ICMI GOLD MINE RECERTIFICATION AUDIT - SUMMARY AUDIT REPORT

AngloGold Ashanti Yatela Gold Mine

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

Yatela Gold Plant
Mali

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1.0 SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS

Name of Cyanide User Facility: Yatela Gold Mine
Name of Cyanide User Facility Owner: AngloGold Ashanti 40%
IAMGOLD Corporation 40%
Mali Government 20%
Name of Cyanide User Facility Operator: AngloGold Ashanti
Name of Responsible Manager: Bakary Draba, Plant Manager

Address: Hamdallaye ACI 2000, Rue de l’Ambassade des Etats Unis Porte 720, Près de la Direction des Assurances LAFLA B.P. E-1194 Bamako, Mali

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2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

The Yatela Gold Mine is located in the Sadiola County, 65 kilometres from the Regional Capital, Kayes, in Mali. The mine’s gold processing facilities consist of a Dry Plant and a Wet Plant. The mine is now in the closure phase with no ore being mined. Material that was used to create the run of mine (ROM) pad is still being crushed and placed on the leach pads.

The material is fed directly into a C125 Nordberg Jaw Crusher with a 150mm gap. Jaw crusher product is screened again with a scalping screen at 60mm aperture. Oversize material is crushed in a 5½ ft Symons cone crusher with gap set on 50mm. This material is conveyed to a 1200mm conveyor. Cement is added to the crushed ore after the secondary crusher at a measured rate from the cement silos. This mixture is then fed to the agglomeration drum. The agglomeration drum agglomerates the feed material using cement as a binding agent into appropriately sized pellets, possessing the required mechanical properties to facilitate optimal heap stability and solution percolation through the heap.

The heap leach facility currently consists of 20 leach pads. The pad has been designed to have an impermeable clay underliner on which a 1.5 mm HDPE liner is placed. The HDPE liner is covered by a 600 mm cushion layer to protect the liner from damage as a result of the movement of conveying equipment on the pad. Allowance has been made for a gravel roadway on each cell to facilitate drainage and prevent HDPE liner damage. Each cell is also equipped with drain pipes to facilitate cell drainage. The pad has been constructed using the expanding pad methodology. The compressive strength associated with the agglomerates necessitates the use of a stacking system to construct the heap. The agglomerates are conveyed via an overland conveyor followed by a set of portable grasshopper conveyors to a radial stacker that is used to construct the heap.
The Yatela Heap Leach circuit is a two-stage leach process. Barren solution from the CIS recovery circuit is pumped to previously leached areas of the heap to leach residual gold remaining in the ore (secondary leach cycle). The enriched solution percolates through the heap and reports to the intermediate pond. Intermediate solution is then pumped to freshly stacked ore (primary leach cycle) and the resultant solution reports to the pregnant solution pond for gold recovery.

A carbon in solution (CIS) circuit is used for gold adsorption. The CIS circuit consists of nine sealed carbon vessels that operate in a carousel mode. The loaded carbon is transported to AGA Sadiola Mine, which is 20 minutes away by road.

The elution and regeneration of the Yatela carbon along with the subsequent electro-winning and smelting of the cathode sludge take place at the AGA Sadiola Hill Gold Plant.
SUMMARY AUDIT REPORT
Auditors Findings

☑ in full compliance with
☒ not in compliance with

Yatela Gold Plant is:
☐ in substantial compliance with

The International Cyanide Management Code

Audit Company: Golder Associates Africa (PTY) Ltd
Audit Team Leader: Ed Perry, Lead Auditor
Email: eperry@golder.com

Yatela Gold Plant has not experienced any significant cyanide incidents or compliance problems during the previous three year audit cycle.

Name of Other Auditors
Marie Schlechter, ICMI pre-certified Mine Technical Specialist

Dates of Audit
The Re-certification Audit was undertaken between 2 June 2015 and 5 June 2015.

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

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

Yatela Gold Plant
Name of Facility
Signature of Lead Auditor
20 October 2015
Date

Yatela Gold Plant
Name of Facility

20 October 2015
Date
PRINCIPLE 1 – PRODUCTION
Encourage Responsible Cyanide Manufacturing by Purchasing from Manufacturers that Operate in a Safe and Environmentally Protective Manner

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

☑ in full compliance with
☐ in substantial compliance with  Standard of Practice 1.1
☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 1.1; to purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

The Auditors observed the contract between Samsung C&T Deutschland GMBH and AngloGold Ashanti Limited dated 28 September 2011, signed 6 June 2012. Contract NO. AFR31320. To supply solid sodium Cyanide briquettes. Contract states in Section 19.1 and 19.2 that Samsung C&T Corporation (inclusive of the contractor’s subcontractors) must be certified with the ICMI. Employer and Contractor’s affiliate, Samsung C&T Corporation and the transporters of the Product must be ICMI certified.

The auditors observed that Samsung was recertified for its African Supply Chain on 4 November 2014. The cyanide producers which form part of this supply chain are TaeKwang Industrial Company and Tongsuh Petrochemical Company.

TaeKwang Industrial Co. Ltd, Republic of Korea, was recertified on 22 May 2014. The auditors observed transportation documents including the inspection report by TaeKwang Industry, South Korea (Manufacturer) and Maersk Line (Shipping Company).

Yatela Gold Plant
Name of Facility

20 October 2015
Date

Signature of Lead Auditor

October 2015
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PRINCIPLE 2 – TRANSPORTATION
Protect Communities and the Environment during Cyanide Transport

Standard of Practice 2.1: Establish clear lines of responsibility for safety, security release prevention, training and emergency response in written agreements with producers, distributors and transporters.

☐ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Standard of Practice 2.1

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 2.1; to establish clear lines of responsibility for safety, security release prevention, training and emergency response in written agreements with producers, distributors and transporters.

The auditors observed the Contract between Samsung C&T Deutschland GMBH and AngloGold Ashanti Limited dated 28 September 2011, signed 6 June 2012. Contract NO. AFR31320 to supply solid sodium Cyanide briquettes. The contract states in Section 19.1 and 19.2 that Samsung C&T Corporation (inclusive of the contractor’s subcontractors) must be certified with the ICMI. The employer and contractor’s affiliate, Samsung C&T Corporation and the transporters of the product must be ICMI certified. The auditors observed that the Samsung African Supply Chain was recertified on 4 November 2014.

The auditors observed the Cyanide Transport Summary Audit Report for the International Cyanide Management Code for the Africa Supply Chain 21 October 2014 for Samsung C&T Corporation. The report states that the road transportation in Mali is by ICMC certified transporter Bollare Africa Logistics SDV Senegal. The date of certification is 12 March 2013.

The contract between Samsung and AngloGold Ashanti and the Samsung C&T - Transport Management Plan for Cyanide Transport to AngloGold Ashanti Mines, Ref No: SCTC-CN-DOC20110915 designates the following responsibility:

a) Packaging as required by the United Nations for international shipments and by the political jurisdiction(s) the shipment will pass through.
b) Labelling in languages necessary to identify the material in the political jurisdiction(s) the shipment will pass through, and as required by these jurisdiction(s) and by the United Nations (for international shipments).
c) Storage prior to shipment.
d) Evaluation and selection of routes, including community involvement.
e) Storage and security at ports of entry.
f) Interim loading, storage and unloading during shipment.
g) Transport to the operation.
h) Unloading at the operation.
i) Safety and maintenance of the means of transportation (e.g. aircraft, vessels, trains, etc.) throughout transport.
j) Task and safety training for transporters and handlers throughout transport.
k) Security throughout transport.
l) Emergency response throughout transport.
Standard of Practice 2.2: Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

☑ in full compliance with

☐ in substantial compliance with Standard of Practice 2.2

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 2.2; to require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

The auditors observed the contract between Samsung C&T Deutschland GMBH and AngloGold Ashanti Limited dated 28 September 2011, signed 6 June 2012, Contract No. AFR31320; to supply solid sodium Cyanide briquettes. Contract states in Section 19.1 and 19.2 that Samsung C&T Corporation (inclusive of the contractor’s subcontractors) must be certified with the ICMI, the employer and Contractor’s affiliate, Samsung C&T Corporation and the transporters of the product must be ICMI certified.

The auditors observed the Cyanide Transport Summary Audit Report for the International Cyanide Management Code for the Africa Supply Chain 21 October 2014 for Samsung C&T Corporation. The report states that the road transportation in Mali is by ICMC certified transporter Bollore Africa Logistics SDV Senegal. Bollore Africa Logistics SDV Senegal was recertified 12 March 2013.

The auditors observed transportation documentation that identifies all elements of the supply chain (producer, transporters) that handle the cyanide brought to its site. There is no interim storage.
PRINCIPLE 3 – HANDLING AND STORAGE

Protect Workers and the Environment during 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.

☐ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

The operation is

Standard of Practice 3.1

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 3.1; to 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 Yatela Plant only uses solid cyanide.

The facilities for unloading, storing and mixing of solid cyanide been designed and constructed in accordance with cyanide producers’ guidelines, applicable jurisdictional rules and/or other sound and accepted engineering practices for these facilities with the following being observed:

- Commissioning Acceptance Certificate Form No. CAC 1 Rev Date 26 03 2001 Rev No. 1 for the Wet Plant - Cyanide Mixing. Stating that the equipment / system has been successfully cold commissioned.

The solid cyanide unloading and storage areas are located within the plant, which is fenced and access is security controlled. The solid cyanide storage area itself is also fenced and locked with the key having to be signed out. This area is located away from people and surface water.

The solid cyanide is stored in the original packing, which includes plastic liners in a bulk bag inside closed wooden boxes. The boxes are stored in closed locked sea containers, which are stored under a roof preventing contact with water. The operators removing the cyanide crates are dressed in full PPE in the event that there has been a build-up of HCN gas.

The solid cyanide is stored in a dedicated area separate from incompatible materials, such as acids, strong oxidisers and explosives and apart from foods, animal feeds, and tobacco products.

Cyanide storage tank is equipped with overflow pipeline into the adjacent Intermediate dam. The gasses from the tank will escape via the overflow pipeline. The mixing and storage tanks are located in a dedicated concrete bund separate from other tanks and materials.

Mixing and storage tanks at the Wet Plant are located on solid concrete foundations inside a locked fenced area and are equipped with level indicators. The mixing tank level is interlocked with water valves to prevent overfilling. The storage tank is equipped with high and low level audible alarms, sounding at 90% level for high level and 15% for low level.
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Standard of Practice 3.2: Operate unloading storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

☐ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 3.2; to operate unloading storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

Procedure No. 4-YAT_OHS_MET SOP Cyanide Make Up_070, Rev 4, dated 25 Dec 2014. This Procedure states that the cyanide bag must be put into the cyanide box, and the box nailed closed. The empty box must be removed from the preparation area to the empty cyanide boxes storage container for disposal.

Procedure No. 4-YAT_OHS_MET SOP Disposal of Empty Cyanide Boxes_072, Rev 4, dated 25 Dec 2014. This Procedure states the empty plastic bags and liners are not rinsed. Empty boxes are immediately after mixing, placed in the dedicated empty box shipping container together with the plastic bags and liners from where the boxes are transported to the dedicated burning area on the old heap leach area. They are burnt on Sundays only. All empty cyanide boxes including the plastic liner and bulk bags are burnt with a dedicated person present in appropriate PPE until all the boxes are completely burnt. Refer to previous re-certification audit that cited the change management exercise dated 12 November 2008 and a risk assessment dated 22 November 2011 of not rinsing before burning of empty cyanide boxes.

No cyanide drums are used.

Procedure No. 4-YAT_OHS_MET SOP Off Loading Cyanide Containers at General Store_075 Rev 5 25 Dec 2014 states that all shipping containers are cleaned out before being returned to the supplier and that any spillage must be reported. Any spillage of solid cyanide is swept up and taken to the agglomerate deposition area where it is covered up.

Procedure No. 4-YAT_OHS_MET SOP Cyanide Make Up_070, Rev 4, dated 25 Dec 2014 describes all the steps taken to fetch cyanide boxes from the storage area, prepare the mixing tank for mixing solid cyanide (only solid cyanide is used), empty boxes into the mixing tank, return boxes to empty box storage area and to clean the area after mixing.

Cyanide bags are contained in wooden crates for protection. Boxes are moved to the cyanide mixing area before being opened and hoisted up to the splitter box.

Procedure No. 4-YAT_OHS_MET SOP Cyanide Make Up_070, Rev 4, 25 Dec 2014 instructs the cyanide mixing operators to clean the area after mixing. This procedure states the required PPE for the mixing of cyanide. The procedure requires that at least 2 people must be present when handling cyanide. The procedure states the environmental conditions that should or should not be present during mixing (such as strong winds, etc.) It requires the inspection of safety showers, emergency radio, etc. The procedure requires the correction of pH prior to mixing as well as checking the levels of the storage tank and mixing tanks.

Procedure No. 4_YAT_OHS_MET SOP_Buddy System_079, Rev 2, dated 25 Dec 2014 states that the buddy must observe the work being carried out from a safe distance out of the immediate risk area. The
buddy is not part of the work team. The buddy must have a valid first aid certificate. This was observed to be undertaken during the site visit when a mixing event was undertaken.
ICMI CYANIDE RE-CERTIFICATION AUDIT - SUMMARY REPORT

PRINCIPLE 4 – OPERATIONS
Manage Cyanide Process Solutions and Waste Streams to Protect Human Health and the Environment

Standard of Practice 4.1: Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

☒ in full compliance with
☐ in substantial compliance with ☐ not in compliance with Standard of Practice 4.1

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.1; to implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

The operation has 130 procedures covering the operation and management of the processing plant from crushing to the management of the heap leach operations and production of the loaded carbon.

The Cyanide Optimisation and Mineralogy Columns Report, Yatela Heap Leach Gold Plant, Mali, compiled by Stean Barrie, dated 19 December 2002 states the necessary cyanide concentration for addition to the Heap Leach.

Procedure No. 4-YAT_OHS_MET SOP Cyanide Make UP_070 Rev 4 25 Dec 2014 specifies that the pH in the mixing tank must be above 10.5 pH before proceeding with the mixing event.


The Yatela Heap Leach Operating Manual, dated 20 November 2000. Section 8.3.9 Controlling Cyanide concentration in the barren and intermediate solutions - states the requirement to control the cyanide concentration in the barren and intermediate solution delivery line at 190ppm and 250ppm respectively. Section 2.4.1.8 process pond size selection states that the ponds will attenuate the system run-off volume during a 1 in 100 year, 24 hour storm event.

Inspections and preventative maintenance activities including the following: Procedure No. 4_YAT_OHS_MET SOP_Control of the Wet Plant Section_032, Rev 5, dated 25 December 2014. This procedure stipulates the operational requirements for the pumps, sampling of the wet plant (all solutions must be tested for cyanide and pH), and ponds management to prevent overflows.


Procedure No. 4_YAT_MET SOP_Access Control into the Pond Area_032, Rev 5, dated 25 Dec 2014. This procedure stipulates that the gates must be kept locked, a buddy is required when someone goes into the pond area, a life jacket must be worn, and the register for the key to enter the area must be completed.
Procedure No. 4_YAT_OHS_MET SOP_Buddy System_079, Rev 2, dated 25 Dec 2014 states that the buddy must observe the work being carried out from a safe distance out of the immediate risk area. The buddy is not part of the work team. The buddy must have a valid first aid certificate.

Procedure No. 4_YAT_OHS_MET SOP_Confined Space Entry_087, Rev 4, dated 25 Dec 2014.

Procedure No. 4_YAT_OHS_MET SOP_Ponding Management_0326, Rev 2, dated 25 Dec 2014. This procedure requires a daily inspection by the Heap Leach Senior Foreman for ponding on the heap and to implement the necessary corrective action if ponding is found.

Procedure No. 4_YAT_OHS_MET SOP_Checking of Safety Showers and Eye Wash Basin Rev 4 dated 1 Jan 2013. This procedure describes the method for checking the safety showers and eye wash basins.

Procedure No. 4_YAT_OHS_MET SOP_SCABA Inspection Procedure. Procedure states the procedure to follow to check the Self Contained Breathing Apparatus (SCBA) in the plant.

Procedure No. 4_YAT_MET SOP_Bird Patrol Procedure_082, Rev 5, dated 25 Dec 2014 provides guidelines to be followed by the bird patrollers around the pond and leach pad.

Procedure No. 4_YAT_MET SOP_Change Management_085, Rev 4, dated 14 July 2014. Describes the process to follow during the change management process. Step 1 - identification of change, step 2 - describing and accessing change, step 3 - approve change includes table with designations of different persons that can sign off on types of changes, step 4 - risk assessment, step 5 - authorisation plan, step 6 - communication and implementing change, step 7 - temporary or emergency changes, step 8 - monitor and evaluation of change.

Procedure No. 4_YAT_MET SOP_Emergency Procedure Cyanide Related Incidents: Overtopping of Ponds and Impoundments_010 43, Rev 2, dated 25 Dec 2014. This is the procedure to follow in the event of the overtopping of the ponds including evacuation of people downstream and a neutralisation process.

Procedure No. 4_YAT_OHS_MET SOP_Emergency Procedure Overflow of the Excess Detox Ponds_0312, Rev 6, dated 25 Dec 2014. In the wet season, when the excess pond level reaches 4.5 m, detox and pumping to pit KW18 will commence. Sampling will be undertaken on a two hourly basis to verify WAD <0.5 ppm.

Procedure No. 4_YAT_OHS_MET SOP_Shutting Down the Section_033, Rev 5, dated 25 Dec 2014 – this is the procedure to follow when shutting down a section of the plant that involves the pumps for the ponds to ensure that the ponds don’t overflow.

There is a Microsoft Excel Spreadsheet detailing the maintenance schedule, whether on a weekly, monthly or three monthly basis. Boiler Maker Inspection Sheets - Pond Area includes inspection of; Structure and Cracks etc., Columns, Tanks, Guards, Steel Pipes, Pipe Leaks, Housekeeping and Walkways. In addition there is a weekly inspection that is undertaken for the cyanide plant area. The safety showers are inspected on a monthly basis, which includes; siren alarm, piping, battery voltage, general condition, emergency stop, all lights, spray nozzles, water pressure, housekeeping and walkways.

The thicknesses of the Make Up tank and Cyanide Storage Tank are measured on a regular basis (at least annually).

Leach Heap Daily Logsheets include the following: distribution box, liner condition, HDPE pipes, ponding, primary irrigation, secondary irrigation, corridor solution, rinsing solution, erosion and bird control (details problem, action taken and remarks).

Wildlife mortality is observed daily. Cyanide First Aid Box Inspections are undertaken monthly.
Inspections are documented including the date of the inspection, the name of the inspector, and any deficiencies. The nature and date of the corrective actions are either included in the inspection records directly or via a maintenance job card.

The current maintenance system for the cyanide facilities in the wet plant includes a manual spreadsheet based planned maintenance schedule. Inspection forms specify frequency of inspections as well as detailing the equipment to be inspected. The leach pads, liners, pump and pipe trenches and wet plant form part of the planned inspections. If an inspection identifies an issue a job card is raised for the repair to be undertaken.

The operation will prevent unintentional releases and exposures in the event its primary source of power is interrupted. The GoldSim scenario reports considering 24 hr power outages, was observed. No problems were identified running the scenarios of power outages on the plant and leach heaps. Sufficient capacity exists in the ponds to accommodate any run off from the leach pads and rainfall during power outages. In the event of an operational power loss and cessation of solution application, the saturated heap will drain down to the intermediate and pregnant ponds. No solution will run to the environment.

The current setup at the cyanide storage is that if the power is out all pumps stop with the liquid cyanide being retained in the tanks.

The operation inspects cyanide facilities on an established frequency sufficient to assure and document that they are functioning within design parameters.

**Standard of Practice 4.2:** Introduce management and operating systems to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.

☑ in full compliance with

☐ in substantial compliance with                          Standard of Practice 4.2

☐ not in compliance with

**Summarise the basis for this Finding/Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 4.2; to introduced management and operating systems to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.

Initial cyanide optimisation for ore mined in the pit was conducted in 2001. Since then the ore mined stayed the same except occasions when the hard oxide was mined until the mine reached the end of life and mining moved to leach pad recovery and hard material from the pit. In 2010 cyanide optimisation was undertaken for the treatment of hard oxide.

Daily samples are taken of the ore mined to make monthly composites. Column leach test and bottle roll test are done monthly to determine the gold recovery and cyanide consumption.

In 2004 cyanide analysis by Cappe Cassidy and Yatela Laboratory determined the cyanide addition requirements for the ore mined in the pit. Average 200 - 250 NaCN g/t.

Yatela Gold Plant Hard Oxide Project, Final Report compiled by Bakary Draba, September 2010 investigated the feasibility of economically heap leaching the hard oxide material. It determined the size fraction that the hard oxide needed to be crushed down to and the cement addition rate to allow the highest gold recovery on heap leach. It included rolling bottle test under standard cyanidation conditions as well as under aggressive cyanidation conditions, diagnostic leach test and column test. The report concluded with size requirement that the material must be crushed down to ensure optimal leaching and gold recovery.
The return solution is measured daily to determine the level of cyanide returned in the solution. The data collected over time for the specific ore currently treated has informed that if the solution has in excess of 80 ppm CN, then overdosing is taking place and the cyanide addition must be adjusted.

The Heap Leach Operating Manual, dated 20 November 2000, Section 8.3.9 - Controlling Cyanide Concentration in the Barren and Intermediate Solutions requires that Barren and Intermediate solution should be sampled. Availability of Cyanide is determined by titration. If the available cyanide is below the set point, then NaCN addition rate should be increased manually. If available cyanide is above set point (200 ppm for primary irrigation, 150 for secondary irrigation) then the NaCN addition must be decreased manually.

Currently sampling, titration and adjustment of cyanide addition is undertaken manually. Automatic control was considered in the past, but the simplicity of the operation as well as the operation being very close to end of life did not warrant the cost.

The set point has remained the same for the past 3 years, primary irrigation CN usage at 220 ppm, secondary irrigation CN usage at 180 ppm.

Standard of Practice 4.3: Implement a comprehensive water management programme to protect against unintentional releases.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Standard of Practice 4.3

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.3; to implement a comprehensive water management programme to protect against unintentional releases.

The GoldSim model is a comprehensive probabilistic water that is updated and run internally on a monthly basis. The daily data that is captured is stored in an excel file and exported into the model monthly. Graphs are produced from the data that are used for decision making and control of the ponds especially during the rainy season. The model is run by the plant manager and graphs are stored on the network for all to access.

The Report on Yatela Water Balance Model User Manual, dated October 2007, Report No. 10274 states the parameters that were used to set up the GoldSim Water Balance Model.

The water balance calculates daily deposition rates from monthly input of dry deposition rates

Future rainfall is generated stochastically. The stochastic rainfall generator is calibrated using recorded rainfall measured at the site and in Kayes, the regional capital. The calibration process includes matching the following aspects of the rainfall patterns of the area: mean annual precipitation, average monthly precipitation, average number of rainfall days per month, distribution of consecutive rainfall days, distribution of consecutive dry days, non-exceedence probability distribution of daily rainfall depths.

The model simulates a wide range of rainfall conditions, including extreme rainfall in excess of the 1 in 100 year storm event. By accounting for current storage, the model provides a more conservative result than an event-based calculation.

The water balance around the water dams is modelled in detail. The following hydrological interactions are modelled: evaporation, runoff from any contributing catchment, rainfall, abstractions, inflows, seepage.
The operation only uses heap leach therefore no decant is used. No seepage to groundwater exists as all of the leach pads and trenches are HDPE lined. There are no discharges to surface water.

Sufficient capacity exists in the Excess dam to accommodate any run off from the leach pads and rainfall during power outages.

There are no allowable discharges to surface water. A cyanide emergency detoxification system on the Monitoring pond exists for use during emergency water balance situations as result of excess rainfall. There has been no need to use the detoxification plant to treat solutions for release to the environment in the last 3 years.

The pond levels are visually determined daily and compared against the parameters used by the GoldSim water balance model.

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

☒ in full compliance with
☐ in substantial compliance with ☐ not in compliance with

Standard of Practice 4.4

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.4; to implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

The operation uses plastic balls on the Pregnant, Intermediate and Barren ponds to prevent birds from drinking the water. Shade netting is put over splitter boxes at the heap leach to prevent birds from drinking the water and ponds are fenced off to prevent any livestock from drinking at the solution ponds.

The operation has the following procedures to protect wildlife, birds and livestock: Procedure No. 4_YAT_MET SOP_Bird Patrol Procedure_082, Rev 5, dated 25 Dec 2014; Procedure No. 4_YAT_OHS_MET SOP_Ponding Management_0326 Rev 2 dated 25 Dec 2014 – this procedure is to detect ponding on the heap leach and to ensure rectification thereof to prevent birds from drinking the water. The procedure also stipulates the requirements to provide fresh water at the bird pond as an alternative source of drinking water for the birds; and Procedure No. 4_YAT_OHS_MET SOP_High Cyanide Spillage into the Solution Corridor_083, Rev 4, dated 4 May 2015 states the process to follow in the event that a spillage occurs in the solution corridor (this is the lined corridor along which pipes containing the cyanide solution run to and from the heap leach pads) and the preventative measures to take to prevent birds from drinking the high CN solution.

Leach solutions are applied using dripper systems onto the heap. The operation uses grasshopper conveyors to stack the ore into conical shapes on top of the heap, minimising pond formation.

There has been no bird, livestock or wildlife mortalities recorded in the last 3 years.

All of the ponds are monitored. In the last three years there has been one exceedance of 50 mg/l WAD in the Excess pond which does not have plastic balls on it. There have been a few other exceedances but these have all been in the ponds with plastic balls on them although the normal levels of WAD cyanide are below 50 mg/l.
Standard of Practice 4.5: Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

☑ in full compliance with

☐ in substantial compliance with Standard of Practice 4.5

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.5; to implement a comprehensive water management programme to protect against unintentional releases is not applicable to the operation as there are no direct or indirect discharges to surface water. All ponds and leach heap pads are HDPE lined.

Standard of Practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

☑ in full compliance with

☐ in substantial compliance with Standard of Practice 4.6

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.6; to implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

Mill tailings are not used as underground backfill.

All of the leach pads and ponds have leach detection layers underneath them to manage seepage and prevent contamination of the groundwater beneath.

No seepage has been reported in the daily inspection records for the heap leach facility.

Groundwater sampling is currently done at 14 sampling points up and down gradient of the operation. Groundwater monitoring results for 2012, 2013, 2014 and 2015 were observed. All Free CN results were <0.5 mg/L, all Total CN results were <0.01 mg/L, which are below legal limits.

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

☑ in full compliance with

☐ in substantial compliance with Standard of Practice 4.7

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.7; Provide spill prevention or containment measures for process tanks and pipelines.

The heap leach pads are all constructed on an impervious liner to collect all solutions emanating from the leach operation. All pipelines from the leach pads to the solution ponds are placed onto liners or inside
HDPE lined solution trenches, draining into the lined solution ponds. The cyanide Make-Up Tank and Cyanide Storage Tank are located within one bund. The Carbon in Solution columns are located in a separate bund. All tanks are placed onto solid concrete foundations. The containers for the storage of solid cyanide are located within a bunded area. All pipe lines are contained inside HDPE lined trenches.

The lined solution corridor containing the cyanide dosing pipes and the pregnant solution pipes cross a storm water trench. The trench containing the cyanide dosing pipes and the pregnant solution pipes is lined with HDPE. The storm water trench is constructed by the mine and is also lined with HDPE. The storm water trench is culverted into pipes for routing under the cyanide solution corridor.

Procedure No. 4_YAT_OHS_MET SOP_High Cyanide Spillage into the Solution Corridor_083, Rev 4, dated 4 May 2015 states the process to follow in the event that a spillage occurs in the solution corridor.

Any cyanide solution or cyanide contaminated water that is collected in a secondary containment area either drains or is pumped back in to the solution ponds where it is used for irrigation of the heap leach pads.

All cyanide tanks and pipelines are constructed of mild carbon steel. Irrigation solutions are fed via HDPE and Yelomine pipes all of which are compatible with high pH conditions.

Secondary containments for cyanide unloading, storage, mixing and process tanks are sized to hold a volume greater than that of the largest tank within the containment and any piping draining back to the tank, and with additional capacity for the design storm event

Standard of Practice 4.8: Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Standard of Practice 4.8

Summarise the basis for this Finding/Deficiencies Identified:
The operation is in full compliance with Standard of Practice 4.8; to implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

Heap Leach Pad No 19 and 20 are the only new facilities within the last 3 years. The auditors observed the Construction QA/QC Completion Report for Yatela Mine Heap Leach Facility Phase VII Expansion Pad 19 and Pad 20 dated July 2013 by URS.

SFTP the appointed, locally based, civil engineering contractor commenced the earthworks for Heap Leach Pads 19 and 20 during August 2012. SFTP was responsible for carrying out and recording all the QA/QC test work on the civil earthworks. Engineering Lining companies from South Africa were responsible for the HPE Liner installation. The conclusion of the URS report is that “the QA/AC record demonstrated that the works have been constructed in compliance with the design and specifications and in accordance with the prescribed construction QA/QC procedures”.

The previous audit states that “Sighted QA/QC records and sign off of the wet plant cyanide facilities, signed by R STRZODA MAED QC/QA official, AP Farthing - Yatela, ER Seus - SENET, DJ Norton - MAED. QA/QC and mechanical designs include structural steelwork, beams, columns tanks for the wet plant, signed by Quality Manager F De Freitas, R Hellberg, R Kruger - sighted certificates and plans”.

Yatela Gold Plant
Name of Facility

Signature of Lead Auditor

20 October 2015
Date
The auditors observed the Yatela Gold Mine Heap Leach Facility Audit Report dated April 2014 by R Welff Senior Manager Geotechnical Engineering Tailings and Heap Leach Management Planning and Technical Department, AGA. The conclusion of the report is that the Heap leach facility is well managed and diligently operated. The Heap Leach Facility report prior to this was undertaken in September 2011 also by R Welff.

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

☑ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 4.9; to implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and groundwater quality.

The operation developed written standard procedures for monitoring activities, which includes the following: Procedure No. 4_YAT_OHS_SOP: Groundwater quality monitoring_002 Rev 3 dated May 2014; Procedure No. 4_YAT_OHS_SOP_Taking Water Samples_003 Rev 3 dated May 2014 - Stipulates the procedure to be followed when taking water samples; and Procedure No. 4_YAT_OHS_SOP_Surface Water Quality Monitoring_004 Rev 3 dated May 2014.

Yatela Gold Mine Monitoring Programme Guide Document No. YEV 02, Rev 02, dated 1 Feb 2013 has been compiled using the report of Weaver (1992) as a starting point and incorporating additional SRK in-house techniques and experience. The procedure was updated by Mr. A. Ousmane (Environmental Superintendent) who is suitably qualified.

The Guide includes the following: equipment requirements, monitoring network information, procedures to be followed, laboratory details, and quality assurance.

The procedures stipulate the following: frequency of groundwater monitoring, once a month; stipulates the monitoring points at the villages, also observed drawing/ map with all surface water and groundwater monitoring points indicated (Yatela Monitoring Map, 2007); stipulates that quarterly samples from the villages must be sent for external analysis to a reputable laboratory for analysis; stipulates that the samples must be analysed for full analysis; stipulates that samples must be collected in accordance with Environmental Procedure Env 03.

Sampling conditions such as weather conditions, wildlife activity, human activities and livestock activity are recorded on the Groundwater Field Data Form.

There are no discharges of process water to surface water.

Groundwater sampling is currently done at 14 sampling points up and down gradient. Groundwater monitoring results for 2012, 2013, 2014 and 2015 were observed. All Free CN results were <0.5 mg/L, all Total CN results were <0.01 mg/L.

Wildlife mortality inspections are undertaken daily and there have been no mortalities in the last 3 years.

Monitoring is conducted at frequencies adequate to characterise the medium being monitored and to identify changes in a timely manner..
**PRINCIPLE 5 – DECOMMISSIONING**

Manage Cyanide Process Solutions and Waste Streams to Protect Human Health and the Environment

Standard of Practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

- [ ] in full compliance with
- [ ] in substantial compliance with Emergency Response Practice 5.1
- [ ] not in compliance with

**Summarise the basis for this Finding/Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 5.1; to plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

Yatela Gold Mine is currently in the closure phase of the Life of Mine. A Closure Plan (300 pages) has been prepared in consultation with the Shareholders (AGA, IAM Gold), and the Mali Government. This has recently been approved by the National Closure Committee. The Plan compares what has been done to date with the activities that need to be undertaken. This then forms the minimum standard for decommissioning.

The Closure Plan addresses the requirements of each section of the mine and includes mitigation measures from the mine ESIA and Mali Legal Requirements.

Each section of the mine is described as a domain and contains the following information:

- Description of Section;
- Footprint Map;
- Previous commitments from the ESIA;
- Closure Risks; and
- Selected Post Closure Land Use Options.

Since the mine is moving into the Closure and Decommissioning Phase, the Closure Plan contains a lot of details.

The auditors observed Yatel Closure Schedule Rev.06 dated 04 03 2015_Revised Baseline 29 04 2015_with costs integrated, which is the Master Schedule (MS Project) for dismantling activities. Some actions observed where for the dates scheduled for the reduction of CN stock by moving it to Sadiola Plant, CN Tank clean up, etc. The dates in the Master Schedule will be updated and plan expanded upon closure of the Plant.
Standard of Practice 5.2: Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

☐ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Standard of Practice 5.2

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 5.2; to establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

An Annual Revision is undertaken every December to access the Closure Liabilities of the Yatela Gold mine and plant. The 2015 Closure Cost assessment was based on a number of studies conducted by the mine as well as external consultants and is included in the Yatela Closure Liability Estimate, Rev 7, December 2014.

The current liability stated for the Heap Leach Pads and for the Decontamination, Decommissioning and Demolition of the Process Plant is included in the Closure Liability Estimate. The Malian Government is informed annually of the status of the Environmental Liability. The current overall Closure Cost and Environmental Liability has been approved by the Malian Government.

An agreement between the National Closure Committee, Stakeholders, the Yatela Board and Council of Ministers requires AGA / IAMGold to rehabilitate the mine.

Report of Factual Findings – Agreed upon Procedures on Financial Information of AngloGold Ashanti Limited, Ernst & Young Inc., dated 18 January 2013. This was undertaken to “evaluate the accuracy of financial information”. This included item 7. “Check that the financial test requirements set by AGA with reference to the ICMI Code have been met”.

The findings of this assessment include the statement “With respect to item 7, the financial test requirements set by AGA with reference to ICMI Code have been met”.
PRINCIPLE 6 – WORKER SAFETY
Protect Workers’ Health and Safety from Exposure to Cyanide

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

☑ in full compliance with

☐ in substantial compliance with Standard of Practice 6.1

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 6.1; to identify potential cyanide exposure scenarios and take measure as necessary to eliminate, reduce and control them.

The operation has the following procedures, which are examples of how it minimises worker exposure:
Procedure No. 4_YAT_OHS_MET SOP_Cyanide Make UP_070; Procedure No. 4_YAT_OHS_MET SOP_Control of the Wet Plant Section_032; Procedure No. 4_YAT_OHS_MET SOP_Lock-out and Isolation of Machinery and equipment Procedure_002; Procedure No. 4_YAT_MET SOP_Access control into the pond area_032; Procedure No. 4_YAT_OHS_MET SOP_Buddy System_079; Procedure No. 4_YAT_OHS_MET SOP_Confined Space Entry_087; Procedure No. 4_YAT_OHS_MET SOP_Ponding Management_0326; Procedure No. 4_YAT_OHS_MET SOP_Checking of Safety Showers and Eye Wash Basin; Procedure No. 4_YAT_OHS_MET SOP_SCABA Inspection Procedure; Procedure No. 4_YAT_MET SOP_Bird Patrol Procedure_082

The operation also has an Annual Mechanical Maintenance Schedule for the Wet Plant.

These procedures include the use of personal protective equipment and address pre-work inspections where necessary.

Procedure No. 4_YAT_MET SOP_Change Management_085 Rev 4 Dated 14 July 2014 describes the process to follow for proposed process and operational changes and modifications.

Metallurgy ICMI Meetings include the discussion of CN topics with employees at monthly meetings.

Weekly Communication Meetings are held by the Plant Manager with Senior Plant Management. Safety Performance, Environmental Performance and Production Performance are discussed at the meetings with environmental and safety concerns being documented

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

☑ in full compliance with

☐ in substantial compliance with Standard of Practice 6.2

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 6.2; to operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.
The operation has determined the appropriate pH for limiting the evolution of HCN gas during mixing and production activities in Procedure No. 4-YAT_OHS_MET SOP Cyanide Make UP_070, Rev 4, 25 Dec 2014, which specifies that the pH in the mixing tank must be above 10.5 pH before proceeding with the makeup procedure.

Where the potential exists for significant cyanide exposure, the operation uses personal monitoring devices to confirm that controls are adequate to limit worker exposure. Handheld X-am 5000 (2), PAC7000 (6) are issued for use by personnel undertaking activities where exposure to cyanide may occur e.g. mixing activities to create cyanide solution. Hydrogen cyanide monitoring equipment is maintained, tested and calibrated as directed by the manufacturer, and records are retained for at least one year.

Hotspot surveys are conducted monthly at 21 locations around the solution ponds and 57 locations around the leach pads and at the Solid Cyanide Storage Area. All readings were either 0.0 or not applicable (if there was no relevant activity). The procedures still require workers to wear full PPE and carry a personal monitor when unloading cyanide boxes, undertaking mixing activities or working on the heap leach.

Warning signs have been placed where cyanide is used advising workers that cyanide is present, and that smoking, open flames and eating and drinking are not allowed, and that, if necessary, suitable personal protective equipment must be worn.

Showers, low pressure eye wash stations and dry powder or non-acidic sodium bicarbonate fire extinguishers are located at strategic locations throughout the operation and are maintained, inspected and tested on a regular basis. Weekly inspections for the showers and eye wash, monthly for the fire extinguishers.

Storage and mixing tanks are colour coded with a purple strip to designate that they contain cyanide. Piping containing cyanide is identified as containing cyanide and the direction of cyanide flow in pipes is shown.

MSDS, first aid procedures and other informational materials on cyanide safety is provided in French and English. These are provided on notice boards at the following locations; cyanide offloading area, cyanide mixing and storage facility, the carbon in solution tanks, the heap leach pads and the area where the cyanide boxes are burnt.

Procedure No. 4_YAT_MET SOP_Environmental Incidents Management Procedure, Rev 1, May 2010 is used to investigate environmental incidents where there has been a release of cyanide. Procedure No. 4_YAT_OHS SOP_Incident Reporting_SHP002, Rev 3, May 2011 details the actions to investigate a health and safety incident involving cyanide exposure.

The have been no cyanide related incidents since the last recertification audit.
Standard of Practice 6.3: Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Standard of Practice 6.3

The operation is in full compliance with Standard of Practice 6.3; to develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The Emergency Cyanide PPE Container opposite the cyanide storage, mixing and make up area contains the appropriate PPE, oxygen, and 3 SCBA’S for use in rescue operations. There is also an Emergency Cyanide PPE Container at the offloading area, and an Emergency Trailer. These also contain the appropriate PPE and oxygen.

Antidote fridges are placed adjacent to the storage, mixing and make up areas, adjacent to the solution ponds and at the laboratory. The ambulance responding to an emergency would also have an antidote kit.

There are man-down alarms at various locations throughout the Plant and all safety showers are equipped with audible alarms. Radios are used for communication.

The operation inspects its first aid equipment regularly to ensure that it is available when needed, and materials such as cyanide antidotes are stored as directed by their manufacturer and replaced on a schedule to ensure that they will be effective when needed. The Sadiola Clinic maintains a control list of Tripacs and Hyposolution, which indicates the areas where it is stored, number stored, expiry date, and responsible person. Inspections of first aid equipment are undertaken on a weekly basis.

Procedure CL131 Medical Response and Preparedness During Cyanide Emergency, Rev 3, dated July 2014 details the actions to be taken in the event of a cyanide exposure.

The Control Room notifies Yatela Clinic (located at the Yatela Mine Village 5 minutes from the Plant) of an incident and they will respond first being closest. The Sadiola Clinic also gets notified by the Control Room. The Paramedic and Doctor from Sadiola Clinic will take over when they arrive at the incident scene and transport the patient to Sadiola Emergency Room (20 minutes away).

A flow chart of the emergency response procedure to follow in the event of an incident is kept in the emergency room and the ambulance.

Yatela Clinic has an ambulance equipped with appropriate PPE and oxygen. The antidote is kept in the Clinic. Cyanide PPE is available in the Sadiola Ambulance. The ambulance also has a personal cyanide monitor.

The staff at the Yatela and Sadiola Clinics are appropriately trained.

All of the emergency response team from the Plant have first aid training and training in how to respond to a cyanide exposure in order to provide first response.

Procedure CL131 Medical Response and Preparedness During Cyanide Emergency, Rev 3, dated July 2014 includes the transport of the patient directly to the Sadiola Mine hospital 20 minutes away from where the decision will be made as to whether to evacuate the patient for additional treatment.
Mock drills are undertaken annually to test response procedures. A full drill involving the Yatela Clinic was undertaken in 2013. The reports on the mock drills identify areas of improvement.

Procedure No. 4_YAT_MET APP Procedures for Developing an Emergency Preparedness and Response Plan for Yatela, Rev 1, dated 4 April 2012 includes a requirement for there to be post drill feedback.
PRINCIPLE 7 – EMERGENCY RESPONSE

Protect Communities and the Environment through the Development of Emergency Response Strategies and Capabilities

Standard of Practice 7.1: Prepare detailed emergency response plans for potential cyanide releases.

☐ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

The operation is

Standard of Practice 7.1

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.1; to prepare detailed emergency response plans for potential cyanide releases.

The operation has developed an Emergency Response Plan - 4_YAT_OHS_Met-Emergency Response Plan_020, ver 5, dated 20 March 2014, which addresses the potential releases of cyanide that may occur on site or may otherwise require response.

Procedure CL131_Medical Response and Preparedness During Cyanide Emergency, Rev 3, dated July 2014 details the actions to be taken in the event of a cyanide exposure.

The Plan considers the potential cyanide failure scenarios appropriate for its site-specific environmental and operating circumstances, including the following, catastrophic release of hydrogen cyanide from storage or process facilities; transportation accidents; releases during unloading and mixing; releases during fires and explosions; pipe, valve and tank ruptures; overtopping of ponds and impoundments; power outages and pump failures; uncontrolled seepage; failure of cyanide treatment, destruction or recovery systems; and failure of tailings impoundments, heap leach facilities and other cyanide facilities.

The contract between Samsung C&T Deutschland GMBH and AngloGold Ashanti Limited dated 28 September 2011, signed 6 June 2012 (Contract NO. AFR31320) is to supply solid sodium cyanide briquettes. Section 19.3.4 states that Samsung is responsible for the material until delivery. Delivery occurs when the boxes of cyanide are offloaded inside the Plant.

A route risk assessment has been conducted by the transporter as well as Yatela Mine, Dakar-Yatel-Sadiola Road Assessment for Transport of Sodium Cyanide, dated 22-30 May 2014, and Issue Based Risk Assessment for Yatela SA dated 20 June 2012 Ref No. 4_YAT_OHS_Issue based Risk Assessment F017.

The Emergency Response Plan describes specific response actions, as appropriate for the anticipated emergency situations, such as; clearing site personnel and potentially affected communities from the area of exposure; detailing the actions to be taken to control releases at their source, and containment.

The use of the antidote and first aid measures are described in Procedure CL131_Medical Response and Preparedness During Cyanide Emergency, Rev 3, dated July 2014.

Procedure No. 4_YAT_MET SOP_Environmental Incidents Management Procedure, Rev 1, May 2010 is used to investigate environmental incidents where there has been a release of cyanide. Procedure No. 4_YAT_OHS SOP_Incident Reporting_SHP002, Rev 3, May 2011 details the actions to investigate a health and safety incident involving cyanide exposure. These procedures include the assessment mitigation and future prevention of releases.
Standard of Practice 7.2: Involve site personnel and stakeholders in the planning process.

☑ in full compliance with

☐ in substantial compliance with  ☐ not in compliance with

Standard of Practice 7.2

Summarise the basis for this Finding/Deficiencies Identified:

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

Cyanide training, including emergency response planning, is provided to the Plant workforce that is dealing with cyanide. This was observed through the training matrix. A cyanide competency card is provided to the individuals with an expiring date. Training is also provided to the workforce through the mock drills.

The Community and Public Relations Manager plus two additional employees liaise with potentially affected communities through meetings, site visits, training sessions, and other communications. There is a quarterly meeting with representatives from surrounding villages. Two representatives from each village attend in conjunction with village chief. These village representatives are trained in basic chemical understanding and response.

The quarterly meetings discuss mine wide issues and not just cyanide issues. The representatives then communicate the information back to the villagers. There were originally 6 villages but 2 additional ones were added due to the proximity of the cyanide convoy route. The villages represented are; Niamboulama, Alamoutala, Djinguilou, Sangafara, Yatela, Kourouketo, Babala, and Bendougou.

AngloGold Ashanti use its own clinics at Yatela and Sadiola for medical emergencies. These clinics are involved in mock drills and involved in the emergency response planning process.

Local response agencies will not be used in cyanide emergencies as they are not equipped or trained to deal with cyanide emergencies.
Standard of Practice 7.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Standard of Practice 7.3

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.3; to designate appropriate personnel and commit necessary equipment and resources for emergency response.

The cyanide related elements of the Emergency Response Plan designate appropriate personnel and commit necessary equipment and resources.

Procedure No. 4_YAT_MET_APP Procedures for Developing an Emergency Preparedness and Response Plan for Yatela, Rev 1, dated 4 April 2012, details three incident levels and states that the emergency team leader is in charge of the emergency response team or teams and co-ordinates the activities to deal with the emergency.

The Plant Manager is the Emergency Team Coordinator in terms of local regulations. The Plant Manager can utilise all the resources necessary at the mine. The Procedure states that if resources outside the mine are required, the AGA Regional and Corporate Teams will assist. Emergency Team members are specifically appointed by letter in terms of the local regulations. The team members are given specific cyanide training.

4_YAT_OHS_Met-Emergency Response Plan_020, ver 5, dated 20 March 2014, Section 5.0 details the call out procedures for the Emergency Response Team, the duties and responsibilities of the co-ordinators and team members, and the equipment contained in the Emergency Cyanide Trailer that will be used in the event of an emergency.

24 hour contact information for the coordinators and response team members are included in the Emergency Response File and included on notice boards around the Plant.

No outside responders are used during emergency situations and are not included in the mock drills. The clinic at Yatela responds to any cyanide emergency with the ambulance stationed there. Any casualties are taken directly to the hospital at Sadiola Mine. The mine has medical insurance such that if necessary medical cases can be evacuated to Bamako (Capital of Mali) or Dakar, Senegal in accordance with the Medical Evacuation Procedure dated May 2004. Mock drills are undertaken annually to test response procedures. A full drill involving the Yatela Clinic was undertaken in 2013.

Communities do not take part in the emergency responses, but are given information on cyanide at the quarterly meetings

Standard of Practice 7.4: Develop procedures for internal and external emergency notification and reporting.

☑ in full compliance with
The operation is ☒ in substantial compliance with Standard of Practice 7.4
☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.4; to develop procedures for internal and external emergency notification and reporting.

4. YAT_OHS_Met-Emergency Response Plan_020, ver 5, dated 20 March 2014, includes procedures and contact information for notifying management and medical facilities of the cyanide emergency. This will be undertaken through the Control Room contacting the people on the Emergency Response List (including the Clinics) after which the Plant Foreman will take control of the incident. The Plan includes Malian external contact numbers although external responders will not be part of the emergency response.

The Procedure No. 4_YAT_MET APP Procedures for Developing an Emergency Preparedness and Response Plan for Yatela, Rev 1, dated 4 April 2012, Section 12 details Media Relations with the General Manager being detailed to handle media contacts. The General Manager can authorise the Community and Public Relations Manager or the Environmental Manager to communicate with the relevant Regulator. Section 15 details Emergency Notification of Surrounding Communities via the Community and Public Relations Manager.

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

☒ in full compliance with

The operation is ☐ in substantial compliance with Standard of Practice 7.5
☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 7.5; to incorporate in response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

The Plan (4_YAT_OHS_Met-Emergency Response Plan_020, ver 5, dated 20 March 2014) describes specific remediation measures as appropriate for the likely cyanide release scenarios. This includes:

- Recovery or neutralisation of solutions or solids in Section 11.1.23 - Cyanide Leak or Spill Outside of a Containment Bund.
- Decontamination of soils or other contaminated media in Section 11.2.8 – Neutralisation Procedure Cyanide Spill on the Ground.
- Management and/or disposal of spill clean up debris in Section 11.3 – Additional Notes.
- Provision of an alternate drinking water supply in Section 5 – Emergency Response Control.

It also prohibits the use of chemicals such as sulphate and hydrogen peroxide to treat cyanide that has been released into surface water in Section 11 - Emergency Response Procedures.
The Plan also addresses the potential need for environmental monitoring to identify the extent and effects of a cyanide release as detailed in Section 11.3 – Additional Notes.

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

☑ in full compliance with

☐ in substantial compliance with ☐ not in compliance with

**The operation is**

**Summarise the basis for this Finding/Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 7.6; to periodically evaluate response procedures and capabilities and revise them as needed.

The operation reviews and evaluates the cyanide-related elements of its Emergency Response Plan for adequacy on a regular basis.

The Procedure No. 4_YAT_MET_APP_Procedures for Developing an Emergency Preparedness and Response Plan for Yatela, Rev 1, dated 4 April 2012, Section 9.12 - Change Management includes a list of events that may require the review of the Emergency Response Plan. This includes the following: regulatory changes, new risk identified or existing risk changed, resources or organisation structure change, after drills/exercises, after the EPP is used for an actual event, on request from Gold House Accra Technical Group, funding or budget level changes, technology changes, and major changes. Should none of these situations occur, the next planned review date for the Emergency Response Plan is 20 March 2016.

There has been no requirement to use the Emergency Response Plan since the previous recertification audit.

Mock drills are undertaken annually to test response procedures. A full drill involving the Yatela Clinic was undertaken in 2013. The schedule for drills was observed. The reports on the mock drills were also observed identifying areas of improvement.

Procedure No. 4_YAT_MET_APP_Procedures for Developing an Emergency Preparedness and Response Plan for Yatela, Rev 1, dated 4 April 2012 includes a requirement for there to be post drill feedback as part of the Emergency Response Plan evaluation process.
PRINCIPLE 8 – TRAINING
Train Workers and Emergency Response Personnel to Manage Cyanide in a Safe and Environmentally Protective Manner

Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.

☐ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Standard of Practice 8.1

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 8.1; to train workers to understand the hazards associated with cyanide use.

The auditors observed the Training Matrix for 2013, 2014, 2015. All employees associated with the plant, stores, and in general people associated with Cyanide activities receive the Cyanide related training. Employees are training in Cyanide Awareness and Safe Handling Training (previously in 2013, 2014 called Cyanide First Aid Training), Cyanide Competency Assessment.

The Emergency Response Coordinators and Cyanide Emergency Responders have received Cyanide Awareness and Safe Handling Training (previously in 2013 and 2014 called Cyanide First Aid Training), and Cyanide Competency Assessment, as observed by their training records: Emergency Response Coordinators, and Cyanide Emergency Responders.

Employees that received the Cyanide Competency Assessment are issued with an identification card that states that the employee is competent to work in a cyanide area and is a Cyanide First Aider. The card includes the expiry date of the training.

The Training Presentation for Sodium Cyanide Awareness and Safe Handling Training is part of the induction and is presented by the Training Officer.

Refresher training for the Cyanide Awareness and Safe Handling Training and Cyanide Competency Assessment is refreshed on an annual basis.

All training records have been retained since the start of the operation.

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

☐ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Standard of Practice 8.2

Summarise the basis for this Finding/Deficiencies Identified:
The operation is in full compliance with Standard of Practice 8.2; to train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

All employees associated with the plant, stores, and in general people associated with Cyanide activities receive the Cyanide related training as detailed on the training matrix. Employees have been trained in Cyanide Awareness and Safe Handling Training (previously in 2013, 2014 called Cyanide First Aid Training), Cyanide Competency Assessment including Emergency Response Coordinators and Cyanide Emergency Responders.

Employees that received the Cyanide Competency Assessment are issued with an identification card that states that the employee is competent to work in a cyanide area and is a Cyanide First Aider. The card includes the expiry date of the training.

The Training Presentation for Sodium Cyanide Awareness and Safe Handling Training was observed by the auditors. This training is part of the induction and is presented by the Training Officer who is adequately qualified.

In addition supervisors undertake Planned Task Observations to assess the adequacy of training for specific tasks.

Refresher training for the Cyanide Awareness and Safe Handling Training and Cyanide Competency Assessment is conducted on an annual basis.

General induction is presented for all new employees as well as refreshed every year when returning from annual leave.

Records are retained throughout an individual's employment documenting the training they received. The records include the names of the employee and the trainer, the date of training, the topics covered, and if the employee demonstrated and understanding of the training materials.

Standard of Practice 8.3: Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

☑ in full compliance with

☐ in substantial compliance with ☐ not in compliance with

Standard of Practice 8.3

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 8.3; to train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

All employees associated with the plant, stores, and in general people associated with Cyanide activities receive the Cyanide related training as detailed on the training matrix. Employees have been trained in Cyanide Awareness and Safe Handling Training (previously in 2013, 2014 called Cyanide First Aid Training), Cyanide Competency Assessment including Emergency Response Coordinators and Cyanide Emergency Responders.
Employees that received the Cyanide Competency Assessment are issued with an identification card that states that the employee is competent to work in a cyanide area and is a Cyanide First Aider. The card includes the expiry date of the training.

The training presentation for Sodium Cyanide Awareness and Safe Handling Training was observed by the auditors. This training is part of the induction and is presented by the Training Officer who is adequately qualified. In addition supervisors undertake Planned Task Observations to assess the adequacy of training for specific tasks.

Refresher training for the Cyanide Awareness and Safe Handling Training and Cyanide Competency Assessment is conducted on an annual basis. General induction is presented for all new employees as well as refreshed every year when returning from annual leave.

Records are retained throughout an individual’s employment documenting the training they receive. The records include the names of the employee and the trainer, the date of training, the topics covered, and if the employee demonstrated and understanding of the training materials.

Mock emergency drills are conducted periodically to test response procedures for various cyanide exposure scenarios, and lessons learnt from the drills are incorporated into response planning. Mock drills are undertaken annually to test response procedures. A full drill involving the Yatela Clinic was undertaken in 2013.

No outside responders are included in cyanide emergencies as they do not have the appropriate training or equipment. They are therefore not included in the Emergency Response Plan or mock drills.

Local villages are consulted with through quarterly meetings. The workforce including the clinics are consulted with through feedback sessions following the mock drills.

The Governor of Kayes (local regional capital in Mali) is included in the distribution list for the Emergency Response Plan.

Cyanide emergency drills are evaluated from a training perspective to determine if personnel have the knowledge and skills required for effective response. If necessary training procedures are revised if deficiencies are identified.

Procedure No. 4_YAT_MET APP Procedures for Developing an Emergency Preparedness and Response Plan for Yatela, Rev 1, dated 4 April 2012 includes a requirement for post drill feedback.

The Sadiola Clinic Doctor informed the auditors that her involvement in mock drills is specifically to critique the response of the plant personnel at the plant until the ambulance arrives.
PRINCIPLE 9 – DIALOGUE
Engage in Public Consultation and Disclosure

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

☑ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

The operation is

Standard of Practice 9.1

Summarise the basis for this Finding/Deficiencies Identified:

The operation provides the opportunity for stakeholders to communicate issues of concern regarding the management of cyanide.

The Community and Public Relations Manager plus two additional employees liaise with potentially affected communities through, meetings, site visits, training sessions, and other communications. There is a quarterly meeting with representatives from surrounding villages. Two representatives from each village attend in conjunction with village chief. These village representatives are trained in basic chemical understanding and response.

The quarterly meetings discuss mine wide issues not just cyanide issues. The representatives then communicate the information back to the villagers. There were originally 6 villages but 2 additional ones were added due to the proximity of the cyanide convoy. The villages represented are; Niamboulama, Alamoutala, Djinguilou, Sangafara, Yatela, Kourouketo, Babala, and Bendougou.

The Governor of Kayes (local regional capital in Mali) is included in the distribution list for the Emergency Response Plan.

Workers are provided with an opportunity to communicate issues of concern regarding the management of cyanide at Weekly Communication Meetings and monthly Metallurgical Meetings

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

☑ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

The operation is

Standard of Practice 9.2

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Standard of Practice 9.2; to initiate dialogue describing cyanide management procedures and responsively address identified concerns.

The Community and Public Relations Team liaise with potentially affected communities through, meetings, site visits, training sessions, and other communications. There is a quarterly meeting with representatives from surrounding villages.

The quarterly meetings discuss mine wide issues not just cyanide issues. The representatives then communicate the information back to the villagers.
The Governor of Kayes (local regional capital in Mali) is included in the distribution list for the Emergency Response Plan.

Workers are provided with an opportunity to communicate issues of concern regarding the management of cyanide at Weekly Communication Meetings and monthly Metallurgical Meetings.

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

- [x] in full compliance with

The operation is

- [ ] in substantial compliance with
- [ ] not in compliance with

**Standard of Practice 9.3**

**Summarise the basis for this Finding/Deficiencies Identified:**

The operation is in full compliance with Standard of Practice 9.3; to make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation has developed written descriptions of how their activities are conducted and how cyanide is managed in the form of hard copies of a presentation on the use and management of cyanide that was given to the communities’ representatives on 9 March 2015. The hard copies were distributed to the community representatives at this meeting.

Information is also disseminated to community members verbally at the quarterly community meetings and via the community and public relations team in French, Bambara and Malinke. The community representatives then communicate this information to other members of the community.

Environmental Incident Reporting Procedure Rev 1, May 2010 states that incidents are reported to VP Sustainability, The Safety, Health and Sustainable Development Board sub-committee and the Joint Venture Partners i.e. AngloGold Ashanti and Iamgold. The MD will authorise the Public Relations Manager and/or the Environmental Manager to report to the relevant Regulator. The Process flow chart showing this was observed.

Incidents are communicated to the surrounding communities at the quarterly meetings.
Report Signature Page

GOLDER ASSOCIATES AFRICA (PTY) LTD.

Ed Perry
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Marie Schlechter
Project Manager

Date: 20 October 2015

MS/EP/ag

Reg. No. 2002/007104/07
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