



GOLD FIELDS

Agnew Gold Mine

Technical Short Form Report

Agnew Gold Mine represents a solid base for Gold Fields growth in the Region and is an important contributor to the stated vision, "To be the global leader in sustainable gold mining," with a target contribution from the Australasia Region of ~1 Moz per annum.

Agnew is located some 375 km north of Kalgoorlie, in the same geological region as the St Ives Gold Mine. Gold was first discovered in the region in 1895 and Agnew currently holds tenements covering an area of approximately 59,398 ha. The existing operations exploit shear hosted auriferous zones from underground at the Waroonga Complex.

Agnew has a well funded exploration strategy aimed at extending existing Mineral Reserves from its perspective and relatively unexplored tenements through, target testing, new discovery and new target generation for future testing. Main strategic aims for the company are the discovery of additional Mineral Reserve sources to supplement Waroonga in the short term and the discovery of a significant new ore complex to replace Waroonga in the medium – long term.

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. All Mineral Resource and Mineral Reserve figures reported are managed unless otherwise stated and Mineral Resources are inclusive of Mineral Reserves. Reported Mineral Reserves at Agnew showed a headline increase of 107 koz during F2009, including the impact of depletion at 200 koz, indicating an overall increase of 307 koz.

Salient Features

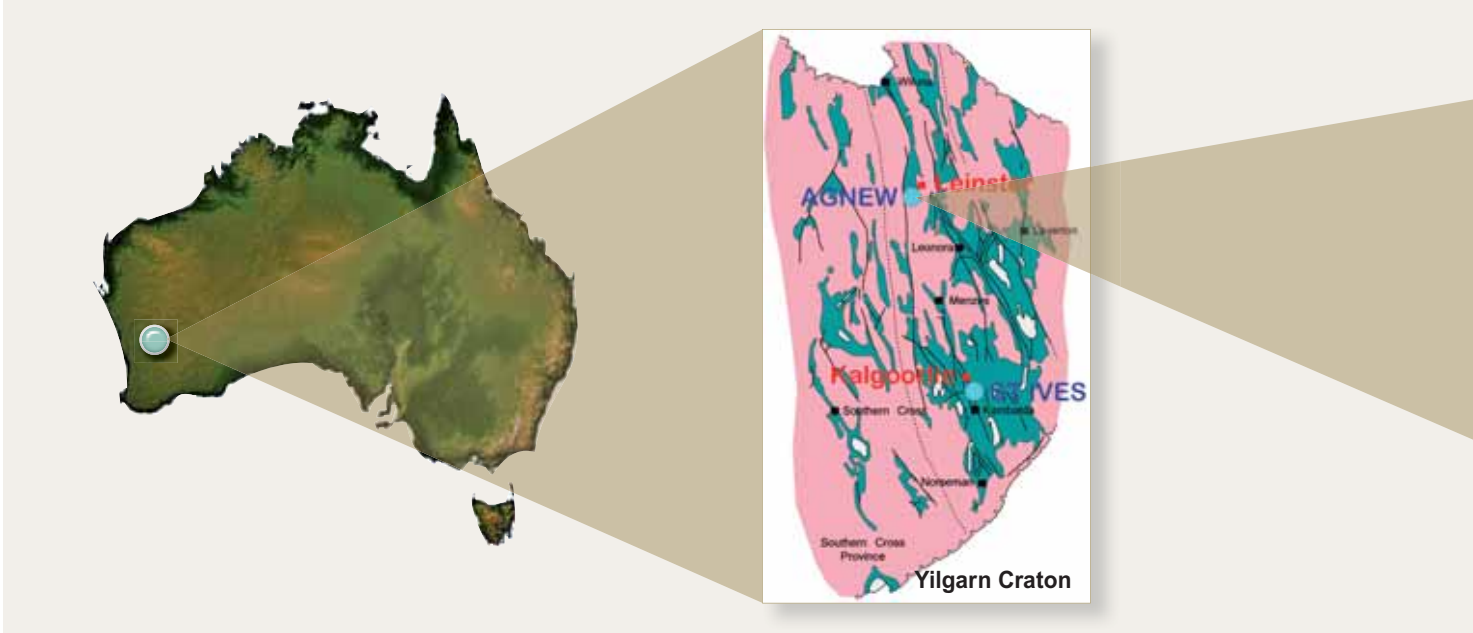
- Current ore sources are the Kim, Main and Rajah Lodes at the Waroonga Underground Complex.
- Mineral Resources of 3.5 Moz.
- Mineral Reserves of 0.7 Moz
- Increase in Mineral Reserve ounces of 17% net of depletion.
- Paradigm improvement in orebody model.
- Life of Mine extends to 2013 (4 years)

The Agnew EMU Gold deposit was discovered in 1897, with initial mining conducted by Waroonga Gold Mines Ltd from 1897-1911. East Murchison United Gold Mines Ltd again worked the deposit from 1936-1948. Production from the mine to 1948 totaled 1.3 Mt at a recovered grade of 9.8 g/t.

The Agnew Gold Mining Company Pty Ltd – a sub division of Western Mining Company (WMC) commenced exploration in 1976 after acquiring full ownership of the Lease. A trial pit was started in 1985 with large-scale open pit mining of the Waroonga Pit continuing in 1986 and concluding in 1992. Exploratory underground development commenced in March 1989 but sub-economic grades coupled with large development dimensions and historic stoping, ended underground mining in June 1990.

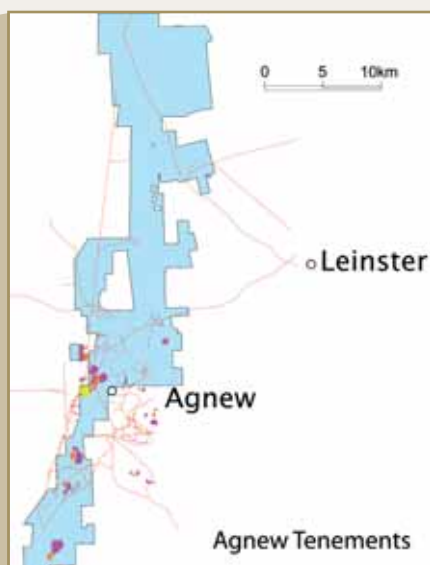
The Waroonga Pit underwent a cut back from March 2001 to February 2003, during which time (December 2001) ownership of Agnew Gold Mines Pty Ltd transferred from WMC to Gold Fields Limited. Underground operations also recommenced in March 2002 with decline access from the pit ramp. The Waroonga Underground Complex consists of numerous Lodes with current mining of the Kim, Main and Rajah Lodes.





Key Features

Independent Audit	Figures reported in this declaration are as reviewed and approved by 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 detailed internally sourced document entitled F2010 Agnew 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	Agnew is situated at latitude 27° 55' S and longitude 120° 42' E in the Norseman-Wiluna Greenstone Belt, the nearest major settlement is the town of Leonora situated 128 km to the south, which is approximately 1,100 km north east of Perth. Well established power, access roads and supporting infrastructure are in place
License Status and Holdings	The Agnew Gold Mining Company Pty Ltd (AGMC), ACN 098-385-883, was incorporated in Australia in 2001 as the legal entity holding and conducting mining activity on the Agnew mineral leases. The Gold Fields Limited group holds 100% of the issued shares of AGMC through its 100% holding in the issued shares of Orogen Holding (BVI) Limited. Agnew controls exploration and mineral rights over a total area of 59,398 ha (total of granted tenements)
Operational Infrastructure	One underground complex mining from two separate ore bodies accessed via declines. Centralised administrative, engineering and one processing plant (1.3 Mtpa capacity)
Climate	No extreme climate conditions are experienced that may affect mining operations
Deposit Type	Orogenic greenstone gold hosted in a number of different styles from lodes. Although all of the Agnew deposits are broadly hosted by the intersections between structures and stratigraphy, there are subtle differences in alteration and mineralisation controlled in part by the local host rock chemistry
Life of Mine (LoM)	It is estimated that the current Mineral Reserve will be depleted in 2013. On-going extensional and brownfields exploration continues which could potentially increase the LoM
Environmental	Agnew has implemented an environmental management system which is ISO14001:1999
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 Agnew.

Operating Statistics

Year ended June	Units	F2009	F2008	F2007	F2006	F2005
Open pit mining						
– Waste mined	'000 tons	–	191	9,315	13,842	12,212
– Ore mined	'000 tons	–	202	1,532	863	448
– Head grade	g/t	–	3.2	2.6	2.1	2.2
– Strip ratio	waste : ore	–	1.0	6.1	16.0	27.3
Underground mining						
– Ore Mined	'000 tons	737	505	394	452	486
– Head grade	g/t	7.9	9.3	11.7	12.1	12.1
Processing						
– Milled	'000 tons	1,066	1,315	1,323	1,323	1,170
– Heap leach	'000 tons	NA	NA	NA	NA	NA
Total	'000 tons	1,066	1,315	1,323	1,323	1,170
Yield						
– Milled	g/t	5.6	4.8	5.0	5.6	5.7
– Heap leach	g/t	NA	NA	NA	NA	NA
– Combined	g/t	5.6	4.8	5.0	5.6	5.7
Gold Produced						
– Milled	kg	5,974	6,336	6,605	6,882	6,603
– Heap leach	kg	NA	NA	NA	NA	NA
Total	kg	5,974	6,336	6,605	6,882	6,603
	'000 oz	192	204	212	222	213
Total cash costs	A\$/oz	541	496	377	356	301
	US\$/oz	401	445	295	265	228
NCE	US\$/oz	550	568	473	458	415
Capital expenditure	A\$m	42	37	36		
Expected Life of Mine	years	4	3	3	3	3
Mineral Reserves	million tons	2.9	2.5	3.4	3.4	4.6
Head Grade of Mineral Reserves	g/t	7.8	7.7	6.0	6.0	5.2

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

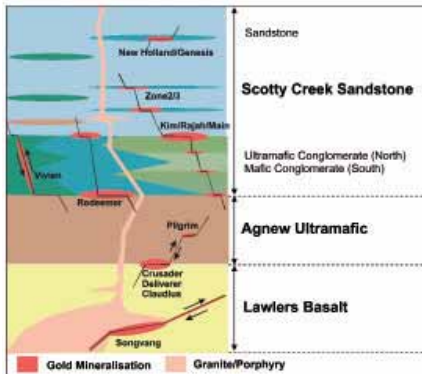
Geological Setting and Mineralisation

Agnew is situated in the northern portion of the Norseman-Wiluna Greenstone Belt, which is part of the Yilgarn Craton, a 2.6 Ga granite-greenstone terrain in Western Australia. In comparison to other greenstone belts in the Yilgarn Craton, the Norseman-Wiluna Belt is highly mineralised, particularly in gold and nickel. The rock-types in the belt comprise abundant tholeiitic and komatiitic volcanic rocks, chert, sulphidic and albitic sedimentary rocks, and a chain of discrete felsic volcanic centres.

The gross structure is markedly linear with north-northwest trending strike-slip faults and other tectonic lineaments traceable for hundreds of kilometres, which disrupt the greenstone into fault-bound domains. The Agnew mining leases are on the western limb of a large open fold, the Lawlers Anticline, which plunges 30° to the north.

The greenstones of the Agnew area have been metamorphosed to upper greenschist-lower amphibolite metamorphic grades. Gold mineralisation at Waroonga is found in quartz breccia lodes, quartz tensional veining and disseminated arsenopyrite – pyrite – biotite mineralisation developed along the lithological contact between a sandstone and ultramafic conglomerate and on other contacts within the ultramafic conglomerates package.

High-grade ore shoots plunge steeply to the north along these contacts. The controls on mineralisation are dilational zones at the intersection of steeply dipping N-S axial planar structures with the stratigraphy. The stronger the contrast in rock competency in these zones the greater is the potential for mineralisation.



Schematic of mineralisation occurrences

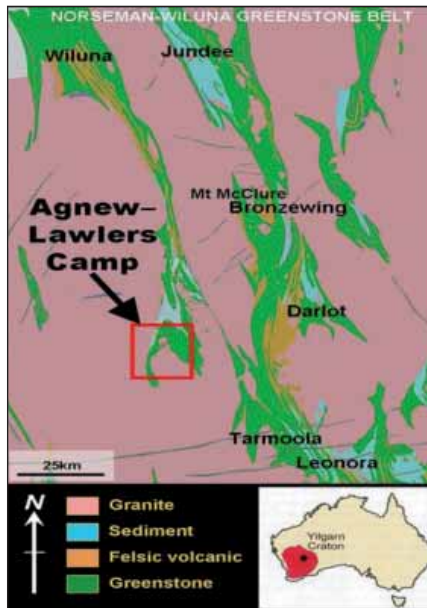
Local geology

Kim Lode

Gold mineralisation in the Kim (and Kim South) Lode is associated with a quartz breccia lode, ranging between 4 and 9 m in width. This high-grade core is enclosed in an alteration assemblage comprising quartz stockwork veining, silicification and disseminated arsenopyrite with variable gold grades, asymmetrically favouring the hanging wall side of the core. This package is developed on the lithological contact between the Scotty Creek Sandstone and SC3 ultramafic conglomerate with the Kim shoot plunging steeply to the north. This plunge reflects the intersection between one or more of the N-S striking steep west dipping axial planar structures and the slightly flatter, 20°, striking stratigraphic contact.

Main Lode

The Main Lode and Main Lode South deposits are composed of multiple shoots. They tend to be defined by the intersection of steeply dipping north trending axial planar structures with three main surfaces situated on or near stratigraphic boundaries striking towards 20°. Mineralisation is largely continuous along these stratigraphic boundaries for a distance of 500 m. However, axial planar structures create dilational sites suitable for gold deposition focussing the mineralisation into a number of steeply north plunging shoots containing elevated gold grades. These mineralised stratigraphic horizons are known as the hangingwall, footwall and



Regional geology of the Agnew Gold Mine

Hunters lodes which lie on contacts between arenaceous and rudaceous units of the Scotty Creek Sediments. The section containing the best mineralisation occurs where shoots on the hangingwall and footwall lodes group together and almost coalesce in parts to form the Main Lode.

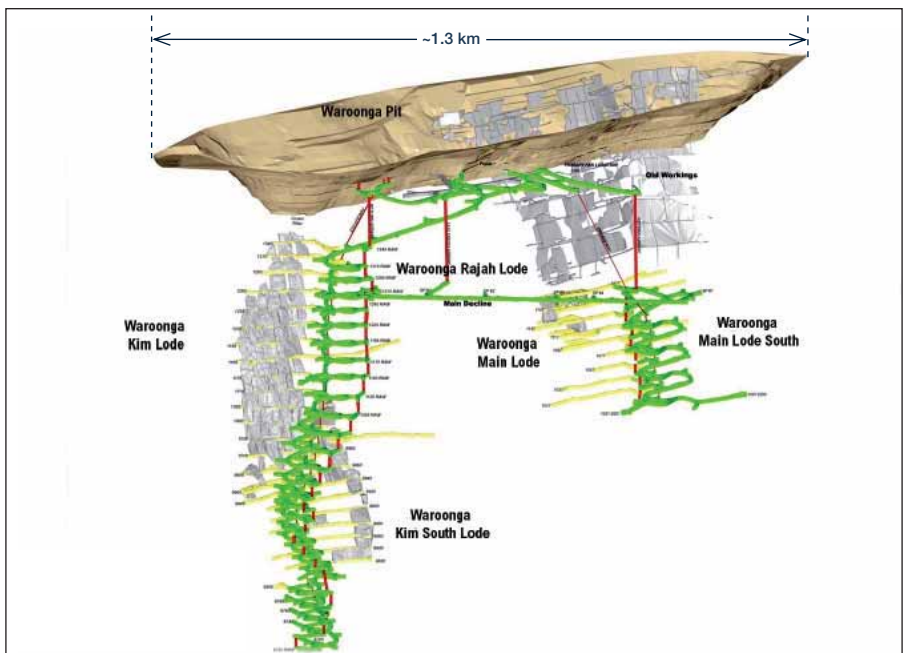
Exploration and drilling

At Agnew there is considerable potential within the current tenement holdings to add significantly to current Mineral Resource and Mineral Reserves, through a combination of

mine (extensions to known Mineral Resource) and near mine exploration. In terms of the extent of its tenement holdings and the exploration undertaken thus far, Agnew cannot yet be considered advanced in exploration terms, and recent geological studies have identified numerous prospective areas yet to be tested effectively.

Ongoing exploration of the Waroonga Complex primarily concentrated on the Kim South and Main lodes has enabled Agnew to continue to add to the Mineral Resource and Mineral Reserve base year on year for the last three years. Focusing on Waroonga in the short to medium term has enabled Agnew to “lock in” the future production for the next 5 years. Focus in F2010 and beyond will continue to build upon this as well as other new targets within the Waroonga Complex. In addition an ongoing extensive program of regional exploration is targeting the next “Complex” scale discovery. Regional exploration is also targeting smaller high grade deposits with the potential to supplement ore feed from Waroonga in the 1-3 year time frame.

Agnew’s exploration strategy continues to be focussed on the corridor hosting the Waroonga, Redeemer, Crusader/Deliverer and Songvang Complexes. All these areas provide short to medium-term potential for new open pit and underground ore discoveries, as well as extensions along strike and down dip of existing Mineral Resources. Agnew’s exploration strategy comprises of 5 key strategic pillars:



Waroonga Complex



Exploration and drilling (continued)



Exploration drilling

Research & Development: Efforts are concentrating on understanding the key geological and structural controls on the formation and location of high grade ore lodes / shoots. This will feed through to more effective ore genesis models, enhanced target generation / testing and increase the prospect of making a significant new discovery in the shortest time possible. 6 key projects are underway in conjunction with various academic institutions, government organizations and consultancy groups. At Waroonga the Whole of Waroonga geological model project is underway to investigate in detail the key controls on high grade mineralisation within the complex.

Target Definition: This involves identifying new targets for testing. Tools available to enhance target definition include geophysical datasets (gravity, magnetic, seismic, electro-magnetic),

multi-element geochemical and multi spectral data derived in the main from air-core and other drilling and geological mapping.

Mine Central Corridor: The Mine Central Corridor is a linear N-S striking shear zone that links all the Major known deposits along the Western limb of the Lawlers anticline between Waroonga and Songvang. It also stretches to the North beyond Waroonga and to the South beyond Songvang. It consists of the stratigraphic package that contains the vast majority of the larger known discoveries to date (Waroonga, Redeemer, Cox complex and Songvang). It contains numerous gold intersections along its known ± 30 km strike length. The MCC has the potential to host significant undiscovered high grade ore bodies. Current focus is on systematically diamond drilling the entire length of the MCC concentrating on the gaps between known

deposits and extensions to the North and South. In particular in areas of previous gold anomalism. Effort is being focused on the gap between 50-400 m below surface looking for "blind" ore bodies that may not have a surface anomaly. The high grade Kim ore deposit is a prime example of a "blind" ore discovery that did not have a significant near surface expression.

Advanced drilling: At Waroonga itself a major program of work is underway to drill out to Reserve an additional 500 koz to increase the total Mineral Reserve at Waroonga to over 1 Moz by June 2010. 1 underground and 2 surface rigs are employed in this endeavour. On surface advanced project drilling is currently taking place at the new Maria North discovery. Further advanced drilling may also be undertaken at the Turret and Cinderella prospects dependent on ongoing exploration and drilling results.

Quality data: The success of any exploration project, is the quality of the exploration data. The ability to extract the inherent value in the data is also dependent on new technologies to enhance interpretation and modelling of the data. In F2010 a project is underway to start converting all Agnew's geological models to a 4D format that enables the data under investigation (the 4th dimension) to be viewed and correlated in 3D space to all other datasets.

Mining

The current mining operations consist of the Waroonga Underground Complex which includes underground mining at the Kim South, Rajah and Main / Main South Lodes. These form the basis for the F2010 operational plan.

Mining methods

Access and infrastructure for the Waroonga underground mine is located in the Waroonga open pit, including the access portal, the emergency egress and a ventilation drive. The decline and other access development are located in the sandstones of the hanging wall. The dimensions of the main development are 5.5 m wide by 5.8 m high with arched backs in the main decline, and 5 m by 5 m with rounded shoulders in the ore drives. A crown pillar of 20 m is left to the surface of the Kim Lode and a 20 m crown pillar is left at Main Lode to the old underground workings of the EMU mine. Further work was conducted during F2009 on the mining extraction sequence for Kim South,

with new geotechnical modelling indicating a 'centre out' top down mining method would be the geotechnically better for the orebody. As such, the mine design was altered to include dual access points for each level. The dual access allows independent mining activities to occur on the same level without interaction. This allows provides greater flexibility and opportunities within the mining sequence. This change in mining method is to commence from the 680 level, with a modified continuous retreat occurring from the 800 to 700 levels, without the need for crown pillars.



Since the June 2008 Mineral Reserve update, significant stope activity has occurred at Main Lode, with stopes being taken from the 1157 down to the lowest developed level, the 1017. Decline development recommenced from the 1017 level. The level intervals below the 1017 have been increased to 25 m, an increase of 5 m on the existing development. The importance of this level interval increase was to reduce the overall access development needed as the orebody orientation allows for a potential 'caving' mining method to be adopted into the future.



Mine planning and scheduling

The current mining areas are situated at Waroonga (Kim South, Rajah and Main/Main South Lodes). These form the basis for the F2010 operational plan. The plans, design and schedules are provided to, and communicated to the contractors, and form the basis of the contract between the parties.

The stope design takes practical stope layouts into consideration, as well as planned mining losses in pillars or other parts of the ore,

excluded from the extraction for technical reasons. Dilution material included in the stope design is planned. Further unplanned dilution is added, which includes stope over-break or contamination with backfill (Paste fill) material. Further ore losses can occur with material which cannot practically be mucked from the stopes.

For the reserve generation process, new computer software has been utilised for the

June 2009 reserve update to estimate the unplanned dilution. This new software allows dilution widths to be added to the optimal cut-off stope shapes. With alteration around the core of the lodes mined at Waroonga containing grade this allows a more accurate assessment of the impacts of unplanned dilution upon the lode economics.

Projects

Extensional exploration around the Waroonga Complex will target known and extrapolated mineralisation trends with the key intention of extending the Kim South and Main Lode Resource and Reserve and thus extending the existing Waroonga mine life. The aim is to expand production tonnes utilising the existing capital infrastructure and extend the life of the Waroonga operation.

Near mine exploration on the extensive Agnew land holdings is ongoing with the objective of discovering and bringing into production a medium to longer term replacement for the

Waroonga complex within the next 4-5 years. In F2006 a drilling campaign was undertaken from an exploratory decline to improve confidence in the Claudius Mineral Resource estimate to an Indicated Mineral Resource classification. Resource and economic modelling has been undertaken as part of a feasibility study. Trial mining was undertaken on the 1010 level of the Claudius orebody during F2009. The mineralisation proved to be much less continuous than anticipated and grades recovered were not high enough to make the operation viable. The project has been placed on care and maintenance pending closure.

The remaining material left in the Waroonga Blue stockpile is to be exhausted in F2011. It is unlikely that underground production from Waroonga will fully fill the processing plant capacity. As such, the small open pit potential will be re-examined through-out F2010, with the opportunity to 'incrementally' cost any small open pit back to the Waroonga Underground. Ultimately, any open pits that could be mined in the very near future, will only be stop gap fillers, until a permanent replacement for Waroonga can be discovered.

Mineral Processing

Processing of gold ores at the Agnew site commenced in 1986. The initial 500 ktpa plant comprised three-stage crushing, single stage grinding and an air agitated CIL circuit. In 1989 the plant throughput was increased to 100 ktpm, by modifications to the crushing section, the addition of grinding capacity and the addition of leaching tanks. In 1991 a 3 ton Zadra elution plant and a smelter/gold room were added. Following these modular expansions, plant throughput was increased to its current operating capacity of 1.32 Mtpa.

The comminution circuit comprises a contractor owned and operated three-stage crushing plant, feeding a fine ore stockpile, ahead of a two-stage closed circuit ball milling circuit. Milled ore proceeds to a three-stage leaching train feeding the six-stage Carbon In Pulp (CIP) circuit. Carbon elution is by pressure Zadra with gold being electrowon, and smelted. In February 2003 a gravity circuit, comprising a Knelson gravity concentrator in conjunction with an Intensive Leach Reactor (ILR) for intensive cyanidation of the gravity concentrate, was retrofitted.



CIP processing plant

Tailings disposal and impoundment has historically been to a conventional dam constructed using the upstream lift method sourcing wall material from dried tailings. The original Tailing Storage Facility (TSF) was located in an area some 1.5 km south-west of the Agnew Plant. Deposition to this facility ceased in early 2004 and a large section of this decommissioned facility has been capped with waste rock. The remaining exposed sections are harvested for use as underground paste fill.

Following completion of mining activities at the Redeemer mine, the abandoned pit has been converted to a tailings storage impoundment for tailings arising from the Agnew Plant. Although situated 7 km south of the Agnew Plant the static head is negative, thus pumping of the tailings material is achieved with no additional cost from the previous deposition technique. Supernatant water is reclaimed from the pit for re-use in the plant.



Sustainable Development

Agnew's strategic objective with regard to health, safety and the environment is "Zero Harm". That is to say no injuries to persons, no property damage, no environmental damage and no incidents that would harm Agnew's "social license" to operate. Recently Agnew has adopted the ZIP (Zero Incident Process). This program seeks to reduce the number of incidents/accidents on site by educating the workforce on how to develop and contribute to a positive safety culture. The process concentrates on educating people to gain a better appreciation for the human element of the total safety culture (attitude, knowledge, skills, motivation etc). In Australia, large advances in safety have been made in the last 20 years by concentrating primarily

on the practises (policies & procedures, rules, training etc) and the environment (equipment, tools, machines etc). By focusing on the person aspect of safety, emphasis is placed on the individual to question their contribution to a positive safety culture. Agnew is certified 4801 compliant.

Although Gold Fields has developed a Group Environmental Policy, the Australian Operations are currently guided by their own individual policies, which have been developed within

the Group Policy framework, but are tailored to suit the site specific environmental conditions. Agnew has developed and implemented an environmental management system, certified to the international standard ISO14001, and the site policies conform to the standards requirements. If non-compliances are observed in terms of environmental legislation and approval documentation commitments, management are made aware of the issues and take appropriate measures to address the situation in line with site policies.

Safety Statistics	Units	F2005	F2006	F2007	F2008	F2009
Fatalities	(No)	0	0	0	0	0
Fatality Rate	(per mmhrs)	0	0	0	0	0
SIFR	(per mmhrs)	2.16	0	0.88	0	4.64

Mineral Resources and Mineral Reserves

The Mineral Resources are classified as Measured, Indicated and Inferred, as defined and described in the 2007 SAMREC Code. Mineral Resource categories are based on confidence that takes account of geological complexity, grade variance, drill hole intersection spacing, and mining development. Kriging efficiencies and slope of regression of Kriged estimates are also considered.

At Agnew, Indicated Mineral Resources are defined by a nominal drill grid spacing of 40 by 40 m depending on geological complexity and mining history. Inferred Mineral Resources are defined by a nominal drill grid spacing of 80 by 80 m or greater depending on geological complexity and mining history. Measured

Mineral Resources are drilled to a nominal 10 m by 5 m or 10 m by 10 m in open-pits, and are generally developed along strike in the underground environment on 20 to 25 m levels.

All mineralised envelopes are geologically interpreted based on drill hole logging and where available geological mapping. Wire frames of regolith and ore zones are used to domain and constrain grade estimation where appropriate. Directional variograms are defined per domain and variogram computation and modelling takes account of lode direction and dimension. Mineral Resource estimates are interpolated using kriging as the methodology. Models are validated by comparing the

estimated grades with the supporting sample data.

All Mineral Resources are declared at a calculated cut-off grade for the deposit in question. Final Mineral Reserves are determined by planning of the Mineral Resources above the cut-off grade after application of modifying factors to ensure that there is a reasonable prospect of eventual economic extraction. Open pit Mineral Resources are the undiluted in situ results within a diluted optimised pit shell and are generated using an incrementally costed cut-off grade using the same procedures as for certain under-ground Mineral Resources.

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	June 08	Dec 06
Open pit and underground									
Measured	3.7	1.6	1.6	4.6	7.1	7.2	543	365	373
Indicated	9.5	7.8	7.6	5.1	6.4	6.0	1,539	1,595	1,466
Inferred	7.7	6.7	5.6	5.7	5.3	5.8	1,404	1,148	1,040
Total open pit and underground	20.9	16.1	14.9	5.2	6.1	6.0	3,486	3,108	2,879
Surface stockpiles									
Measured	0.3	0.5	0.5	1.1	1.2	1.5	12	18	23
Total surface stockpiles	0.3	0.5	0.5	1.1	1.2	1.5	12	18	23
Grand Total	21.2	16.5	15.3	5.1	5.9	5.9	3,497	3,125	2,902

Modifying factors

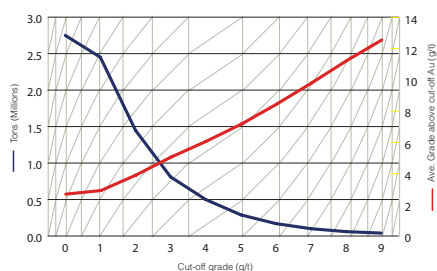
- The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Mineral Reserves;
- All quoted Mineral Resources and Mineral Reserves are 100% Agnew ownership;
- Mineral Reserves are quoted in terms of Run-of-Mine (RoM) grades and tonnages as delivered to the metallurgical processing facility and are therefore fully diluted;
- Mineral Reserve statements include only Measured and Indicated Mineral Resources, modified to produce Mineral Reserves and contained within the LoM plan; and
- Mineral Resource and Mineral Reserves undergo both internal and external audits yearly. Any issues identified are rectified at the earliest opportunity.

Mineral Resource Parameter		
Mineral Resource Gold Price	US\$/oz	1,000
	US\$/A\$	1.25
	A\$/oz	1,250
Cut off for mill feed	g/t	1.0
Cut off for open pit	g/t	0.5
Cut off for underground	g/t	1.0 - 3.4
Mineral Reserve Parameter		
Mineral Reserve Gold Price	US\$/oz	800
	US\$/A\$	1.25
	A\$/oz	1000
Cut off for mill feed u/g	g/t	3.6 - 4.6
Plant recovery factor	%	92.6
Processing capacity	Mtpa	1.3

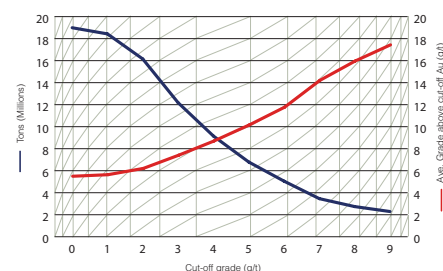
Grade tonnage curves

A grade tonnage curve for the Agnew open pit and underground Mineral Resource is presented. The charts illustrate the relatively high grade characteristic of the Agnew camp where historical grades have been in the region of 5 to 6 g/t.

Open pits



Underground



Mineral Reserves

The Mineral Reserve estimate for Agnew 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.

The table in this section summarises the Agnew statement of Mineral Reserves. The terms and definitions are those given in the 2007 SAMREC Code prepared by the South African Mineral Resource Committee under the auspices of the South African Institute of Mining and Metallurgy.

The current operations plan has mining occurring in the Kim South, Rajah and Main Lode at the Waroonga Complex. There are no open pits in the June 2009 Mineral Reserve statement, only the depletion of the single remaining marginal stockpile (Waroonga Blue).

The LoM plan is derived following the production of the Mineral Reserves by incorporating modifying factors into the resource model.

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 and underground									
Proved	0.6	0.4	0.9	8.9	8.3	7.7	186	106	222
Probable	1.9	1.7	2.1	8.7	9.2	6.2	526	494	410
Total open pit and underground	2.5	2.1	3.0	8.7	8.9	6.7	712	600	632
Surface stockpiles									
Proved low-grade stockpiles	0.3	0.4	0.5	0.9	1.2	1.5	10	15	23
Total surface stockpiles	0.3	0.4	0.5	0.9	1.2	1.5	10	15	23
Grand Total	2.9	2.5	3.4	7.8	7.7	6.0	722	615	655



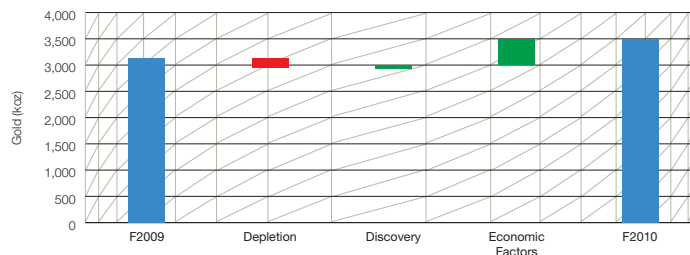
Mineral Resources and Mineral Reserves Reconciliation year-on-year

Mineral Resource

Factors that affected Mineral Resource reconciliation:

- Growth mainly due to discovery and higher gold price; and
- Minor decrease due to depletion.

Change in Mineral Resource F2009 to F2010

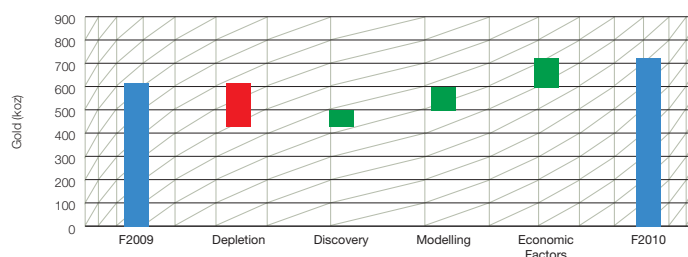


Mineral Reserve

Factors that affected Mineral Reserve reconciliation:

- Depletion by mining (-736 kt and -188 koz), all from underground sources;
- The addition of Mineral Reserve ton and ounces at the Kim South, Main and Rajah ore bodies; and
- Improvements in the definition of additional high grade Mineral Resources primarily at Kim South, the inclusion of dilution at model grade into the actual reserve stope shapes, increases in the forecast tonnage from Waroonga Underground and finally by the 33% increase in the gold price, resulted in the increase in Mineral Reserves.

Change in Mineral Reserve F2009 to F2010

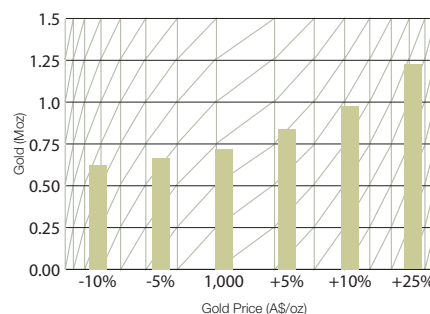


Mineral Reserve sensitivity

The figure illustrates the sensitivity of the Mineral Reserve to incremental changes in the gold price.

The sensitivities are not based on detailed depletion schedules and should be considered on a relative and indicative basis only.

Managed Mineral Reserve Sensitivity



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

Driefontein 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

Steven Woods, Mineral Resources Manager

BSc (Hons) Geology Post Grad' Dip' Mineral Exploration & Mining Geology MAusIMM Membership Number: 227713 Industry experience: 16 years in mining and exploration in the UK, South Africa, Ghana and Australia. Commodities: Gold, Platinum, Copper 3 years 4 months at Agnew.

Peter Johansen, Exploration Manager

Gold exploration, Exploration BSc (Hons) Geology. Industry experience: 21 years in exploration and mining in Australia and PNG. Commodities: Gold, Iron Ore. 2 years and 9 months at Agnew.

Alan Pedersen, Resource Development Manager

Resource estimation Resources Estimation Graduate Certificate in Geostatistics MAusIMM Membership Number: 222422. Industry Experience: 26 years experience in mining and exploration in Australia, PNG and Ghana. Commodities: Gold, Nickel, Copper. 13 years at Agnew.

Jason Sander, Mine Planning Manager

LoM Strategic Planning. Reserve Estimation & LoM Planning. B Eng (Hons) Mining Engineering. MAusIMM membership number: 111818. Industry Experience: 13 Years experience in mining in Australia. Commodities: Gold, Copper, Iron Ore. 3 years at Agnew.

James Emslie, Mine Geology Manager

Mine Geology. BSc (Hons) Geology. Industry Experience: 13 Years experience in mining in Australia Commodities: Gold, Iron Ore. 6 months at Agnew.

Key Technical Staff

Post	Incumbent	Qualifications	Years	Key responsibilities
General Manager	Mark Morcombe	B Eng (mining), MSc (mining and geomechanics)	18	Responsible for overall strategic direction, leadership and management
Mine Management (Under ground and open pit mining) Mining Manager	Chris Rainsford	BSc (Hons) Mining Engineering ACMS (Associate of Camborne School of Mines) PhD (Mining Engineering) MAusIMM membership number: 108724	25	Full operational management
Financial Management & Accounting Commercial Manager	Megan Scholz	B Bus Accounting, CPA (Australia)	7	Financial management, reporting and compliance
Ore Processing and Metallurgy Metallurgy Manager	David Vemer	B App Sci (Hons) Extractive Metallurgy	13	Mineral processing, metallurgy and tailings management
Environmental, Health and Safety Manager	Darren Varcoe	Certificate IV in Occupational Health & Safety	14	Safety, health and emergency services
Human Resources Advisor	Lynn Wood	Post Graduate Diploma in HR Management	13	Human resources management
Electrical and Mechanical Engineering Manager	Paul Lucey	Electrical Trade Certificate	15	Engineering, logistics and infrastructure management
Environmental Management Environmental & Land Access Manager	Rosemarie Lane	Over 8 years experience specific to Environmental Management	12	Environmental management
Mineral Resources Manager: Mine Planning and Resource Management	Steven Woods	BSc (Hons) Geology, Post Graduate Diploma Mineral Exploration and Mining Geology	16	Mine Planning, Mineral Resources & Mineral Reserves and compilation of CPR



NOTES



Defunct Songvang open pit



Agnew 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.