NOSA CERTIFICATION AUTHORITY LTDA.

# Gold Mining Operations Summary Audit Report / rev.1

for

Anglo Gold Ashanti & Kinross

Serra Grande Mining Operation(MSG)

Recertification Audit / February 2012



#### SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS

#### Instructions

- 1. The basis for the finding and/or statement of deficiencies for each Standard of Practice should be summarized in this Summary Audit Report. This should be done in a few sentences or a paragraph.
- 2. The name of the mine operation, lead auditor signature and date of the audit must be inserted on the bottom of each page of this Summary Audit Report. The lead auditor's signature at the bottom of the attestation on page 3 must be certified by notarization or equivalent.
- 3. An operation that is in substantial compliance must submit a Corrective Action Plan with the Summary Audit Report.
- 4. The Summary Audit Report and Corrective Action Plan. if appropriate, with all required signatures must be submitted in hard copy to:

## International Cyanide Management Institute (ICMI) 1400 I Street, NW, Suite 550, Washington, DC 20005, USA.

- 5. The submittal must be accompanied with 1) a letter from the owner or authorized representative which grants the ICMI permission to post the Summary Audit Report on the Code Website, and 2) a completed Auditor Credentials Form. The letter and lead auditor's signature on the Auditor Credentials Form must be certified by notarization or equivalent.
- 6. Action will not be taken on certification based on the Summary Audit Report until the application form for a Code signatory and the required fees are received by ICMI from the applicable gold mining company.
- 7. The description of the operations should include sufficient information to describe the scope and complexity of the gold mining operation and gold recovery process.

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Name of Mine: Mineração Serra Grande Ltd.

Name of Mine Owner: Anglo Gold Ashanti Ltd. & Kinross Gold Corporation.

Name of Mine Operator: Anglo Gold Ashanti Ltd.

Name of Responsible Manager: Ricardo de Assis Santos

Address: Rodovia GO 336, Km 97.

76510-000, Crixás, GO, Brazil.

State/Province: Goiás.

Country: Brasil.

Telephone: (55+62) 3365-7113

Fax: (55+62) 3365-7125

E-Mail: rasantos@serragrande.com.br

Location detail and description of operation:

The Serra Grande mining operation is located in the country side of Crixás town, located in the mid-west of Brazil. The mining activities are divided into underground and open pit mines. The description of the process is as follows:

#### **LEACHING**

The leaching area comprises 16 tanks, each one with a 202 cu.mt. capacity, plus 3 additional tanks with 400 cu.mt. each.

These tanks are provided with mechanical stirring by means of propeller-type stirrers and stirring by compressed air injection. Leaching is divided into two stages: pre-liming and evanidation.

#### PRE-LIMING

This process, which takes place in tanks 1, 2 and 3, consists in preparing the slurry for cyanidation, which is initiated in tank 4.

Lime addition, already initiated during milling, is repeated in tank 2 of the leaching area. The pH is controlled at approximately 10.5 at 2 hour intervals by analyses made by a pH meter and being corrected according to the result of the analysis.

The contact time in the pre-liming stage is approximately 4 hours.

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#### **CYANIDATION**

Cyanidation takes place in tanks 4 to 19. Sodium cyanide solution is added to tank 4. Free cyanide concentration in this tank is approximately 450 ppm.

In tanks 4 to 19, the slurry is constantly stirred with the reagents. The free cyanide concentration and the pH values decrease gradually from tank to tank and are controlled in last tank at 100 ppm of free cyanide and pH~10. Oxygen dissolved in the slurry ranges from 4 to 7 mg/l and is essential for a perfect solubilization, as it participates actively in the reaction. The contact time in the cyanidation stage is approximately 24 hours.

#### **FILTERING**

The filtering circuit is divided into two stages: primary and secondary filtering.

The primary filtering circuit is fed with the cyanidated slurry from the leaching area. During the primary filtering process, the cake (solid) deposited along the cylindrical body of the filter is washed using barren solution from the precipitation and discharged, whereas the solution is absorbed into the filters. Next, the cake from the primary filtering is fed to a primary reslurring tank, whereas the filtrate (gold-bearing solution) is pumped to a receiving tank.

From the primary re-slurrying tank, the slurry is pumped to the secondary filters, starting the secondary filtering. As in the primary filtering, the process is repeated and two products are obtained: a gold-bearing solution (filtrated), which is pumped into a second receiving tank and the final solid waste from the process, which is fed to a secondary re-slurring tank in which it is re-slurried to a 50% solids concentration and pumped to the Tailing Dam.

#### **CLARIFICATION AND PRECIPITATION**

The gold precipitation from the gold-bearing solution is the Merril Crowe process, which consists in clarification and de-aeration of the gold-bearing solution before the gold precipitation with zinc powder and subsequent separation of the precipitate in press filters. The gold-bearing solution from the filtering stage is fed to two hopper clarifiers, for the first clarification stage. Next, it goes through the second clarification stage, which consists of filtering through sheet filters, minimizing the amount of solid particles still present in the solution. After the clarification, the oxygen contained in the gold-bearing solution is removed by two de-aerators. The zinc powder is added to the solution by means of a dosage screw and a cone interconnected to the de-aerated solution. The obtained precipitate is sent to the smelting plant.

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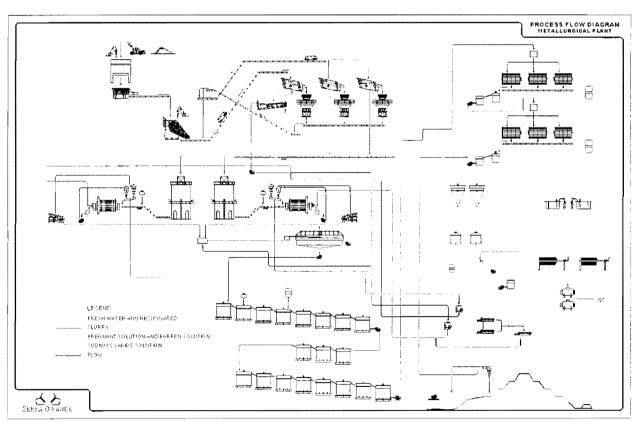
#### **SMELTING**

The smelting process consists basically in the collection and smelting of the precipitated and concentrated gold from the press filters and shaking tables, respectively. The smelted bullions obtained are cast into bars for shipment.

Precipitate and concentrate smelting takes place in a diesel-fired stationary furnace with capacity for 80 kg of precipitate or concentrate per smelt. At each smelt, a bullion weighing approximately 15 kg is obtained. The slag from smelting is re-melted and returns to the crushing plant.

The obtained bullions with approximately 85% of gold content are then sent to Anglogold Ashanti Mineração in Nova Lima/MG, for the refining process.

#### METALLURGICAL PLANT FLOW CHART



Metallurgical Plant Flow chart

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### Auditor's Finding

This operation is:

X in full compliance

☐ in substantial compliance \*(see below)

□ not in compliance

with the International Cyanide Management Code.

\* The Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

MSG hasn't had any significant cyanide incidents or cyanide exposures or releases requiring notification to ICMI, since their initial certification back in 2007.

Audit Company: NOSA Certification Authority Brasil Ltda.

Audit Team Leader: Celso Sandt Pessoa

E-mail: celsopessoa@ncabrasil.com.br (ICMI qualified lead auditor and TEA)

Names and Signatures of Other Auditors: none.

Date(s) of Audit:  $23/01 \sim 03/02/2012$  (on-site) and  $04 \sim 07/03/2012$  (off-site)

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Gold Mine Operations and using standard and accepted practices for health, safety and environmental audits.

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Name of Mine CARTÓRIO DO 12º TABELIÃO DE NOTAS Page 6 of 26 TITHET CELSO SANDT PESSOA, a Reconheço por semelhança Tirma: CELSO SANDI PES qual confere com o padrão depositado em Cartório. São Paulo, 05 de Getembro de 2012 Em testemunho da verda Elaine Xavier Fialho - Est 1209051255174 |Firma:R\$ 4,00!Total:R\$ Figl 642AB195125

Este documento só terá efeito no território nacional e para valer contra terceiros, se vertido em vemáculo e registrada a tradução art. 140-CCB e Prov. 58.89 -Item 67 - NCGJ



,	Encourage responsible cyanide mannfactu nannfacturers who operate in a safe and e nanner.	
<u>Standard of Practice 1.1</u>	Purchase cyanide from manufacturers practices and procedures to limit expose cyanide, and to prevent releases of cyanide	ure of their workforce to
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	ard of Practice 1.1
The contract signed by the 29/August/2007), clearly a CyPlus has just one plant, with ICMI website inform CyPlus GmbH/ Wesseling between the operation and quantities were amended, remains the same. Last an The cyanide purchasing properties of the cyanide purchasing properties and the cyanide purchasing properties were amended.	this Finding Deficiencies Identified: e operation with CyPlus GmbH/ Germany (AGAM addresses that the solid cyanide shall be produced by at Wesseling/ Germany, which is currently certified ation. In the last four years, the operation only body, in accordance with the reviewed purchasing document the producer was amended four times in these four All original requirements reviewed during the initial nendment was signed on 01/10/2010, and the controcess is managed by the Anglo Gold Ashanti corporall Anglo Gold operations in Brazil.	by a certified CyPlus facility.  Ed by ICMI, in accordance ught solid NaCN from imentation. The contract in years, but only the ial certification audit, ract is valid until 30/09/2013.
2. TRANSPORTATIO	N: Protect communities and the envir transport.	onment during cyanide
Standard of Practice 2.1	l: Establish clear lines of responsibility for prevention, training and emergency responsibly with producers, distributors and transported	onse in written agreements
The operation is	<b>X</b> in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	ard of Practice 2.1
It was observed, reviewin Wesseling) and the proc	this Finding Deficiencies Identified: g the contracts and agreements among the operatifucer with the transporter (Niquini Transportes addressed on both of them.	
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The solid cyanide is transported into containers, specifically designed for this purpose, fully labeled according international and Brazilian road transportation laws, and the necessary information in Portuguese. The cyanide is transported through an asphalted route, previously selected, in common agreement, by the operation, the producer and the transporter. A risk assessment of the selected route was evidenced. The transportation route can not be changed without the authorization of the operation. The cyanide is transported straight from the Santos port (Brazil) to the operation, without any kind of interim storage.

The operation established a cyanide reception procedure, in order to verify the truck condition (and maintenance) and permits, the driver permits and qualifications, the emergency responses resources (including emergency contacts) and the cyanide documentation. This procedure was evidenced to be implemented during the field audit.

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	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with
As previously mentioned, transporters (CyPlus GmbH with ICMI's website) and ICMI's website), which ha transported straight from th transporter. The solid cyanic traceable to the producer, e	the solid cyanide is transported into the operation by ICMI certified. Germany Supply Chain # 1 (certification dated 02/06/2011, in accordance Niquini Transportes Ltd.(certification dated 21/12/2009, in accordance with we specific cyanide related emergency response plans. The solid cyanide is the Santos port to the operation, without any interim storage or changing of the documentation is verified in reception control at the operation, and is fully evidencing that all transport supply chain (Cyplus GmbH Germany Supply portes Ltd.) are ICMI certified, according to the ICMI website information.  **ORAGE: Protect workers and the environment during cyanide handling and storage.**
Standard of Practice 3.1:	Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control quality assurance procedures, spill prevention and spill containment measures.
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with

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Summarize the basis for this Finding Deficiencies Identified: (Due to the sensitivity of security issues regarding storage of cyanide, no descriptions of substantial or non-compliance with this aspect of the Standard of Practice should be provided.)

The receiving, storage and preparation area remains the same since 2007. This area was constructed in accordance with Brazilian engineering procedures as evidenced in the first certification audit. It was evidenced that this area was adequately maintained in the last years and was found in perfect order in this opportunity.

The cyanide unloading area was constructed in a restricted area, where only authorized and qualified personnel are allowed to go in, under roof, with a drainage system, on concreted floor, and away from surface waters and people, as evidenced during the field audit.

The warehouse and preparation area are provided with HCN sensors. The unloading operation is performed by qualified operators. All the necessary safety procedures are documented in work instructions as well as the handling instructions. The operators have also portable HCN sensor, during the unloading and preparation activities. The unloading, preparation and storage areas are naturally ventilated and, in the event of any cyanide leakage, these areas are concreted and the recovering of the solid cyanide is easy. The preparation and distribution tanks are inside a secondary containment. Cyanide mixing and storage tanks are equipped with overfill protection.

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.

X in full compliance with

☐ in substantial compliance with
☐ not in compliance with

Summarize the basis for this Finding Deficiencies Identified:

The operation uses solid sodium cyanide (briquettes) which is brought to the operation in containers, specifically designated for this purpose, which is returned to the cyanide producer (CyPlus) just after the unloading activity is concluded, by the cyanide transporter (Niquini Transportes). Before departing the operation, the truck is verified to be in conformance, without any kind of leakage and completely empty and clean. The unloading activity is performed in accordance with documented work instructions, specifically developed by the operation after identifying and evaluating the risks related to the activity. The risk evaluation of the activity is performed in a structured way. The unloading operators are trained and qualified to perform that activity. Records of such trainings as well as field interviews demonstrated that the operators are prepared to perform the unloading, storage and mixing activities. The required PPEs (personal protective equipment) for the unloading, storage and mixing activities are clearly defined in the work instructions and were evidenced to be used during the field audit. The unloading, storage and mixing activities are monitored and always performed by two operators.

Disposable packaging materials are sent for thermal destruction and MSG implements written procedures for unloading and mixing of reagent cyanide and for cleanup of spills that occur during these activities.

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	lanage cyanide process solutions and waste streams to protect human palth and the environment.
Standard of Practice 4	1: Implement management and operating systems designed to protect human health and the environment utilizing contingency planning and inspection and preventive maintenance procedures.
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with
It was evidenced that the management system in o as freeboard, leaching flo	operation designed, documented, implemented and maintains a SHE der to manage their SHE aspects, including cyanide. The design parameters such wrate, pH, CNt (total cyanide) content in tailings, instrumentation alarm levels, others, are clearly addressed at the documented management and operational ins.

The operation defined and implemented a site inspection program, performed on a daily basis, just after every shift turn, and also a comprehensive preventive maintenance program, focused on the operation installations (pumping & piping systems, tanks, ESFs (effluents storage facility) and generator back-up system. During the field audit, it was observed that these installations are in good shape and well maintained. Also observed that the plant is dry without any kind of leakage or spill.

The operation did design, document and implement a change management procedure, PD-GGO-057(7), where a SHE risk evaluation is performed before the proposed configuration change be approved. Reviewed change management records, related to the replacement of the effluent treatment tanks and related to the new process (Knelson/ Acacia) installations.

The operation did develop, document and implement a specific emergency response plan considering all potential cyanide related emergency scenarios, including upset in the water balance (considering even the cessetion of the operation), any deviation from design and operational criteria (e.g. pH, freeboard, leaching solution concentration and flow, among others).

It was observed that all inspection activities are recorded, including date, shift, name of the inspector, installation being inspected, conforming/non conforming aspects. Any non conforming aspect are recorded and communicated to the maintenance process in order to fix the identified non conformity. Verified that corrective maintenance activities were very low during 2009, 2010 and 2011, concluding that the preventive maintenance program is effective.

Verified that the operation planned, documented and implemented a preventive maintenance program. Reviewed preventive maintenance plan and associated records for cyanide containing equipments such as tanks, piping and pumps.

Was evidenced that the operation has two back-up generators (450kVA/ each), which are maintained and tested on a weekly basis. Reviewed maintenance and testing records of the generators.

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Standard of Practice 4.2:	Introduce management and operature, thereby limiting concentrations	•
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with ☐ not subject to	Standard of Practice 4.2
Although the operation does implemented a cyanide consumption rate, in	nis Finding/Deficiencies Identified: s not add cyanide solution during the mil umption management model in order to accordance with the mineral quality. The order to determine the best ratio between	evaluate and determine the best ne operation performs cyanidation
Since 2007, the operation up	odated the metallurgical study in order tery. The consumption of cyanide is decr	
The cyanide consumption is In the beginning of the year, with the mineral quality and	monitored on a regular basis (monthly), the operation establishes a cyanide consprior tests results, the maximum cyanide, in all cases, that the real cyanide consultable).	consumption is defined for
Standard of Practice 4.3:	Implement a comprehensive water against unintentional releases.	management program to protect
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 4.3
Summarize the basis for the	ns Finding Deficiencies Identified:	
The operation designed and implemented a water management system. There were not any major change in this management system since the last certification audit, back in 2007. It was observed that the water management system is reviewed on a yearly basis (reviewed reports for 2009, 2010 and 2011), and all previously assumed assumptions like, storm rain, evaporation rates, rain history, water intake, water outtake, seepage and tailings deposition rate were confirmed as being correct. The operation operates the ESF with an operational freeboard higher that that one established in the design, focusing the stability and safety of the ESF. It was evidenced that the operation installed some freeboard datum poles, divided in three different zones (green=conforming, yellow=alert, red=nonconforming), in order to optimize the visual inspection of the available freeboard. The water management system is audited by the Anglo Gold Ashanti corporate dam expert, once a year. Reviewed audit records for 2010 and 2011. Audit results confirmed that the water balance management is effective.		
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The operation has a meteorological station where, on a daily basis, it monitors the rain and evaporation rates, and compares with the design assumed values. Evidenced this control since 2008. Also observed that the operation installed 15 flow-meters in order to control the water income in the operation. This control is performed on a daily basis. The ESF is inspected on a daily basis in order to monitor the available freeboard and if there is some fauna mortality. There were no cases of fauna mortality since 2007.

Standard of Practice 4.4:	Implement measures to protect b from adverse effects of cyanide pro	
	X in full compliance with	
The operation is	☐ in substantial compliance with	Standard of Practice 4.4
	□ not in compliance with	
	nis Finding Deficiencies Identified:	
	not any open water with CNw (wad cya	
	process of the final effluent seems to be ation is fenced and the ESF is naturally stock.	
	final process effluent with H2O2 (hydro	ogen peroxide) and monitor the
quality of the effluent, before	e being discharged into the ESF. Review	wed CNw results from March/2010
	observed that the highest CNw value in	
records maintained.	life mortality since 2007. The open w	vaters (ESF) are daily inspected and
Standard of Practice 4.5:	Implement measures to protect fa	ish and wildlife from direct and
	indirect discharges of cyanide proc	• •
	X in full compliance with	
The operation is	☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 4.5
Summarize the basis for th	is Finding/Deficiencies Identified:	
The process effluent (after ne	eutralization) is only released to surface	
before discharge), performed	ually during the raining season).Review by an ISO 17025 certified independent	
of CNw is < 0.05ppm. The operation established a r	monitoring point, down gradient of the r	nixino zone where the CNw is
	The monitoring point is included in the	
reviewed and approved by th	e local EPA (Semarh Goiás).	
	0.005ppm (CNf (free cyanide) will be ex	
	ermines the CNf (free cyanide) content ess laboratory is ISO 17025 certified, in	
requirements).	as intotatory is 150 17025 certified. In	accordance with the total El A
	veloped by the operation laboratory (IS	O 17025 certified), where done in
	I standard methods (Standard Methods	for the Examination of Water and
Waste Water/2005, method S	3M W W-4500-C N-C-F-G ).	
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Standard of Practice 4.6:	Implement measures designed to facilities to protect the beneficial use	
The operation is	X in full compliance with  ☐ in substantial compliance with  ☐ not in compliance with	Standard of Practice 4.6
Beyond the water manageme in order to monitor potential	nis Finding Deficiencies Identified ent system, the operation installed piezon seepage and also to monitor the undergross between 2008 and 2011, that there is no 0.005 ppm.	ound water quality. It was observed,
The operation monitors the u	inderground water quality, through piezo ed, through monitoring reports, that the v	
The operation uses tailings (1) Geosol reports SG-0090-CR 0.04 ppm (legal value establi is also monitored showing ty CONAMA 396/08 is lower t	from the ESF) as underground backfill. T /08, SG-0089-CR/08 and SG-0088-CR/0/ shed by law CONAMA 396/08 is lower pical CNt values lower than 0,01 ppm (le han 0,07 ppm). In both cases, the use of t lith and the underground water quality.	8), showing that CNt is lower than than 0.07 ppm). Underground water egal value established by law
Standard of Practice 4.7:	Provide spill prevention or containant pipelines.	ment measures for process tanks
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 4.7
The cyanide unloading, stor prevent that any process spi observed during the field aud	nis Finding Deficiencies Identified: rage, mixing and process solution tanks ill could impact the human life and the dit (engineering documentation was also ondary containments (preparation, leach	environment. All these areas were reviewed) and confirmed that these
All secondary containments	volumes are, at least, 110% greater than nent areas are provided with a pumpi	
	nudit, that all cyanide process solution teaks and prevent releases to the environ	
containing pipelines are with	yanide containing pipelines presenting a in protected areas, with secondary contains	nments.
All cyanide tanks and pipe conditions (carbon steel and/	lines are constructed of materials confor HDPE).	patible with cyanide and high pH
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Standard of Practice 4.8;	Implement quality control quality assure that cyanide facilities are constructe engineering standards and specifications.	ed according to accepted
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	dard of Practice 4.8
All the engineering documen maintained by the operation, process. It was observed that treatment tanks and is impler	nis Finding Deficiencies Identified: attation reviewed during the initial audit remain as observed during the system and field audit a during the certification period that the operatimenting a new gravimetric process plant (gravi + Acacia reactor). All the documentation and red during this audit.	at the hydro-metallurgy on replaced two effluent ty circuit optimization
Standard of Practice 4.9:	Implement monitoring programs to evalue on wildlife, surface and ground water qua	
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	dard of Practice 4.9
It was evidenced that the ope system, focused on open water Brazilian environmental legis. The monitoring frequency and defined at the environmental local EPA (Semarh Goiás) are with the environmental result adequate to the operation open promptly detected and identify. The operation laboratory is Is standards methods were adeq procedures, sampling preserve	ration designed documented and implemented ers, surface and underground waters, being in estation and this protocol (see SoP 4.4, SoP 4.5) and sampling locations were defined in accordant permit. The operation monitoring plan was revial it is in accordance with the operation environts obtained in the last years, it seems that the merational circumstances. Any change in the monified by the operation, which can respond on a transfer of the operation of the local EPA (Semarh Quately developed by high qualified personnel, ration methods, custody procedures, among other operation environmental laboratory. No case 2007.	conformance with the and SoP4.6). nce with the requirements viewed and approved by the nmental permit. In accordance conitoring frequency is nitoring results can be imely manner. Goiás), where analytical as well as sampling her aspects, as evidenced in
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5. DECOMMISSIONING	G: Protect communities and the environment from cyanide to development and implementation of decommissioning pacyanide facilities.	
Standard of Practice 5.1;	Plan and implement procedures for effective decommissio cyanide facilities to protect luman health, wildlife and livestoe	
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	
The operation developed, do management of the closure a evidenced that the operation developed by Golder Associ updated decommissioning and clouring the decommissioning and clouring the decommissioning shall be performed after the reviewed a specific closure sentiremental Coordination in accordance with internal	chis Finding Deficiencies Identified: commented and implemented a management procedure, focused on the activities (decommissioning + restoration activities) of the operation. I updated the operation decommissioning and closure plan, which was ates (report RT-005-109-525-2003-01-J, dated September 2011). This and closure plan was reviewed during this audit. Iosure plan, clearly describe the schedule to be followed and closure activities, including activities (environmental monitoring operation closure. The operation is planned to be closed-out on 2017, schedule (detailed), dated 20:09 2011, produced by the Corporate at Process, based on the decommissioning and closure plan. I management procedures, the decommissioning and closure plan three years. Reviewed plan was updated in September 2011.	t was s g) that Also
Standard of Practice 5.2:	Establish an assurance mechanism capable of fully funding related decommissioning activities.	cyanide
The operation is	X in full compliance with ☐ in substantial compliance with ☐ not in compliance with	
The Golder Associates report costs related to the implement reclamation cost report (data The operation updates annual closure plan. Reviewed reclamation Mining Legisle by the operation. The operation	his Finding/Deficiencies Identified: at RT-005-109-525-2003-01-J. dated September 2011, identify the requitation of the plan by a third party. The total amount was included in tated 21.10/2011), which is annually updated. Reviewed values since 2 ally the costs related to the implementation of the decommissioning an amation cost reports from 2009, 2010 and 2011 (last updated on 21/10 ation does not demand or establish any financial mechanism to be following implemented a self-guarantee mechanism. Beyond this mechanism certificates related to the operational risks.	the 2009: nd /2011): lowed
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Annually the operation has its financial health audited by independent third party auditors. The last financial audit was performed by Ernst, Young & Terco, a legally established financial auditing company in Brazil (permit CRC-2SP015199/O-6-F-MG). Last financial audit was related to the financial year ended 31/12/2010 and was led by Mr. Flavio de Aquino Machado, a qualified financial auditor (permit CRC/MG-065899/0-2). The financial audit was carried out in accordance with International Financial Report Standards (IRFS), which are acceptable either in Brazil and internationally. The financial audit report clearly states that the operation has enough financial health to fund the implementation of the closure plan. The financial audit report was published at the DOU/ GO (it is a Brazilian Government daily newspaper, specific for the Goiás State, where the plant is located. This DOU is available for public consultation) and also at the local newspaper "O Popular". It was also distributed to external stakeholders such as banks and the Brazilian Public Financial authorities. It is also available at <a href="https://www.anglogoldashanti.com">www.anglogoldashanti.com</a>, for public consultation.

6. WORKER SAFETY:	Protect workers' health and safe	ety from exposure to cyanide.
Standard of Practice 6.1:	: Identify potential cyanide exposure scenarios and take measure necessary to eliminate, reduce or control them.	
The operation is	X in full compliance with ☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 6.1

The operation identified and evaluated all the SHE risks associated with the cyanide and, in order to have the risks under control and mitigated, the operation defined, documented and implemented specific operational procedures for cyanide related activities. The risk identification and evaluation process is performed in a structured way and involves different stakeholders.

Summarize the basis for this Finding Deficiencies Identified:

The operation developed and implemented a documented change management procedure where all the risks related to the proposed change and impacting on health, safety and environment, are identified and evaluated by a multi disciplinary team, before the proposed change be accepted.

The development of work instructions are performed in conjunction by these stakeholders (operators, supervisors, managers and SHE professionals). The required PPEs for each activity (unloading, leaching, maintenance, neutralization, confined spaces) are defined and addressed in the documented work instructions. In order to maintain the risk evaluation updated and, in consequence, the work instructions, the operations established a procedure to update them if any circumstance has changed or, at least, every two years. This procedure is part of the annual refreshing program for supervisors and operators.

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<u>Standard of Practice 6.2:</u>	Operate and mor	nitor eyamide facilities	to protect	worker health and

safety and periodically evaluate the effectiveness of health and safety

measures.

**X** in full compliance with

The operation is 
in substantial compliance with Standard of Practice 6.2

□ not in compliance with

Summarize the basis for this Finding Deficiencies Identified:

The operation determined that the minimum pH value shall be equal or greater than 10.5. The pH is effectively controlled and monitored (through calibrated pHmeter) in the operation. Alarm systems are in place. Verified, during the field audit, that the usual pH value is around 12. The pH is controlled through the addition of caustic soda. The operation has fixed calibrated HCN detectors in the cyanide preparation tank area and the operators also use portable calibrated HCN detectors. Both cases evidenced in the field audit. The fix and portable HCN detectors, are maintained and calibrated in accordance with a calibration management system. Reviewed calibration records of all HCN detectors. It was evidenced during the field audit, that the operation premises (cyanide circuit) are richly signed, including the prohibition of drinking, eating and smoking in these areas. Auxiliary emergency installations/ equipments such as low pressure eye-washers and showers, fire extinguishers, were evidenced in the operation premises. Some of these auxiliary installations were tested during the audit and worked well.

Also observed that that the operation implemented a fire extinguisher (CO2 and dry powder) management system, in order to maintain these auxiliary equipments under good operational condition. It was evidenced, during the field audit, that the operation installations (tanks, piping, valves, pumps, pools) are in good shape, the tanks and piping are adequately painted and signed,

in accordance with a color code outdoor, available at the process plant. Beyond that, all operators are aware that all installations having a purple painting on it, it contains cyanide.

the cyanide flow identified. Cyanide MSDS is also available (in Portuguese) in the plant. It was evidenced that the operation has defined and implemented procedures to evaluate SHE incidents.

No cyanide related incident occurred in the plant, during the last three years, confirming that the cyanide management is effective.

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Standard of Practice 6.3:	Develop and implement emergency respond to worker exposure to cyanic	
The operation is	X in full compliance with ☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 6.3
The operation has developed emergency care center (with ambulance, antidote kits, teleaudit. All the first aid equipped (which is ready to be used antidotes are stored under checked. The operation quaresource in the event of cyan and the local hospital are teleperformed by the operation.	is Finding Deficiencies Identified: demorgency procedures for that activiting medical assistance 24h per day), fully ephone, radio, oxygen cylinders. These thements are effectively inspected by the local was tested during the audit). Evidentially, expected the local hospital (Hospital Regional idea related emergencies. The transportations sted. It was evidenced that cyanide related including and involving the local Hospital relation plan and related drills records.	requipped with a resuscitator, one facilities were evidenced in the field scal nurses, including the ambulance denced the inspection records. The for and their validity is constantly onal de Crixás) as a complementary on procedures between the operation ted emergency drills are effectively
7. EMERGENCY RESPO	ONSE Protect communities and development of emergen capabilities.	the environment through the acy response strategies and
Standard of Practice 7.1:	Prepare detailed emergency responseleases.	nse plans for potential cyanide
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 7.1
The operation defined, docur emergencies. Evidenced a sp scenarios related to transport. PPEs, communication channed procedures for each identified Cyanide related emergencies plan, shared with the NaCN pathe operation, that will have a covered by this emergency p	is Finding Deficiencies Identified: nented and implemented procedures to rescific cyanide response plan, encompassi unloading and operations. The plan clearles and telephones (including the CyPlus discensario) (in accordance with ICMI prot responses during external transportation producer (CyPlus) and NaCN transporter a support role in this scenario. The internal an.	ng cyanide emergency rly addresses the required resources, ones) as well as the specific ocol), to the operation are covered by the (Niquini), both ICMI certified, and al NaCN transportation is also
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Standard of Practice 7.2:	Involve site personnel and stakel	nolders in the planning process.
The operation is	X in full compliance with  ☐ in substantial compliance with  ☐ not in compliance with	Standard of Practice 7.2
The emergency response pla (internal and external), inclu- emergency response supplier training exercise (mock drill (internal and external) that w It was evidenced the meeting	nis Finding Deficiencies Identified: ns were reviewed, approved and commuding security and health authorities (locates (SOS Cotec emergency responder), co.), the plan that will be simulated is discutill participate in the training exercise, grecord (dated 06/10/2011) involving sesimulation exercise involving an emergen	al hospital), public authorities, ommunity representatives. Before a assed, again, with all the parties everal stakeholders that would
Standard of Practice 7.3:	Designate appropriate personnel and resources for emergency respon	
The operation is	X in full compliance with ☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 7.3
The operation defined, do emergencies. Reviewed a s Responsibilities and author (internal and external). The selection process (medical, t members were trained and emergency committee orga communication loop. The enbrigade members, including The emergency response plat that are necessary to each sit ambulance (completely equiphrigade members, such as chemical masks. The CyPlus transportation), in conjunction The emergency response har	commented and implemented procedure pecific cyanide related emergency plainties are clearly defined and communicates are clearly defined and communication and practical), to be assigned a sanizational flowchart was also evidence and a serious contact details of internal and external stans (internal and the CyPlus one) identify unation. The basic emergency response has peed, daily tested and ready to be used), demical/flame resistant overall, chemical semergency plan covers that situations of on with Niquini Transportes, both ICM1 of dware is monthly inspected by the safety peeted and tested. Records of such inspected	an and the CyPlus emergency plar are voluntary and passed through d as a brigade member. The brigad emergency brigade members. The enced, as well as the emergency lithe necessary information about that takeholders. The required resources (hardware) ardware is consisted of one auxiliary equipment (PPEs) for the gloves, oxygen masks and cylinders outside the operation (during certified.
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Standard of Practice 7.4:	Develop procedures for internal and external e and reporting.	mergency notification
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	Practice 7.4
The emergency response pla (internal and external), inclu suppliers, community repres stakeholders to participate in with stakeholders, in order to emergency communication I	nis Finding/Deficiencies Identified: In was reviewed, approved and communicated to sever ding security and health authorities, public authorities, entatives. When performing emergency drills, the open the drills. Another implemented control is to perform a discuss and updated (if necessary) the emergency response clearly defined and also contact information is a with external media were found in place.	emergency response ration invites specific neriodic meetings sponse plan. The
Standard of Practice 7.5:	Incorporate into response plans and remonitoring elements that account for the additional account for the additions and the additional accounts the additional accounts are also accounts and accounts are additionally accounts and accounts are also accounts and accounts are accounts and accounts are accounts as a second account accounts and accounts are accounts as a second accounts are accounts and accounts are accounts and accounts are accounts as a second account account account account account account account account accounts and account account accounts are account accounts and account acco	
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	Practice 7.5
The operation defined, docur emergencies. Reviewed a spe plan linked with cyanide trar communicated to all involve organizational flowchart was Solid briquettes are recovere (returned to plant and dispos specific chemicals products aid of specific pumps and ret Neutralized soil is removed a final disposal a certified and	d with the aid of cleaning devices and disposed into placed into cyanide solution tanks). The soil shall be necessuch as nitrogen peroxide solution. Cyanide solutions turned to the leaching process tanks, and disposed into plastic bags, returned to the plant an licensed (by the local EPA) contractor, which will protable way. Open or surface waters are monitored and interest of the plant and interest of th	ncy / defined and committee  lastic bags attralized with the aid of are recovered with the d then forwarded to beess the solid waste.
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The operation has the responsibility (shared with the public authorities) to manage and provide drinking water to the affected stakeholders, in the event of any cyanide related emergencies into water supply resources (rivers). The operation will provide mineral water in bottles and also will distribute, using tank trucks, water for general purposes obtained at underground shafts.

The plan clearly defines the required monitoring procedures to be implemented in the event of soil and water potential contamination. An environmental monitoring plan is addressed at the emergency response plan.

Standard of Practice 7.6:	Periodically evaluate response procedures and capabilities and revise them as needed.		
The operation is	<b>X</b> in full compliance with □ in substantial compliance with	Standard of Practice 7.6	
,	□ not in compliance with		

Summarize the basis for this Finding Deficiencies Identified:

The operation defined, documented and implemented procedures to respond to cyanide related emergencies. Reviewed a specific cyanide emergency plans and the CyPlus emergency plan. The MSG emergency response plan was reviewed, approved and communicated to several stakeholders (internal and external), including security and health authorities, public authorities, emergency response suppliers, community representatives. When performing emergency drills, the operation invites specific stakeholders to participate in the drills. Another implemented control is to perform periodic meetings with stakeholders, in order to discuss and updated (if necessary) the emergency response plan. The emergency communication loop is clearly defined and also contact information is available in the plan. The plan is, at least, reviewed every two years (or before, depending on the results of the simulation exercises).

Evidenced the 2010 and 2011 Annual Emergency Drill plan. Evidenced four emergency drills performed since 2010, involving NaCN intoxication during leaching process, NaCN transportation (in conjunction with CyPlus and Niquini Transportes), HCN intoxication during cyanide solution preparation and ESF related emergency.

After each emergency drill, the drill results are reviewed and discussed among the participants. The opportunities of improvement raise-up during the drill are considered as corrective or preventive actions and managed adequately. Reports related to the drills and their review were found in place.

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# 8. TRAINING: Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

safe and environmentally protective manner.		
Standard of Practice 8.1:	Train workers to understand the hazards	associated with cyanide use.
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with	dard of Practice 8.1
The operation did design, do all new employees and contractope is focused on general related to cyanide and first at The operation implemented every three years. The contestraining.  Both introductory training Reviewed records related to The training record is an astraining content and general	his Finding Deficiencies Identified: becoment and implement an introductory training ractors coming to work in the operation. This is aspects of sodium cyanide, cyanide related rish aid procedures related to cyanide exposures, a refresh training program, which is applied for ent of the cyanide refresh training program is the program and refresh training program recording introductory training and refresh training perfect introductory training and refresh traini	attroductory training program as, emergency situations all employees and contractors as same one of the introductory ds are kept by the operation formed between 2009 and 2011 attendees name and signatures the instructor. During the field
Standard of Practice 8.2:	Train appropriate personnel to operate systems and procedures that protect line and the environment.	•
The operation is	X in full compliance with ☐ in substantial compliance with ☐ not in compliance with	dard of Practice 8.2
After the introductory training technicians, maintenance technicians, maintenance technicians, maintenance technicians, the training is provietraining, the employees will (or not) to work alone. The operational on the job training is divided in theory	nis Finding Deficiencies Identified: ng, all employees that will work directly with chnicians, drivers) will pass through an "on the in operational procedures and emergency p ded by the operation supervisors and process work under supervision during 45 days. After aining consists basically on the operational and and practice. All the operational aspects are cla job training program for plant operators, plant	ne job training" which consists procedures (40 hours). These engineers. After the on the job that, the employee is qualified lemergency procedures. The early identified in the training
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Operational training is provided by supervisors and process engineers, during 40 hours. The on the job training is divided in several topics (depending on the function). Only after the trainee is approved in a specific topic, he is allowed to move forward to another topic. After 40 hours of operational training (theory and practice), the trainee will work, during 45 days, under supervision. In the ending of this period, the trainee is qualified (or not) to work in the operation. Records of such operational on the job training are kept by the operation.

All employees that works directly with cyanide are recycled in cyanide management every three years (refresh training program). Beyond this program, annually the cyanide producer (Cyplus GmbH) also provides general cyanide training to the plant operators and supervisors, laboratory technicians and maintenance employees.

The operation verifies the effectiveness of the provided training (refresh one too) through testing and planned job observations. Records of refresh trainings, tests and job observations are maintained.

Standard of Practice 8.3: Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.
 X in full compliance with
 □ in substantial compliance with
 □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

All the plant personnel were trained in cyanide related emergencies. Annually, the employees are retrained (refresh) in these procedures. Last refresh training was carried out on October 28<sup>th</sup>, 2011. Records of such training were evidenced.

The emergency response brigade members are voluntary and passed through a selection process (medical, theoretical and practical), to be assigned as a brigade member. The brigade members were trained and qualified before being assigned as emergency brigade members. Decontamination and first aid procedures are included in the emergency training scope.

All members were trained in the emergency procedure. Last performed training was during November 2011. Before the emergency simulation exercises, the emergency plan that will be simulated is again reviewed and discussed among the participants. Records of such briefing meetings were reviewed. As previously mentioned (see Principle 7), the operation planned and implemented an emergency response exercise calendar. The performance of the emergency responders are observed and reported. In the event of any identified opportunity of improvement, corrective and/ or preventive actions are defined and implemented, including the revision of the emergency plan.

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## 9. DIALOGUE: Engage in public consultation and disclosure.

Standard of Practice 9.1:	Provide stakeholders the opportunity to com- concern.	municate issues o)
The operation is	X in full compliance with ☐ in substantial compliance with ☐ not in compliance with	Practice 9.1
The operation provide the comanagement of cyanide the communicated to the stak distributed during specific at All callings are recorded by the stakeholders, but none of designed and implemented at the operation aspects, based (Good Neighborhood)", who such as environmental monimeetings are maintained by quarterly. Stakeholders also can (ARPublicas@anglogoldash through the corporate news stakeholders)". These two new Another opportunity to interest the stakeholders of the corporation	communicate with the operation and communicate with the operation and were reviewed during the operation and were reviewed during the audit. The operation and were reviewed during the operation and communities representatives distorting results, cyanide management, among others subject to operation and communities representatives distorting results, cyanide management, among others subject to operation and were reviewed during the audit. The communicate with the operation through spectanticom.br) which is communicated to the public (in paper "Nosso Ouro (for internal stakeholders)" and "Newspapers are directly mailed to the stakeholders, every ernal stakeholders to communicate points of concern daily safety dialogues and also through email.	his telephone line is leaflets and magnets on channel is used by us. The operation also otentially affected by lled "Boa Vizinhança scuss several matters, jects. Records of such hese meetings happen wific email address internal and external domento (for external two months.
Standard of Practice 9.2:	Initiate dialogue describing cyanide manageme responsively address identified concerns.	ent procedures and
The operation is	X in full compliance with  ☐ in substantial compliance with ☐ not in compliance with  his Finding Deficiencies Identified:	Practice 9.2
The operation implemented external) in order to dialog meetings (quarterly) with the program is related to the communities. Monitoring rethe meetings with the communities with the communities of the meetings with the communities of the meetings with the communities. Ouro, on a weekly basis, internal stakeholders (employed)	d and maintains communication channels with stak the with them. The "boa vizinhança" program is considered community representatives, were several matters are environmental monitoring with the representate states (surface waters and air quality) are documented munity (boa vizinhança). The operation also distributed appers for external stakeholders (Momento) and internative operation releases an internal bulletin (Realce), by each by email and hardcopy and contractors only by hard main entrance). The operation contact information is	disted by programmed re discussed. Another ives of surrounding and communicated in e. every two months, I stakeholders (Nosso that is distribute for rdcopies, which
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Another opportunity to dialogue with stakeholders is through programmed meetings. Records of such meetings are kept by the operation. Unplanned meetings with public authorities are also used by the operation to dialogue with external stakeholders. Finally, the operation training programs, focused on cyanide management, are also used to dialogue with internal stakeholders (employees and contractors).

Standard of Practice 9.3:	Make appropriate regarding cyanide a	•		ronmental	information
The operation is	X in full compliance ☐ in substantial comp ☐ not in compliance	pliance with	Standard	of Practice	9.3

Summarize the basis for this Finding Deficiencies Identified:

The operation designed, documented and distributed specific booklets describing how the cyanide is managed and relevant information related to cyanide emergencies. This booklet is available for everybody. The newspaper "Nosso Ouro" and "Momento", also addresses, on a regular basis, relevant information related to cyanide management, since the production until the destruction of the cyanide. All environmental monitoring results (surface waters and air quality) are documented in booklets and distributed to the communities representatives and also to public authorities (quarterly reports). Although the local population, in most of the cases, is not illiterate, the operation disseminated, in verbal or visual form, information related to cyanide management at the operation (meetings with community representatives). Environmental monitoring results are followed by color signals were green is conforming, yellow is alert and red is non conforming.

As previously mentioned, there were not any cyanide related incident at the operation or during the transportation. In the event of any type of incident, the operation implemented several communication channels, in order to attend public consultation.

The following contact information is available to the general public:

0800-7271500 (corporate communication)

Email: ARPublicas@anglogoldashanti.com.br (corporate communication).

The operation will also communicate cyanide exposures and releases to local labor agency (DRT/GO) and environmental agency (Semarh Goiás).

The operation will also make information related to cyanide incidents public, through the corporate communication process, through press releases. It was evidenced that the corporate communication process documented and implemented communication procedures with the media (newspaper and television). These communication procedures are exercised (simulation drills), at least, once a year. Records of communication drill performed on April 2011 were evidenced.

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