Tarkwa Gold Mine

Technical Short Form Report

This Technical Short Form Report reflects the latest Life of Mine plan, coupled with an updated Mineral Resource and Mineral Reserve statement, as at 30 June 2009.

Gold Fields Ghana Limited (GFGL) was incorporated in Ghana in 1993 as the legal entity holding the Tarkwa concession mining rights. Gold Fields Ghana Holdings Limited holds 71.1% of the issued shares of GFGL. IAMGold, through its affiliates, holds 18.9% and the Government of Ghana holds a 10% free carried interest, as required under the Mining Law of Ghana.

Tarkwa is located near the southern end of what is commonly referred to as The Tarkwa Basin, 300 km by road west of Accra, the capital of Ghana. The Tarkwa mine operates under mining leases covering a total area of approximately 20,800 ha. In F2009 Tarkwa produced 0.612 Moz of gold from heap leach and milling operations at a cash cost of US$521/oz. Tarkwa employed a workforce of 3,982 as of 30 June 2009, including contractors.

The geological and evaluation models have been updated to reflect the latest available data sets. These models are coupled with an integrated and holistic mine design and schedule plan that is based on current performance levels and takes cognisance of the inherent risks associated with mining operations at Tarkwa Gold Mine.

All Mineral Resource and Mineral Reserve figures reported are managed unless otherwise stated and Mineral Resources are inclusive of Mineral Reserves.

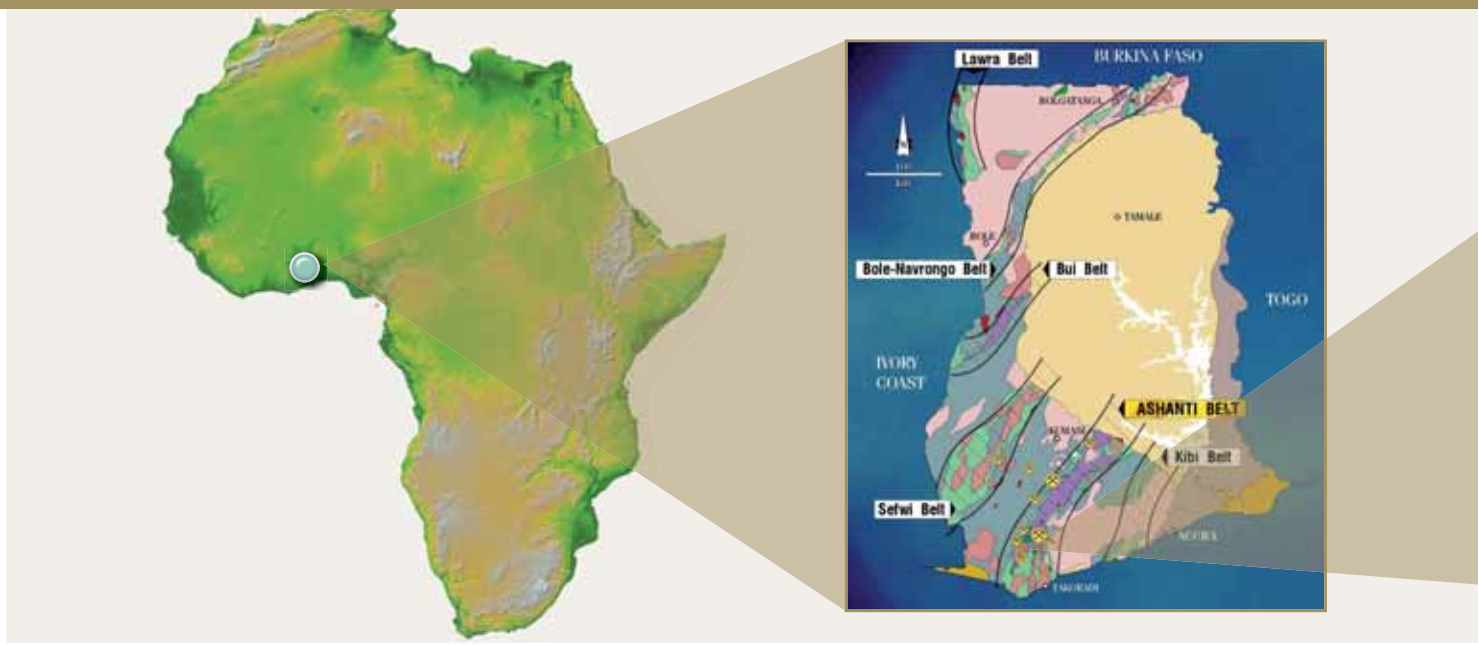
Salient Features

- The Carbon in Leach (CIL) plant expansion project was successfully commissioned in January 2009 and as a result increased the capacity to 12.3 Mpta.
- Solid anchor for growth in the West Africa Region.
- Mineral Resource of 16.2 Moz.
- Mineral Reserve of 10.7 Moz.
- A pilot plant for testing High Pressure Grinding Rolls (HPGR) is being installed and is planned to be completed in F2010.
- Life of Mine extends to 2022 (13 years).

Mining activities around Tarkwa date back to the late 19th century. Gold Fields Ghana operated the underground mine which exploited the Main and West auriferous conglomerates (reefs) of the Banket Series of the Tarkwaian System. These reefs were mined from two vertical shafts, (Abontiakoon and Apinto), from 1993 until 1999.

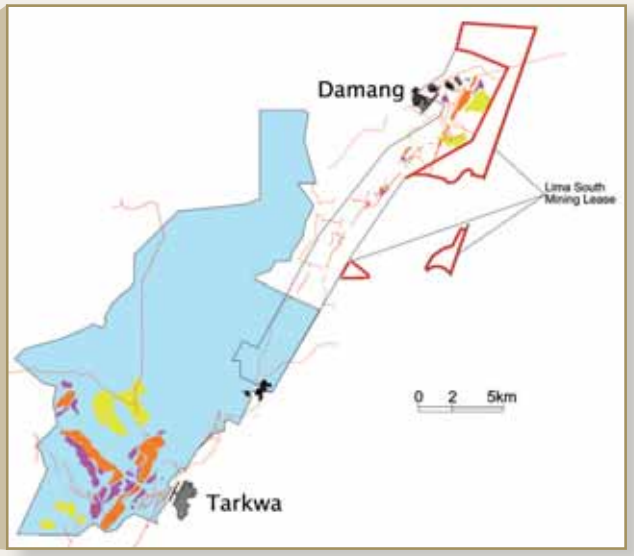
In 1996 a pre-feasibility study, followed by a positive feasibility, led to the approval for the development of an open pit Heap Leach operation to the northwest of the underground workings to exploit the outcropping and near surface multiple conglomerate horizons of the Banket Series.

In 1998 the initial development was completed on Tarkwa Phase I, the 14.5 Mtpa open-pit mining operation supplying 4.7 Mtpa of ore to the North Heap Leach Facility. From 1999 to 2008 the Tarkwa operation expanded through another three phases, which included the acquisition of Teberebie from Ghanaian Australian Goldfields Limited and the re-commissioning of the Teberebie open pit and heap leach pads to the current expanded capacity of the CIL plant.



Key Features

Independent Audit	Figures reported in this declaration are as reviewed and approved by independent, external consultants as at 30 June 2009
Prepared by	Gold Fields Limited
Effective date	30 June 2009
Source of Information	This Technical Statement is a summary of the internally sourced document entitled F2010 Tarkwa Competent Persons Report
Personal Inspection	Personal inspection is conducted by the Competent Persons as listed, who are full time employees of Gold Fields Limited
General Location	Tarkwa is located in south-western Ghana approximately 300 km by road west of Accra, the capital, at a latitude 5° 15' N and longitude 2° 00' W. The Tarkwa mine is located 4 km west of the town of Tarkwa with good access roads and an established infrastructure. The mine is served by a main road connecting to the port of Takoradi some 60 km to the southeast on the Atlantic coast
Licence Status and Holdings	The Tarkwa mine operates under mining leases covering a total area of approximately 20,800 ha. Five mining leases cover the Tarkwa concession each dated April 18, 1997 in respect of operations at the Tarkwa property, and two mining leases dated 2 February 1988 and 18 June 1992 respectively, for the operations at the Teberebie property. The Tarkwa concession mining leases expire in 2027 and the Teberebie property mining leases expire in 2018
Operational Infrastructure	The existing surface operation currently exploits narrow auriferous conglomerates, similar to those mined in the Witwatersrand Basin of South Africa. Following a feasibility study in 2004, the deposit is mined on an owner-operated basis, and processing from 2004 to December 2008 utilised a conventional Carbon-in-Leach (CIL) plant as well as a Heap Leach facility
Climate	Although there may be minor disruptions to operations during the wet session, there are no long term constraints on production due to climate
Deposit Type	The open-pit surface operation currently exploits narrow, tabular auriferous conglomerates from six open pits, Pepe, Atuabo, Mantraim, Teberebie, Akontansi and Kottraverchy
Life of Mine (LoM)	It is estimated that the current Mineral Reserve will be depleted in 2022
Environmental	Tarkwa retained its ISO 14001:2004 Environmental Management System and certification following an external audit during the year. The mine also retained its full compliance to the ICMI Cyanide Management code
Regulatory Codes	Gold Fields reports its Mineral Resources and Mineral Reserves in accordance with the South African Code for The Reporting of Exploration Results, Mineral Resources and Mineral Reserves (2007 SAMREC Code), and other relevant international codes such as SEC Industry Guide 7, JORC Code and NI 43 – 101. The Mineral Resources and Mineral Reserves are underpinned by a sufficient Mineral Resource Management process and protocol to ensure adequate corporate governance in respect of the intent of the Sarbanes-Oxley Act



Gold Fields has stated that:
"If we cannot mine safely, we will not mine".
This principle is embedded at Tarkwa.

Operating Statistics

Year ended June	Units	F2009	F2008	F2007	F2006	F2005
Total tons mined	'000 tons	**132,585**	113,341	107,582	96,936	82,471
Stripping ratio	Ore: waste	**5.1**	4.7	4.0	3.6	3.3
Tons processed Heap Leach	'000 tons	**13,540**	16,464	17,019	16,800	16,444
Tons processed CIL	'000 tons	**7,733**	5,571	5,620	4,687	3,189
Source of ore						
– Underground	'000 tons	**–**	–	–	–	–
– Head grade	g/t	**–**	–	–	–	–
– Surface	'000 tons	**21,273**	22,035	22,639	21,487	19,633
– Head grade heap leach	g/t	**0.9**	1.0	1.1	1.2	1.3
– Head grade CIL	g/t	**1.4**	1.5	1.5	1.6	1.5
– Head grade total	g/t	**1.1**	1.2	1.2	1.3	1.3
Average yield total	g/t	**0.9**	0.9	1.0	1.0	1.1
Gold produced	kg	**19,048**	20,095	21,684	22,060	21,051
Gold produced	'000 oz	**612**	646	697	709	677
Operating cost						
– Surface	US$/oz	**523**	431	357	298	236
– Surface	US$/ton	**15.9**	12.6	11.0	9.6	8.1
– Cash cost	US$/oz	**521**	430	333	292	234
– Cash cost	US$/ton	**15.0**	12.6	10.2	9.6	8.1
Capital expenditure	US$ (million)	**201**	212	108	48	76
NCE	US$/oz	**881**	766	512	–	–
Number of employees	TEC's	**3,982**	3,565	3,247	3,068	2,830
Declaration Date		**30 Jun 09**	30 Jun 08	31 Dec 06	31 Dec 05	30 Jun 05
Expected Life-of-Mine	years	**13**	14	15	22	20
Mineral Reserves	Mt	**270**	285	312	353	324
Head Grade of Mineral Reserves	g/t	**1.2**	1.2	1.3	1.3	1.3

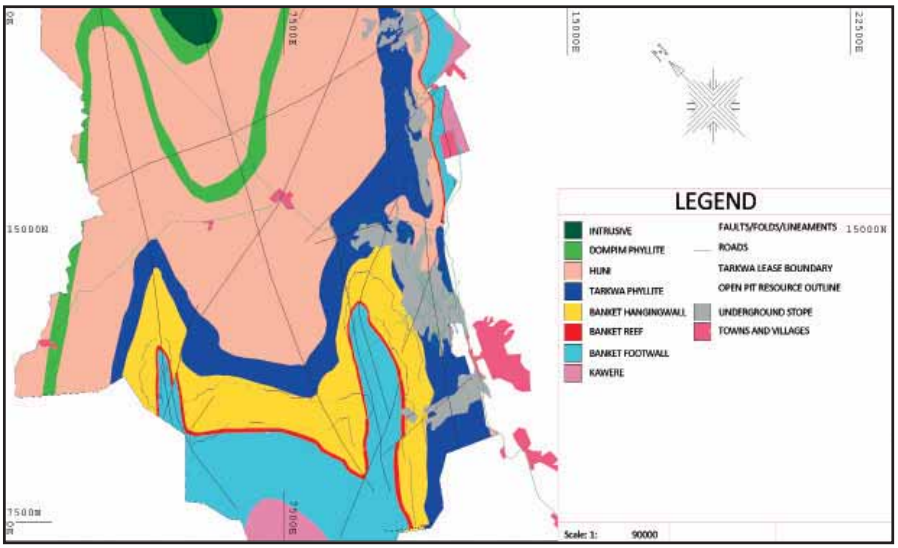
Rounding off of figures presented in this report may result in minor computational discrepancies.Where this occurs it is not deemed significant.

Geological Setting and Mineralisation

The Tarkwa ore bodies are located within the Tarkwaian System, which forms a significant portion of the stratigraphy of the Ashanti Belt in southwest Ghana. The Ashanti Belt is a north-easterly striking, broadly synclinal structure made up of Lower Proterozoic sediments and volcanics underlain by the metavolcanics and metasediments of the Birimian System. The contact between the Birimian and the Tarkwaian is commonly marked by zones of intense shearing and is host to a number of significant shear hosted gold deposits.

The Tarkwaian unconformably overlies the Birimian and is characterised by lower intensity metamorphism and the predominance of coarse grained, immature sedimentary units, which from oldest to youngest are:

- Kawere Series (250 – 700 m) – poorly sorted, polymictic conglomerates and quartzites with no significant mineralisation;
- Banket Series – well sorted conglomerates and quartzites with clasts generally considered to be Birimian in origin and containing significant gold mineralisation, hosting the Tarkwa ore body. In the Pepe area the Banket Series is approximately 32 m thick and at Kottraverchy up to 270 m thick;
- Tarkwa Phyllite Series (120 – 140 m) – fine grained chloritic siltstones, mudstones and schists with no significant mineralisation; and
- Huni Series (1,370 m) – fine grained massive meta-arenites with no significant mineralisation.



Surface geology and infrastructure

Teberebie G reef

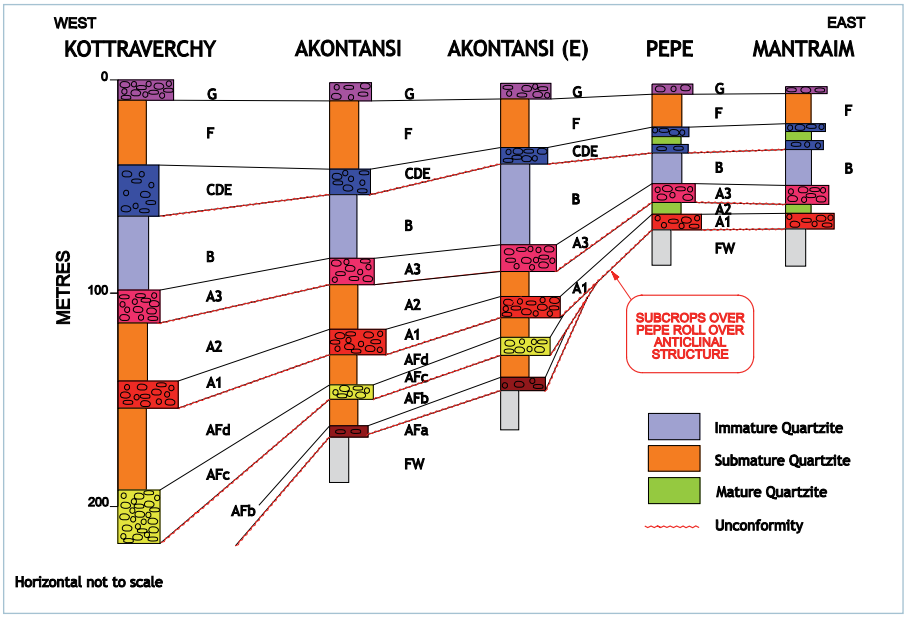
Local geology

The local geology at Tarkwa is dominated by the Banket Series, which can be further sub-divided into a footwall and hanging wall barren quartzite, separated by a sequence of mineralised conglomerates and pebbly quartzites. The stratigraphy of the individual quartzite units is well established with auriferous reefs inter-bedded with barren immature quartzites. The units thicken to the west and current flow parameters indicate a flow from the east and northeast. Structurally, the Tarkwaian belt has been subject to moderate folding, and at least five episodes of deformation are recognised. The original deposition occurred in a district basin environment with associated low to steep angle normal faulting. Subsequent compression and folding led to development of thrust faults and reversing of previous normal faults. The final stages involved further thrusting in a southwest direction.

The mineralised and potentially economic conglomerate reefs are identified below from the base upwards (younging):

- AFc – 0.2 – 3.0 m thick, only occurs in the west and subcrops against the A1 in the east. Well sorted with rounded clasts of quartzite and visible gold;
- A1 – between 2 – 7 m thick, moderately to poorly sorted conglomerate and thin quartzites with occasional visible gold;
- A3 – occurs up to 7 m thick, moderately sorted, the conglomerate forms as thin discontinuous lenses within a package of cross bedded quartzites, visible gold is rare;
- B2 (or B) – up to 3 m thick, very coarse quartzites with thin lags of sub-rounded pebble conglomerate does not occur in the Akontansi ridge or Kottraverchy areas;
- CDE – up to 8 m thick and can be subdivided into the lower C reef and upper E reef, both of which are conglomeratic and are separated by the D reef quartzite;
- F2 – a variably developed polymictic gravel up to 2 m thick, essentially a marker horizon, except in the east where it carries low grades; and
- G – varies from a 2 – 6 m thick poorly sorted conglomerate with clasts of quartzite and phyllite.

Sedimentological studies of the detailed stratigraphy within individual reef units have led to the recognition of both lateral and vertical facies variations. The modelling of these has resulted in the recognition of a cycle of events from initial channel formation and rapid down cutting of the central channel (basin down warp time units T1 and T2), through a period of uplift and reworking (T3). Finally, a period of meandering channel bars and flow reduction led to the development of low grade conglomerates with silty interbeds (T4). This sequence has been recognised in each of the main reef units with the T3 sequence being the principal episode of gold deposition and concentration.



Schematic sedimentological profile through the Tarkwa orebody

Exploration and drilling

The bulk of the Tarkwa open pit palaeoplacer Resource has been drilled to Measured and Indicated categories at current costs and a gold price of US$1,000/oz. A Regional prospectivity study conducted in 2004, did not reveal any further palaeoplacer nor significant hydrothermal gold targets on the Tarkwa lease area. One minor hydrothermal target identified in the study has been previously drilled and no hydrothermal gold mineralisation was intersected. Tarkwa is now a mature mine and the focus has shifted from exploration to optimising the extraction of the current Mineral Resource.

Future diamond drilling programs will be guided by the "unconstrained" Whittle® pit optimisations which may indicate the potential for economically viable extraction of pay shoots down-dip of current pits. Infill diamond drilling programmes will also be considered where there is the need to increase resource definition to upgrade the Mineral Resource category ahead of mining and to provide detailed information for assessment of alternative select mining cuts of the reef packages.

Mining

Tarkwa is a large, established open pit gold mine that utilises selective surface mining methods to optimise the extraction of the sedimentary mineral deposits. The mine operates its own load and haul fleet of 14 excavators, ranging from 120 to 295 tons, 44 dump trucks with a payload of 144 tons as well as ancillary equipment. 24 Owner operated drill rigs are used for blast hole drilling. Equipment maintenance is carried out by MARC contractors. In F2010 Tarkwa plans to mine a total of 145.8 Mt of material at a stripping ratio of 5.7 to 1.

Mining slope with geological staff supervising the select mining activities of a 295 ton excavator

Mining methods

The mining methodology used is highly selective. The location of the mining areas is defined through the long term planning process. The boundaries of the pits are pegged out by survey and the area is cleared of bush and topsoil with a bulldozer. The topsoil is relocated for rehabilitation purposes. After clearing, reverse circulation grade control drilling is carried out, and geological models constructed. The short-term plans and forecasts are updated with this grade control information prior to the commencement of mining. From the highest point in the pit, material is free-dug or blasted to the first blasting reference level. Currently fresh rock and transitional zones are drilled and blasted in 6 m lifts, with excavation in 3 m flitches. Fourteen backhoe excavators are used to select waste from the ore, and vice versa, along the sedimentary horizons to an average accuracy of 30 cm on the hanging wall and 20 cm on the footwall of a reef. Pit Geologists and Geotechnicians supervise all digging and mineral material is classified as either RoM, delivered to one of two primary crushers, or low-grade, which is stockpiled close to the primary crushers. Waste material is hauled to the nearest waste dump.

Blasting currently utilises relatively close patterns and small diameter holes, typically a 3.4 m by 3.8 m grid with a hole diameter of 118 mm and a powder factor of 0.75 kg/BCM. Larger diameter holes and an increased grid size will be utilised in the partially weathered material, whilst decreased grid sizes will be utilised in harder material. The small diameter holes are used to preserve, as far as possible, the integrity of the ore/waste contacts for selective mining purposes.

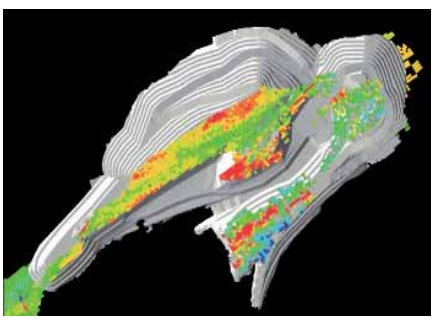
Truck allocation (dispatching) is by means of the LP-based, GPS assisted Modular Mining Fleet Management System. Management reporting of material movement is via an intranet-based system (MMRS) which "reads" the data off the Modular Database in which all relevant information is stored.

Mine planning and scheduling

In general, all mine design and scheduling is undertaken using Surpac®, Datamine®, Whittle®, Xeras® , Xpac® and in-house computer software. The planning cycle commences with the ratification of key input parameters, prior to producing a compliant Mineral Resource statement adjusted for all Mineral Resource depletions.

On completion of the Mineral Resource update, the planning process commences, incorporating a Corporate decision on macro economic parameters, development of a two-year operational plan (top down goals, which are derived from the previous year's strategic plan) and the roll out of the operational plan into a LoM plan, which forms the basis of Tarkwa's annual Mineral Reserve declaration.

Standard software is utilised to derive the optimal pit shell designs at a variety of cut-off grades. The detailed engineering and design work on the optimised pit shells and scheduling is carried out using these software packages.



Kottraverchy block model and LoM pit design

Mine planning and scheduling (continued).

A cut–off grade strategy is used in the Mineral Reserve estimation process. The process cut-off defines the ore/waste segregation, and a cut-over grade defines mill/heap leach segregation. A third cut-off, termed the optimal cut-off/cut-over, is also derived, which can be applied to increase the grade and therefore cash flow in the initial years of the LoM plan. Material between the optimal cut-off/cut-over and the process cut-off is stockpiled for treatment at the end of the LoM.

For all operational plans, a detailed (two-year) operating and capital cost budget is produced and where appropriate extended for the LoM production schedule.

Zero-based costing is used to formulate the two-year plan. Historically achieved data for productivity and operating costs, is utilised as the basis from which the operational budget is benchmarked. All capital projects are ranked and prioritised to maximise capital efficiency and return on investment.

Projects

The South Heap Leach facility ceased crushing in December 2008 to coincide with the commissioning of the expanded CIL plant. The decreased availability of high dissolution (high recovery) ore that is amenable to heap leaching necessitated the reduced heap leach and expanded CIL milling capacity.

A 500 t/h High Pressure Grinding Roller (HPGR) unit is being added onto the crushing circuit at the South facility in order to conduct a plant scale test of the HPGR technology. The HPGR unit will crush 1 Mt of low dissolution material during F2010 with the aim of determining improved gold recovery, heap stability at the finer crush and reliabilty of the HPGR equipment. Positive results from this test will be considered for application at the North Heap Leach facility.

Scoping studies have been carried out to assess the viability of relocating the South Facility primary crusher closer to Teberebie or Akontansi pit with the aim of using in-pit crushing and conveying to reduce mining costs. The scoping studies have indicated that the most attractive option is to relocate the crusher to Teberebie pit for ore crushing. This will reduce mining costs and provide a risk mitigating alternative to the primary crusher currently feeding the CIL plant. This project will be taken to pre-feasibility level in the future.

Three other projects that have been initiated and will be accelerated during F2010:

- optimising the LoM waste stripping schedule;
- optimising the LoM waste dumping schedule; and
- improving the LoM water control plan.

Each of these initiatives is aimed at improving profitability of the Mineral Reserve.

Mineral Processing

Since 1999 all ore has been sourced from open pit mining operations and is currently processed at the 9.8 Mtpa North Heap Leach facility and the 12.3 Mtpa CIL plant. A third facility, the South Heap Leach facility was closed in December 2008.

The ore is a free milling conglomerate with negligible sulphide content. Weathering has affected rocks near the surface and a higher degree of weathering is associated with increased porosity and increased Heap Leach dissolution and recovery. The North Heap Leach was commissioned in 1998 to process the initial high porus ore. Phase V Heap Leach pad construction was completed in 2009 and a further three phases of Heap Leach pad construction have been accounted for in the LoM plan. As the mine gets deeper so the percentage of weathered ore amenable to Heap Leaching decreases. This justified the construction of the CIL plant in 2004 and its subsequent expansion that was commissioned in January 2009. The CIL milling process provides a 97% recovery which is not possible when using Heap Leaching for the harder, unweathered ore, the percentage of which increases over the LoM.

The North Heap Leach employs three stages of crushing prior to agglomeration. Agglomeration involves the addition of 4 kg/t of cement to the crushed rock to bind the fine material and produce an agglomerate that remains stacked and porous on the Heap Leach pads. Following agglomeration the ore is transferred by conveyor and stacked on the leach pads by a stacking conveyor. The heaps are irrigated with a cyanide solution which dissolves the gold as it percolates through the heaps. The pregnant solution is collected on the layer of geotextile that lines the base of the heaps and is pumped through a series of ponds to the adsorption/desorption/recovery (ADR) plant where the gold is adsorped onto activated carbon, removed from the carbon by acid wash, and recovered using electro winning. The North facility has a smelt house with diesel fired furnaces to smelt all gold produced at the North facility.

The CIL process route has a 54” x 75” Gyratory crusher that feed two crushed ore stockpiles that have a live capacity of 45,000 t (30 hours). Underneath each stock-pile is a reclaim tunnel, with apron feeders that feed onto a conveyor belt, which in turn feeds the milling circuit. The milling circuit consists of a SAG and Ball mill with recycle crushing in closed circuit with the SAG mill. The SAG Mill has an Effective Grinding Length of 42’ with an internal diameter of 27’ and 14 MW of installed power (2 x 7,000 kW twin drive motors). The ball mill has an effective grinding length of 36’ with an internal diameter of 26’ and 14 MW of installed power (2 x 7,000 kW twin drive motors). The milling circuit is operated at a capacity of 1,490 tph. The CIL circuit consists of two trains of eight tanks in series fed from a common leach tank. The loaded carbon passes into a 15 t acid wash column. The gold is recovered from the loaded carbon in two 15 t elution circuits. Gold is recovered from solution by electrowinning. The gold is smelted in the CIL smelt house in an induction furnace.

CIL plant SAG mill

Sustainable Development

Tarkwa manages risk to control and where possible, eliminate hazards in the working environment. Tarkwa strives to achieve and maintain an outstanding health and safety performance through the participation of all employees and the application of safe, innovative processes and technologies, within a framework of OHSAS 18001 and full compliance. A comprehensive external audit of Tarkwa's Full Compliance Health and Safety Management System has been undertaken annually since 2005 and certification retained to date.

The OHSAS 18001 system is in alignment with Gold Fields Limited "Full Compliance Health and Safety Management System", which is the Group-wide standard for the management of occupational health and safety in Gold Fields. This aims to achieve:

- the elimination of all fatal accidents at all Gold Fields operations;
- a 50 per cent reduction in all accident rates over five years; and
- maintain a safe and healthy working environment at all times through quality training, effective communication and employee commitment.

The initiative has the broad support of all labour unions and associations, individual employees and management. Tarkwa operates a comprehensive employer HIV/AIDS programme in comprising Informed Consent Voluntary Counselling and Testing (ICVCT), disease prevention and health promotion programmes. Tarkwa appointed a HIV/AIDS Co-ordinator, who drives and oversees the implementation of a HIV/AIDS programme with the full co-operation of the Employee Representative bodies and according to International Labour Organisation and Gold Fields Group standards. The Co-ordinator has incorporated HIV/AIDS into the induction programme on the mine for both employees and contractors. Peer educators facilitate discussions on HIV/AIDS during Health and Safety Meetings as well as providing formal counselling and training to both on-site and-off site communities.

Cyanide is managed under the framework of the International Cyanide Management Code. Tarkwa gold Mine was certified as ICMC compliant in June 2008. Under the Cyanide code, all suppliers and transporters of cyanide to the mine must comply with the code to ensure the safe use of cyanide. Strict use of cyanide on site is continually monitored and necessary changes are incorporated into operational procedures.

Environmental management at Tarkwa is conducted within the framework of an ISO14001:2004 certified Environmental Management System. Tarkwa operations are operated in accordance with Ghanaian environmental requirements, as administered by the EPA, and hold the required Environmental Permits and valid Environmental Certificates. Tarkwa complies with the EPA requirements to provide monthly monitoring returns, an annual environmental report and an update of the EMP at intervals of three years. An EIS for the Tarkwa Expansion Project was submitted to the Ghana EPA in March 2007. The document was approved on 27 May 2007.

An updated EMP was submitted to the EPA on 22 November 2008 as required under the legislation. A costed reclamation and decommissioning plan (CRDP) for Tarkwa was completed in 2001 and updated in March 2004. A subsequent update was submitted in June 2006. A revised CRDP covering the period to December 2008 is currently being finalized on site for submission to the EPA during July 2009.

Safety Statistics	Units	F2005	F2006	F2007	F2008	F 2009
Fatalities	(No)	1	1	0	3	**0**
Fatality Rate	(per mmhrs)	0.1	0.1	0	0.2	**0**
LDIFR	(per mmhrs)	0.7	0.6	0.2	0.3	**0.3**

Expanded CIL plant – SAG mill (left) and Ball mill (right)

Mineral Resource and Mineral Reserve

Unless otherwise stated all Mineral Resources and Mineral Reserves are quoted as 100% and are not attributable with respect to ownership.

Stockpile tonnage and grade estimates are based on accumulations of estimated tonnage and grades trucked throughout the history of the mine, and are therefore considered to be reasonably accurate. However, the grades and tonnages are discounted by five percent for processing purposes as experience has show that this is realistically achievable when reclaiming a stockpile. RoM stockpile tonnages were reconciled to survey volumes in June 2009.

Mineral Resources

Mineral Resources are quoted at an appropriate in-situ economic cut-off grade with tonnages and grades based on the resource block model. They also include estimates of any material below the cut-off grade required to be mined to extract the complete pay portion of the Mineral Resource.

Mineral Resource Classification	Tons (Mt)			Grade (g/t)			Gold ('000 oz)		
	June 09	June 08	Dec 06	June 09	June 08	Dec 06	June 09	Jun 08	Dec 06
Open pit and underground									
Measured	**144.7**	149.0	144.1	**1.5**	1.4	1.5	**6,800**	6,914	6,790
Indicated	**173.4**	146.1	191.0	**1.2**	1.3	1.3	**6,705**	6,021	8,122
Inferred*	**26.0**	24.4	51.1	**3.1**	3.1	2.4	**2,569**	2,411	3,879
Total open pit and underground	**344.1**	319.5	386.2	**1.5**	1.5	1.5	**16,075**	15,346	18,792
Surface									
Measured stockpiles	**4.7**	3.9	6.2	**0.8**	0.7	0.8	**112**	90	154
Total surface stockpiles	**4.7**	3.9	6.2	**0.8**	0.7	0.8	**112**	90	154
Grand Total	**348.7**	**323.4**	**392.4**	**1.4**	**1.5**	**1.5**	**16,187**	**15,435**	**18,945**

**F2010 includes underground Mineral Resources of 21.2 Mt @ 3.53 g/t*

Modifying factors

- The Measured and Indicated Mineral Resource are inclusive of those Mineral Resources modified to produce Mineral Reserves;
- All Mineral Reserves are quoted in terms of Run-of-Mine (RoM) grades and tonnages as delivered to the metallurgical processing facilities and are therefore fully diluted; and
- Mineral Resources and Mineral Reserves undergo both internal and external audits either during the year, yearly or bi-annually, and any issues identified are rectified at the earliest opportunity, during the current reporting cycle.

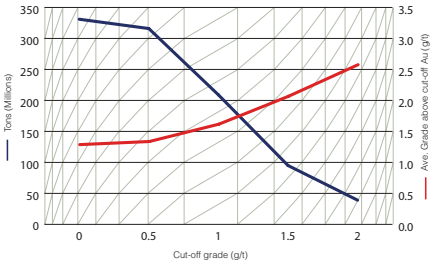
Mineral Resource Parameter		
Mineral Resource Gold Price	US$/oz	1,000
Cut off for heap leach	g/t	0.24
Cut off for mill feed	g/t	0.35
Cut off for underground	g/t	2.46 –3.08
Mineral Reserve Parameter		
Mineral Reserve Gold Price	US$/oz	800
Cut off for heap leach	g/t	0.30
Cut off for mill feed open pit	g/t	0.43
Stripping ratio	waste:ore	4.6
Dulution (open pits)	%	11
Plant recovery factor fresh ore	%	97
Plant recovery factor oxide ore	%	97
Heap Leach recovery factor	%	64
Processing capacity	Mtpa	12.3
Heap Leach capacity	Mtpa	9.8

North Heap Leach phase V expansion

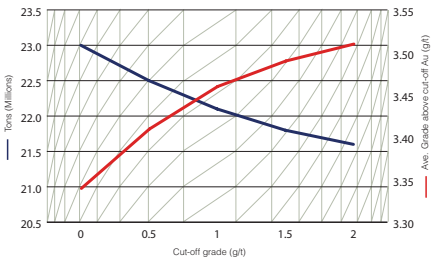
Grade tonnage curves

The open pit grade tonnage curve represents undiluted grade and tons within the diluted optimised shell. Underground Mineral Resources are inclusive of dilution.

Open pits



Underground



Mineral Reserves

The Mineral Reserve estimate for Tarkwa Gold Mine is based on development of appropriately detailed and engineered LoM plans. All design and scheduling work is undertaken to an appropriate level of detail by experienced engineers using appropriate mine planning software. The planning process incorporates appropriate modifying factors and the use of cut-off grades and other technical-economic investigations.

Mineral Reserve statements include only Measured and Indicated Mineral Resources modified to produce Mineral Reserves, and contained in the LoM plan.

Mineral Reserve Classification	Tons (Mt)			Grade (g/t)			Gold ('000 oz)		
	June 09	June 08	Dec 06	June 09	June 08	Dec 06	June 09	June 08	Dec 06
Open pit									
Proved	**149.6**	155.0	153.6	**1.3**	1.3	1.3	**6,220**	6,371	6,468
Probable	**116.0**	126.6	152.1	**1.2**	1.2	1.2	**4,354**	4,857	6,054
Total open pit	**265.6**	281.6	305.7	**1.2**	1.2	1.3	**10,575**	11,228	12,521
Surface									
Probable stockpiles	**4.4**	3.7	5.9	**0.7**	0.7	0.7	**101**	85	141
Total surface stockpiles	**4.4**	3.7	5.9	**0.7**	0.7	0.7	**101**	85	141
Grand Total	**270.0**	**285.3**	**311.7**	**1.2**	**1.2**	**1.3**	**10,676**	**11,313**	**12,662**

Mineral Reserves by mining area

Mining Area	Proved			Probable		
	Tons (Mt)	Grade (g/t)	Gold ('000 oz)	Tons (Mt)	Grade (g/t)	Gold ('000 oz)
Akontansi	56.8	1.23	2,237	88.5	1.12	3,202
Kottraverchy	8.4	1.46	393	–	–	–
Pepe / Mantraim	33.1	1.20	1,275	6.2	1.09	217
Teberebie	51.3	1.40	2,315	21.2	1.37	935
Surface stockpile	4.4	0.71	101	–	–	–
Grand Total	**154.0**	**1.27**	**6,322**	**116.0**	**1.17**	**4,354**

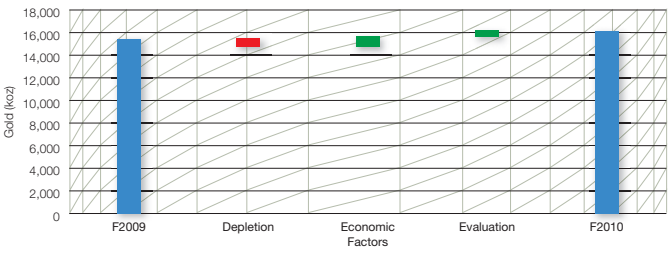
Mineral Resources and Mineral Reserves Reconciliation year-on-year

Mineral Resource

Factors that affected Mineral Resource reconciliation:

- Depletion by mining (RoM and low grade ore);
- Increased cost; and
- Increase in gold price outstripped depletion and cost imputs and accounts for the bulk of the increase of Mineral Resource.

Change in Mineral Resource F2009 to F2010

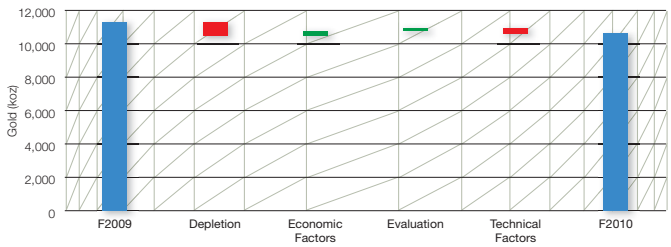


Mineral Reserve

Factors that affected Mineral Reserve reconciliation:

- Decrease was mainly due to increase in cost, which eroded gains due to increase in gold price;
- Depletion by mining and includes both RoM and low grade; and
- Engineering design loss.

Change in Mineral Reserve F2009 to F2010

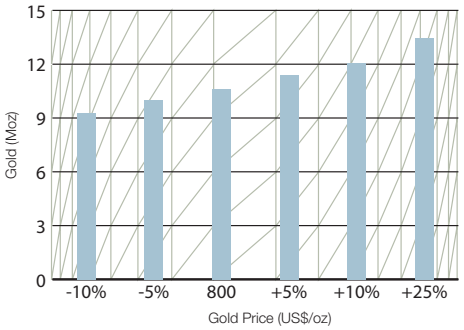


Mineral Reserve sensitivity

The Mineral Reserve sensitivity has been derived from the application of the relevant cut-off grades to individual grade-tonnage curves of the optimised pit shells for the open-pits. The Mineral Reserve sensitivities are not based on detailed depletion schedules and should be considered on a relative and indicative basis only.

The following graph indicates the Managed Mineral Reserve sensitivity at -10%, -5%, base, +5%, +10% and +25% to the gold price.

Managed Mineral Reserve Sensitivity



Mineral Reserve split by source between CIL plant and Heap Leach

Source and Feed	Tons (Mt)			Grade (g/t)			Gold ('000 oz)		
	June 2009	June 2008	Dec 2006	June 2009	June 2008	Dec 2006	June 2009	June 2008	Dec 2006
Open Pit									
CIL Plant	**153.8**	160.6	159.9	**1.5**	1.5	1.5	**7,356**	7,670	7,866
Heap Leach	**111.8**	121.0	145.8	**0.9**	0.9	1.0	**3,219**	3,558	4,655
Total Open Pit	**265.6**	281.6	305.7	**1.2**	1.2	1.3	**10,575**	11,228	12,521
Stockpiles									
CIL Plant	**1.7**	0.8	–	**0.7**	0.6	–	**38**	15	–
Heap Leach	**2.7**	3.0	5.9	**0.7**	0.7	0.7	**63**	70	141
Total Stockpiles	**4.4**	3.7	5.9	**0.7**	0.7	0.7	**101**	85	141
Grand Total	**270.0**	285.3	311.7	**1.4**	1.2	1.3	**10,676**	11,313	12,662

Regulatory Codes

SAMREC

This Technical Statement has been prepared in Compliance with the South Africa Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (2007 SAMREC Code).

JSE

This Technical Statement has been prepared in compliance with the listing requirements of the JSE Securities Exchange, South Africa (JSE), specifically Section 12 – Issue 11.

Sarbanes-Oxley Act

The Mineral Resource and Mineral Reserve is underpinned by an adequate Mineral Resource Management process and protocol to ensure adequate corporate governance in respect of the intent of the Sarbanes-Oxley Act.

Environmental

Tarkwa has an environmental management team who are supported by specialist assistance from the Corporate office in Johannesburg. The systems, procedures, training etc. are at international best practice levels. Gold Fields has produced a Sustainability Report in 2009 and intends reporting annually in accordance with the Global Reporting Initiative.

Competent Persons

Mr C. Duvel: Mineral Resource Manager

BSc (Hons.) (Geology), GDE (Mining Engineering), (SACNASP; Registration number 400007/98). Mr C. Duvel has over 14 years experience in the mining industry and is responsible for the overall correctness, standard and compliance of this declaration. He is a competent person in placer and hydrothermal gold mineralization

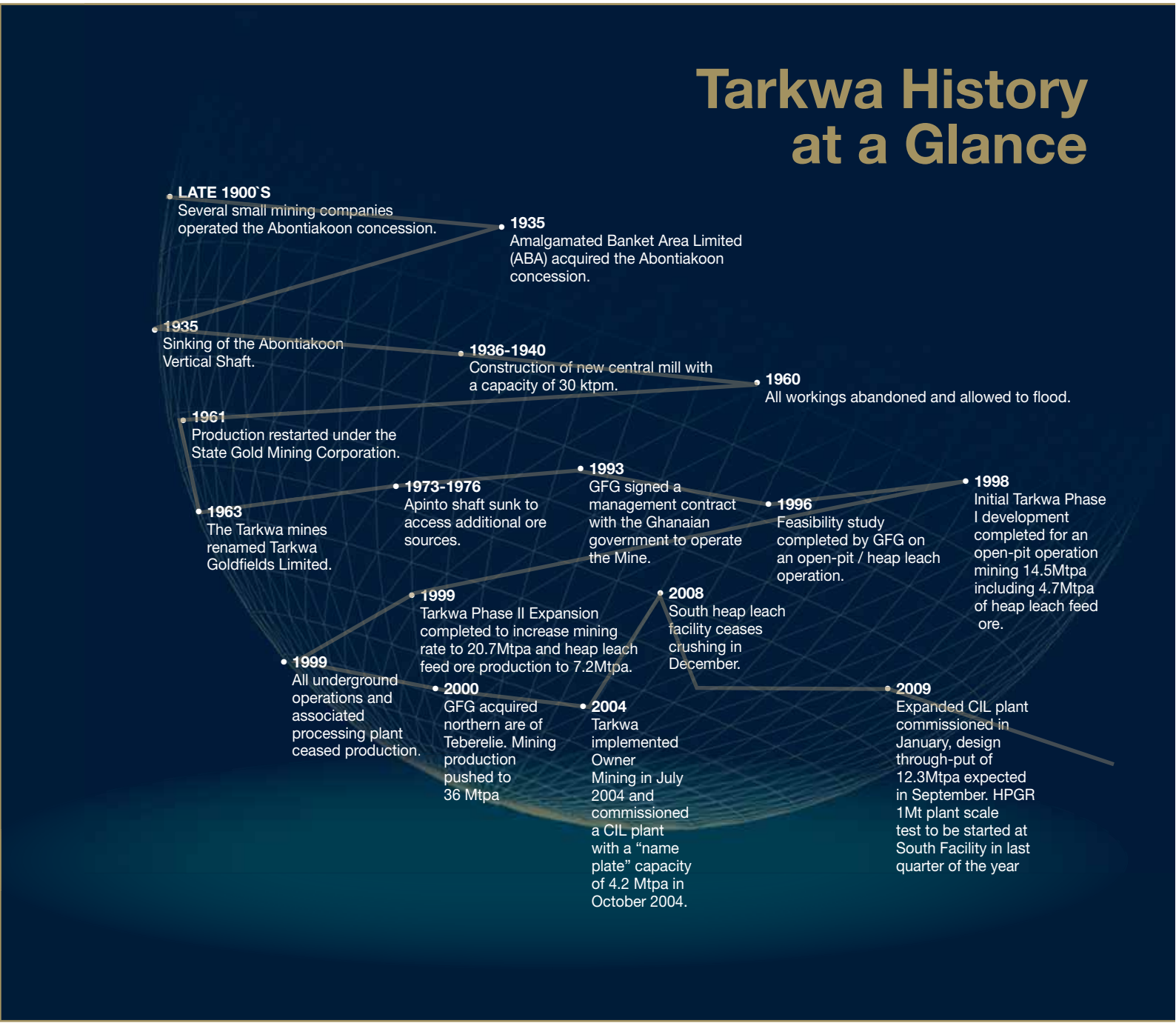
Mr G.S.G. Chapman: Operations Manager

BSc (Hons.) (Geology) (SACNASP; Registration number 400694/83). Mr G.S.G. Chapman has over 33 years experience in the mining industry and is responsible for the review of the mine planning and financial analysis of this declaration.

Key Technical Staff

Post	Incumbent	Qualification	Years	Key Responsibility
General Manager	P.J. van Schalkwyk	BSc (GeoChem), CPIR	25	Responsible for overall strategic direction, leadership and management
Operations Manager	G.S.G. Chapman	BSc (Hons.) (Geology), Pr. Sci. Nat. (SACNASP; Registration no. 400694/83)	33	Site operations, including mining, mining maintenance, engineering operations, process and Mineral Resources
Manager Mining	P. von Kpekpena	BSc (Mining), GDE Mining, Mine Managers Certificate (SA, Tanzania, Ghana), MDP (GIBS, SA)	18	Full operational management
Acting Financial Manager	E. Asubonteng	BSc Administration, Association of Chartered Certified Accountants (ACCA)	8	Financial reporting and compliance
Human Resources Manager	M. van der Merwe	IPM Diploma (M+3)	23	Human resource management
Metallurgy Manager HL	J. Huffman	BSc (Mineral Processing and Extractive Metallurgy)	34	Mineral Processing & Metallurgy Heap Leach
Metallurgy Manager CIL	M. Lombaard	B Eng. Metallurgical Engineering	11	Mineral Processing & Metallurgy CIL
Engineering Manager – Process	H. de Beer	Diploma Mechanical Engineering Government Certificate of Competency	28	Process Engineering, logistics and infrastructure management
Safety Manager	D. Pienaar	NADSAM (M+3)	20	Health & Safety
Environmental Manager	T. Morris	BSc, Dip EIA	29	Environmental management
Mineral Resources Manager: Mine Planning and Resource Management	C.Duvel	BSc (Hons.) (Geology), GDE (Mining Engineering), Pr. Sci. Nat. (SACNASP; Registration no. 400007/98)	14	Mine Planning, Mineral Resources & Mineral Reserves and compilation of CPR
Manager Community & Public Affairs	Dr. S. Yirenkyi	BA (Development Planning) (KNUST)	13 (GFG)	Community and public affairs

Tarkwa History at a Glance



Disclaimer

Forward looking statements

Certain statements in this document constitute "forward looking statements" within the meaning of Section 27A of the US Securities Act of 1933 and Section 21E of the US Securities Exchange Act of 1934.

Such forward looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of the company to be materially different from the future results, performance or achievements expressed or implied by such forward looking statements. Such risks, uncertainties and other important factors include among others: economic, business and political conditions in South Africa, Ghana, Australia, Peru and elsewhere; the ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, exploration and development activities; decreases in the market price of gold or copper; hazards associated with underground and surface gold mining; labour disruptions; availability terms and deployment of capital or credit; changes in government regulations, particularly environmental regulations; and new legislation affecting mining and mineral rights; changes in exchange rates; currency devaluations; inflation and other macro-economic factors, industrial action, temporary stoppages of mines for safety reasons; and the impact of the Aids crisis in South Africa. These forward looking statements speak only as of the date of this document. The company undertakes no obligation to update publicly or release any revisions to these forward looking statements to reflect events or circumstances after the date of this document or to reflect the occurrence of unanticipated events.

Note: For abbreviations refer to page 23, Glossary of Terms page 24 – "Mineral Resource and Mineral Reserve Overview 2009"