recirculation pond (barren) and a contingency pool for Pad 1; PAD2 has a pond of rich solution and a contingency pond. The ponds system is designed to retain the volume of work solution, 24-hour starter solution volume, 48-hour drain contingency volume and a 24-hour 100 year rain event applied to the entire coated area. Capacity is obtained without taking into account the capacity of the surplus pond which would allow significant additional storage in the event of a catastrophic disturbance beyond the design. The ponds are interconnected with surplus channels with coating that when full will turn them into a common pond. Filling of the ponds is achieved by means of gravity flow while the removal of the solution will be carried out with specific pumping systems for this task.

ADR Plant and Associated Storage Ponds

Fresh water used in the leaching process is pumped from a deep well in Mezcala to a storage tank for redistribution to different parts of the operation, including the cyanide mixing tank (T-100). The sodium cyanide is transported in solid briquettes in an 18-ton isotainer truck. The isotainer is connected to the T-100 tank, freshwater is added, and recirculated between the isotainer and tank until the solid cyanide is completely dissolved. After dissolution of the solid cyanide, the solution is transferred to a storage tank (T200) for dosing to different process points (barren tank, recirculation tank, activated carbon circuit). This solution has a concentration of approximately 30 percent sodium cyanide.

The cyanide solution is added to the barren solution at the outlets of the barren and recirculation tanks and subsequently pumped to the booster station for repumping to the heap leach pad. The average concentration is 250 to 350 parts per million (ppm) of free cyanide. When the solution contacts the ore, the cyanide reacts with the gold and silver and converts to a pregnant solution that reports to two gravel-covered ponds at the toe of the heap leach pad (i.e., North Pregnant Pond and South Pregnant Pond). Each pond is equipped with two pumps to pump the solution to the Adsorption, Desorption and Recovery (ADR) Plant.

The ADR installation consists of seven trains with four columns of activated charcoal each where the pregnant solution flows against current (CIC), an acid wash, a coal regeneration furnace, chemical storage and carbon stripping circuit; pressure vessels, elution tanks and a heater. The function of the carbon is to absorb the gold and silver in the pregnant solution.

The pregnant solution enters at the base of the column, flows upward through a fluidized bed of carbon, and then passes by gravity to the next column. Upon leaving the last column, the solutions has left its gold and silver in the carbon and been converted to barren solution. Each train has a nominal capacity of 950 to 1,000 cubic meters per hour. At the end of each train there is a screening system to retain carbon fines and avoid sending them to the heap leach pad.

The barren solution that leaves the carbon trains with low concentrations of free cyanide is returned to the barren and recirculation tanks. To maintain the water balance in the rainy season, it is sometimes necessary to neutralize part of the sterile solution coming from the carbon columns. Los Filos has two neutralization tanks where hydrogen peroxide is added to react with the cyanide in solution. The neutralized solution is sent to the Excess Pond 1 or Excess Pond 2 for storage and subsequent use in the dry season by returning the solution to the recirculation pond.

The carbon is transferred from column to column with counter current flow of the rich solution until all gold and silver are absorbed. Then, the carbon is transferred from the first column in each train to the stripping column. The regenerated carbon, the new carbon, or both, are transferred to the last column in each train, as required, to replace the carbon transferred to the stripping column. In the stripping circuit, the gold is desorbed from the carbon using a hot caustic solution.

The stripping circuit consists of three columns operated independently in parallel. The stripping solutions contains caustic soda with an average temperature of 120 to 130 °C. As the stripping solution passes through the carbon, the gold is desorbed to produce a pregnant solution. The hot pregnant solution passes through heat exchangers to be cooled to 85 °C and then passes to the electrowinning circuit. The gold poor electrowinning solution is recirculated to the stripping column. The stripping of

gold and silver from each carbon batch takes approximately 16 hours to complete. The stripped carbon is transferred to the acid wash circuit.

The carbon regeneration is composed of two processes: chemical regeneration and thermic regeneration. The regenerated carbon is screened to retain carbon fines created during the handling and then sent to the carbon storage tank to be returned to the absorption columns.

The carbon fines product from the screening process is recovered in the carbon fines tank and then sent to the filter press. After filtration, the carbon fines are partially air-dried and loaded in supersacks to be sent to the warehouse for later offsite shipment as a by-product with low values of gold and silver.

The pregnant solution from the stripping columns is fed to four electrowinning cells. The sludge that deposits in the bottom of the cell is pumped to the filter press where 80 percent of the water is removed. The rest of the water content is eliminated in a retort oven before being sent to the induction oven. The loads are smelted at approximately 1,200 0C. At this temperature, the load in the oven has reached a liquid state composes of two phases. In the upper phase is slag. The gold and silver, both heavier, are in the lower phase in the bottom of the crucible. When the separation is complete, the crucible is tipped to remove the cap of slag and later the valuable metals are poured into molds in the shape of bars. The dore bars are transported to an offsite refinery. The slag is crushed, milled, and treated in a concentrator to recover the valuable metals. The concentrate is returned to the induction oven to re-smelt while the slag with low levels of valuable metals is stored for sale.

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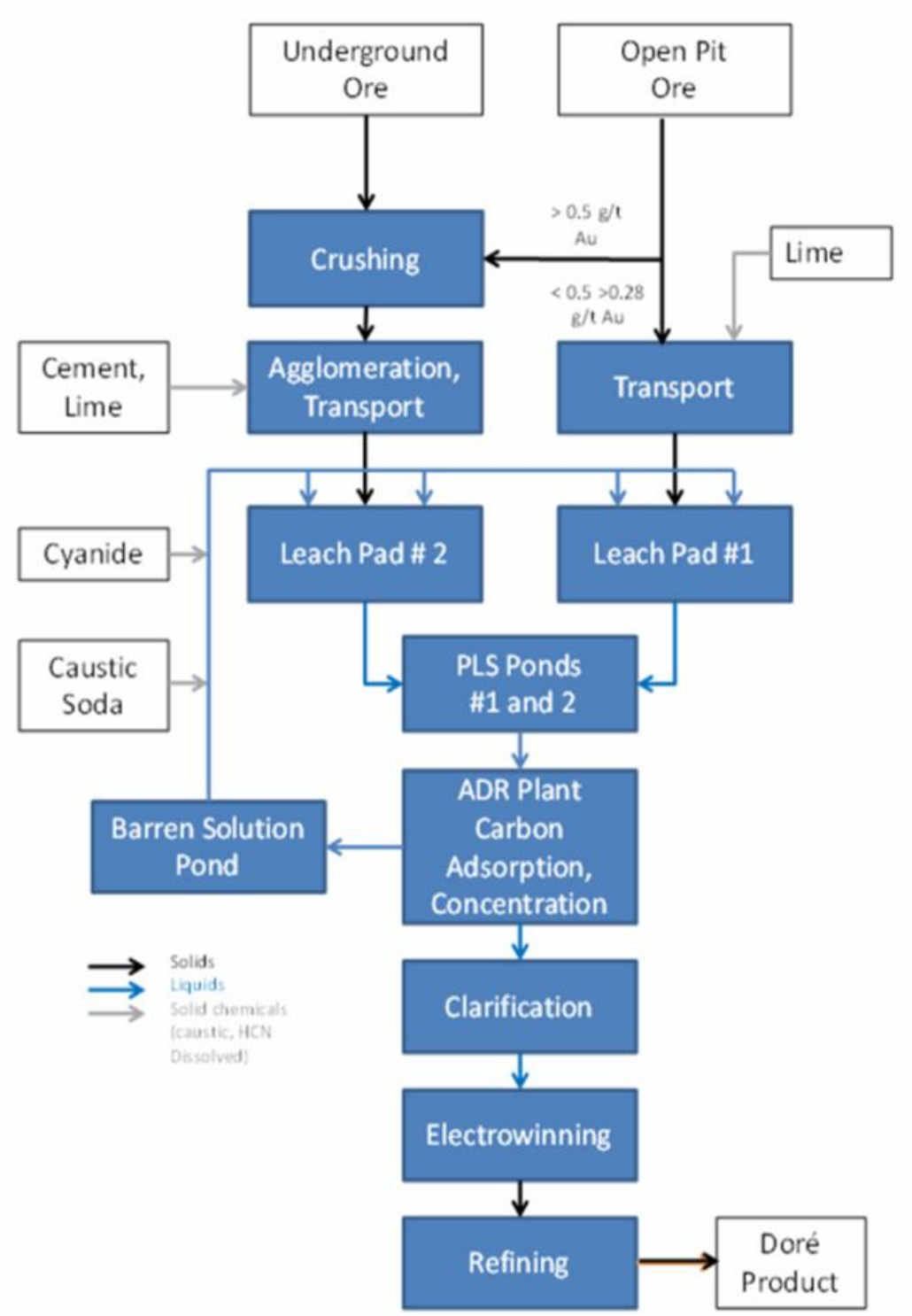
Simplified Los Filos Processing Flowsheet



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Auditor's Finding

The ICMI-approved Audit Team verified that Mina Los Filos operation is in FULL COMPLIANCE with ICMI Cyanide Code requirements for Gold Mining operations.

This operation was determined to be in FULL COMPLIANCE with the International Cyanide Management Code.

This operation is

- ✓ **in full compliance**
- ○ in substantial compliance
- ○ is not in compliance

With the International Code for the Management of Cyanide.

This operation has maintained full compliance with the International Cyanide Management Code throughout the previous three-year audit cycle.

During the previous three-year audit cycle, this operation did not experienced noncompliance with Code requirements, significant cyanide incidents requiring notification to ICMI and/or cyanide exposures or releases that would require disclosure under Item 9.3.3 of the Mining Operations Verification Protocol.

Auditor's Attestation

Audit Company:	Bruno Pizzorni
Lead and Mining Technical Auditor:	Bruno Pizzorni E-mail: bpizzorni73@gmail.com
Date(s) of Audit:	May 27, 28, 29, 30 and 31, 2019

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 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 Institute for Mining Operations Verification Protocol". and using standard and accepted practices for health, safety and environmental audits.

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Principle 1, Production

Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.

Standard of Practice 1.1

Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.

The operation is:

- ✓ **in full compliance with Standard of Practice 1.1**
- ○ in substantial compliance
- ○ not in compliance

Summarize the basis for this Finding/Deficiencies Identified:

Los Filos has a cyanide sales agreement that requires the cyanide producer to be certified in compliance with the Code. The cyanide manufacturer has provided the results of an independent third party audit of the cyanide production activities, which is published in the ICMI´s website.

The cyanide purchased by the gold mine is manufactured at the Chemours Memphis Plant (Tennessee, USA), a facility certified as being in compliance with the Code. Cyanide is purchased directly from the manufacturer, without intermediaries or independent distributors.

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.

The operation is:

- ✓ **in full compliance with Standard of Practice 2.1**
- ○ in substantial compliance
- ○ not in compliance

Summarize the basis for the Finding/Deficiencies Identified:

Los Filos has a current agreement for cyanide with The Chemours Company (Chemours), which includes Chemours responsibility to transport the cyanide from the Memphis, Tennessee plant to Los Filos. Responsibilities are clearly defined in the agreement for:

- packaging according to the required by the United Nations for international shipments and by the political jurisdictions the shipment will pass through;
- storage prior to shipment;

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- evaluation and selection of routes, including community involvement;
- interim loading, storage and unloading during shipment;
- transport and unloading to the operation;
- safety, maintenance, task and safety training for transporters and handlers throughout transport; and
- security and emergency response throughout transport.

The written agreement specifies that the designated responsibilities extend to all parties in the cyanide supply chain.

Standard of Practice 2.2

Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

The operation is:

- ✓ **in full compliance with Standard of Practice 2.2**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for the Finding/Deficiencies Identified:

The operation's contract with Chemours is both for cyanide purchasing and transporting. The contract between Los Filos and Chemours require that the transporter(s) are certified under the Code or provide the results of an independent third-party audit of the cyanide transportation activities.

Chemours Company Mexico supply chain consists of railroad transport from the Memphis plant (Tennessee, USA) with Mexican Railroad Railway (Ferromex) and Kansas City South of Mexico (KCSM) to the Chemours warehouse in San Luis Potosí, Mexico. Transportation of rail wagons to trucks at the Chemours warehouse in San Luis Potosí, Mexico. Transport by truck from San Luis Potosí, Mexico, to Los Filos by Transportes Especializados Segutal SA de CV (Segutal).

Chemours Company Mexico supply chain is certified under the Code. According to the ICMI website date of initial certification was January 29, 2013, then recertified on August 11, 2016. As this last certification period covers 3 years, Chemours supply chain to Mexico was current in occasion of the audit.

The operation has the chain of custody records identifying all elements of the supply chain that handle cyanide brought to the site. All cyanide transporters are identified in the Chemours Mexico supply chain, which is certified under the Code.

Principle 3, Handling and Storage

Protect workers and the environment during cyanide handling and storage.

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Standard of Practice 3.1

Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices and quality control and quality assurance procedures, spill prevention and spill containment measures.

The operation is:

- ✓ **in full compliance** **with Standard of Practice 3.1**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

The facilities for unloading, storing and mixing cyanide at Los Filos have been designed and constructed in accordance with sound and accepted engineering practices for these facilities. These cyanide facilities were reviewed during the 2010 Code audit and 2014 and 2016 recertification audits and found to be in full compliance.

The offload area, which includes the mixing tank and storage tank is located away from people concentration areas and surface water, over a liner and competent concrete pavement located in the process Plant. The Plant area is totally fenced, and no offices are located close to the area and away from locations where workers may congregate.

Los Filos receives cyanide briquettes via isotainer such that there is no liquid cyanide until the offload procedure starts. The isotainer is parked on a curbed concrete pad that slopes to a sump that drains by gravity via a double-walled pipe to the nearby recirculation pond.

The cyanide unloading is designed and constructed to contain and recover any spill. The offload pad at Area 800 is designed to contain leakage from the isotainer and safely convey it to the nearby recirculation pond. The isotainer is parked on a curbed concrete pad that slopes to a sump that drains by gravity via a double-walled pipe to the nearby recirculation pond.

To prevent the overfilling of cyanide storage tanks, Los Filos has level indicators and high-level alarms installed. The mixing tank (T-100) and storage tank (T-200) have automatic ultrasonic level indicators and two level alarms which prevent the overfilling of the tanks. The tank levels are monitored from the display at the offload area as well as in the control room. The alarms are both audible and visual.

The cyanide mixing and storage tanks are located on a concrete surface to prevent seepage to the subsurface. The mixing tank (T-100) and storage tank (T-200) are installed on structural concrete bases within curbed structural concrete containment. The concrete and sump are underlain by 60-mil HDPE liner. The auditor observed the concrete bases and containment to be in good condition, indicating they continue to serve as a barrier to seepage.

The secondary containment for the cyanide mixing tank T-100 and the storage tank T-200 is constructed with concrete to provide a competent barrier to leakage. The design and construction quality assurance for this pad were reviewed during the 2010 audit and found acceptable. The tanks are located within a bermed concrete impoundment, which was observed to be of sound integrity and

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considered suitable for containment in the event of a release or tank failure, providing competent barrier to leakage. The berms and containment area are subject to daily inspections.

The cyanide mixing and storage tanks are located outdoors with natural ventilation, as such, providing adequate ventilation to prevent build-up of hydrogen cyanide gas in the event that the cyanide comes in contact with water. The operation do not store solid cyanide at the site. It uses only liquid cyanide stored in covered tanks, thereby eliminating the possibility of contact between water and solid cyanide.

Los Filos stores the cyanide solution in a secure area where public access and not authorized mine personnel access is prohibited. Warning signs are posted at the entrance of the ADR Plant, prohibiting the access to non-authorized personnel. The access to the plant area is also restricted. The cyanide mixing and storage tanks are located within the fenced, gated, and patrolled area for the ADR Plant, which in turn is within the fenced and patrolled mine property. The security guards at the gate for the ADR Plant radio process staff to grant permission for entry, thereby prohibiting unauthorized access by the public (or mine other mine staff for that matter). In addition, the offload area is continually monitored by video camera by the control room operator.

The cyanide solution at Los Filos is kept separately from incompatible materials such as acids, strong oxidizers and explosives and apart from foods, with appropriate barriers that will prevent mixing. The offload area and the reagent storage areas are separated such that cyanide is located away from incompatible chemicals like acids, oxidizers and explosives. Secondary containments are designed to prevent cyanide spills from mixing with incompatible materials, as verified by following potential flow paths.

Standard of Practice 3.2

Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

The operation is:

- ✓ **in full compliance with Standard of Practice 3.2**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos receives solid cyanide in isotainers which return to the Chemours facilities once empty. There is no need to manage empty cyanide containers as drums, bags or boxes, among others. The offload procedure requires that the isotainer be inspected for leakage and that the isotainer connections be rinsed after an offload is complete. The auditor observed an offload disconnect to confirm the driver followed this procedure.

Los Filos has developed and implemented plans and procedures to prevent exposures and releases during cyanide offloading and mixing activities. For operation of all valves and couplings during offloading solid cyanide and mixing, the operation has developed and implemented instructions that

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provide a comprehensive guide for receiving the truck at the main gate, escorting it to the ADR Plant, and offloading the cyanide from the isotainer.

The procedures detail the responsibilities for the transporter and the site personnel. The work instructions detail the step-by-step actions connections, operation, and disconnections during offloading, including operation of all truck and tank valves. A checklist is used to verify the tank level and pH are acceptable to start the offload process. The auditor observed an offload connection during the site visit to verify that the procedures and work instructions are followed.

Los Filos has developed a procedure to deal with contingencies in Area 800 that describes the steps for timely cleanup of spills.

The procedures and work instructions detail the personal protective equipment (PPE) required for offloading. The PPE for the driver consists of rubber gloves, impermeable suit, hard hat, safety glasses, face shield, rubber boots, dust mask, portable HCN monitor, and a radio. The PPE for the observer consists of rubber gloves, Tychem suit, hard hat, rubber boots, respirator, and radio. The procedure requires that a second observer and a paramedic watch the offload connections and disconnections, although the observer and paramedic may leave during the 3 to 4 hours it takes to empty the isotainer. During that period, the control room operator observes via video camera.

Los Filos is using solid cyanide with colorant dye on site since 2016, as stated by Los Filo´s Environment Superintendent. Colorant dye is added to solid cyanide at Chemours San Luis de Potosi cyanide transfer plant from boxes to isotanks.

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 preventive maintenance procedures.

The operation is:

- ✓ **in full compliance with Standard of Practice 4.1**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has developed written procedures and plans for the cyanidation operation including offloading, mixing and storage facilities, ADR Plant and heap leach operations, among others. Procedures and plans for the safe operation of cyanide facilities were reviewed for the ADR Plant areas 250, 420 and 800, instructions and checklists of the leach pad areas, and the Leach Pad Manual updated to April 2019. These documents were available at site and reviewed during the audit.

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The site's operating procedures incorporate the assumptions and parameters on which the design was based, as well as applicable regulatory requirements related to prevention of cyanide releases and exposures. As stated in the previous recertification audit report, the 2006 Feasibility Study is the most complete statement of assumptions and parameters, including regulatory requirements. The various design reports for the pad and ponds that were evaluated in the previous audit cycle also contain design assumptions and parameters. Since that time, Los Filos has developed other operational procedures that reiterate the assumptions and parameters.

Los Filos has developed and implemented Standard Operating Procedures (SOP) and Work Instructions (WI) for the safe and environmentally sound operation of the facility, including inspections and preventive maintenance activities as required by the Code. Each SOP stablishes the inspection frequency and maintenance required.

The operation has SOPs and WI covering all aspects of safe operation of the cyanide facilities at the crusher, agglomerator, leaching pads including the Basic Manual for Leach Pads 2019, SOPs and WI for the ADR Plant: Areas 250, 420 and 800, and for mechanical, instrumental and electrical maintenance activities.

Los Filos has developed and implemented procedures to identify when changes in a site's processes or operating practices may increase the potential for the release of cyanide and to incorporate the necessary release prevention measures. The procedures include sections for the change details, risk assessment, approval, implementation, and follow-up. Also include a form that must be completed and signed by the plant (superintendent and manager), maintenance, safety, and environmental.

Los Filos has developed contingency procedures for upset conditions, deviations from design criteria, deviations from standard operating conditions, and temporary closure / cessation of operations.

Los Filos has developed contingency procedures specific to each process area at the ADR Plant (Areas 800, 420, and 250), as well as for operation of emergency generators and management of the excess pond. The area-specific contingency procedures for the ADR Plant cover tank collapse, pipe ruptures, and leaks from the pipelines, tanks, and columns. The contingency procedure for the excess water pond covers failure of the neutralization system and measures to avoid or manage overtopping. The Emergency Response Plan for the mine contains contingency procedures for different scenarios. Contingency plans for temporary closure or cessation of operations are covered in the Los Filos Closure Plan, specifically in Section 10. Section 10.1 covers unplanned rapid closure and Section 10.2 covers care and maintenance under temporary closure.

Los Filos inspects the cyanide facilities at a reasonable frequency for each type of inspection. The frequencies vary from shift to monthly. A pre-offload inspection is conducted each time an offload occurs, which may occasionally be more than once per shift. Wildlife inspections take place daily at the pad and ponds. Los Filos uses inspection forms to document the regular inspections with the exception of the operator rounds conducted each shift at Areas 800, 420, and 250 of the ADR

Los Filos inspects unloading, storage, mixing, and process areas as follows:

a) Los Filos has continued the program of tank and pipe wall thickness measurements described in the 2014 and 2017 recertification audit reports.

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b) Inspects secondary containments via the weekly inspections for Areas 800, 420, and 250 at the ADR Plant. The secondary containment at the Booster Station is inspected as part of the weekly pad inspections. These weekly inspections include the condition of the concrete and joints, as well as sump pumps (as applicable).

c) Inspects the pond leak detection system and the pad underdrains on a daily basis for cyanide, pH, gold and copper concentrations, as well as flow and/or volume.

d) Pipelines, pumps, and valves during the weekly inspections at Areas 800, 420, and 250 of the ADR Plant, as well as the weekly pad inspections (which include the Booster Station).

e) The process ponds on a weekly basis for the condition of the liner. Daily surveys document the water levels and freeboard for use in the water balance. Los Filos inspects the diversions around the pad and process ponds on a monthly basis during the rainy season.

Inspections are documented, including the date of the inspection, the name of the inspector, and any observed deficiencies. The nature and date of corrective actions are documented, and records are retained. Inspection forms for the ADR Plant have a section to enter the work order number for corrective actions. Corrective actions are tracked via the maintenance program.

Los Filos has a preventive maintenance program for pumps, pipelines, valves, flow meters, gauges, level sensors, pH meters, sump pumps, filters, HCN sensors, tanks and cyanide facilities in general. The preventive maintenance program is used to perform necessary maintenance and inspect the integrity of process equipment, piping and tanks, according to a maintenance program and every time it is needed to keep equipment and installations working properly.

Examples of preventive maintenance records for the last 3 years for different facilities were reviewed during the audit and were found to be complete. Maintenance activities are documented by mean of the maintenance registers.

Los Filos has two emergency generators of 2 MW each to operate the critical pumps in the plant, ponds, the booster station, and Areas 250, 420, and 800. The emergency power plant was constructed during 2008 to provide back-up power for the leach solution pumps and the gold refinery. The generators are housed within the ADR Plant; there are two redundant CAT diesel generator plants (2,500 kVA, 16 cylinders, 13.8 kV output) installed. There is a concrete foundation for a third unit if it becomes necessary. Los Filos has prepared two procedures and a work instruction to guide use of the emergency generators. The auditor reviewed monthly startup records and quarterly preventative maintenance records to verify that the generators were operable throughout the recertification period.

Standard of Practice 4.2

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

The operation is:

- ✓ **in full compliance with Standard of Practice 4.2**
- ○ in substantial compliance

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- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

This Standard of Practice is not applicable to the operation as Los Filos does not have a mill or generate tailings.

Standard of Practice 4.3

Implement a comprehensive water management program to protect against unintentional releases.

The operation is:

- ✓ **in full compliance with Standard of Practice 4.3**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has a probabilistic water balance that considers the uncertainty and variability inherent in the prediction of precipitation patterns. It considers the frequency and distribution of precipitation events along with the extremes and seasonal variations.

The main water management components at the Mine site are fresh makeup water from the intake system adjacent to the Rio Balsas, fresh water used for dust suppression reused impacted water, water use in the process and pit operations and diverted clean storm water.

Los Filos water balance considers the rates at which solutions are applied to the leach pads; considers a design storm duration and storm return interval that provides a sufficient degree of probability that overtopping of the pond or impoundment can be prevented during the operational life of the facility; considers the quality of existing precipitation and evaporation data in representing actual site conditions. They record rainfall and evaporation from the weather station located in the CCM 250 B area by means off the Logger Net 3.3 software.

Precipitation from surface run-on from the up-gradient watershed is not considered in the water balance as los Filos has diversion channels to capture rainwater - it does not enter the system. Neither considers freeze and thaw as these conditions are not possible due to the tropical climatic setting of the site.

The model considers evaporation machines at the excess pond as a loss to the system, there are no allowable seepage losses or discharges to surface water at Los Filos. The model can also simulate a power outage by zeroing out selected pumping rates for a given period, such as 24 hours.

Discharge to surface waters is inapplicable at Los Filos because such discharges are not permitted. There are springs that occur beneath the pad liner. The flow from these springs is conveyed by an underdrain system to a small concrete seepage collection structure in the Arroyo Carrizalillo. The collected solution is pumped back to the excess pond. The model includes this seepage return flow.

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All operating procedures related to water management at Los Filos incorporate inspection and monitoring activities to implement the water balance and prevent overtopping of ponds and impoundments and unplanned discharge of cyanide solutions to the environment.

Los Filos surveys the water levels in the recirculation ponds and excess ponds daily for input into the water balance spreadsheet. A topography crew measures ponds levels daily reporting the data to those responsible for the water balance. In addition, Los Filos Ponds Supervisor carry out weekly inspections and performs monthly water balance reports to ensure water balance.

The operation evaluates precipitation data to update the water balance, with internal data from their own meteorological station and pluviometers located in strategic areas of the cyanide installations. In addition, Los Filos compares this data with external data from Mezcala, Chichihualco and Zumpango weather stations. Ponds at Los Filos are designed and operated with adequate freeboard above the maximum design storage capacity determined to be necessary from water balance calculations. The operation has developed the written procedure LF-P-PB-12 Contingencies in the Ponds Due to Excess Water, for managing excess water in the process ponds. There are two pregnant solution ponds (one for each heap), one recirculation pond, and two contingency (excess) water ponds.

The pregnant solution pond for Pad 1 is divided into two ponds: one to collect leachate solution from the northern portion of Pad 1 and the other to collect solution from the southern portion of Pad 1. These two ponds were backfilled with gravel several years ago but remain operational. All of the other ponds are open water.

The pregnant solution pond for Pad 2 is an open-water pond, that overflows directly to Contingency Pond #2; there is only one recirculation pond; excess water from Contingency Pond #1 is transferred to Contingency Pond #2.

The gravel-filled pregnant ponds spill automatically to the recirculation ponds. Likewise, the recirculation ponds spill automatically to the contingency ponds via a spillway such that freeboard in the recirculation pond is controlled by the spillway elevation.

The procedure considers a 2-m height until reaching the free edge. For example, the auditor noted that in January 2017, the contingency water Pond # 2 came to 2.10 m from the free edge. Currently they area managing manually the pond volumes and as soon they finish installing the permanent pumps, they will be able to automatically maintain pond level pumping water to the barren tanks, patios, recirculation pond and to contingency Pond # 1.

Los Filos monitors the daily values of water pumping to and from the ADR plant as well as the irrigation areas and pond water levels and volumes. The water levels in the ponds are monitored and are managed to prevent overflow to the environment. The operation measures precipitation with internal data from their own meteorological station and pluviometers located in strategic areas of the cyanide installations. In addition, Los Filos compares this data with external data from Mezcala, Chichihualco and Zumpango meteorological stations. The water balance model is updated and calibrated periodically using recorded water levels, site pumping records, and meteorological records as mentioned.

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Standard of Practice 4.4

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

The operation is:

- ✓ **in full compliance with Standard of Practice 4.4**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has a written monitoring plan for the cyanide facilities to identify risks to wildlife, document the type and number of animals encountered, and prevent impacts to wildlife (Los Filos, undated). The following four areas were identified as having a potential risk to wildlife: the heap leach facilities, the toe of the heap leach pads, the solution ponds, and other ponds that contain cyanide. Wildlife monitoring associated with the cyanide facilities is conducted daily at the heap leach pads if there is ponding, otherwise it is conducted weekly. Monitoring at the ponds is conducted daily.

Los Filos has implemented measures to restrict access by wildlife and livestock to the areas of cyanide usage. At the heap leach pads, Los Filos also has procedures to prevent ponding, which could endanger wildlife due to drowning or ingestion of solution with cyanide. The perimeter of the heap leach pads and ponds is fenced by a combination of barbed-wire fence and cyclone fence. The cyclone fence has a concrete pad in some areas. Monitoring data are maintained in Enablon. In addition to the monitoring plan developed for SEMARNAT, Los Filos has a written Wildlife Rescue, Handling, and Relocation Plan (Desarrollos Mineros San Luis, S.A. de C.V., 2015). The plan for the entire Mine site includes methods for relocation of amphibians, reptiles, mammals, and birds.

Los Filos does not have a tailings storage facility. The leach pads area maintained properly to avoid surface ponding of leach solution. Los Filos provided a graph of both external and internal laboratory data to demonstrate that Weak Acid Dissociable (WAD) cyanide concentrations in all open water ponds have been below 50 ppm throughout the recertification period.

During the last 3 years, Los Filos has been successful at preventing wildlife mortalities related to open water cyanide facilities. The ponds are inspected daily for wildlife mortalities. The auditor reviewed the wildlife mortalities register and there were no mortalities related to cyanide.

The auditor reviewed the external accredited laboratory results of monthly monitoring for WAD cyanide levels in the ponds, covering the recertification period, the maximum value registered do not exceed 23.8 mg/l.

Los Filos applies the leaching solutions in a manner designed to avoid significant ponding on the heap surface and limit overspray of solution off the heap liner. The agglomerated ore is cyanide leached for gold extraction using conventional drip irrigation techniques. The operation has developed and implemented a series of procedures and working instruction to avoid ponding in the pads. Procedures deal with conformation of the leaching pads, management of drip tubing and piping, irrigation rates measurement and adjustment, procedures in case of impounding and pipes break, among others.

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Standard of Practice 4.5

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

The operation is:

- ✓ **in full compliance with Standard of Practice 4.5**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos does not discharge any water to surface water, complying with local regulations. Only domestic wastewater is discharged in Cañada 23. Water monitoring data for a downstream monitoring shows that free cyanide is below detection limits (0.005mg/l).

Prevention and mitigation measures to protect surface water and groundwater quality include surface erosion controls around the facilities. Clean storm water is transported in concrete-lined channels around the heap leach facilities, whereas impacted storm water is directed to the ponds. Surface runoff from water diversion channels around the heap leach pads, the ADR plant, Los Filos Underground areas and the Los Filos Open Pit West Water Reclamation Facility (WRF) drain into the Mazapa stream. Water from the Mazapa stream is mainly used for livestock consumption.

Los Filos do not have indirect discharges to surface water. Natural springs occur where heap leach Pad 1 and 2 were constructed. The pads were designed with a subsurface underdrain system to dewater beneath the two pads. Both pads have their own subdrains and both systems convey water via pipelines to outlets at a concrete-lined vault in Cañada 23. The vault has a separate outlet that conveys water to the arroyo and eventually into the Mazapa seasonal stream. Water from Cañada 23 is pumped back to Contingency Pond # 2. During this recertification period, no indirect water discharge to surface water has been performed.

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Standard of Practice 4.6

Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

The operation is:

- ✓ **in full compliance with Standard of Practice 4.6**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has implemented measures to protect groundwater and these measures are unchanged from the 2010 and 2014 audits. According to the Technical Report for Los Filos Gold Mine from March 7, 2018, elaborated by professionals from Leagold, Los Filos and consultants to Leagold, the phreatic surface of groundwater is reported to be as a lower elevation than the final depth of the open pits and

current underground operations. No water elevation data in the area was available in the CONAGUA national water authority) report. Typically, both open pits and Los Filos Underground are dry, except during the rainy season. Surface water infiltrates rapidly enough that operations are not halted due to excess water except during strong storms. No information was available regarding the water flow rates into the Los Filos mine. In one area of the Los Filos open pit there is groundwater seepage occurring. The water is temporarily diverted and contained in a retention pond and then pumped out of the pit and allowed to flow as surface water runoff. Groundwater was not encountered in any of the exploration boreholes, which were drilled to depths of about 300 m in the pit areas, with some holes going even deeper.

Groundwater monitoring shows that the site is not impacting groundwater above levels protective of beneficial use. WAD cyanide concentrations in groundwater are below levels that are protective of identified beneficial uses of the groundwater. Appendix A of Los Filos written program for water quality monitoring of the program shows that the SEMARNAT standard for this beneficial use of groundwater is 2 ppm total cyanide.

Los Filos site currently has two groundwater monitoring wells that comply with the Mexican environmental requirements for heap leach facilities. One well (LF-49) is located upstream of the heap leach pads in a canyon close to the community of Carrizalillo and the other (LF-48) is located approximately 400 m downstream of the heap leach pads in Cañada 23. Groundwater quality results in December 2017 were below permissible limits. Results from LF-48 have reported occurrences of cyanide, the cause has not been determined. Internal investigations were carried out and corrective measures were put in place. Los Filos currently conducts quarterly sampling at the two monitoring wells.

Los Filos provided spreadsheets groundwater sampling results from the recertification period. These results showed that that all samples had results less than 2 ppm total cyanide and the vast majority show levels below detection limits.

Standard of Practice 4.7

Provide spill prevention or containment measures for process tanks and pipelines.

The operation is:

- ✓ **in full compliance with Standard of Practice 4.7**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Spill prevention and containment measures area provided at Los Filos for all cyanide unloading, storage and process solution tanks. Los Filos has secondary containments for Areas 800, 420, and 250 at the ADR Plant. The entire process area is contained within a concrete pad surrounded by curbs and walls, providing a competent barrier to seepage. The concrete floor is sloped to drain to concrete trench drains, where any spills or rainwater will be pumped back to the process. The secondary containment system is inspected daily as part of the process facilities inspection system. The auditor observed that Los Filos has maintained all secondary containments in good condition.

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As stated in the last ICMC recertification audit report, secondary containments for cyanide unloading, storage, mixing and process tanks are sized to hold a volume greater than that of the largest tank, within the containment and piping draining back to the tank with additional capacity for the design storm event. The secondary containment volume calculations were reviewed and deemed as sufficient. Furthermore, those containments have remained unchanged since last recertification audit.

Los Filos has several procedures, plans and manuals in place which are implemented to prevent discharge to the environment of any cyanide solution or cyanide-contaminated water that is collected in a secondary containment. Solutions within the secondary containments for Areas 800, 420 (including the 6h and 7th trains), and 250 are returned to the process circuit, either directly by pumping to columns or tanks, or by gravity flow to the recirculation pond. Solutions within the secondary containment for the booster station drain by gravity to the lined heap leach pad, thereby returning them to the process circuit. In no cases are solutions in secondary containment discharged to the environment. All process tanks have secondary containment.

Los Filos has provided spill prevention and containment measures for all cyanide process solution pipelines to collect leaks and prevent releases to the environment. Pipe-in-pipe from the Area 800 sump to the recirculation pond. Pipe-in-pipe from Area 800 to the lined secondary containment ditch near the ADR Plant, and thence via the secondary containment ditch westward to Area 420 and eastward to Area 250. Concrete or geomembrane-lined secondary containment ditch from the ADR Plant to Area 250 and the recirculation pond, except in a short reach of pipe in-pipe on a hillslope. Geomembrane-lined secondary containment ditch from Area 250 to the edge of the geomembrane-lined pad, and thence over the lined pad to the booster station. Over the geomembrane-lined pad from the booster station to the active areas of the pad.

Los Filos has located facilities in areas that do not pose any undue risks to surface water that would require special protection. There is no risk to surface water in the area of the process facilities, because no perennial surface water streams or water bodies are present.

The auditor observed that all tanks and pipelines at Los Filos are constructed of materials compatible for cyanide and high pH, such as HDPE, coated carbon, stainless steel, and Yellow Mine PVC. The auditor did not observe any pipes or tanks made of regular (white) PVC. All tanks and pipes were well supported and in good condition.

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.

The operation is:

- ✓ **in full compliance with Standard of Practice 4.8**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

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Quality control and quality assurance (QA/QC) programs have been implemented during the construction of cyanide facilities at Los Filos. The mine maintains files with QA/QC reports for the facilities constructed before the last recertification audit in 2017, which was found in compliance with the Code requirements. Los Filos has implemented QA/QC programs for the agglomerator, a new cyanide facility commissioned on Q1 2108, during this recertification period.

To improve the quality of agglomerated Crush ore, in August 2017 Los Filos initiated procurement and installation of a new overland conveyor and the re-installation of the existing agglomerator that was not in use. The agglomerator is integrated with the new overland conveyor to allow for continuous Crush ore material movement to Pad 2. The agglomerator has been relocated onto Pad 1 and is be fed by the new overland conveyor and then discharge onto a series of shorter conveyors before feeding the grasshopper conveyors. The auditor reviewed complete documentation from the QA/QC program for the agglomerator, including soil mechanics study, soil laboratory results, quality assurance report, weekly construction reports, construction and material testing certificates, geomembrane QC and granulometry test results, among others.

QA/QC programs addressed the suitability of materials and adequacy of soil compaction for earthworks for the agglomerator foundation. The auditor reviewed the documentation regarding earthworks, concrete, liners, for the construction concluding the documentation adequately addresses the ICMC requirements.

QA/QC records for cyanide facilities are retained by Los Filos for the cyanide facilities built previous to this audit recertification period. Los Filos has retained the QA/QC records referenced in the 2010, 2013 and 2016 audits in bookshelves in the ADR Plant conference room. Los Filos has prepared an inventory of these documents to further ensure none are misplaced. The auditor observed the reports and randomly checked some of them to verify compliance.

Appropriately qualified personnel reviewed cyanide facility construction and provided documentation that the facility has been built as proposed and approved. Construction records include a sign-off by the construction engineer that the facilities have been built as shown in the design drawings. All QA/QC reports reviewed were signed by professionals of well reputed engineering firms. They reviewed quality, structures, containments, civil works, QA/QC, containment volume, construction specifications and characteristics of materials. The auditor reviewed records of construction reports, including as-built drawings for the new cyanide facilities.

Standard of Practice 4.9

Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.

The operation is:

- ✓ **in full compliance with Standard of Practice 4.9**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

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Los Filos has a written monitoring plan for the cyanide facilities to identify risks to wildlife, document the type and number of animals encountered, and prevent impacts to wildlife. The following four areas were identified as having a potential risk to wildlife: the heap leach facilities, the toe of the heap leach pads, the solution ponds, and other ponds that contain cyanide. Wildlife monitoring associated with the cyanide facilities is conducted daily at the heap leach pads if there is ponding, otherwise it is conducted weekly. Monitoring at the ponds is conducted daily. For other water bodies that may occur due to ponding or rainfall, the monitoring is conducted weekly. Any incident is logged into the software Enablon to allow tracking it.

The monitoring plan specifies the locations, laboratory parameters, and frequency of monitoring to meet Mexican regulations, assess natural variations, to detect potential impacts from operations. The program includes quality control samples.

The sampling and analytical protocols have been developed by appropriately qualified personnel. The water quality monitoring program as well as the wildlife monitoring program were originally prepared (as noted in the 2010 audit) by a Goldcorp corporate environmental scientist with 10 years of experience, and by a Los Filos environmental engineer with 7 years of experience. A chemical engineer in the environmental department with 12 years of experience, has been responsible for implementing the program and updating the procedures as needed. During the first recertification period a biologist with 6 years of experience has been responsible for implementing the program and updating the procedures as needed.

The procedures specify how and where samples should be taken, sample preservation techniques, chain of custody procedures, shipping instructions, and cyanide species to be analyzed. The written water quality monitoring program and its associated procedures contain the required information. The water monitoring plan contains a set of figures showing sampling locations for surface water, groundwater, potable, and residual water. Also lists the monitoring stations for surface water and groundwater, respectively. Sampling methods (field techniques, preservation, packaging, shipping, etc.) are generally described in the plan, but are detailed in the accompanying written procedures.

Los Filos field data sheets for surface and groundwater samples record in writing the weather conditions, ambient temperature, field parameters (i.e., conductivity, pH, temperature), groundwater levels and quantity of water to purge. Completed monitoring field forms were reviewed by the auditor and verified that these conditions are being registered.

Los Filos currently monitors surface water and groundwater at the site via monitoring wells, springs (i.e., pad underdrains), and surface water stations. Los Filos monitors groundwater at two wells downgradient of the cyanide facilities: LF-48 located in Arroyo Carrizalillo downgradient of Pad 1, Pad 2, the ADR Plant, and all process ponds

Los Filos monitors five springs via underdrains risers and outlet pipes downgradient of the cyanide facilities: LF-PS1 located adjacent to the south pregnant pond for Pad 1 LF-PN1 located adjacent to the north pregnant pond for Pad 1 LF-34 located in Arroyo Carrizalillo downgradient of Pad 1 LF-35 located in Arroyo Carrizalillo downgradient of Pad 2 LF-36 located in Arroyo Carrizalillo representing the combined quality from LF-34 and LF-35. Los Filos monitors surface water at one station downgradient of the cyanide facilities: LF-18 in Arroyo Carrizalillo immediately downstream of LF-34,

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-35, -36, and -48.Los Filos has a written monitoring plan for the cyanide facilities to identify risks to wildlife, document the type and number of animals encountered, and prevent impacts to wildlife (Los Filos, undated). The following four areas were identified as having a potential risk to wildlife: the heap leach facilities, the toe of the heap leach pads, the solution ponds, and other ponds that contain cyanide. Wildlife monitoring associated with the cyanide facilities is conducted daily at the heap leach pads if there is ponding, otherwise it is conducted weekly. Monitoring at the ponds is conducted daily. For other water bodies that may occur due to ponding or rainfall, the monitoring is conducted weekly.

Los Filos monitoring procedures include frequencies for samples conducted at frequencies adequate to characterize the medium being monitored and to identify changes in a timely manner. The frequencies of the monitoring activities were deemed to be appropriate by the auditor.

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.

The operation is:

- ✓ **in full compliance with Standard of Practice 5.1**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has developed written procedures to decommission cyanide facilities at the cessation of operations. A Closure and Reclamation Plan was prepared for the Mine site (Desarrollos Mineros San Luis, S.A. de C.V., 2014). The plan is updated to 2018 and incorporates international best practices. The key objectives of the reclamation and closure plan include the following:

- Minimize erosion damage.
- Protect surface and groundwater resources through control of water runoff.
- Establish physical and chemical stability of the site and its facilities.
- Ensure all cyanide and process chemicals are safely removed from the site at closure and equipment is properly decontaminated and decommissioned.
- Clean and detoxify all facilities and equipment used in the storage, conveyance, use, and handling of cyanide and other process chemicals in accordance with the Cyanide Code.
- Establish surface soil conditions conducive to the regeneration of a stable plant community through stripping, stockpiling, and reapplication of soil material and/or application of waste rock suitable as growth medium.
- Repopulate disturbed areas with a diverse self-perpetuating mix of plant species to establish long term productive plant communities compatible with existing land uses.

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- Maintain public safety by stabilizing or limiting access to landforms that could constitute a public hazard.

The Closure and Reclamation Plan includes an implementation schedule for decommissioning activities. The plan has 4 stages:

- Stage 1: Area 800 (unloading area), Pad 1 pipes and booster station.
- Stage 2: Pad 1 drainage and solution management (i.e. evaporation).
- Stage 3: Evaporation of the solution in the converted evapotranspiration basin.
- Stage 4: ADR Plant dismantling when precious metals no longer economically recovered from solutions; foundation demolition.

The Closure and Reclamation Plan is updated every 3 years. The current plan, updated to 2018, is conceptual and contains discussions of possible closure method options without specifications. Technical studies were being prepared by SRK Consulting for completion in 2017 to advance the closure planning process. The work included geochemistry studies of waste rock and spent ore with a prediction of future metals leaching potential, update of the Water Quality Monitoring Plan, preparation of a site-wide water balance, update of the existing Waste Rock Management Plan, preparation of a closure landform design, preparation of a drain-down analysis of the heap leach pads.

Standard of Practice 5.2

Establish an assurance mechanism capable of fully funding cyanide-related decommissioning activities.

The operation is:

- ✓ **in full compliance with Standard of Practice 5.2**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has developed an estimate of the cost to fully fund third party implementation of the cyanide-related decommissioning measures as identified in its site decommissioning plan. The costs were calculated to fully fund third party implementation of the cyanide-related decommissioning measures as identified in its site decommissioning plan, using the Standard Reclamation Cost Estimator (SRCE) model that was developed for the State of Nevada, USA.

The closure cost spending schedule was updated for the current mine life and reflects anticipated expenditures prior to closure, during decommissioning, and during the post-closure monitoring and maintenance period. The most recent closure cost estimate is dated December 2018 and assumes the heap leach will be rinsed for chemical stability and that solution (draindown from heap leach and rinse ate water from decontamination of equipment at the ADR plant) will be treated. Final slopes are assumed to be 2.5H:1V for the heap leach and no change of slope at the open pits.

The closure cost was adjusted to account for reclamation activities completed and also the additional closure requirements based on 2017 disturbance. These costs were estimated to include legal and

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constructive obligations to reclaim the site to safe and stable conditions and minimize environmental impacts. Site closure costs are funded by allocating a percentage of sales revenue to closure activities.

The operation review and update the cost estimate annually. The Closure and Reclamation *P*lan *states* that as part of its Asset Retirement Obligation Policy, corporate financial accounting procedures require that mine closure liabilities be assessed each year. The auditor reviewed the previous versions of the SRCE model. Los Filos has been updating cost models annually as required by internal policies.

Los Filos provided a letter from Deloitte dated from April 19, 2019 signed by a qualified the financial auditor Héctor García Garza, Partner - Deloitte Mexico, with identification card N° 2474499 as Public Accountant and Auditor, that the mine has sufficient financial strength to fulfill the mine obligation to decommissioning activities, including cyanide related activities, as demonstrated by an accepted financial evaluation methodology. .

The letter from Deloitte, states that as requested by Desarrollos Mineros San Luis, S. A. de C. V., they have performed the following financial tests with balances as of December 31, 2018 (unaudited) which have been included in Appendix A of the letter:

1. Recalculate the financial ratios described in the Code of Federal Regulations of the United States in 40 CFR 264.143(f).

2. Recalculate that the net working capital and tangible net worth are at least six times more than the sum of current estimates of closing and closing costs and current estimates of closing and abandonment.

3. Recalculate that the tangible net worth is at least $10 million of United States dollars.

4. Recalculate that assets represent at least six times the sum of current and closing closure cost estimates and current cost estimates of closure and abandonment.

As a result of applying the above procedures Deloitte states they found no exceptions, and found that the financial test performed are in compliance with the requirements established in the U.S. Code of Federal Regulations at 40 CFR 264.143(f). Also states the procedures were done in accordance with the regulation applicable to Other Related Services issued by the Mexican Institute of Public Accountants ("IMCP").

Principle 6, Worker Safety

Protect workers' health and safety from exposure to cyanide.

Standard of Practice 6.1

Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

The operation is:

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- ✓ **in full compliance** **with Standard of Practice 6.1**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has developed and implemented Standard Operation Procedures (SOPs), plans and manuals for operations that describe the management and operation of cyanide facilities to help minimize the possibility of worker exposure to cyanide. The SOPs, plans and manuals have been developed for all cyanide facilities. They provide detailed information for the risks involved with each task (including plant operations, entry into confined spaces, and equipment decontamination) and adequately describe safe work practices.

The SOPs detail task specific Personal Protective Equipment (PPE) requirements, training requirements to conduct the task and acknowledgment, and consideration of safety and potential physical and chemical hazards associated with the job. Verification of the written procedures included review of the specific task, plans and worker interviews.

Los Filos procedures require the use of personal protective equipment and address pre-work inspections. The procedures forms include the following sections: training requirement and acknowledgement, personal protective equipment (PPE) required, tools and specialized PPE required, consideration of safety and potential physical and chemical hazards associated with the job and procedure. In addition to the use of general PPE, such as hard-hat, steel toes shoes, hearing protection and safety glasses throughout the production area, areas and/or tasks where personnel may come into contact with cyanide have additional PPE requirements.

Los Filos has the Management of Change (MOC) SOP *Procedure for making changes and modifications to the plant's operating method* and uses it regularly to evaluate changes with respect to cyanide releases and exposures.. According to the development of the MOC procedure, as a first step it indicates that it is the responsibility of the personnel of process, safety and environment, to propose the improvement to the productive system or of the plant or patio facilities based on reduction of environmental and / or safety risks. The auditor reviewed change forms throughout the recertification period to confirm the regular use of the procedure.

Los Filos considers worker input into the development of health and safety procedures through various mechanisms and implements an open-door policy for employees to provide input into operations including health and safety matters. Workers have direct communication between supervisors and operators during daily toolbox meetings.

Standard of Practice 6.2

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

The operation is:

- ✓ **in full compliance** **with Standard of Practice 6.2**
- o in substantial compliance

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- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

The operation has determined a minimum pH of 9.7 for the ADR Plant and the pad, and a minimum pH of 11.5 for the discharge area. Los Filos has carried out site-specific risk assessments that include data showing that these minimum pH values are effective in controlling the formation of HCN given their mineral characteristics. The auditor reviewed data that showed, in general, that Los Filos actually maintained pH levels in values above the minimum values prescribed in the procedures.

The operation uses personal monitoring devices to confirm that controls are adequate to limit worker exposure to hydrogen cyanide gas and sodium cyanide dust to 10 parts per million on an instantaneous basis and 4.7 parts per million continuously over an 8-hour period.

Los Filos has identified areas and activities in which workers may be exposed to HCN gas. Fixed monitors have been installed at sites at risk of cyanide incidents, for example in areas 800 and 420. They also use portable meters that workers carry when working at cyanide facilities. Procedures require the use of a portable HCN monitor when performing maintenance activities or when working in confined spaces. The auditor observed that workers carried portable monitors on the plant and on the platform, including the stacker operator.

Los Filos has identified the areas where workers may be exposed to cyanide more than 10 parts per million on an instantaneous basis and 4.7 parts per million continuously over an 8-hour period. Working and operational areas where potential for worker exposure to cyanide are identified and monitored with stationary HCN gas monitoring units.

Portable HCN meters are provided and made available for use in areas where there is a potential for HCN exposure. Fixed HCN monitors are located at the: mix area, leach circuit and the detoxification tank. SOPs have been developed for all activities in which cyanide management is involved. These procedures include a section where the PPE requirements are listed. Signage listing the PPE requirements to enter a cyanide facility has been installed at appropriate entrances.

Hydrogen cyanide monitoring equipment is maintained, tested and calibrated as directed by the manufacturer, and records are retained. The fixed HCN monitors are calibrated every 6 months as required by the manufacturers. In addition, the fixed HCN monitors are checked and maintained every 3 months, in accordance with manufacturer's instructions. The maintenance program Oracle JD Edwards CMMS automatically generates a work order for the calibration reminder. The calibration and maintenance schedule are considered to meet the manufacturer's recommendation for maintenance of these units. The calibration records for 2017 were reviewed and found to be complete.

Warning signs are posted in all areas where cyanide is present advising workers that cyanide is present and that smoking, open flames and eating and drinking are not allowed, and that, if necessary, suitable personal protective equipment must be worn. The plant has many signs indicating the presence of cyanide, prohibitions and appropriate PPE use. Los Filos has placed signs in different sectors such as on fences around the heap leaching platform to delineate it as an area where cyanide is present.

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The signs are in Spanish, which is the language of the workforce. The PPE requirements are also posted in each area. Verification was through visual inspection of the signs located in areas where cyanide solution is prepared and used. These areas included cyanide storage, mix, process plant areas and the detox circuit.

Los Filos is using solid cyanide with colorant dye on site since 2016, as stated by Los Filo´s Environment Superintendent. Colorant dye is added to solid cyanide at Chemours San Luis de Potosi cyanide transfer plant from boxes to isotanks

Los Filos has installed showers, eye wash station and fire extinguishers at strategic locations throughout the operation in all areas where there is a potential for exposure to cyanide and are regularly checked for condition as part of routine safety inspections.

Showers and eye wash stations are inspected and tested every shift and prior to beginning a task that has the potential for cyanide exposure (examples: cyanide unloading and opening a pipeline for maintenance). The auditors randomly checked showers and eyewashes during the site tour to verify functionality. Fire extinguishers are inspected and tested monthly.

The operation has identified all tanks and pipes that contain cyanide solution to alert workers of their contents. Pipes containing cyanide are marked as containing cyanide solution and flow direction is indicated. Cyanide storage and process tanks are marked as containing cyanide. Verification was by visual inspection in the cyanide unload and mix areas, the heap leach pads, pumping stations and in the carbon adsorption area.

Los Filos has available Safety Data Sheets (SDS) and first aids procedures in all areas where cyanide is managed. AII information relating to cyanide management including SDS information, SOPS and emergency response plans are provided in Spanish, the workforce language at the site. SDS are maintained at places where cyanide is used such as the cyanide unloading, mixing and storage area, and the ADR plant. The auditor observed that cyanide antidote kits included first aid instructions and SDS sheets for cyanide. SDS are also posted on the window of the control room and were available in the clinic and ambulance. Electronic SDS versions are accessible to all staff from computers located throughout the facility using the online portal and which all staff are trained to use.

Los Filos has developed and implemented the Procedure Incident Investigation, Non-Conformities, Corrective Actions, and Preventative Actions, to investigate and evaluate incidents including cyanide exposure incidents to determine if the operation’s programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or need revising

The procedure documents the requirements for incident reporting and investigation to determine the basic causes of the incident, provide remedial action and medical attention and ensure that a similar incident does not reoccur.

Incidents, occupational injuries, occurrences of property damage, loss to process and near misses are reported. Reporting is required immediately on occurrence to a supervisor who is then required to complete a written report by shift end. The incident report is assessed further at incident report meetings.

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Standard of Practice 6.3

Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is:

- ✓ **in full compliance with Standard of Practice 6.3**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has made available antidote kits, water, oxygen, resuscitators, radios, telephones, and alarms in the process plant, leach pad and clinic. The location of the emergency equipment was deemed to be appropriate for the operation. Operators are required to carry a radio while performing their tasks. They also have push buttons alarm that activates a siren. Verification was conducted by visual inspection of the cyanide antidote kits and interviews.

Cyanide antidote kits with oxygen tanks and amyl nitrate ampoules are kept in the clinic and in sectors at risk of exposure to cyanide. Los Filos has a dedicated radio channel for paramedics as well as dedicated landline extensions for paramedics and security. Los Filos has ambulances, located in the clinic. The emergency response brigade has portable radios. Each ambulance is equipped with a radio. A radio and a telephone are available in the control room at the ADR plant. All offices in the process area have landlines and the auditor noted that managers, supervisors and many operators had personal radios. Cyanide unloads are observed from the control room on the ADR Floor via video, as well as by a paramedic parked nearby. Finally, there are push button alarms at various locations on the ADR plant, including the unload area.

Los Filos regularly inspects cyanide kits, emergency equipment, and ambulances to ensure that equipment and supplies are present and working. Medical staff inspect the cyanide antidotes kits and oxygen cylinders weekly at the plant, pad, and clinic and document these inspections in the relevant logbooks.

The emergency response brigade coordinator inspects the ambulances and their contents weekly using a checklist. The auditor inspected an ambulance to make sure they started, the gas tanks were full, sirens / horns / lights were working, radios were working, and emergency equipment was present and in good condition.

The brigade coordinator also inspects the emergency response equipment on a monthly basis using different checklists. Inspections cover Tyvek suits, firefighting equipment, fully encapsulated suits, rubber boots / gloves, face shields, fall harnesses, traffic cones, shovels, spill cleanup kits, decontamination supplies, a spray washer, and an air compressor.

Los Filos has developed a specific written plan to respond to cyanide exposures: Attention to Emergencies with Cyanide. This emergency response plan describes the guidelines to follow in case of an emergency related to sodium cyanide, to minimize impacts to people, the environment, property and operations. This specific cyanide emergency plan has implemented a comprehensive system that

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complements the general Emergency Response Plan (ERP), defining the actions to be taken for the different potential events and the different levels of personnel.

In addition, this specific emergency plan for cyanide, assigns responsibilities and establishes the actions to be followed before, during and after the different emergencies with sodium cyanide that can potentially arise in Los Filos mining unit.

Los Filos has its own onsite capability to provide first aid and medical assistance to workers exposed to cyanide. The mine has a fully staffed Emergency Response Team (ERT). The team comprises members in two shifts. They train through all the year. Training includes first responder on site and HAZMAT training among others.

Paramedics also form part of the ERT and are certified to provide onsite training. The paramedics are qualified to provide medical/emergency assistance. They have been trained in first aid related to cyanide exposure.

The mine has Automatic Defibrillators (AD) equipment in different places, has a first aid room equipped with cyanide antidote kits, oxygen, first aid kit and AD. Los Filos has ambulances in service ready to provide basic Life Support Service and Advance Life Support at the ADR Plant, at the underground mine, at the mine open pit mine and another to provide support at the office, which also provides support to the nearby communities when asked.

Los Filos has developed a procedure to transport workers exposed to cyanide to qualified off-site hospitals (i.e., the IMSS hospitals in Iguala and Chilpancingo). This procedure is applicable to either land transport by ambulance or air transport by airplane or helicopter. The site doctor stated that land transfer with the site ambulances is preferable because of the longer response time to call up air transport, wait for the air transport to arrive, load the patient, and fly to a hospital.

Los Filos has formalized arrangements with local hospital at Iguala and Chilpancingo. In the event of a cyanide exposure emergency and the need to transfer a patient to the hospital, the site will treat the patient on site and then go with the patient to the hospital. The operation is confident that the medical facilities have adequate, qualified staff, equipment and expertise to respond to cyanide exposure. The letters and contracts confirm that these hospitals are qualified to treat workers with cyanide poisoning because the staff of the hospital emergency room participated in the training of Chemours, the cyanide producer, along with the staff of Los Filos.

Emergency response mock drills related to cyanide are carried out at Los Filos to test the site's emergency response plans. The drills are evaluated to check that the emergency response systems worked as anticipated and feedback given on them. Where shortcomings are identified, these are evaluated, and corrective actions developed which are then incorporated in the emergency response plans. Verification was through review of records and photos of mock cyanide drills performed during the recertification period. Verification was through review of the mock drill reports, records and photos. On July 13, 2108 Los Filos performed a cyanide emergency mock drill with the participation of 68 workers and 14 emergency responders simulating a cyanide spill. On July 6, 2018 another drill was performed, this time a leakage in a pipeline with high concentration cyanide solution in the plant is identified. It is decided to change the pipe and during handling work without gloves, a worker is

poisoned by contact. Participated I this drill personnel from Process and Industrial Safety areas with 47 workers in total.

Principle 7, Emergency Response

Protect communities and the environment through the development of emergency response strategies and capabilities.

Standard of Practice 7.1

Prepare detailed emergency response plans for potential cyanide releases.

The operation is:

- ✓ **in full compliance with Standard of Practice 7.1**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has developed a specific written emergency response plan to respond to cyanide exposures, the Emergency Care with Cyanide and the general plan for any emergency in the mine, Los Filos' Emergency Response Plan (ERP), both 2019 versions.

The ERP is specific to their operations, it includes communication roles and responsibilities, evacuation procedures, required notifications, reporting procedures, incident categories and risk assessment. The Plan specifically addresses first aid for cyanide exposure and deals with medical treatment.

Los Filos emergency plans for cyanide consider different scenarios appropriate to the site-specific circumstances and includes procedures to respond to emergency incidents including cyanide releases. Emergency scenarios considered include catastrophic releases, transport accidents, releases during discharge and mixing, releases during fires and explosions, failure of pipelines, valves and tanks, overcoming ponds, power outages, failure of pumps, uncontrolled seepage, failure to comply with the cyanide treatment system and heap leach pad failure.

The plans describe the risk control procedures and steps to be put into effect immediately for potential failure or catastrophic release of HCN from storage or process facilities.

Agreements between Los Filos and cyanide supplier Chemours are in place, whereby these organizations and their transporters are responsible for shipping of cyanide to site. This responsibility extends to consideration of transport routes, storage and packaging of sodium cyanide briquettes, the condition of transport vehicles and response in the event of an emergency or release during transport.

In the event of an emergency or incident within the mine property, Los Filos would respond to such an incident. The plans also provide for responses to offsite incidents that involve hazardous materials that are being transported to site. Such response is to provide technical assistance, disposal options and media responses where practical. The procedures require that Los Filos will be first notified using

procedures defined in the emergency plans. Subsequent Emergency notification steps will be followed.

The ERP does not consider alternative routes within the mine property because there is only one main road to the ADR plant. The isotainer is escorted at all times inside the mine property to ensure that the truck driver operates in accordance with the site conditions.

The response plan considers specific actions with respect to transport accidents where no cyanide is spilled; those that involve isotainer rupture and cyanide briquette release, both onto dry land and into or near surface water and in the event of a truck fire.

The emergency response plans for cyanide describe specific response actions (as appropriate for the anticipated emergency situations) such as clearing site personnel and potentially affected communities from the area of exposure, use of cyanide antidotes and first aid measures for cyanide exposure, control of releases at their source, and containment, assessment, mitigation and future prevention of releases. Roles, duties and responsibilities are detailed in the plans.

The plans details responses specific to cyanide spills or leaks and makes provision for initial response, first aid, spill reporting contacts and spill control and cleanup. The location of cyanide emergency equipment such as, eye wash stations, emergency showers and antidote kits are also provided.

Standard of Practice 7.2

Involve site personnel and stakeholders in the planning process.

The operation is:

- ✓ **in full compliance with Standard of Practice 7.2**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos has involved its workforce and stakeholders in the cyanide emergency response planning process. Among the mechanisms used the operation to obtain input from his workers, including emergency response, are the daily pre-work meetings and the H&S meetings with contractors.

The operation has engaged its stakeholders by providing feedback opportunities on the emergency response plans. The site has held mutual assistance meetings with the external responders of Iguala and Chilpancingo, where emergency procedures were discussed with community leaders. Los Filos held meetings with community leaders in Mazapa, Mezcala and Carrizalillo during the recerfication period to discuss the use of cyanide in gold mining, potential risks, control measures and community concerns.

Los Filos met with community members and leaders in Mezcala, Carrizalillo and Mazapa during the recertification period to make them aware of the risks of cyanide and the role of the Code in managing those risks. Topics on the agenda included the use of cyanide in gold mining and its potential cyanide risks, properties of cyanide, consequences of intoxication, measures to prevent damage to flora and fauna, and safety measures.

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Los Filos has involved local response agencies, medical facilities and external responders' emergency through workshops, meetings and trainings to the extent necessary because of their limited role in the emergency planning and response process. The auditor reviewed the assistance records to the workshop Management of a Patient Exposed to Cyanide" held in the University of Iguala with participation of the State and Civil Protection Agencies and Red Cross, on March 2018.

Los Filos has participated in consultations with stakeholders through meetings with community leaders in Mezcala, Mazapa and Carrizalillo, as well as in meetings with people outside of Iguala and Chilpancingo.

Standard of Practice 7.3

Designate appropriate personnel and commit necessary equipment and resources for emergency response.

The operation is:

- ✓ **in full compliance with Standard of Practice 7.3**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

The ERP provides primary and alternate contact details for the emergency management team members, including the Plant Manager who has authority to ensure that sufficient and adequate resources are allocated to carry out the ERP.

The Emergency Response Team (ERT) members are listed in the ERP and organized as ERT for spills, for first aids and evacuation, to transfer a patient to the medical center and for firefighting. The team members are indicated by name, position in their job and in the ERT, and shift. Contact telephone numbers are also provided for ERT members, rescue coordinators and members of the emergency management team. The auditor also reviewed the "Open Sky Emergency Brigades Integration Act" dated from February 2019, where the members of the ERT are listed.

The ERP sets out training requirements for the ERT and it is the responsibility to the ERT Coordinator to ensure that training is provided and maintained. The General Manager has overall responsibility to ensure that the current ERT is current and viable.

Contact information in the ERP include call-out procedures and 24-hour contact information for the ERT.

The functions of the incident commander are specified in the ERP. Additional tables describe obligations for brigade members.

The Plan includes lists of the emergency response equipment and PPEs, and the locations of cyanide antidote kits.

The Plan requires periodically inspections for the emergency response equipment and material, including PPEs. It details the inspection program for emergency equipment, the type of inspection, the department responsible, the frequency of inspection and the location of the equipment are listed.

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The role of external responders is described in the ERP, as to assist with hospital arrangements, patient transportation, off-site traffic control, and off-site evacuations. Los Filos has not assigned external responders a role on the site. The plan also contains a table listing external responders, the type of assistance they can provide and their travel time to Los Filos.

Los Filos has involved selected external entities in the joint classroom training. The doctors of the two contracted hospitals, Chilpancingo and Iguala, participated in a joint training with the Los Filos brigade. External entities have not participated in mock drills or implementation exercises because the Master Plan does not assign them a role on the site. Emergency response planning requirements have been confirmed with Chilpancingo and Iguala Hospital by means of periodical meetings and discussions.

Standard of Practice 7.4

Develop procedures for internal and external emergency notification and reporting.

The operation is:

- ✓ **in full compliance with Standard of Practice 7.4**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

The Plan include procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the cyanide emergency. It identifies the ERT members, and the team they belong to. Includes contact information for mine management, Leagold management, federal agencies, state and local agencies, Red Cross and Firefighters).

The ERP contains procedures for communication including emergency responders, communities potentially affected, the media and procedures for notifying outside agencies. The ERP appendixes has contact information for emergency notification, contact list for hospitals, municipal, state agencies, communities representatives and a mutual aid contacts directory.

Standard of Practice 7.5

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

The operation is:

- ✓ **in full compliance with Standard of Practice 7.5**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

The Emergency Response Plan describes specific remediation measures as appropriate for the likely cyanide release scenario. The procedures specify action to recovery and neutralize solutions and solids, the decontamination of soils, management and disposal of spill clean-up debris, and provision of an alternate drinking water supply.

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The procedure for neutralization of soils affected by cyanide allows the use of sodium hypochlorite or hydrogen peroxide, as long as there is no risk of it affecting surface water. The remediation endpoint is defined as 0.5 ppm WAD cyanide or less. The Emergency Response Plan indicates the treatment chemicals and spill kit is located in the rescue room at the Process Plant, Area 800.

The procedures specify that the cyanide solutions in the plant are returned to the process circuit; that the cyanide solutions outside the plant be returned to the process ponds or the heap leach pad; and that the soils affected by the cyanide are placed in the heap leach pad.

Los Filos use only bottled drinking water is available. In case of an emergency would not need the necessity to have an alternate source for drinking water.

The ERP specifically prohibits the use of sodium hypochlorite, ferrous sulfate, and hydrogen peroxide to surface water or runoff because these chemicals are hazardous to aquatic life.

The ERP describes the monitoring measures for areas affected by cyanide spills. This section describes the spacing, depth and volumes for soil confirmation sampling, along with the required analyzes and detection limits for total, WAD and free cyanide. Samples will be analyzed both in the internal laboratory of Los Filos and in an external laboratory. For confirmation sampling of surface or groundwater, the ERP refers to two working instructions for the monitoring of groundwater and surface water / drinking water.

Standard of Practice 7.6

Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is:

- ✓ **in full compliance with Standard of Practice 7.6**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

The cyanide related elements of its Emergency Response Plan are evaluated for adequacy to Los Filos operation on a regular basis. The Plan states that the Industrial Safety Manager must review and update the plan at least once a year and when a change occurs in the mine or the result of a drill. The Plan contains a document control sheet that shows revisions during the recertification period. The ERP reviewed was updated 2019.

The Plan states that simulated exercises should be conducted at least annually as part of your emergency response plan assessment process. The auditor reviewed the reports of two mock drills, supporting that Los Filos periodically performed drills during the recertification period: Simulated exercises were observed and evaluated. Corrective actions were identified during each drill and incorporated into response planning.

Provisions are in place in the Plan to evaluate and revise it after any cyanide related emergency requiring its implementation. The Plan states that a review session should be held after each actual or

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simulated emergency drill and that the safety supervisor must submit a written report to the general manager. The ERP was reviewed and updated as an element of action after the drill.

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.

The operation is:

- ✓ **in full compliance with Standard of Practice 8.1**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos provides training to all personnel who may encounter cyanide in cyanide hazard recognition. All visitors, contractors and mine personnel are covered by this initial training. Los Filos Cyanide Code Training Program dated from March 2019 schedules training for the year. Staff are classified to determine what training is applicable. For visitors there is a brief introductory safety talk covering general topics of cyanide. Module 1 applies to site staff and contractors where the 2.5 hours presentation covers cyanide risks, exposures, symptoms, environmental impacts and an overview of the Code. Module 1 is provided biweekly.

Annual refresher training in Module 1 and Module 2 are provided every year at Los Filos. Module 2 applies to process staff. This 4-hour presentation covers an overview of ERP, first aid, use of portable HCN monitors, a tour of the process area and an introduction to the emergency equipment. The training includes a written test. Training is recorded on sign-in sheets with training records signed by both trainer and trainee. The auditor confirmed this reviewing refreshing training records covering the recertification period, and also by interview to workers in the field.

Training records are kept in physical and electronic copies in the training archives. Records for new employee training including orientation training are retained in accordance with local regulatory requirements. The records identify the trainer, trainee, topics covered, date and sign off sheet.

Standard of Practice 8.2

Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

The operation is:

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- ✓ **in full compliance** **with Standard of Practice 8.2**
- o in substantial compliance
- o not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Los Filos provides job training for all staff to perform their tasks so that they minimize the risk of exposure and releases. The written training program requires all plant and leach pad personnel to receive training in Modules 2 and 3. Module 2 covers training on the ERP, training in first aids, use of portable HCN monitors, a tour of the process area and an introduction to the emergency equipment. Module 3 is related to job specific training where workers are trained to perform according the Standard Operation Procedures and Work Instructions. In general, task training does not apply to contractors because they are not responsible for operating the cyanide facilities.

Employees are assigned to supervisors who issue development plans including specific training requirements for their work areas. Development plans are used as the basis for employee career development.

The training elements, which are the Standard Operation Procedures (SOPs), required for a specific work area are summarized on the training program that is maintained by the Operational Manager of the process plant. The program lists which departments must be trained on which procedures and area under Module 3. The procedures and work instructions include details on how to safely conduct each cyanide-related task.

Experienced area supervisors provide training on task related work procedures and instructions (Module 3). Training on specific tasks is provided by the plant supervisors and/or an experienced worker designated by the supervisor. These are considered qualified to provide training based on experience. This requirement was verified by interviews with plant supervisors to determine their level of expertise in operating the facilities and in training. For Modules 1 and 2, site paramedics and doctors provide training on cyanide poisoning and the first response.

Los Filos procedures and local regulations requires as a standard practice, that all staff must receive the corresponding task training before being allowed to work with cyanide, in an unsupervised manner and staff must successfully complete the training before they work independently. This is a standard practice; verification was by interview with field and supervisory personnel. The written training program indicates that area supervisors are responsible for ensuring that task training occurs.

Los Filos training program requires that staff receive annual training in Module 3, and this is undertaken. Annual refresher training is provided and includes physical and chemical characteristics of cyanide, cyanide handling, monitoring, control of pH levels, exposure limits, exposure symptoms, PPE, treatment, rescue equipment, safety showers, emergency warning systems, evacuation, disposal and spill procedures.

Following the cyanide training, employees complete a written exam to demonstrate understanding of the material. Verbal tests of understanding are undertaken for task training as well as signing the relevant standard operating procedure to indicate understanding. Employee activities and task competence is monitored by supervisors.

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Training records are retained throughout employment history and by the training staff of Los Filos. Training records contains the date, subject covered and is signed by both the trainer and trainee. Written and verbal tests are completed to demonstrate the employees understanding of the training materials. The auditor reviewed records for the entire recertification period to confirm compliance.

Standard of Practice 8.3

Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

The operation is:

- ✓ **in full compliance with Standard of Practice 8.3**
- ○ in substantial compliance
- ○ not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

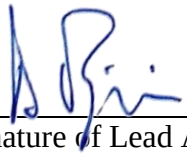
All personnel working at Los Filos ADR plant, leach pad and maintenance personnel are trained in the procedures to be followed if cyanide is released. The training program states all process personnel must take initially Module 2, which covers the Emergency Response including cyanide release procedures, first aid for exposures, as well as control and cleaning measures for environmental releases. Module 2 contains procedures for environmental releases through various scenarios, including decontamination of soil and water. Module 2 also includes a separate presentation on the Emergency Response Plan for Sodium Cyanide.

In addition, process plant supervisors and workers performing cyanide related activities receive First Response Training, covering the first response aids for a worker exposed to cyanide. Additional training is that for the Emergency Response Team (ERT), which is related to in-depth training on the ERP, use of emergency equipment, practical exercises and use of cyanide and oxygen antidotes.

Los Filos trains all site cyanide response personnel, including production plant, leaching ponds and maintenance workers, in decontamination and first aid procedures. These personnel take part in routine drills to test and improve their response skills. Cyanide awareness training to workers includes actions to take in the event of a cyanide spill. Training covers spill reporting, containing, recovery and waste disposal. Site response personnel take part in routine drills to test and improve their response skills.

The Emergency Response Coordinators and members of the Emergency Response Team (ERT) are trained in the ERP and emergency procedures regarding cyanide, including the use of necessary response equipment. The ERT is trained to respond a wide range of mining emergencies, included cyanide-related emergencies. The auditor reviewed the training materials in the database and photographic documentation to confirm that these trainings occurred.

The brigade is made up of supervisors and workers who have voluntarily committed to a program of technical assistance and physical training. Los Filos has developed a schedule to ensure members of the brigade are available for all shifts. The brigade training includes practices with self-contained suits, extraction equipment, rappelling equipment and firefighting equipment among others.

Mina Los Filos		May 31, 2019
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Los Filos ha coordinated trainings with local hospitals in Chilpancingo and Iguala; Civil protection, Red Cross and firemen in Chilpancingo and Iguala; community leaders in Mezcala, Carrizallilo and Mazapa for a possible incident with cyanide.

Refresher training is provided annually to employees and includes response to cyanide exposures and response to releases. The ERT completes regular monthly training sessions including recognition of cyanide exposure, treatment and first aid. Los Filos has designated that all personnel working in cyanide facilities is responsible for responding to cyanide emergencies at least at a basic level. All staff should receive Modules 1 and 2 each year, which contain basic response measures for exposures and releases. Additional personnel at the ADR Plant and the pad are designated as first responders to spend time between emergency notification and arrival of the brigade.

Los Filos performs cyanide related drills approximately every year. These simulated exercises have covered both exposures and environmental releases. All emergency drills, require the operation to review and assess performance during emergency situations or during drills scenarios, to test effectiveness, identify weaknesses, improve the emergency response program, provide tracking for deficiencies and minimize environmental impacts. Los Filos has evaluated the outcomes of the mock emergency drills regarding the needs of amendments to the training requirements.

The training staff at Los Filos maintain training records for each employee throughout the duration of employment. The tracking spreadsheets include the employee's name, the training date, and the testing results. The hardcopy files contain certificates with the trainer's name. The topics covered are not specifically listed, but by comparing the training materials (e.g., presentations, procedures, work instructions) to the written tests, the topics covered could be inferred.

Principle 9, Dialogue

Engage in public consultation and disclosure.

Standard of Practice 9.1

Provide stakeholders the opportunity to communicate issues of concern.

The operation is:

- ✓ **in full compliance with Standard of Practice 9.1**
- o in substantial compliance
- o not in compliance

Describe the basis for the Finding/Deficiencies Identified:

Los Filos provides opportunities for interested parties to communicate topics of interest through an open house policy, tours and fairs. The local communities, which are the main stakeholders, are Carrizalillo, Mezcala and Mazapa. Los Filos has cooperation agreements with these 3 communities.

Community leaders have phone numbers and e-mail addresses for Los Filos Sustainable Development staff. Los Filos stated that door guards have their telephone numbers in case the stakeholders come directly to the doors with worries, where it is also installed a box of suggestions. If stakeholders have

concerns or complaints, Los Filos has a written procedure with a form to document and resolve the problem. Other mean of communication is trough Lea Gold website and guided tours through the mining operation, during which an institutional presentation is provided to visitors.

Standard of Practice 9.2

Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

- ✓ **in full compliance with Standard of Practice 9.2**
- ○ in substantial compliance
- ○ not in compliance

Describe the basis for the Finding/Deficiencies Identified:

Los Filos has opportunities to interact with stakeholders and provide information regarding cyanide management at the meetings, fairs and other community ventures that are in place. This include the 'open house' policy, tours of the mine, plant and leach pads and an annual fair. Los Filos held meetings with community leaders in Mazapa, Mezcala and Carrizalillo to create opportunities for stakeholder input in cyanide management and emergency response plans. The auditor reviewed written reports for each of these meetings. In addition, Los Filos added to those opportunities by actively reaching out to community leaders through meetings specifically to discuss cyanide issues.

Standard of Practice 9.3

Make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation is:

- ✓ **in full compliance with Standard of Practice 9.3**
- ○ in substantial compliance
- ○ not in compliance

Describe the basis for the Finding/Deficiencies Identified:

Los Filos has developed triptych pamphlets describing cyanide, community prevention measures, and the Code. These pamphlets are handed out during tours, monthly meetings with the 3 nearest surrounding communities and at the annual fair. Los Filos has also a publication, The Information Gazette, for its workers.

Most people in the communities around the mine speak, read and write in Spanish. Los Filos staff said that approximately 30 percent of the local population is illiterate. Los Filos disseminates information to these people through annual fairs, according to the mine´s Plan for Monitoring the Social Partnership Agreement.

Los Filos makes publicly available information on issues and exposures, as necessary, through public statements, regulatory reports, and Leagold website. There are procedures in the Emergency Response Plan to follow in case of cyanide releases and / or exposures. Media and declaration control, including procedures for spill declarations, chemical releases on site and accidents (which would

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include exposures to cyanide). The procedure for chemical emission declarations in situ includes discussion on solution retention, soil remediation measures and disposal of affected materials.

Los Filos is required by Mexican law to report releases of hazardous materials, including cyanide. The auditors reviewed the PROFEPA blank form for the release report. In case of a cyanide exposure to workers, cyanide releases off the mine and cyanide releases on or off the mine site resulting in significant adverse effects to the environment, Los Filos would report the details of the incident. to the Secretary of Labor and Social Prevention (STPS).

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