REPORT

ICMI GOLD MINE RECERTIFICATION AUDIT - SUMMARY REPORT

Goldfields Ghana Limited - Damang Gold Mine

Submitted to:

International Cyanide Management Institute (ICMI)
1400 I Street, NW, Suite 550
Washington, DC, 2005,
United States of America

Submitted by:

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May 2021

1.0 SUMMARY AUDIT REPORT FOR GOLD MINING OPERATIONS

Name of Cyanide User Facility:	Damang Gold Mine
Name of Cyanide User Facility Owner:	Goldfields Ghana Limited
Name of Cyanide User Facility Operator:	Goldfields Ghana Limited
Name of Responsible Manager:	Catherine Kuupol Kuutor Metallurgical Manager
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2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

Goldfields Ghana Limited's Damang Mine (also referred to in documentation as Abosso Goldfields Limited or AGL) is located near the village of New Damang, some 30 kms northeast of Tarkwa, in the western region of Ghana. The Damang Mine operates a carbon-in-leach (CIL) processing plant which is fed run-of-mine (ROM) ore at approximately 12,600 dry tonnes per day (4.5 million tonnes per annum). Plant feed consists of 100% fresh (blasted) hard rock.

ROM ore is crushed using a gyratory crusher followed by a secondary and tertiary crushing stages and subsequently stockpiled. Ore is then fed to a milling circuit consisting of a SAG (semi autogenous grinding) mill in a closed circuit with two pebble crushers and ball mill. The milled ore is classified by means of a cyclone with the overflow reporting to a pre-leach thickener. The thickened leach feed (50% solid density) reports to the eight CIL tanks (3000 m^3 each). The final leach tails report to two tails tanks and pumped to the tailings dam. The cyclone underflow returns to the ball mill for regrinding.

The underflow stream is also bled to feed 2 x 48” Knelson concentrators. The concentrate from the Knelsons is leached directly in an in-line leach reactor (ILR) at high cyanide concentration. The leached tails from the ILR reports to the Ball Mill for regrinding after the clarified pregnant solution has been transferred to the electrowinning circuit and the remaining solids have been subjected to several wash cycles using raw water. The wash water is collected into either the electrowinning circuit or transferred to the CIL circuit for recovery of residual soluble gold, depend on the stage of washing. The pre leach thickener overflow joins the process water pond as recycled water. Loaded carbon from the CIL is acid washed and eluted at high pressure and temperature. Gold is finally recovered by electrowinning of the pregnant solution and smelting of the cathodes with flux.

The cyanide facilities at the Damang Gold Mine are:

- solid cyanide storage area;
- mixing and storage tanks;
- leaching facilities, including CIL tanks and ILR;
- tailings storage tanks; and
- tailings storage facility and tailings delivery pipeline.

Prior to the addition of the pre leach thickener, process water ponds were classified as cyanide facilities. Since mid-2013, the Weak Acid Dissociable (WAD) cyanide level in the process water pond are below 0,5mg/L, which means that neither the process water pond or the mill circuit have been considered a cyanide facility for this recertification audit.

The auditors were presented with and reviewed samples of more than 209 Standard Operating Procedures including more than 48 for cyanide related activities. There are also a number of specific health and safety procedures, emergency procedures, environmental procedures that falls into the scope of the Code that were also reviewed.

SUMMARY AUDIT REPORT
Auditors Findings

	☒ **in full compliance with**	
Goldfields Damang Gold Plant is:	☐ in substantial compliance with	**The International Cyanide Management Code**
	☐ not in compliance with	

Audit Company:	Golder Associates Africa (Pty) Ltd
Audit Team Leader:	Marié Schlechter, Lead Auditor and Mine Technical Specialist
Email:	mschlechter@golder.co.za

The Damang Gold Plant has experienced a compliance problem during the previous three-year audit cycle which are discussed in this report under question 4 of Standards of Practice 4.5.

Name of Other Auditors

Gladys Anaman, Golder Ghana Signature: 

Dates of Audit

The Re-certification Audit was undertaken between 28 April 2021 and 1 May 2021.

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

Goldfields Damang Gold Mine
Name of Facility

Signature of Lead Auditor

May 2021
Date

PRINCIPLE 1 – PRODUCTION

Encourage Responsible Cyanide Manufacturing by Purchasing from Manufacturers that Operate in a Safe and Environmentally Protective Manner

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

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 1.1**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

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

Goldfields Ghana Limited currently has a contract with Samsung C&T Deutschland GmbH for the supply of solid cyanide to Damang Mine.

Prior to the current contract with Samsung, a contract was held with Orica International PTE LTD for the supply of sodium cyanide.

The operation's contract with the cyanide manufacturer, Samsung C&T Deutschland as well as the preceding contract with Orica requires that the cyanide be produced at a facility that has been certified as being in compliance with the Code.

Orica's Yarwun production facility was recertified on 17 September 2020.

Samsung C and T Deutschland supplied Damang Mine with sodium cyanide from the TaeKwang Industrial Co., Ltd production facility, the Hebei Chengxin Co., Ltd and the LZ Draslovka a.s. Kollin Havlickova production facility. All contractual protocols were followed.

The TaeKwang Industrial Co., Ltd production facility was recertified on 24 July 2020.

The Hebei Chengxin Co., Ltd production facility was recertified on 19 February 2019.

The LZ Draslovka production facility was recertified on 27 September 2017[1]. A single shipment of sodium cyanide was purchased from the LZ Draslovka a.s. Kolin Havlickova production facility in October 2020.

Cyanide is purchased directly from Samsung C and T Deutschland since 27 September 2019 to date.

[1] The deadline for conducting the recertification audit for LZ Draslovka has been extended to 15 November 2021 due to health concerns and travel restrictions resulting from the Covid-19 virus.

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**

The operation is ☐ in substantial compliance with **Standard of Practice 2.1**

☐ not in compliance with

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.

There is a written agreement between the cyanide producer (Samsung C&T Deutschland GmbH) and the operation (Abosso Goldfields Damang Gold Mine).

Contract for the Supply and Delivery of Sodium Cyanide (LSC 1351), between Goldfields Ghana Limited & Abosso Goldfields Limited and Samsung C&T Deutschland GMBH, dated 1 May 2020 – 30 April 2022.

The current contract with Samsung includes the following:

a) Packaging as required by the United Nations requirements for international shipments and Ghanaian regulatory requirements

b) Labelling in languages necessary to identify the material in the governmental jurisdiction

c) Addition of colorant dye to high strength liquid cyanide –The Principal (the site) is responsible for the handling, storage and transport of the cyanide after the point at which the risk transfers to the Principal from the Supplier, being the delivery of the cyanide to site. The site is therefore responsible for the addition of dye during the mixing.

d) Storage prior to shipment

e) Evaluation and selection of routes, including community involvement

f) Storage and security at ports of entry

g) Interim loading, storage and unloading during shipment

h) Transport to the operation

i) Unloading at the operation

j) Safety and maintenance of the means of transportation throughout transport

k) Task and safety training for transporters and handlers throughout transport

l) Security throughout transport

m) Emergency response throughout transport

The contract states that all third parties engaged by Samsung for the manufacture, transport and use of cyanide will be a signatory to and comply with the requirements of the International Cyanide Code.

The contract with Samsung includes transport and delivery of the cyanide to the mine site. Samsung uses subcontractors for the transportation of Cyanide from the port of Tema to the mine. Currently Vehrad Transport and Haulage (re-certified 08 January 2018), and Bollore Transport & Logistics Ghana (re-certified 16 January 2020) is used.

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**

The operation is ☐ 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 that require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

Prior to the current contract with Samsung, a contract was held with Orica International PTE LTD for the supply of sodium cyanide. The contract with Orica included transport and delivery of the cyanide to the mine site.

Cyanide previously ordered from Orica was delivered to Damang Mine via the Orica West Africa Supply Chain. The Orica West Africa Supply Chain includes ocean transport of cyanide by the Mediterranean Shipping Company, management of cyanide shipments at the Ports of Tema and Takoradi (Ghana) (amongst others) and road transportation in West Africa by Stellar Logistics and Allship Logistics. The Orica West Africa Supply Chain was recertified against the Code on 03 April 2018.

Stellar Logistics is a certified transported under the Code, which includes transporting cyanide from the Port of Takoradi to the mines in Ghana. Stellar Logistics was recertified against the Code on 09 August 2018.

Goldfields Ghana Limited currently obtains its solid cyanide from Samsung C&T Deutschland GmbH. The contract for the Supply of Cyanide was observed. The contract states in Appendix A that all third parties engaged by Samsung for the manufacture, transport and use of cyanide will be a signatory to and comply with the requirements of the International Cyanide Code.

The contract with Samsung includes transport and delivery of the cyanide to the mine site. Samsung uses subcontractors for the transportation of Cyanide from the port of Tema to the mine. Currently Vehrad Transport and Haulauge (re-certified 08 January 2018), and Bollore Transport & Logistics Ghana (re-certified 16 January 2020) is used.

Cyanide ordered from Samsung C&T Deutschland is delivered to Damang Mine via the Samsung Africa Supply Chain. The Samsung Africa Supply Chain was recertified against the Code on 15 June 2021.

Samsung C&T Deutschland GMBH, the main cyanide supply contractor for Damang Gold Mine, ordered a once off cyanide delivery directly from Draslovka in October 2020 as a stop gap quantity to mitigate their delivery challenges from their certified Africa Supply Chain. The sodium cyanide purchased from Draslovka in the Czech Republic was transported inland (railway) by Hapag-Lloyd to the Port of Hamburg from where it is transported further by Hapag-Lloyd to the Port of Tema. The cyanide was transported by Ballore Transport & Logistics Ghana to Damang Mine. As this was a once off order and shipment of cyanide from Draslovka to fill the shortage in supply, an uncertified inland transporter had to be relied on for the transport of the cyanide in Europe. The delivery of the cyanide from the Port of Tema to Damang Mine was handled by Bollore Transport and Logistics Ghana, a certified transporter.

A subsequent response by Damang Mine was to rely on another certified cyanide supplier, Hanwha Corporation, for spot purchase of cyanide as stop gap to mitigate the delivery challenges / shortages faced by Samsung C&T Deutschland GMBH when Damang Mine anticipated a delivery challenge. Movis Ghana Ltd,, a certified transporter, is used to transport the sodium cyanide transported by Hanwha Corporation Africa Supply Chain to the Port of Tema and on to Damang Gold Mine.

The site is found in compliance with the requirements of this question based on the following considerations:

- The disruption in supply of cyanide from the main cyanide supplier, Samsung C&T Deutschland, was beyond the mine's control.
- Damang Mine made a strategic effort and sourced cyanide from another certified supplier who was in turn able to supply cyanide via a certified transporter for the second part of the supply chain, as a once off arrangement to prevent a delay in the delivery of cyanide.
- The delivery of cyanide via an uncertified transporter was a once off shipment.
- Damang Mine has entered into the necessary agreements to procure cyanide via an alternative certified supply chain to ensure compliance.

The operation has chain of custody records identifying all the elements of the supply chain that handle the cyanide brought to Damang Mine.

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**

The operation is

☐ in substantial compliance with **Standard of Practice 3.1**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with 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 facilities for unloading, storing and mixing cyanide have been designed and constructed in accordance with cyanide producers' guidelines, applicable jurisdictional rules and/or other sound and accepted engineering practices for these facilities.

The cyanide reagent facility consists of the solid cyanide offloading and storage area, mixing tank and storage tank.

A third-party inspection of structural steelwork declaring the plant as being constructed in accordance with design documents. The inspection included a quality survey on the cyanide mixing and storage facility has been conducted in July 2020. Infrastructure used for the unloading, storing and mixing of cyanide was found to be in good working condition at the time.

During the site inspection, the auditors verified that both the solid cyanide storage as well as the liquid cyanide mixing and storage tanks are located; away from people and located within the fenced, locked and guarded perimeter of the Gold Plant, which is itself fenced, locked and guarded; and away from surface water. No surface water is present in the vicinity of these areas.

The cyanide storage tank is equipped with a ventilation pipe to release any HCN that is present in the tank. The tank is located in an open-air environment. The mixing and storage tanks are located in concrete bunded areas providing competent barrier to leakage. The cyanide mixing and storage tanks are both equipped with level indicators and alarms linked to the control room. The ultrasonic level sensors, the high-level float switch alarms, lights and sirens at the cyanide mixing tank and cyanide storage tank are inspected and tested as part of the planned maintenance system. Operators working in the cyanide mixing and storage area in communication with the Control Room Operator via the two-way plant radios.
The cyanide boxes in the storage area are stored in a shed under a roof, with adequate ventilation, on a concrete surface with storm water drains directing water away from the stored boxes, directing any spillage into the lined process water pond outside the Plant.
. The cyanide boxes are stored separately from incompatible material. The cyanide mixing and storage tanks are also located separately from any incompatible material, within their own separate secondary containment equipped with sump and sump pump.

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**

The operation is

☐ in substantial compliance with **Standard of Practice 3.2**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 3.2 requiring unloading storage and mixing facilities be operated using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

The empty solid cyanide containers are kept inside the locked cyanide storage area.
During the cyanide mixing event and while the operators are donned in full cyanide mixing PPE, three empty boxes are dismantled and placed in the fourth box, secured, labelled as “CN Waste” and transported back to the locked cyanide storage area. The procedure requires that the cyanide mixing area be cleaned by hosing down the area with water from the top to the bottom after all empty boxes have been removed to the cyanide storage area. The wash water reports to the cyanide storage area sump from where it is returned to the process.
The empty storage containers (comprising wooden boxes, bulk bag inners and plastic bags liners) are returned to the supplier by placing them back in the sea container in which they arrived. During the loading process, the operator as well as the security personnel observing the process must wear full cyanide PPE. The sea container is then returned to disposal facilities by Bollore and Vehrad. The empty cyanide boxes are either sent to an incinerator in Accra or Tema for the empty containers to be incinerated. These facilities are approved by the Ghanaian EPA.
No empty container is used for any purpose following the offloading of cyanide. No drums are used as cyanide containers.

Procedures are in place that detail:

- the operation and sequencing of feed and discharge valves during and after mixing;
- the handling of cyanide boxes during mixing to minimise the risk of rupturing or puncturing by the forklift.
- Limiting the height of stacking or cyanide boxes in the storage shed.
- Timely clean-up of solid or liquid cyanide spills during mixing.
- The addition of dye during cyanide mixing.

All of the procedures include the specification of PPE to be used.

A mixing event was observed, checking implementation of the procedures by the operators performing the mixing task. The mixing of cyanide is performed by two individuals (one forklift driver that opens and prepares the cyanide bags, while the other operator manoeuvres the crane and empties the cyanide into the tank). A third person acts as buddy and observes the mixing activities from a distance.

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**

The operation is

☐ in substantial compliance with **Standard of Practice 4.1**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with 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.

Written management and operating plans or procedures have been developed for cyanide facilities including unloading, mixing and storage facilities, and tailings impoundments

The current cyanide facilities at Damang Gold Mine are as follows:

- Solid cyanide storage area;
- Mixing and storage tank;
- Leaching facilities, including CIL tanks and ILR;
- Tailings storage tanks; and
- Tailings storage facility and tailings delivery pipeline.

The Operation currently has Standard Operating Procedures describing how cyanide-related tasks such as unloading, mixing, plant operations, entry into confined spaces, and equipment decontamination prior to maintenance should be conducted to minimize worker exposure.

The operation has plans or procedures that identify the assumptions and parameters on which the facility design was based and any applicable regulatory requirements (e.g., freeboard required for safe pond and impoundment operation; the cyanide concentrations in tailings on which the facility's wildlife protection measures were based) as necessary to prevent or control cyanide releases and exposures consistent with applicable requirements.

The mine undertakes a number of operational inspections as well as health and safety inspections to ensure the facility is being operated in a safe and environmentally sound manner including shiftly, daily, and monthly inspections.

The plant uses SAP, a computerised maintenance system to plan and schedule inspection and maintenance activities at varying frequencies. Preventive maintenance activities are programmed in SAP which schedules and prioritises all preventive maintenance activities for the mine. While all work orders issued on SAP are

being kept in the system to track the maintenance history of each piece of equipment, the maintenance planning department also keeps a hard copy of all critical maintenance activities. Included in the documentation is a copy of the maintenance request as well as the Standard Operating Procedure (SOP). Job cards are also raised where ad hoc maintenance is required by the plant inspections or observations from foremen and the control room. Records observed by the auditors indicated that the maintenance programme includes cyanide facilities, including pumps, pipelines and instrumentation, to ensure that equipment and devices function as necessary.

The operation inspects cyanide facilities on an established frequency sufficient to assure and document that they are functioning within design. Tanks, including the cyanide and process solution tanks, are inspected during daily and shiftly inspections conducted by the operators. These inspections will identify excessive corrosion or leakage. Maintenance staff conducts annual CIL Tank structural inspections and weekly cyanide plant inspections to check for structural integrity and corrosion.

A third-party inspection of the structural steelwork in the plant has been undertaken to inspect the structural integrity of the various sections. Amongst the items checked at the various sections included general conditions of the tanks, any physical damage/defect, any leakage or spillage. Each tank was checked individually and reported on.

The mine undertakes a number of operational inspections as well as health and safety inspections to ensure the facilities are operated in a safe and environmentally sound manner, including secondary containment.

Daily inspections are conducted at the Tailings Storage Facility (TSF), Process and Raw Water ponds to check the seepage sump and pump system, tailings underdrain sump and pump system, groundwater sump and pump system and embankment integrity.

Daily inspections are conducted of pipelines, pumps and process valves for deterioration and leakage at the TSF, TSF pipelines, CIL tanks, cyanide storage and mixing tanks and ILR section.

Daily TSF and pond inspections are conducted to check tailings discharge management, water levels and pumping requirements. No surface water diversion structures are required to maintain the water balance.

The operation has a procedure to identify when changes in a site's processes or operating practices may increase the potential for the release of cyanide and to incorporate the necessary release prevention measures. The operation implements a Change Management Procedure. The purpose of the procedure is to detail the change management process used at AGL so as to ensure that; a structured approach is applied to the management of change on site; and information relating to changes to the business is communicated to all interested and affected parties. It is the responsibility of the Change Owner to ensure that all departments affected by the change are consulted and sign off on the project before the project is approved. In the event of proposed cyanide-related process changes and modifications, the Health and Safety and Environmental Departments will be consulted to assessment any potential impacts to the employees, communities and the environment.

The operation has developed a number of procedures for contingencies and non-standard operating conditions, including upset in water balance, corrective action, and either planned or emergency shutdowns. Planned (or un-planned) shutdown are grouped in two ways i.e., shutdowns from 1 to 30hrs and shutdowns in excess of 30hrs, making provision for longer-term temporary closure or cessation of the operations as may be required. In addition the SAP system records the corrective actions and corrective maintenance that is being undertaken when inspections or monitoring identifies a problem. Additional potential upset conditions are covered in the site Emergency Management Plans.

Operator inspections are carried out on a shift or daily basis (including CIL, reagent, ILR and Tailings Storage Facility (TSF) inspections, and include wildlife mortality), while planned supervisor inspections are conducted on a monthly basis.

For the preventive maintenance, activities are being undertaken as required by the specific piece of equipment, which can be anything between daily to yearly, including ad hoc. The records are being kept by the Planning and Maintenance Department.

The inspection frequency is adequate to assure that the facility operates within design parameters

Inspections are documented, including the date of the inspection, the name of the inspector, and any observed deficiencies. The nature and date of corrective actions are documented, and records are maintained.

The operation has the necessary emergency power resources to operate pumps and other equipment to prevent unintentional releases and exposures in the event its primary source of power is interrupted. The back-up generating equipment is maintained and tested.

Goldfields Damang Gold Mine		May 2021
Name of Facility	Signature of Lead Auditor	Date

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**	
The operation is	☐ 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; introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

The operation conducts a program to determine appropriate cyanide addition rates in the mill and evaluate and adjust addition rates as necessary when ore types or processing practices change cyanide requirements.

The Damang Gold Mine is processing a particularly complex ore meaning that the cyanide addition is extremely variable and the set point has to be altered for optimisation.

Optimization test works which include the following are undertaken:

- Head assays – to determine the g/t feed samples and leach tails.
- Diagnostic leaching – to determine the gold association with carbonates, sulphides, carbonaceous material, quartz.

Currently cyanide is added in CIL Tank No. 1, with a standby dosing point in CIL Tank No. 3.

The plant uses an automatic dosing system, Cyanoprobe. Based on the daily Head Assays, the cyanide setpoint will be adjusted accordingly.

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

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 4.3**

☐ not in compliance with

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 operation has implemented a comprehensive water management programme to protect against unintentional releases.

The latest revision of the Water Balance Model Report was reviewed and confirmed that the water balance modelling is using the Goldsim software which is comprehensive and probabilistic, as it includes all parameters required including:

- Tailings deposition rates;
- Precipitation, evaporation and seepage rates;
- Un-diverted runoff from external catchment areas;
- Potential power outages, and
- The capacity and availability of treatment system for surface discharges.

The operating procedures incorporate inspection and monitoring activities to implement the water balance and prevent overtopping of ponds and impoundments and unplanned discharge of cyanide solutions to the environment. The tailings management procedure details the target beach length of 100 m with a minimum allowable of 50 m and a beach freeboard of 1.0 m. The design pond freeboard is 2.4 m.

Precipitation is measured at the site weather station, and in addition, freeboard and beach length (direct incidence of the precipitation) are measured on a monthly basis and fed back to the mill department and the dam designers.

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

☒ **in full compliance with**

The operation is

☐ in substantial compliance with **Standard of Practice 4.4**

☐ not in compliance with

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.

There are no open waters where WAD cyanide exceeds 50 mg/L WAD cyanide therefore the operation has not needed to implement measures to restrict access by wildlife and livestock.

WAD sampling is conducted at the spigot twice a week and once a month at the decant point and process water pond. Return water from the TSF reports to the Process Water Pond. No exceedances above 50 WAD ppm were recorded.

No wildlife mortalities have been observed in the past three years.

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**

The operation is ☐ 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.

During the site inspection, it was verified that there is no direct or indirect discharge to surface water from Damang Gold Mine.

A single incident occurred on 5 April 2018 when, during trial deposition, seepage developed along the south-eastern embankment of the newly constructed Far East Tailings Storage Facility (FETSF). On the day of the incident, dead fish were identified by community members downstream of the project. Analysis identified trace elements of free cyanide in the adjacent ponds and streams. The origin of the discharge from FETSF could not be initially verified and all surrounding monitoring bores measured below detectable levels for Free cyanide. Surface water samples collected from streams near the facility on the 1st of April also measured below detectable limits for free cyanide.

On the morning of 6 April, sampling of downstream ponds and streams of the tailings storage facility established that free cyanide was present up to a maximum level of 0.4ppm.

Immediate actions taken:

- Deposition at the FETSF ceased on the 6th of April with the tailings stream diverted back to the Eastern Tailings Storage Facility (ETSF).
- Surface and groundwater sampling downstream of the incident established the extent of contamination. Access controls to affected surface waters were established and alternative water sources provided to the community (despite no cyanide readings in any drinking water boreholes).
- Under instruction from Knight Piésold, the facility design engineer, a cofferdam was constructed around the seepage origin to cease supernatant loss. The structure provided a dry area to determine the cause of the piping and to remediate.

Root Cause Analysis:

- Fill material within the cofferdam, adjacent to the seepage, was exhumed to expose the seepage origin.
- The excavation located a previously unidentified waste rock dump that had been covered with oxide material. During construction this had appeared to be part of the adjacent native ground.
- The identification of a cut-trench on both sides of the waste rock confirmed that it was a localised occurrence, 12 meters along the upstream toe of the embankment.
- The porous waste rock structure had facilitated piping of supernatant through the embankment and into external surface and sub-surface water bodies. The incident was not related to any failure of the compacted soil liner.

The site is found in compliance with the requirements of this question based on the following considerations:

- The seepage incident occurred early in the audit cycle and no further indirect discharges / seepage incidents occurred during the remainder of the audit cycle.
- The incident was identified and reported through the existing community communication process (Damang Mine Grievance Mechanism 2020, refer to 9.1) indicating that the existing processes are effective and that the operation actively seeks to ensure its continuous compliance.
- Damang Mine acted quickly to rectify the issue by implementing immediate, corrective and preventative action.
- Community engagement and supply of potable drinking water continued (despite no cyanide readings in any drinking water bores).
- Damang mine communicated the incident to all relevant affected parties and stakeholder, including the ICMI.
- The incident was treated as a priority at elevated levels within the company and reported in the 2018 Annual Report.

Monitoring data was observed for surface water monitoring of the nearby Beni River, the TSF seepage sumps, and the groundwater boreholes.

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

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 4.6**

☐ not in compliance with

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.

The operation implements specific water management measures to manage seepage to protect the beneficial uses of groundwater down-gradient of the operation. Specific water management measures have been put in place to protect groundwater including the following: borehole monitoring on the tailings dam; HDPE lining of the process water pond and detoxification pond; concrete lining of channel from Gold Plant to Process Water Pond; tailings distribution and return water pipeline located in a trench lined with HDPE and Cyanide storage shed and cyanide tanks are located on concrete.

WAD cyanide concentrations (or other species of cyanide for which there is a numerical standard established by the applicable jurisdiction) in groundwater at compliance point below or down-gradient of the facility are below levels that are protective of identified beneficial use, namely the use of groundwater for domestic use by a nearby community, of groundwater.

The numerical standard for WAD Cyanide in Effluent Discharge is 0.6 mg/l WAD as detailed in Ghana Standards Authority, Ghana Standard GS 1212:2019 – Environmental Protection Requirements for Effluent Discharge. The limit for WAD cyanide is an “end-of-pipe” standard for discharge to surface water and a groundwater standard.

Damang mine is an open pit only operation so no backfill is used.

Seepage from the operation has not caused cyanide concentrations of groundwater to rise above levels protective of beneficial use.

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

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 4.7**

☐ not in compliance with

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.

Spill containment measures are provided for all cyanide unloading, storage, mixing and process solution tanks. The solid storage area is equipped with concrete flooring and a concreted channel on one side that allows for any liquid to be directed to the process water pond adjacent to the fenced area of the Plant. The mixing and storage tanks are located in concrete bunds providing a competent barrier to leakage.

Secondary containments for cyanide 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.

During the site visit, it was verified that all bund areas are equipped with sump pumps, returning solutions / spillages to process tanks.

There is emergency power available to run the full plant in case of power outages, within 5 minutes of any outage.

In the event that any of the secondary bunds overflow and that the perimeter trench to the Plant is unable to contain the overflow, the material will flow across the plant perimeter to the SAG Mill Scat stockpile where it will be trapped and returned to the process.

Spill prevention and containment measures are provided for all cyanide process solution pipelines to collect leaks and prevent releases to the environment. Process slurry and solution pipelines are installed in pipe racks above concrete areas where spillage will be contained in the bunded areas and returned to the process tanks.

The pipeline to the TSF is contained in a HDPE lined trench with a pipe in pipe system where it goes under the haul road.

Daily inspections of the pipeline are being undertaken to check for pipe conditions and alert on any problems. The TSF pipes are also equipped with pressure sensors that would alarm in the control room should there be a sudden failure or rupture of these pipes.

Cyanide pipelines do not cross or come in close proximity to any surface water and therefore do not pose a risk to any surface water.

All cyanide tanks and pipelines and associated equipment are constructed of material that are compatible with cyanide and high pH environment i.e., steel for the reagent strength cyanide and HDPE for the tailings pipeline.

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

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 4.8**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with 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.

Quality control and quality assurance programs have been implemented during construction of all new cyanide facilities and modifications to existing facilities, including cyanide unloading, storage, mixing facilities and other cyanide facilities. They also addressed the suitability of materials and adequacy of soil compaction and records retained.

Since the 2018 recertification audit, the Far East TSF (FETSF) was constructed (2018) and the Stage 2 lift of the FETSF was completed (2020).

The auditors observed: Damang Gold Project, FETSF Stage 1 Construction As-Built Report, Knight Piésold Ghana Ltd, Project Number: AC301-00005/70, 07 September 2018, Rev 0, Issued as Final.

Stage 1 Phase 1 construction consisted of basin floor preparation, soil lining and basin drainage works with embankment crest elevations of 960 m RL. Phase 1 was substantially completed by 4 January 2018. The Ghana Environmental Protection Agency inspected the construction and commissioned Phase 1 from tailings deposition beginning January 2018.

Tailings deposition was managed as such that Phase 2 construction could continue from January to August 2018.

Construction Supervision, Quality Control and Quality Assurance for the FETSF Stage 1 construction was conducted by E&P, under the guidance of Knight Piésold. QA/QC effort were intended to confirm construction matched the design requirements as practically as possible.

The auditors observed: Damang Gold Project, FETSF Stage 2 Construction As-Built Report, Knight Piésold Ghana Ltd., Project Number: AC301-00005/94, 18 February 2021, Rev 1, Final Issued to Client.

Stage 2 of FETSF was designed to raise the facility from its existing Stage 1 elevation of 972.0 meters above reduced level (mRL) to elevation 985.0 mRL. The FETSF Stage 2 is designed to provide storage at a rate of approximately 5.3 Mtpa of tailings and also to accommodate the associated supernatant pond over a period of approximately 3 years.

Construction Supervision, QC/QA Testing for the FETSF Stage 2 construction was conducted by E&P. Knight Piésold was on site during the construction period and provided QC/QA oversight for the earthworks and ancillary items, including photographic records of construction progress and document the construction works for compliance with the design intent, drawings and technical specification.

Quality control and quality assurance records have been retained for cyanide facilities

Appropriately qualified personnel have reviewed cyanide facility construction and provided documentation that the facility has been built as proposed and approved.

Where there is no available quality control and quality assurance documentation or as-built certification for cyanide facility construction, an appropriately qualified person has inspected those elements of the facility involving cyanide and issued a report concluding that its continued operation within established parameters will protect against cyanide exposures and releases.

The TSF and tailings pipeline undergo quarterly inspections via a third party. The auditors observed the audit reports for 2018 to 2021.

The plant and TSF pipelines are inspected on a regular basis. The auditors observed the following reports:

Report on: Inspection, Test and Certification of Cyanide Facilities in the Process Plant and Tailings Storage Facility, dated 29 July 2020, conducted by SM Engineering Company Limited. Inspected by Ing. Eric Paa Kofi Nsaful, Civil Engineer, Reg no. 10427. The report stated that the following systems were tested/inspected and found in good working condition at the time:

- HDPE Pipeline & Covets:
  - Delivering Tailings to TSF.
  - Carrying Return Water from TSF to Process Plant.

Thickness testing is conducted on the TSF Pipeline to ensure that the integrity of the line is maintained. Testing is conducted on the sides and under side of the pipeline.

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

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.9**

☐ 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

The operation has developed written standard procedures for monitoring activities including the following:

- Proc EN 11 Procedure for Surface Water Monitoring Rev 2.3
- Proc EN 12 Procedure for Ground Water Monitoring Rev 2.0

The procedures were developed internally by the environmental officers, checked by the Unit Manager Environment John Adingelah (BSc in chemistry (2003) and MSc in Environmental Sciences (2009), (Kwame Nkrumah University of Science and Technology, Kumasi), and finally approved by the Health, Safety and Environmental Manager Francis Nyame (MSc- Water and Environmental Management from Staffordshire University, 2006)

The sample analysis is being undertaken by SGS Maslab laboratories in their laboratory facilities in Tema.

The procedures specify how and where samples should be taken, sample preservation techniques, chain of custody procedures, shipping instructions, and cyanide species to be analysed.

Sampling conditions and procedures are documented in writing in the sample logbook. The auditors observed completed examples of the Environmental Monitoring Sheet used during ground and surface water monitoring. The following parameters are recorded on the logbook during a sample event:

- Sample number.
- Sample date.
- Sample time.
- pH, Conductivity, Dissolved Oxygen, Temp, Total Dissolved Solids (TDS), Oxidation Reduction Potential.
- Observations: Including appearance and colour of water, presence of fish and wildlife, weather conditions, human activities.

The operation monitors for cyanide in surface and groundwater down-gradient of the site. There are no discharges of process water to surface water.

The operation inspects for and records wildlife mortalities related to contact with and ingestion of cyanide solutions. The auditors reviewed the TSF daily inspection checklists for reports on wildlife mortality with no cyanide related mortality having occurred since the last recertification audit.

Procedure for Fish and Wildlife Protection requires any wildlife incident to be reported as an environmental incident. The incident will be investigated by the Environmental and Safety Personnel.
No wildlife mortalities have been observed in the past 3 years.

Monitoring is conducted at frequencies adequate to characterise the medium being monitored and to identify changes in a timely manner. Surface and groundwater sampling is conducted on a monthly basis.

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**

The operation is

☐ 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.

The operation has developed written procedures to decommission cyanide facilities at the cessation of operations. The scope of the procedure is for the rehabilitation of disturbed lands and decommissioning of infrastructure within the active mining areas and releases of the mine. The procedure addresses the responsibilities, planning (objective and criteria, methodology, implementation), evaluation of rehabilitated areas, and list of references documents.

A plan, detailing the infrastructure and proposed timeframe for decommissioning was presented to the auditors. The plan includes an implementation schedule for decommissioning activities. The current plan indicates that the majority of the decommissioning activities will take place between 2025 and 2027.

The costed reclamation plans are reviewed every two years, while the decommissioning procedure is reviewed on an annual basis.

Standard of Practice 5.2: **Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.**

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 5.2**

☐ not in compliance with

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.

The operation has developed an estimate of the cost to fully fund third party implementation of the cyanide-related decommissioning measures as identified in its site decommissioning or closure plan.

The cost estimate is reviewed by an independent consultant every 2 years, and the 2109 cost estimates was reviewed.

It is a legal requirement to have a cash deposit and a bank guarantee. The auditors reviewed an updated Stanbic Bank Ghana Limited letter of credit. Stanbic Bank account statements for account named Abosso Goldfields EPA fixed deposits was also reviewed.

The cash deposits and letter of credit are sufficient to cover the cyanide related decommissioning measures as identified in the site reclamation plans.

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**

The operation is

☐ 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 the Standard of Practice 6.1 requiring the operation to identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce, and control them.

The operation has developed procedures describing how cyanide-related tasks such as unloading, mixing plant, operations, entry into confined spaces, and equipment decontamination prior to maintenance should be conducted to minimise worker exposure.

The procedures require, where necessary, the use of personal protective equipment and address pre-work inspections.

The operational procedures include the following, as applicable:

- PPE requirements
- Safety and pre-checks
- Permit requirements (confined space / hot work permit)
- Gas testing requirements
- Specific risks associated with the task
- Safety requirements
- Operational requirements
- Equipment required

The operation implements OHS SP19 Rev.9 dated 26 November 2019 - Change Management Procedure. The purpose of the procedure is to detail the change management process used at AGL so as to ensure that:

- A structured approach is applied to the management of change on site; and
- Information relating to changes to the business is communicated to all interested and affected parties.

The operation solicits and actively considers worker input in developing and evaluating health and safety procedures

Any changes to existing procedures are discussed during the toolbox talk meetings and SOP training and review sessions, held at specific sections of the Plant. The SOP training and review sessions are conducted every 2 years and are presented by the Met Training Coordinator and the Section Leader.

Firstly, input into SOPs is obtained from Section Operators and then presented to the Sectional Head, approved by the Unit Manager and Metallurgical Manager. Input from the employees is considered before the procedure is finalised, distributed and Planned Task Observations (PTOs) performed on the updated procedure.

Changes to procedures are communicated during toolbox talk meetings.

In addition, procedures may be drafted or updated in response to an incident investigation and as part of this worker input solicited.

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

The operation is

☒ **in full compliance with**

☐ 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; 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.

The auditors confirmed that the pH is measured with an inline meter and the pH level is visible on the CITECT system in the plant control room.

The operation uses ambient or personal monitoring devices to confirm that controls are adequate to limit worker exposure to HCN gas and sodium, calcium or potassium cyanide dust to 10 ppm on an instantaneous basis and 4.7 ppm continuously over an 8-hour period, as cyanide where the potential exists for significant cyanide exposure.

Four fixed HCN monitors have been installed in the following areas:

- Cyanide mixing area
- ILR
- 2 CIL tank No.1 and No.2

The fixed HCN gas monitors have been linked to the CITECT system at the plant control room.

Eighteen (18) personal monitors are available for use at any time on the plant and TSF.

Personal monitors are used:

- At TSF
- When work is performed at the cyanide mixing area, ILR, CIL, cyanide storage area.

The portable HCN gas detection devices also give alarm (signal tone, red alarm light and high vibration alternating in display) at a gas detection of 4.7 ppm (A1) and 10.0 ppm (A2).

Personal HCN monitors are required when entering the cyanide storage shed, ILR, or when specific work is performed on the reagent strength lines at the CIL, when working in the cyanide mixing and storage area, working at the TSF deposition point, or when conducting titration tests at the CIL Met Lab. The PPE required for these activities is specified in the relevant SOPs.

Personal and fixed monitors are calibrated every six months by an independent contractor. The International Cyanide Management Code (ICMC) Coordinator is in control of calibration and handing out of personal HCN monitors.

Warning signs, in areas where cyanide is used advising workers that cyanide is present, have been placed at the solid cyanide storage area, the cyanide mixing and storage tank area and the ILR, CIL which are the locations where reagent strength cyanide is used, as well as at the TSF and pipelines and Process Water pond, advising workers that cyanide is present, that smoking, open flames and eating and drinking are not allowed, and what personal protective equipment must be worn, as applicable.

Carmosine dye is added to the mixing tank during a cyanide mixing event.

Showers, low-pressure eye wash stations and dry powder or non-acidic sodium bi-carbonate fire extinguishers are located at strategic locations throughout the operation where cyanide is used. This includes the solid cyanide storage area (dry powder fire extinguisher), cyanide mixing and storage area, ILR, and the top of the CIL. A safety shower is available the TSF.

Safety showers and fire extinguishers are checked on a monthly basis.

Reagent strength cyanide tanks and distribution pipes are colour coded purple. Process solution tanks and pipelines are labelled and colour coded in accordance with the plant colour code system displayed on a board at the plant entrance.
. The auditors observed the flow direction and identification on the TSF pipelines and the reagents strength pipelines inside the plant.

The MSDS and first aid procedures are located at the cyanide storage area, cyanide mixing area (including storage tank for liquid cyanide), ILR and CIL. The MSDS, first aid procedures or other informational materials on cyanide safety is in the language of the workforce and available in areas where cyanide is managed. The operational language for the mine and plant is English in written and verbal communications.

Procedures are in place and being implemented to investigate and evaluate cyanide exposure incidents to determine if the operation's programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or need of revising.

The Incident investigation Report includes the following information:

- Description of Incident
- Investigation Team:
- Root Causes;
- Summary of Incident Findings
- Corrective Action Log;
- Comments and Sign off by Supervisor, Section Head, HSE Manager, General Manager
- Incident / Accident Statement Form

A cyanide related incident occurred on 5 April 2018 when, during trial deposition, seepage developed along the south-eastern embankment of the newly constructed FETSF. The seepage occurred in an area of approximately 5m^2 where an access road was located during the initial construction of the facility. The incident was reported to the relevant communities, regulatory departments and the ICMI.

An Environmental Incident and Investigation Report was completed for the incident detailing the results from the investigation, including a root cause analysis, corrective actions, preventative actions and details on the local community consultation and ongoing water monitoring undertaken.

Standard of Practice 6.3: **Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 6.3**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

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

The operation has water, oxygen, a resuscitator, antidote kits and radios, telephones and alarm system readily available for use at cyanide unloading, storage and mixing locations and elsewhere in the plant.

An emergency PPE container is available within the plant area (Mill Emergency Container) close to the solid cyanide storage and mixing area. This is stocked with appropriate PPE including face masks with canisters and medical oxygen with a valved mouthpiece (Life Oxygen Pac) and antidote kit (Tripac-Cyano), which is kept in a fridge as per manufacturer's instructions.

The personnel on site are equipped with radios and will communicate on Channel 2. In addition, there are telephones, which can be used to contact the Control Room or Emergency Response Team (ERT).

The Mines ERT (3 people per shift) will attend the incident and transport the patient(s) to the site clinic. The site clinic is less than 700 m from the plant entrance. The clinic is currently equipped with 2 full sets of PPE including face masks and canisters. Medical oxygen is available at the clinic. The clinic also has two antidote (Tripac-Cyano and Cyanokit) to be administered by the medical staff.

The operation inspects the first aid equipment in the Mill Emergency Container on a monthly basis to assure that it is available when needed and replaced on a schedule that assures they will be effective when required.

The Cyanide PPE and antidote kits kept at the Clinic are checked daily.

Goldfields in Tarkwa supplies the antidote kits to the Damang clinic and maintains a schedule for its regular replacement.

The operation has developed specific written emergency response plans or procedures to respond to cyanide exposures.

The emergency response requirements are communicated during the plant induction programme. The emergency callout procedure is also available on posters at the areas where cyanide is used.

The operation has an on-site clinic run by Accra Medical Centre, which is approximately 700 m from the plant entrance. The Clinic is staffed by 2 doctors (rotational basis), and 6 nurses (2 per shift), a laboratory assistant, 2 pharmacists and an administrative assistant.

The clinic is equipped to manage patients with cyanide exposure in the short term. If treatment is required in the longer term, the patient will be transferred to the on-site hospital at Tarkwa Mine one hour away, also operated by Accra Medical Centre. If necessary and decided by the mine management, the patient can be medi-evacuated to an appropriate facility in Accra.

There is a fully equipped ERT and clinic available on-site, who are trained and equipped to treat patients for cyanide exposure. The clinic is equipped with PPE, Cyanide Antidote Kits and oxygen. The clinic has trained doctors and nurses and the ERT and the clinic take part in mock drills to test their response to emergency situations.

Regular training and refresher sessions on cyanide poisoning, emergency preparedness and management is presented by the Clinic Doctors to the clinic staff.

Mock emergency drills are conducted annually to test response procedures for various cyanide exposure scenarios, and lessons learned from the drills are incorporated into response planning.

The ERT and the clinic staff take part in mock drills to test their response to emergency situations. All other employees are evacuated.

Goldfields Damang Gold Mine
Name of Facility

Signature of Lead Auditor

May 2021
Date

PRINCIPLE 7 – EMERGENCY RESPONSE

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

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

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.1**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 7.1; protect communities and the environment through the development of emergency response strategies and capabilities.

The operation has developed an Emergency Response Plan to address potential accidental releases of cyanide.

The site has developed and implemented the following procedures:

- Procedure for Emergency Preparedness and Response.
- Plant Specific procedure; Emergency Cyanide Incident Procedure.

The Plans consider the potential cyanide failure scenarios appropriate for its site-specific environmental and operating circumstances, including the following, as applicable.

- 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 (not applicable as no cyanide treatment undertaken); and
- Failure of tailings impoundments and other cyanide facilities.

Transport related emergencies outside the mine are the responsibility of supplier as manager of the supply chain, which will have considered the transportation route, physical and chemical form of the cyanide, method of transport (e.g., rail, truck), the condition of the road or railway, and the design of the transport vehicle.

In addition, the - Emergency Cyanide Incident Procedure includes a commitment by Damang Mine to provide aid in the event of an off-site incident.

The 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, use of cyanide antidotes and first aid measures for cyanide exposure, control of releases at their source, and containment, assessment, mitigation and future prevention of releases.

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

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.2**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 7.2; involve site personnel and stakeholders in the planning process.

The draft Emergency Response Plan is circulated to the various Heads of Departments (HOD's) for comment. HOD's will obtain comments from their respective Departments.

The workforce is included in the emergency response planning process through the following:

- Induction and refresher training where they are trained on the use of the emergency response process.
- Through the monthly health and safety meetings.
- Through the testing of the Emergency Reponses by undertaking the mock emergency drills.

Consultative meetings held with local communities including chiefs, government officials, district assembly persons, and District Environmental Health Officer, etc. This is called the Damang Mine Community Consultative Committee (DMCCC). The Met Training Coordinator undertakes a community engagement programme, travelling to the neighbouring communities (Amoanda, Damang, Mile, Nyamebekyere) on an annual basis, to discuss cyanide and the required emergency actions. These meetings also provide the opportunity for community representatives to communicate issues of concern, these are detailed in the minutes.

The main response agencies are the mine's ERT, and the on-site clinic. These have all been involved in the emergency planning and response process as confirmed through interviews. The on-site ERT and the clinic takes part in mock drills to test their response to emergency situations. Local police, local emergency response agencies and medical facilities are not included in the cyanide response planning and response process.

Goldfields Damang Gold Mine
Name of Facility

Signature of Lead Auditor

May 2021
Date

Standard of Practice 7.3: **Designate appropriate personnel and commit necessary equipment and resources for emergency response.**

☒ **in full compliance with**

The operation is ☐ in substantial compliance with **Standard of Practice 7.3**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 7.3; 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 including the following.

The Procedure for Emergency Preparedness and Response includes designated primary and alternate emergency response co-ordinators.

The overall Primary Response Coordinator is the General Manager who has the authority to commit resources necessary to implement the Emergency Response Plan.

The Emergency Response Team's (ERT) roles and response actions are detailed in the procedure.

The ERT comprised of 7 employees with 3 people for each shift, day and night shift. The seven members of the ERT, in addition to being trained in the Emergency Response Procedure during their initial induction and regular refresher training, also have training in First Aid, Fire Fighting Equipment, Use of Emergency Equipment and Cyanide Safe Use and Handling Awareness Programme (Orica). ERT Members are notified through Channel 2 on the site radio system. The call out procedure is included SP 08 Procedure for Emergency Preparedness and Response.

Specific duties and responsibilities of the coordinators and team members are documented in emergency procedures.

The Emergency Response Equipment including PPE is kept in the Mill Emergency Container in the Plant and is listed on a checklist. The operation inspects its first aid equipment on a monthly basis to assure that it is available when needed and replaced on a schedule that assure it will be effective when required.

The initial response is from the on-site ERT who then transfers the patient to the on-site clinic. The on-site clinic treats the patient and is either sent home after treatment or evacuated from site. The Emergency Cyanide Incident Procedure states the process for medical evacuation coordinated by Accra Medical Centre.

Outside responders and the communities are not involved in emergency response. In the event of an Emergency the community affairs manager liaises with the community to ensure they are aware of the situation and do not get involved.

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; develop procedures for internal and external emergency notification and reporting.

The Plan includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the cyanide emergency.

The Procedure for Emergency Preparedness and Response lists contact information for the various individuals and departments required as part of the emergency response including the on-site clinic. It lists the primary and alternate person to contact in the case of an emergency.

The ERT Coordinator sends out an email on a weekly basis informing all employees of the responsible persons on site for that specific week. The email provides the landline and mobile numbers for the following persons:

- Protection Services Manager
- ERT Coordinator
- Security Control
- HSE Manager
- Central Safety Office
- Occupational Health and Safety (OHS) Unit Manager.

The Procedure for Emergency Preparedness and Response states “The General Manager is responsible for determining responses to major emergencies and for ultimately deciding on external notification procedures.” Outside response providers are not required as part of the emergency response.

Procedure for External Environmental Communication states that “In the event of incidents involving hazardous materials, such as cyanide, petroleum products or other chemicals that could result in injuries or potential damage to workers, the environment or local people, the company will make factual information publicly available.”

Emergency Cyanide Incident Procedure states that the Community Affairs Manager will ensure that community leaders are informed immediately of a cyanide incident which is likely to impact on the community, in accordance with Procedure for External Environmental Communication.

Procedure for External Environmental Communication states that “In the event of incidents involving hazardous materials, such as cyanide, petroleum products or other chemicals that could result in injuries or potential damage to workers, the environment or local people, the company will make factual information publicly available.”

Section 4.5c states that “The General Manager will, where appropriate, gain prior corporate approval before issuing any release to the media.”

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

The plans and procedures describe specific remediation measures as appropriate for the likely cyanide release scenarios.

The procedures for clean-up of dry and wet sodium cyanide spills describes/states the following:

- The recovery or neutralisation of solutions or solids
- The decontamination of cement floor or other contaminated media. It is stated in the procedure that in order to decontaminate the area, it should be sprinkled with Calcium Hypochlorite or Ferrous Sulphate and left for 15 minutes before rinsing with water.
- That after the decontamination of the area, the contaminated material is disposed of at the TSF or if appropriate to Feeder 004.

The entire plant is concrete lined. Therefore, any spillage of either dry or liquid reagent strength cyanide would be onto concrete. Solid cyanide will be shovelled into containers and liquid cyanide will be neutralised and hosed into the process water containment facilities. For this reason, no soil sampling will be undertaken. The Calcium Hypoclorite and Ferrous Sulphate used for neutralisation is stored in the reagent storage area in the plant.

The Procedure for Tailings Delivery Line Failure provides the steps to be following in the event of a TSF pipeline failure. The procedure states that either ferrous sulphate or hydrogen peroxide can be used to neutralise the cyanide in the tailings material. A table in the procedure indicates the amount of ferrous sulphate or hydrogen peroxide that should be used per volume of spilled tailings. Sampling and analysis will be conducted in consultation with the HSE Department to ensure the free cyanide levels are below detection limit.

In the event of cyanide releases into any of the process water facilities, Ferrous Sulphate is used to neutralise the cyanide and monitoring will continue until free cyanide values of <0.005ppm is measured.

Emergency Cyanide Incident Procedure stipulates the requirement to inform all stakeholders and communities downstream of the incident in the event of a major discharge into a water body. Alternative drinking water is supplied when needed.

Procedure for Management of Cyanide Contaminated Materials states that “If the water is not completely contained and completely under control, detoxification with chemicals will not be attempted.”

ENV11 Surface Water Monitoring Rec. 2.3 - states “in the event of a spill or environmental emergency a water quality sampling and analysis program will be set up to investigate the cause of the incident and/or to monitor the extent and degree of environmental contamination or impact”. This procedure includes sampling methodologies and parameters.

The sampling locations were observed on the Environmental Monitoring Map for the site and surrounding areas. Any of the locations could be used for surface or groundwater monitoring depending on the location of the incident.

Goldfields Damang Gold Mine
Name of Facility

Signature of Lead Auditor

May 2021
Date

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

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.6**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 7.6; 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.

SP ER 02 Emergency Cyanide Incident Procedure states "this procedure will be reviewed at least annually, but also following incident, emergency drills or when new information regarding cyanide becomes available".

SP 08 Procedure for Emergency Preparedness and Response is reviewed at least annually.

Mock cyanide drills are conducted periodically as part of the Emergency Response Plan evaluation process. Procedure for Emergency Preparedness and Response states that mock drills should be undertaken periodically. This covers mock drills for all types of incidents not just cyanide but does include one cyanide drill per annum within the Plant. Mock drills are conducted annually for either worker exposures or environmental releases. The Met Training Coordinator observes the response from the response teams and will recommend additional training in the event that such training is required.

Provisions are in place to evaluate and revise the Emergency Response Plan after any cyanide-related emergency requiring its implementation.

Emergency Cyanide Incident Procedure states "this procedure will be reviewed at least annually, but also following incident, emergency drills or when new information regarding cyanide becomes available".

It was communicated to auditors that the procedure was checked but no updates were required after the 2018 cyanide related incident at the TSF.

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**	
The operation is	☐ in substantial compliance with	**Standard of Practice 8.1**
	☐ not in compliance with	

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 operation trains all personnel who may encounter cyanide in cyanide hazard recognition.

All personnel on the mine are trained in cyanide hazard recognition through the initial employee induction programme at the plant. More detailed cyanide training is provided for those individuals who are likely to encounter cyanide. The auditors observed Plant Induction and Cyanide Awareness Training attendance registers for 2018, 2019 and 2020, 2021.

All employees or contractors working inside the plant or at the TSF need to attend the Cyanide Awareness Training Module.

The Cyanide Awareness module is presented annually during refresher training.

Employees working in cyanide areas need to achieve 100% pass rate; the rest of the plant employees an 80% pass rate.

The Training Matrix for the Metallurgy Department indicates the names and required training as well as status of completion for each employee working in the Metallurgical Department.

It was observed that all plant employees have completed the Cyanide Awareness Course and that First Aid measures are covered in the training material.

Cyanide hazard recognition refresher training is periodically conducted. All employees or contractors working inside the plant or at the TSF need to attend the Cyanide Awareness Training Module and receive an annual refresher.

Active employee training files are kept on site. Resigned / retired / trenched employees are archived; these are kept for 10 years.

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**

The operation is

☐ in substantial compliance with **Standard of Practice 8.2**

☐ not in compliance with

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.

The operation trains workers to perform their normal production tasks, including unloading, mixing, production and maintenance with minimum risk to worker health and safety and in a manner that prevents unplanned cyanide releases. This includes undertaking formal training in specific Standard Operating Procedures applicable to an employee's work area. A test is written upon completion of the training. The employees must conduct refresher training every two years.

Workers are trained prior to working with cyanide. The training elements necessary for each job involving cyanide management are identified in training materials. The Metallurgy (CIL) Department Skill Development Program was observed by the auditors. The spreadsheet lists the individual development needs for each worker category/level within the Metallurgical Department. All levels must attend the Cyanide Awareness training.

Employees rotate between sections in the plant. Before an employee starts working in a new section, they are trained on the relevant operational and cyanide related procedures. The training elements/procedures for each job are identified for each area/ team on the training matrix. The individuals for that particular team/ area are trained in the relevant procedures in addition to the general and area specific inductions and refresher.

Appropriately qualified personnel provide task training related to cyanide management activities.

Refresher training on cyanide management is provided to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. The Cyanide module is presented annually during refresher training. Training on section specific SOPs is conducted every 2 years.

The operation evaluates the effectiveness of cyanide training by means of Planned Task Observations (PTO's) that are performed on all relevant procedures annually to evaluate the effectiveness in the training of the various procedures.

Records are retained throughout an individual's employment documenting the training 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. The training records include the name of the employee, the name of the trainer, the date of the training, the topics covered and how the employee demonstrated an 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.**

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 8.3**

☐ not in compliance with

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 cyanide unloading, mixing, production and maintenance personnel are trained in the procedures to be followed if cyanide is to be released.

An ERT Team (3 employees per shift) has been trained in emergency response specifically related to cyanide emergencies and will respond from the office block that is located next to the plant entrance. The ERT Teams have received training by either Orica, Du Pont or the in-house training on Sodium Cyanide Safety.

Site cyanide response personnel, including unloading, mixing, production and maintenance workers, are trained in decontamination and first aid procedures as part of the Cyanide Awareness Training Module, which is refreshed annually.

Emergency Response Co-ordinators and members of the ERT are trained in the procedures included in the Emergency Response Plan regarding cyanide, including the use of necessary response equipment.

Refresher training for response to cyanide exposures and releases is conducted annually as part of the Plant Induction Training Refresher.

Only the ERT Team will respond in the event of a cyanide emergency. Plant personnel will only raise the alarm in the event of a cyanide spillage or man-down emergency and will thereafter be evacuated from the plant.

The ERT team and clinic personnel take part in mock drills on a regular basis to test their response to emergency situations. All other employees are evacuated. Mock drills are conducted annually for either worker exposures or environmental releases. The Met Training Coordinator observes the response from the response teams and will recommend additional training in the event that such training is required.

Cyanide emergency drills are evaluated from a training perspective to determine if personnel have the knowledge and skills required for effective response.

The Met Training Coordinator observes the response from the response teams and will recommend additional training in the event that such training is required.

It was observed that the drill reports include sections to record weaknesses and recommendation for improvement. These are identified during the debriefing session held after the mock-drill has been completed.

No community members, local responders or off-site medical providers will respond to emergencies related to cyanide.

Records are retained documenting the cyanide training, including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.

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**

The operation is

☐ in substantial compliance with **Standard of Practice 9.1**

☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 9.1 to provide stakeholders with the opportunity to communicate issues of concern.

Abosso Goldfields Limited has developed a Stakeholder Communication Procedure to ensure that there is regular and documented interaction between AGL and its stakeholders to maintain a flow of information between both parties.

Formal and regular communication with stakeholders is primarily carried out through the meeting of the Damang Mine Community Consultative Committee (DMCCC). Other meetings may be held as required directly with community leaders, NGOs and the regulatory authorities.

AGL has established the DMCCC at the local level to ensure regular interaction with its stakeholder communities. The purpose of these meetings is for community leaders to request information about the mine's activities related to social, environmental, cyanide management and other issues, for the mine to provide unsolicited information to the stakeholders, and for the committee to make decisions regarding the AGL social and community programs. Consultative meetings held with local communities including chiefs, government officials, district assembly persons, youth associations, opinion leaders and District Environmental Health Officer, etc.

These meetings provide the opportunity for community representatives to communicate issues of concern.

The Damang Mine Grievance Mechanism procedure provides a mechanism for the host communities and interested parties to raise complaints and grievances against Damang Mine, whilst allowing Damang Mine the opportunity to respond and resolve the issues.

A Community Affairs Office is located at the entrance to the Mine. Any stakeholder can go to the office to raise a grievance on the Grievance Form. The grievance is recorded, investigated and feedback is provided to the complainant. Thereafter the complaint is closed.

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

	☒ **in full compliance with**	
The operation is	☐ in substantial compliance with	**Standard of Practice 9.2**
	☐ not in compliance with	

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.

Consultative meetings are held with local communities including chiefs, government officials, district assembly persons, youth associations, opinion leaders and District Environmental Health Officer, etc.

Formal and regular communication with stakeholders is primarily carried out through the meeting of the DMCCC. Meetings are scheduled on a quarterly basis.

Information pertaining to cyanide management is provided to stakeholders during these meetings.

These meetings provide the opportunity for community representatives to communicate issues of concern, these are detailed in the minutes.

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

	☒ **in full compliance with**	
The operation is	☐ in substantial compliance with	**Standard of Practice 9.3**
	☐ not in compliance with	

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. These descriptions are available to communities and other stakeholders. The presentation, Community Cyanide Awareness, that was presented to the communities and the DMCC is available on request from the Community Affairs Department to any member of the community. The presentation is written in English but presented during the meeting in the local language, Twi. Hard copies of the presentation were provided to the community representatives for discussion at the respective communities.

The operation has disseminated information on cyanide in a verbal form where a significant percentage of the local population is illiterate. The above mentioned presentation was presented verbally in the local language of Twi to allow for any persons who are illiterate or not conversant in English.

The operation makes information publicly available on confirmed cyanide release or exposure incidents, resulting in hospitalisation or fatality. The auditors were informed that no cyanide incidents that resulted in hospitalisation or fatality occurred in the past 3 years.

A cyanide related incident occurred on 5 April 2018 when, during trial deposition, seepage developed along the south-eastern embankment of the newly constructed Far East Tailings Storage Facility. The incident was reported to the ICMI on 9 April 2018.

All relevant regulatory bodies were notified of the incident, with the Environmental Protection Agency and Minerals Commission both visiting the affected areas and engaging with the local communities on the matter.

The April 2018 incident was communicated to the Ministry of Lands and Natural Resources. The Minerals Commission participated in the meetings held with the communities to communicate the incident.

Community engagement and supply of potable drinking water continued (despite no cyanide readings in any drinking water bores).

Various meetings were held with the local communities and the Regulators to communicate the incident and the immediate corrective actions and preventative actions taken. Attendees included members of the communities, representatives from the Minerals Commission, Traditional Leader.

Safety and environmental incidents are also communicated through the annual reports.

The details of the FETSF cyanide related incident are included in the Environmental Incident Log of the Annual Report together with other reportable environmental incidents.

Signature Page

Golder Associates Africa (Pty) Ltd.

Marié Schlechter
ICMI Lead and Mine Technical Expert Auditor

MS/EC/ms

https://golderassociates.sharepoint.com/sites/130554/project files/6 deliverables/final client deliverables/20147531_goldfieldsdamang_icmirecertaudit_summary_final_4june2021.docx

APPENDIX A

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