

**Corrective Action Completion Report**

**Compañía Minera Maricunga  
Maricunga Mine**

**(A Kinross Gold Corporation Operation)**

 **ENVIRON**  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-01**

**Date issued:** September 10,  
2012

**ICMC Standard of Practice Section Reference:** 4.1(7)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-01 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiency:** Based on the auditor's review of inspection logs, checklists and reports, and visual inspections conducted during this onsite recertification audit, certain deficiencies were observed with the elements listed under inspection requirements. Generally, it appears that the inspections and related maintenance activities are accomplishing their objective with some exceptions. Specific deficiencies identified during the audit, for which further evidence is necessary to demonstrate full compliance under Standards of Practice 4.1(7) of the Code, are listed below.

- Field observations identified leaking pipe connections near the new pumping station, where solution pipelines from the heap enter the main solution conveyance pipelines. The leaking solution was contained by the lined secondary containment channel; however, the open solution was ponding at various points along the channel. Solution ponding at various other points along the containment channels was also observed during the audit.
- Tears in the synthetic liner were observed at various locations along the secondary containment channels between the plant area and heap leach pad.
- CMM has not been inspecting/monitoring the leak detection and collection systems installed in the Process Solution Ponds [i.e., Pregnant Leach Solution (PLS) Pond and Barren Solution (Recirculation) Pond] over the three-year period between audits.

**Corrective Action Required (describe/attach supplemental information as necessary):**

- Perform repairs to rectify the following deficiencies identified during the audit field inspections:
  - Leaking pipe connections at the heap leach facility, including rectification of open solutions within the lined secondary containment channels caused by the leakage; and
  - Tears in the synthetic liner at various locations along the secondary

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date

containment channels between the plant area and leach pad.

- Implement a program for routine monitoring of the leak detection systems installed in the PLS and Recirculation ponds as a best practice for detecting and collecting any leakage between the upper and lower liners and for assessing the severity of any leakage and the need to perform liner repairs.

**Evidence Required for Verification of Corrective Action Completion:**

- Photographic evidence demonstrating repair of the cyanide facilities identified during the audit field inspections (listed above);
- Copies of the procedures, which establish the formal program for monitoring the leak detection and collection systems installed in the PLS and Recirculation ponds along with copies of the associated inspection and monitoring records documenting actual inspections of these systems. To demonstrate implementation of the inspection/monitoring program, CMM must provide the records for monitoring completed over a three-month period.

**Evidence Provided to Verify of Corrective Action Completion:**

CMM provided the required evidence described above. Specifically, this evidence included:

- Task Report by Servasol Ltda., dated 19 March 2012, containing photographs of the liner cleanout;
- Report by PLservicios, entitled *Informe Trabajos Reparacion Colectores 1 y 2*, dated 16 October 2013, describing the repairs with photographs before and after completion of the repair;
- Procedure GCNPE492 *Inspecciones y Monitoreos de Equipos e Instalaciones con Solucion Cianurada*, updated 24 September 2013 to include routine monitoring of the Leak Detection and Recovery Systems (LDRSs) and procedure for assessing the severity of leakage between the liners and actions to be taken; and
- Copies of semiweekly inspection and monitoring records for July, August, September, and October 2013 that includes documentation of the volumes pumped per day from the LDRS for the pregnant and barren (recirculation) ponds.

**Corrective Action Completion Date:** 24 October 2013

**Closure Verified:**



**Lead Auditor:** John T. Lambert

**Date:** 9 December 2013

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date

 ENVIRON  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-02**

**Date issued:** September 10,  
2012

**ICMC Standard of Practice Section Reference:** 4.1(8)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-02 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiency:** Generally, during this onsite recertification audit, CMM provided completed copies of inspection checklists over the period August 2009 through January 2012. Discontinuous daily records were provided for the year 2008 and data provided for 2009 included intermittent daily data for approximately one week each month; with no data provided for certain facilities during 2009 for the months of January, February, March and November.

CMM performs monthly visual inspections of secondary containments (including concrete structures and lined pipeline containment channels) for their integrity and presence of fluids. Observations of specific concrete containments (i.e., containments for the cyanide mix and storage tanks, acid wash tower, adsorption column, and boilers) are recorded on a checklist. However, CMM did not provide specific records documenting inspections for any other concrete containments inside the ADR Plant and Train C buildings or for the concrete containment at the new booster pumping station. Additionally, records documenting inspections of the lined secondary containment channels for the pipelines conveying solution between the heap leach pad and plant area were not provided during the audit.

**Corrective Action Required (describe/attach supplemental information as necessary):**

- Modify the inspection checklist for inspections of secondary containments and sump pumps (*Check List Pretilas*) to include all cyanide containments inside the ADR Plant and Train C buildings and the concrete containment at the new booster pumping station. This checklist currently only documents inspections of the secondary containments and sump pumps for the Cyanide Mix Tank, Cyanide Storage Tank, acid wash tower, boilers, and the adsorption column.
- Create a new inspection checklist or modify an existing inspection checklist or report to document routine inspections of the lined secondary containment channels for the pipelines conveying solution between the heap leach pad and the plant area.

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date

- Provide an explanation as to why inspection records (checklists *Absorción – Planta de Procesos, Elusión – Planta de Procesos, and Estanques – Planta de Procesos*) were not provided for year 2009 months of January, February, March and November. Alternatively, provide copies of these records if available.

**Evidence Required for Verification of Corrective Action Completion:**


- Completed copies of updated checklist(s) utilized to document routine inspections of all cyanide-related concrete containments inside the ADR Plant and Train C buildings and the concrete containment at the new booster pumping station, along with relevant training records demonstrating implementation.
- Completed copies of new or modified checklist(s) or reports utilized to document routine inspections of the lined secondary containment channels for the pipelines conveying solution between the leach pad and plant area along with relevant training records demonstrating implementation.
- Written explanation regarding gap in inspection records (checklists *Absorción – Planta de Procesos, Elusión – Planta de Procesos and Estanques – Planta de Procesos*) for year 2009 months of January, February, March and November. Alternatively, provide copies of these records if available.

**Evidence Provided to Verify of Corrective Action Completion:**

CMM provided the required evidence described above. Specifically, this evidence included:

- Completed copies of updated checklist(s) utilized to document routine inspections of all cyanide-related concrete containments inside the ADR Plant and Train C buildings and the concrete containment at the new booster pumping station covering the period January 2013 through October 2013;
- Completed copies of the updated checklist utilized to document routine inspections of the lined secondary containment channels for the pipelines conveying solution between the leach pad and plant area covering the period January 2013 through October 2013;
- Copy of the updated inspection procedure (GCNPE492) dated 24 September 2013; and
- Training records for January 2013, August 2013 and October 2013 to inform workers of modifications made to improve the inspection program in 2013.

**Corrective Action Completion Date: 29 October 2013**

<b>Closure Verified:</b>  <b>Lead Auditor: John T. Lambert</b>	<b>Date: 9 December 2013</b>
---	------------------------------

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date


**ENVIRON**  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-03**

**Date issued:** September 10, 2012

**ICMC Standard of Practice Section Reference:** 4.4(4)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-03 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiencies:** At the time of this recertification audit (Summer 2012), CMM was utilizing surface irrigation on certain cells of the heap, in addition to using sprinklers on the side slopes. As a result, these active areas of the heap were experiencing significant ponding in isolated areas. Therefore, following the onsite audit, CMM provided photographic evidence demonstrating that ponding on the surface of the heap has been eliminated. Additionally, CMM implemented a new procedure (GCNPE493, Control of Ponding on the Heap Leach Pads).

Procedure GCNPE493 provides measures for identifying and eliminating ponding caused by ruptured pipes, detachment of drip lines and connectors, and areas with poor percolation. However, Procedure GCNPE493 does not include temporary protective measures believed necessary to deter wildlife from standing process solution (e.g., temporary fencing, netting and/or bird balls, propane canons, etc.) in cases where CMM cannot quickly eliminate ponding or where standing process solution cannot be avoided.

**Corrective Action Required (describe/attach supplemental information as necessary):**

- Update Procedure GCNPE493 to include temporary protective measures to deter wildlife from standing process solution with WAD cyanide concentrations greater than 50 mg/l in cases where CMM cannot quickly eliminate the ponding or where standing process solution cannot be avoided.

**Evidence Required for Verification of Corrective Action Completion:**

- A copy of Procedure GCNPE493, which includes measures for inspecting, responding to and rectifying any ponding solution observed on the heap and/or within the lined secondary containment channels and employing temporary protective measures as necessary, along with the associated training records demonstrating its implementation.

**Evidence Provided to Verify of Corrective Action Completion:**

Compañía Minera Maricunga  
 Name of Mine

December 9, 2013  
 Date

CMM provided the required evidence described above. Specifically, this evidence included:

- A copy of updated Procedure GCNPE493, *Control de Apozamientos en Pilas de Lixiviación*, which includes measures for inspecting, responding to and rectifying any ponding solution observed on the heap and/or within the lined secondary containment channels and employing temporary protective measures as necessary, along with the associated training records demonstrating its implementation.
- A copy of updated Procedure GCNPE492, *Inspecciones y Monitoreos de Equipos e Instalaciones con Solución Cianurada*, which includes measures for inspecting the lined secondary containment channels for the pipelines conveying solution between the leach pad and plant area;
- Copies of completed inspection records for the heap leach facility (Checklist *Inspeccion: Pilas – Colectores*) for period July through October 2013;
- Copies of completed inspection records for the containment channels between the leach pad and plant (Checklist *Inspeccion General*) for the period January through July 2013, and
- Training records for modification to procedures GCNPE492 and GCNPE493 dated Oct 2013.

**Corrective Action Completion Date:** 4 November 2013

**Closure Verified:**



**Lead Auditor: John T. Lambert**

**Date: 9 December 2013**

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date




**ENVIRON**  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-04**

**Date issued:** September 10, 2012

**ICMC Standard of Practice Section Reference:** 4.7(1)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-04 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiency:** The Cyanide Storage Tank is located outside the ADR Plant building, between the building and the process ponds. The tank is situated within its own concrete containment, which is lined with geomembrane for additional control. During field observations, it was difficult to determine the tank foundation design because of the geomembrane liner covering the base of the tank.

This containment shares a common wall with an unused, dilapidated concrete containment that, at the time of this onsite audit, was partially filled with broken concrete, miscellaneous debris and water (snowmelt). The storage tank containment was also linked to this unused, and unmaintained, containment via a pipe drain through the common wall. Therefore, following the onsite audit, CMM took immediate action to seal the drain pipe connecting the two containments and to backfill the unused containment with soil material. CMM personnel indicated that a sample was taken prior to the audit to confirm that the water in the unused containment did not contain cyanide.

**Corrective Action Required (describe/attach supplemental information as necessary):**

- Confirm the foundation design for the Cyanide Storage Tank. If the tank foundation or the concrete containment currently provided for the tank do not provide an impermeable barrier between the tank bottom and the ground, CMM must:
  - Install leak collection and recovery systems within the tank foundation to allow for identification of leakage prior to entering the environment; or
  - Implement a combination of environmental monitoring (e.g., groundwater or vadose zone monitoring) and a risk-based inspection program for the tank; or
  - Construct an impermeable barrier between the tank bottom and the ground.
- Demonstrate that the water that was in the unused containment, adjoining the Cyanide Storage Tank containment, did not contain cyanide prior to backfilling.

**Evidence Required for Verification of Corrective Action Completion:**

Compañía Minera Maricunga  
 Name of Mine

December 9, 2013  
 Date

- Design and/or construction drawings depicting the foundation and concrete containment provided for the Cyanide Storage Tank, demonstrating that an impermeable barrier exists between the tank bottom and the ground. If the tank foundation or the concrete containment provided for the tank do not currently provide an impermeable barrier between the tank bottom and the ground, CMM must provide:
  - Documentation providing evidence of completion of the required corrective actions, including photographic evidence and other data presenting the systems, measures and/or programs implemented;
  - Results of the Quality Assurance and Quality Control (QA/QC) program implemented during the construction of any improvements and/or modifications; and
  - Certification by a qualified person that any improvements and/or modifications were constructed in accordance with accepted engineering standards and specifications.
- Water quality test results for the sample taken prior to the onsite audit of the water contained in the unused containment located next to the Cyanide Storage Tank, demonstrating that the water did not contain cyanide and that the source of the water was precipitation.

**Evidence Provided to Verify of Corrective Action Completion:**

CMM provided the required evidence described above. Specifically, this evidence included:

- Certificate of Analysis (CERO80(2)) of the sample of water collected in the unused containment adjoining the cyanide distribution tank;
- Certificate (TCT-769-08) of Inspection and/or Repair of the cyanide storage tank (2008);
- Flour Daniel Engineering Drawing (SK321005) for the concrete floor and platform related to the Cyanide Distribution Tank; and
- Photographs of the concrete slab and platform beneath the Cyanide Distribution Tank (document titled *TK Distribucion de NACN*).

<b>Corrective Action Completion Date:</b> 16 July 2013	
<b>Closure Verified:</b>  <b>Lead Auditor: John T. Lambert</b>	<b>Date:</b> 9 December 2013


**ENVIRON**  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-05**

**Date issued:** September 10, 2012

**ICMC Standard of Practice Section Reference:** 4.7(5)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-05 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiency:** Field observations conducted during this recertification audit identified buried process pipelines at two locations near the ADR Plant. Two buried, 14-inch diameter, carbon steel solution pipes run between the southeast corner of the ADR Plant building and the process solution ponds. A separate, similar-sized steel pipeline runs underground between the Train C building and the process ponds. Design or as-built drawings of these pipelines were not available for review during the onsite audit.

Following the onsite audit, CMM provided information characterizing these buried pipelines (i.e., pipe material, buried depth, and cyanide concentrations of the process solutions conveyed). These pipes are buried five feet deep and the reported cyanide concentrations range between 20 and 90 mg/l. CMM provided a work plan for installing flow meters on these pipelines to measure flow differential and detect leakage. CMM proposes to supplement this flow differential system with an electromagnetic system, which would detect slow leaks within the Train C building, as well as annual video surveys of the interior of the buried pipelines between the Train C building and the point of discharge to the process ponds.

**Corrective Action Required (describe/attach supplemental information as necessary):**

- Implement secondary containment or spill prevention measures and associated monitoring programs for the buried process pipelines identified above.

**Evidence Required for Verification of Corrective Action Completion:**

- Photographic evidence and supporting information (e.g., design and construction documentation, monitoring procedures, and training records) describing and demonstrating installation of any required containment or spill prevention and collection measures for problematic buried pipelines, as well as implementation of required monitoring programs.
- Perform any further corrective actions that may become necessary based on the auditor's review of the evidence provided for the requested actions listed above.

Compañía Minera Maricunga  
 Name of Mine

December 9, 2013  
 Date

Evidence Provided to Verify of Corrective Action Completion:

CMM provided the required evidence as described above. Specifically, this evidence included:

- Inspection report entitled *MS Templo TCL-2172-12 Inspeccion de Canerías Subterráneas Planta ADR*, dated 26 November 2012, documenting inspections and non-destructive measurements on the buried pipelines and concluding that the minimum expected useful life for all buried lines is 17 years;
- CMM Installation and Calibration Report entitled *Instalación y Calibración del Sistema de Detección de Fugas de Tuberías Subterráneas*, September 2013, for installation and correlation of a new Correlux P2 Digital Correlator Leak Detection System for buried pipelines (Recirculation, Barren, Trens A & B);
- Construction report entitled *MS Templo TCL-2547-13-Informe Sistema Deteccion de Fugas Tren C*, dated 14 October 2013 for the leak detection wells installed along the Train C buried pipeline;
- A copy of updated Procedure GCNPE492, *Inspecciones y Monitoreos de Equipos e Instalaciones con Solucion Cianurada* which includes monitoring requirements and inspection checklist buried pipeline leak detection systems;
- A copy of *Instrucciones de Uso – Correlador Digital Correlux P2* User’s manual for the Digital Correlator Correlux P2 – Leak Detection equipment;
- A copy of the Leak Detection Rate certificate from SebaKMT, the manufacturer of the Correlux P2;
- A copy of the Training Certificate entitled *VIX Certificado Capacitacion Maricunga* issued by VIX Global Supply Partner, the vendor of the Correlux P2 equipment.
- Training records for updated procedure GCNPE 492 conducted in October 2013;
- Inspection and Monitoring Checklist GCNFM496 - *Checklist tuberías subterráneas Planta ADR* for 8 and 16 Oct., 2013;
- Correlux Records for the different buried pipelines for 16 Sept., 8 Oct., and 16 Oct. generated by the Correlux P2 software after the on-site readings are completed;
- Work Order (Orden de Trabajo) 677202 for annual subcontractor video surveys of underground lines between Train C building and solution pond discharge point (includes safety instructions and multiple-point PM inspection checklist);
- CIMBRA Engineering & Construction video inspection procedure, entitled “*Procedimiento De Inspección De Cañerías*”; and

- CIMBRA Engineering & Construction video inspection report dated 11/27/2013, entitled "*Informe Inspección de Video N°:1693*", with photographs of pipeline survey pig entrance and exit points and photographs of representative locations within the pipeline interior.

**Corrective Action Completion Date:** 5 December 2013

**Closure Verified:**



**Lead Auditor: John T. Lambert**

**Date: 9 December 2013**

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date


**ENVIRON**  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-06**

**Date issued:** September 10,  
 2012

**ICMC Standard of Practice Section Reference:** 4.9(3)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-06 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiency:** During this onsite recertification audit, CMM indicated that it had not implemented a chain of custody procedure for transporting samples. CMM implements a procedure for securing the coolers used to transport the samples to the laboratory; however, chain of custody registers had not been used over the three-year period between audits.

During the audit, CMM updated its sampling protocol to include chain of custody procedures and documentation, and provided a copy of this updated procedure [“Analysis Procedure for Taking Samples of Water” (SMAPR001)] for review. Following the onsite audit, CMM provided two completed chain of custody registers for water samples along with training records for the new chain of custody procedure included in SMAPR001. The two registers provided are representative, although not inclusive, of a complete water sampling episode (i.e., all ground and surface water monitoring points where cyanide is monitored).

**Corrective Action Required (describe/attach supplemental information as necessary):**

- Demonstrate implementation of formal chain of custody procedures for surface water and groundwater samples.

**Evidence Required for Verification of Corrective Action Completion:**

- Completed chain of custody documentation for one full episode, inclusive of all surface water and groundwater quality samples analyzed for cyanide. Specifically, these monitoring points include:
  - surface water monitoring points P-1, P-2, P-3, P-4 and P-6; and
  - groundwater monitoring points P-5, P-10 and PO-2.

**Evidence Provided to Verify of Corrective Action Completion:**

Compañía Minera Maricunga  
 Name of Mine

December 9, 2013  
 Date

CMM provided the required evidence described above. Specifically, this evidence included:

- Copies of completed chain of custody documentation for one full sampling episode. This documentation included copies of chain of custody for points P1, P4, P5, P6, P10, and PO2.
- Copy of the monitoring registry “Programa de Monitoreo” was also provided to explain that monitoring points P2 and P3 were both dry in February and April and therefore not sampled.

**Corrective Action Completion Date:** 14 November 2012

**Closure Verified:**



**Lead Auditor:**

**Date:** 9 December 2013

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date




**ENVIRON**  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-07**

**Date issued:** September 10, 2012

**ICMC Standard of Practice Section Reference:** 4.9(6)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-07 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiency:** On September 27, 2009, a species of duck (a Yellow-Billed Pintail) was found dead in the Recirculation Pond. CMM filed a report describing the incident (*Registro de Inspecciones y Reporte de Incidentes con Vida Silvestre*). According to the report, the acoustical deterrent system was operational; however, more than half of the deterrent lines across the pond were loose or missing and the duck became entangled in the down lines. CMM classified the death as a cyanide-related mortality.

As a result of this incident, CMM agreed to update its wildlife monitoring procedure and inspection checklist to include verification that the bird deterrent systems at the ponds are properly installed and operational.

**Corrective Action Required (describe/attach supplemental information as necessary):**

- Update the wildlife monitoring procedure (Procedure GCNPE481, *Management for Exclusion of Birds*) and associated inspection checklist to include verification of the integrity, proper installation and operation of the wildlife deterrent systems at the ponds.

**Evidence Required for Verification of Corrective Action Completion:**

- Copy of the updated procedure (GCNPE481) and completed copies of the inspection checklists along with relevant training records demonstrating implementation of the revised procedures.


**Evidence Provided to Verify of Corrective Action Completion:**

CMM provided the required evidence described above. Specifically, this evidence included:

- Copy of Procedure GCNPE481, updated May 2013;
- Copies of completed *Censo de Aves en Mina Maricunga* inspection checklists for

Compañía Minera Maricunga  
 Name of Mine

December 9, 2013  
 Date

<p>the period covering January 7 through May 3, 2012 the revised checklist <i>Censo de Fauna – Cercanias Piscina de Proceso CMM</i>; for the period covering May 11 through June 11, 2013, and</p> <ul style="list-style-type: none"> <li>• Training records dated May 2013, demonstrating implementation of the revised monitoring program.</li> </ul>	
<p><b>Corrective Action Completion Date:</b> 23 July 2013</p>	
<p><b>Closure Verified:</b></p>  <p><b>Lead Auditor: John T Lambert</b></p>	<p><b>Date: 9 December 2013</b></p>

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date


**ENVIRON**  
**CORRECTIVE ACTION PLAN**  
**ICMC Audit – Maricunga Mine**

**Control No.:**  
**CMM-ICMC-CAR-08**

**Date issued:** September 10,  
 2012

**ICMC Standard of Practice Section Reference:** 6.2(1)

**Introduction:** This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-08 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.

**Description of Deficiency:** General Procedure GCNPR601 “*Minimizacion de la Exposicion del Trabajador al Cianuro*” addresses minimizing worker exposure to cyanide. The procedure discusses the necessity of maintaining high pH to avoid the formation of HCN. The procedure states that pH of high concentration cyanide solutions (e.g., mixing area) should have a minimum pH of 11.5 to 12.0 and that diluted solutions of cyanide (e.g., leach circuit) should have a minimum pH of 10.5 to 11.0. However, process records for the past three years show that the pH in recirculation, barren and ADR plant solutions were generally below the minimum required by the procedure. In 2009 and 2010 these solutions were in the averaging pH 10.25, however, in 2011 the pH was notably lower with average pH readings of 10.08, 9.36 and 9.39 respectively, for recirculation, barren and ADR plant solutions. CMM indicated that the pH was lower in the return solutions as a result of lime consumption during the leaching process and that the lower pH was not a concern because the return lines from the leach pad to the ADR plant were in the open and, as the pregnant solution had low concentration cyanide and was in chemical equilibrium, HCN generation would not be an issue in the ADR plant. Subsequent to the field component of the audit CMM provided an updated copy of Procedure GCNPR601 in which the minimum pH for low concentration cyanide solutions was modified to 9.2.

**Corrective Action Required (describe/attach supplemental information as necessary):**

Confirm that a risk assessment or management of change was conducted in support of the change in procedure.

**Evidence Required for Verification of Corrective Action Completion:**

Provide a copy of the management of change documentation completed in support of the change in Procedure GCNPR601

**Evidence Provided to Verify of Corrective Action Completion:**

Compañía Minera Maricunga  
 Name of Mine

December 9, 2013  
 Date

CMM provided the required evidence described above. Specifically, this evidence included:

- Change Management documentation dated 5 August 2013 reviewed and signed by management including Safety and Environmental department heads;
- Risk Analysis Report identifying the results of the analysis conducted on 9 September 2013;
- Detailed Risk Scenario and Controls Analysis for ADR for low pH conditions;
- New Procedure GCNPE755 for Control of pH in the ADR Plant, dated 8 October 2013;
- Updated Procedure GCNPR601, dated 6 October, 2013;
- 2013 pH monitoring data for process solutions;
- Procedure GCNPE756 *Operacion de Equipo Ventilation Extraccion Planta* for Ventilation System Operation; and
- HCN calibration records and a Plan showing the location of the fixed HCN monitors in the ADR.

**Corrective Action Completion Date:** 24 October 2013

**Closure Verified:**




**Lead Auditor: John T. Lambert**

**Date: 9 December 2013**



Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date

 <p><b>ENVIRON</b>  <b>CORRECTIVE ACTION PLAN</b>  <b>ICMC Audit – Maricunga Mine</b></p>	<p><b>Control No.:</b>  <u><b>CMM-ICMC-CAR-09</b></u></p> <p><b>Date issued:</b> September 10, 2012</p>
<p><b>ICMC Standard of Practice Section Reference(s):</b> 8.1(3), 8.2(4), 8.2(5) &amp; 8.2(7)</p>	
<p><b>Introduction:</b> This Corrective Action Completion Report presents the evidence to support the successful implementation of the CMM-ICMC-CAR-09 to correct the deficiency identified in the ICMC Recertification Audit of the Maricunga Mine, operated by Compañía Minera Maricunga (CMM), a Kinross Gold Corporation operation. The audit was conducted February 6 through February 10, 2012.</p>	
<p><b>Description of Deficiency:</b> Based on the information provided it appears that basic training and refresher training records were not being fully maintained during 2009 and 2010, although summary documentation available and discussion with trainers and participants to the training indicate that the training took place. In 2011, CMM corrected this deficiency situation by revising its procedures regarding maintenance of training records. All records for the 2011/2012 refresher training appear to be complete CMM was unable to show cyanide training records had been retained over the past three years.</p> <p>Operational task training is provided when an employee is first hired or first assigned to a new work area involving cyanide; however, CMM was unable to show training records had been retained over the past three years. During 2009 through 2011, except where regulatory required, the task training program was informal and no task training records were retained. In 2011, CMM introduced a formal program for tracking and retaining cyanide task training records together with a training matrix to track worker completion of this training.</p>	
<p><b>Corrective Action Required (describe/attach supplemental information as necessary):</b></p> <p>Provide documentary evidence over the next year to demonstrate that a system is in place to retain records of cyanide awareness and refresher training and cyanide task training.</p>	
<p><b>Evidence Required for Verification of Corrective Action Completion:</b></p> <p>Provide updated summary training matrices for cyanide awareness/refresher training and task training and at the request of the auditors provide copies of training records (including employee name, trainer name, date of training, topic(s) covered and demonstration of employee understanding of training materials) for selected employees.</p>	
<p><b>Evidence Provided to Verify of Corrective Action Completion:</b></p> <p>CMM provided the required evidence described above. Specifically, this evidence</p>	

Compañía Minera Maricunga  
Name of Mine

December 9, 2013  
Date

 <p><b>ENVIRON</b>  <b>CORRECTIVE ACTION PLAN</b>  <b>ICMC Audit – Maricunga Mine</b></p>	<p><b>Control No.:</b>  <u><b>CMM-ICMC-CAR-09</b></u></p> <p><b>Date issued:</b> September 10, 2012</p>
<p>included:</p> <ul style="list-style-type: none"> <li>• Copy of updated Procedure GCNPR801 “<i>Procedimiento de Capacitacion de Manejo del Cianuro en el Proceso de Faena Refugio</i>”;</li> <li>• Copy of cyanide awareness and task training matrices for period 2012 – 2014 summarizing training completed from 2011 to date;</li> <li>• Copies of cyanide awareness and task training participation records for the last year that include the name and signature of trainee, date and topic(s) of training, and name and signature of trainer;</li> <li>• Copies of completed cyanide awareness competency test papers; and</li> <li>• Copy of cyanide awareness training materials.</li> </ul>	
<p><b>Corrective Action Completion Date:</b> 28 October 2013</p>	
<p><b>Closure Verified:</b></p>  <p><b>Lead Auditor: John T. Lambert</b></p>	<p><b>Date: 9 December 2013</b></p>