ANGLOGOLD ASHANTI LTD
Form 6-K
March 30, 2009
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549
FORM 6-K
REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16 OF
THE SECURITIES EXCHANGE ACT OF 1934
Report on Form 6-K dated March 27, 2009
Commission File Number 1-14846
AngloGold Ashanti Limited
(Translation of registrant's name into English)
76 Jeppe Street
Newtown
Johannesburg, 2001
(P.O. Box 62117, Marshalltown, 2107)
South Africa
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F X Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):
Yes No X
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):
Yes No X
Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.
Yes No X

Enclosure: Press release ANGLOGOLD ASHANTI - 2008 MINERAL RESOURCES AND ORE RESERVES

Mineral Resource
and Ore Reserve Report 2008

Mineral Resources and Ore Reserves are reported in accordance with the minimum standards described by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2004 Edition), and also conform to the standards set out in the South African Code for the Reporting of Mineral Resources and Mineral Reserves (SAMREC 2000 Code). Mineral Resources are inclusive of the Ore Reserve component unless otherwise stated.

Information is presented both by country and by either operation or exploration project. The country overviews include the following tables: Mineral Resource and Ore Reserve, gold price and exchange rates, details of average drill-hole spacing and type, Ore Reserve modifying factors, development sampling results, Mineral Resource and Ore Reserve comparison by operation and Mineral Resource and Ore Reserve by-products. Topics for discussion include Geology, Mineral Resource estimation, exclusive Mineral Resource, Ore Reserve estimation and Inferred Mineral Resource in business plan. All Mineral Resources and Ore Reserves listed in this document are attributable unless otherwise stated.

The operational reviews include the following: Geology, Mineral Resource, exclusive Mineral Resource, Mineral Resource and Ore Reserve reconciliation, Mineral Resource and Ore Reserve by-products, Ore Reserves, grade tonnage information and competent persons.

This document, the Mineral Resource and Ore Reserve Report 2008, is a key component of the AngloGold Ashanti suite of 2008 annual reports produced to record the company's performance regarding its finances, operations, and sustainable development for the 12 months ended 31 December 2008. Other major documents in this suite of reports are the Annual Financial Statements 2008 and the Report to Society 2008, all of which together with the Country Reports are available on the corporate website, *www.anglogoldashanti.com*

The Annual Financial Statements 2008 contains a summary extract of AngloGold Ashanti's Mineral Resources and Ore Reserves.

of report

Scope

Report to Society 2008

Annual Financial Statements 2008

Mineral Resource and Ore

Reserve Report 2008

Country Reports 2008

Online Report 2008

Note:

Rounding of figures in this document may result in minor computational discrepancies.

Throughout this report, dollar or $ represents US dollar unless otherwise stated.

Mineral Resource and Ore Reserve Report 2008
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ANGLOGOLD ASHANTI - A LEADING GLOBAL PRODUCER OF GOLD

Headquartered in Johannesburg, South Africa, the company has 21 operations and a number of exploration programmes in both the established and new gold-producing regions of the world.

In 2008, AngloGold Ashanti produced 4.98 million ounces of gold from its operations – an estimated 7% of global production – making it the third largest producer in the world. The bulk of its production came from deep-level underground operations (41%) and surface operations (2%) in South Africa. Contributions from other countries were Ghana (11%), Mali (8%), Australia (9%), Brazil (8%), Tanzania (5%), USA (5%), Guinea (7%), Argentina (3%) and Namibia (1%). In South Africa, ramping up of production at Moab Khotsong continued and is expected to increase significantly in 2009, and to be at full production levels in 2012.

During 2008, AngloGold Ashanti's global exploration programme continued to gain momentum, either directly or in collaboration with exploration partnerships and joint ventures, in Colombia and the Democratic Republic of Congo (DRC), Australia, Russia, China and the Philippines.

As at 31 December 2008, AngloGold Ashanti employed 62,895 people, including contractors, had Proved and Probable Ore Reserves of 74.9 million ounces of gold and had incurred capital expenditure of $1,201 million for the year.

In response to an ever-changing socio-economic environment, AngloGold Ashanti has announced its intention to review its current structure and asset base. It remains a values-driven company and these values, the foremost of which is safety, and the group's business principles continue to guide the company, its managers and employees, and form the basis of the company's contract with all of its business – shareholders, employees, communities, business partners, governments and civil society organisations.

STOCK EXCHANGE INFORMATION

AngloGold Ashanti's primary stock exchange listing is on the JSE Limited (Johannesburg). It is also listed on the exchanges in New York, London, Australia and Ghana as well as on Euronext Paris and Euronext Brussels. AngloGold Ashanti had 353,483,410 ordinary shares in issue and a market capitalisation of $9.8 billion as at 31 December 2008 (31 December 2007: $11.9 billion).

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AngloGold Ashanti global operations and exploration: 2008
Cripple
Creek
& Victor
(CC&V)
USA
Brazil
Argentina
Navachab
Geita
Namibia
Tanzania
Republic of
South Africa
SA operations
Great Noligwa
Mponeng
Savuka
Kopanang
Tau Lekoa**
Moab Khotsong
TauTona
Mali
Guinea
Morila
Sadiola and Yatela
Siguiri
Obuasi
Iduapriem
Ghana
Sunrise Dam
Boddington*
Australia
Serra
Grande
Cerro Vanguardia
Brasil
Mineração
N
Operations
Greenfields exploration
and alliance areas
DRC
China
Russia
Philippines
Tropicana
Gramalote
La Colosa

Jinchanggou
Yili Yunlong
Mongbwalu
Anenskoye
Veduga
Aprelkovskoye
Sovromennie
Mapawa Area
Quebradona
Colombia
* sold early 2009
** sale transaction announced

Mineral Resources and Ore Reserves are reported in accordance with the minimum standards described by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2004 Edition), and also conform to the standards set out in the South African Code for the Reporting of Mineral Resources and Mineral Reserves (SAMREC 2000 Code). Mineral Resources are inclusive of the Ore Reserve component unless otherwise stated.

MINERAL RESOURCES

The 2008 Mineral Resource increased by 40.5 million ounces before the subtraction of depletion. After a depletion of 7.2 million ounces, the net increase is 33.4 million ounces to give a total Mineral Resource of 241.0 million ounces. Mineral Resources were estimated at a gold price of $1,000/oz (2007: $700/oz). The increased gold price resulted in 13.3 million ounces being added to the Mineral Resource while successful exploration and revised modelling resulted in a further increase of 27.5 million ounces. The remaining loss of 0.3 million ounces is the result of various other reasons.

Mineral Resource
Million oz
Mineral Resource as at
31 December 2007
207.6
Reductions
TauTona
Transfers to Mponeng
(1.9)
Great Noligwa
Transfer of SV4 to Moab Khotsong
(1.2)
Tau Lekoa
Significant structure and facies changes to the north of Tau Lekoa
(1.2)
Other
Total of non-significant changes
(1.4)
Additions
La Colosa
Successful greenfields exploration
12.3
Mponeng
Granting of WUDL’s licence and transfers from TauTona
7.9
Moab Khotsong
Transfer of SV4 to Moab Khotsong
4.4
Obuasi
Exploration below 50 Level
3.9
Savuka
Improved economic outlook as a result of an increase in the gold price
1.8
Boddington
Growth in Mineral Resources: successful near-mine exploration drilling and higher gold price
1.6
Iduapriem
Due to increase in Mineral Resource gold price and remodelling of Block 7 & 8

1.4
Cripple Creek & Victor
Successful exploration
1.2
Sadiola
Due to increase in Mineral Resource gold price, increase in deep sulphides project
1.2
Siguiri
Due to increase in Mineral Resource gold price and increases in the Mineral Resource at
Sintroko and Foulata
1.0
Other
Total of non-significant changes
2.4
Mineral Resource as at
31 December 2008
241.0
ORE RESERVES
The 2008 Ore Reserve increased by 7.7 million ounces before the subtraction of depletion. After a depletion of 5.9 million ounces, the net increase is 1.8 million ounces to give a total Ore Reserve of 74.9 million ounces. A gold price of $720/oz was used for Ore Reserve estimates (2007: $600/oz). The change in economic assumptions made from 2007 to 2008 resulted in the Ore Reserve increasing by 2.7 million ounces while exploration and modelling resulted in an additional increase of 5.0 million ounces.
Mineral Resource and Ore Reserve Report 2008
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and Ore Reserves - group overview
Mineral Resources

Ore Reserve
Million oz
Ore Reserve as at
31 December 2007
73.1
Reductions
TauTona
Carbon Leader ground between 123-126 levels was transferred to Mponeng. With the change to scattered grid mining, lower value estimates resulting from increased sampling and drilling resulted in reductions. These were partially offset by a higher mine call factor and the inclusion the Carbon Leader eastern block.
(1.5)
Geita
Mineral Resource model changes and the application of grade factors to mitigate low model confidence; cost increases
(1.4)
Great Noligwa
Transfer of the SV4 section to Moab Khotsong
(1.3)
Other
Total of non-significant changes
(1.1)
Additions
Mponeng
Increased grades, the additional ground from TauTona 123-126 level and improved economics which allowed for the mining of Block 3 & 5
2.8
Obuasi
The increase is due to a revised mine design and schedule
1.3
Boddington
The growth in Ore Reserve is due to successful drilling and a higher gold price
1.1
Siguiri
The Seguelen NW and Sintroko deposits were upgraded from Inferred to Indicated and the mining efficiency increased
0.6
Other
Total of non-significant changes
1.3
Ore Reserve as at
31 December 2008
74.9
Mineral Resource and Ore Reserve Report 2008
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BY-PRODUCTS

Several by-products are recovered as a result of the processing of gold Ore Reserves.

These include 0.19 million tonnes of uranium from the South African operations, 0.29 million tonnes of copper from Australia, 0.44 million tonnes of sulphur from Brazil and 35.7 million ounces of silver from Argentina.

EXTERNAL AUDIT OF MINERAL RESOURCE AND ORE RESERVE STATEMENT

During the course of the year and as part of the rolling audit programme, the AngloGold Ashanti's 2008 Mineral Resources and Ore Reserves for the following operations were submitted for external audit:

- Mponeng
- TauTona
- Vaal River Surface Sources
- Iduapriem
- Navachab
- Sadiola
- Yatela

The company has been informed that the audit identified no material shortcomings in the process by which AngloGold Ashanti's Ore Reserves and Mineral Resources were evaluated. It is the company's intention to continue this process so that each of its operations will be audited every three years on average.

COMPETENT PERSONS

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by the competent person. These individuals are identified in the report. The competent person consent to the inclusion of Exploration Results, Mineral Resources and Ore Reserves information in this report, in the form and context in which it appears.

During the past decade, the company has developed and implemented a rigorous system of internal and external reviews of Exploration Results, Mineral Resources or Ore Reserves. A documented chain of responsibility exists from the competent person at the operations to the company's Mineral Resource and Ore Reserve Steering Committee. Accordingly, the Chairman of the Mineral Resource and Ore Reserve Steering Committee VA Chamberlain, MSc (Mining Engineering), BSc (Hons) (Geology), MAusIMM, assumes responsibility for the Mineral Resource and Ore Reserve processes for AngloGold Ashanti and is satisfied that the competent person have fulfilled their responsibilities.

Mineral Resource and Ore Reserve Report 2008
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Mineral Resources by country (attributable) inclusive of Ore Reserves
Contained
Contained
as at 31 December 2008
Resource
Tonnes
Grade
gold
gold
category
million
g/t
tonnes
Moz
South Africa
Measured
25.56
13.80
352.57
11.34
Indicated
739.87
3.27
2,416.79
77.70
Inferred
56.35
10.47
590.06
18.97
Total
821.77
4.09
3,359.42
108.01
Argentina
Measured
11.01
1.73
19.04
0.61
Indicated
22.00
3.48
76.49
2.46
Inferred
4.97
4.11

20.45
0.66
Total
37.99
3.05
115.98
3.73
Australia
Measured
101.25
1.19
120.77
3.88
Indicated
404.49
0.84
340.15
10.94
Inferred
154.79
0.89
138.43
4.45
Total
660.53
0.91
599.35
19.27
Brazil
Measured
11.11
7.01
77.80
2.50
Indicated
13.46
6.49
87.36
2.81
Inferred
28.51
6.76
192.59
6.19
Total
53.07
6.74
357.75
11.50
Colombia
Measured

–
–
–
–
Indicated
–
–
–
–
Inferred
409.77
1.01
415.45
13.36
Total
409.77
1.01
415.45
13.36
Democratic Republic
Measured
–
–
–
–
of Congo
Indicated
–
–
–
–
Inferred
29.25
2.69
78.53
2.52
Total
29.25
2.69
78.53
2.52
Ghana
Measured
94.21
5.21
490.68
15.78
Indicated
138.91
2.86
397.31

12.77
Inferred
100.10
4.25
425.27
13.67
Total
333.23
3.94
1,131.26
42.22
Guinea
Measured
33.53
0.63
21.25
0.68
Indicated
125.22
0.84
105.53
3.39
Inferred
64.08
0.90
57.85
1.86
Total
222.82
0.83
184.63
5.94
Mali
Measured
19.40
1.64
31.86
1.02
Indicated
26.39
2.48
65.32
2.10
Inferred
11.10
2.30
25.49
0.82
Total
56.89
2.16

122.68
3.94
Namibia
Measured
13.83
0.74
10.25
0.33
Indicated
61.94
1.26
78.05
2.51
Inferred
42.31
1.09
46.25
1.49
Total
118.08
1.14
134.55
4.33
Tanzania
Measured
–
–
–
–
Indicated
83.84
3.63
304.10
9.78
Inferred
25.12
3.81
95.77
3.08
Total
108.97
3.67
399.87
12.86
United States
Measured
255.90
0.87
223.31
7.18
Indicated

183.75
0.73
134.97
4.34
Inferred
83.61
0.66
55.60
1.79
Total
523.26
0.79
413.88
13.31
Total
Measured
565.80
2.38
1,347.53
43.32
Indicated
1,799.87
2.23
4,006.08
128.80
Inferred
1,009.96
2.12
2,141.75
68.86
Total
3,375.63
2.22
7,495.36
240.98

Mineral Resource and Ore Reserve Report 2008

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Mineral Resources
and Ore Reserves *cont.*

Mineral Resources by country (attributable) exclusive of Ore Reserves

Contained	Contained
as at 31 December 2008	Resource	Tonnes	Grade	gold	gold
	category	million	g/t	tonnes	Moz
South Africa	Measured	14.62	14.08	205.80	6.62
	Indicated	556.66	2.70	1,504.17	48.36
	Inferred	56.35	10.47	590.06	18.97
	Total	627.63	3.66	2,300.04	73.95
Argentina	Measured	–	–	–	–
	Indicated	–	–	–	–
	Inferred				

–
–
–
–
Total
–
–
–
–
Australia
Measured
34.85
1.38
48.22
1.55
Indicated
189.99
0.78
147.58
4.74
Inferred
154.79
0.89
138.43
4.45
Total
379.63
0.88
334.22
10.75
Brazil
Measured
3.20
6.63
21.20
0.68
Indicated
6.63
6.29
41.74
1.34
Inferred
27.49
6.81
187.13
6.02
Total
37.32
6.70
250.06
8.04

Colombia
Measured
–
–
–
–
Indicated
–
–
–
–
Inferred
409.77
1.01
415.45
13.36
Total
409.77
1.01
415.45
13.36
Democratic Republic
Measured
–
–
–
–
of Congo
Indicated
–
–
–
–
Inferred
29.25
2.69
78.53
2.52
Total
29.25
2.69
78.53
2.52
Ghana
Measured
33.32
6.42
241.08
6.88
Indicated
73.90

2.48
183.06
5.89
Inferred
56.46
3.75
211.95
6.81
Total
163.69
3.72
609.09
19.58
Guinea
Measured
5.57
0.70
3.91
0.13
Indicated
37.13
0.79
29.51
0.95
Inferred
64.36
0.91
58.49
1.88
Total
107.06
0.86
91.91
2.95
Mali
Measured
4.34
0.81
3.50
0.11
Indicated
21.42
2.37
50.75
1.63
Inferred
11.10
2.30
25.49
0.82
Total

36.87
2.16
79.74
2.56
Namibia
Measured
6.63
0.56
3.71
0.12
Indicated
34.36
1.18
40.61
1.31
Inferred
42.31
1.09
46.25
1.49
Total
83.30
1.09
90.58
2.91
Tanzania
Measured
–
–
–
–
Indicated
35.95
3.32
119.38
3.84
Inferred
25.12
3.81
95.77
3.08
Total
61.07
3.52
215.15
6.92
United States
Measured
143.33
0.83
118.71

3.82
Indicated
128.04
0.67
86.38
2.78
Inferred
83.61
0.66
55.60
1.79
Total
354.99
0.73
260.69
8.38
Total
Measured
245.87
2.52
619.12
19.91
Indicated
1,084.10
2.03
2,203.18
70.83
Inferred
960.61
1.98
1,903.16
61.19
Total
2,290.58
2.06
4,725.46
151.93

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Ore Reserves by country (attributable)

Contained	Contained
as at 31 December 2008	Tonnes	Grade	gold	gold
Category	million	g/t	tonnes	Moz
South Africa				
Proved	13.72	7.81	107.13	3.44
Probable	215.10	4.37	939.79	30.21
Total	228.82	4.58	1,046.92	33.66
Argentina				
Proved	9.99	1.39	13.90	0.45
Probable	12.29	3.52	43.24	1.39
Total	22.27	2.56	57.13	1.84
Australia				
Proved	67.82	1.10		

74.54
2.40
Probable
214.50
0.90
192.57
6.19
Total
282.33
0.95
267.11
8.59
Brazil
Proved
7.77
6.44
50.06
1.61
Probable
7.02
5.82
40.87
1.31
Total
14.79
6.15
90.93
2.92
Ghana
Proved
56.85
4.24
240.89
7.74
Probable
36.43
3.82
139.10
4.47
Total
93.28
4.07
379.98
12.22
Guinea
Proved
56.13
0.56
31.48
1.01
Probable

67.11
1.04
69.64
2.24
Total
123.24
0.82
101.12
3.25
Mali
Proved
9.29
1.87
17.33
0.56
Probable
6.65
2.26
15.02
0.48
Total
15.94
2.03
32.35
1.04
Namibia
Proved
7.21
0.89
6.39
0.21
Probable
27.58
1.28
35.19
1.13
Total
34.78
1.20
41.58
1.34
Tanzania
Proved
–
–
–
–
Probable
54.30
2.93
159.06

5.11
Total
54.30
2.93
159.06
5.11
United States
Proved
122.57
0.93
104.60
3.36
Probable
55.70
0.87
48.59
1.56
Total
168.27
0.91
153.19
4.93
Total
Proved
341.35
1.89
646.31
20.78
Probable
696.67
2.42
1,683.07
54.11
Total
1,038.02
2.24
2,329.38
74.89

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and Ore Reserves - by operation
Mineral Resources

Mineral Resource and Ore Reserve Report 2008
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Regional overview
South Africa
The South African operations comprise seven underground mines located in two geographical regions on the Witwatersrand Basin called the Vaal River and West Wits operations.
The Vaal River operations consist of the Great Noligwa, Kopanang, Moab Khotsong and Tau Lekoa mines. The primary reefs mined in this region are the Vaal Reef (VR) and the Ventersdorp Contact Reef (VCR) and the secondary reef mined is the Crystalkop Reef (C Reef).
The West Wits operations are made up of Mponeng, Savuka and TauTona, which are situated near the town of Carletonville. The primary reefs mined are the Carbon Leader Reef (CLR) and the VCR.
All seven operations are 100% owned by AngloGold Ashanti. In addition, the Vaal River Surface and West Wits Surface operations mine the waste rock dumps and tailings dams which result from the mining and processing of the primary and secondary reef horizons.
The South African operations are all located in the rocks of the famous Witwatersrand Basin, which is regarded as the greatest gold-bearing repository on Earth.
GEOLOGY OF THE WITWATERSRAND BASIN
The Witwatersrand Supergroup (deposited in area often described as the Witwatersrand Basin) comprises a six-kilometre thick sequence of predominantly argillaceous and arenaceous sediments that extend laterally for some 300 kilometres north-east/south-west and 100 kilometres north-west/south-east on the Kaapvaal Craton. The upper portion of the sequence contains the laterally extensive, gold-bearing quartz pebble conglomerate horizons (commonly referred to as “reefs”).
Further west, south and east the basin is overlain by up to four kilometres of Archaean, Proterozoic and Mesozoic volcanic and sedimentary rocks. The Witwatersrand Basin is late Archaean in age and is considered to be around 2.7 to 2.8 billion years old.
Free State
North West
West Wits operations
Savuka
TauTona
Mponeng
Vaal River operations
Great Noligwa
Kopanang
Tau Lekoa
Klerksdorp
Carletonville
Pretoria
Johannesburg
Durban
Port Elizabeth
East London
Bloemfontein
Cape Town
SOUTH AFRICA
0
400km
Operations
N
Moab Khotsong

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The reefs, which are generally less than two metres thick, are widely considered to represent laterally extensive braided fluvial deposits. Separate fan systems were developed at different entry points and these are preserved as distinct goldfields with local geological variations. AngloGold Ashanti operates in two of these goldfields, known as the Carletonville (West Wits) and Klerksdorp (Vaal River) goldfields.

There is still much debate about the origin of the gold mineralisation in the Witwatersrand Basin. Gold was generally considered to have been deposited syngenetically with the conglomerates, but increasingly an epigenetic theory of origin is being supported. Nonetheless, the most fundamental determinant of gold distribution in the basin remains the sedimentary features, such as facies variations and channel directions. Gold generally occurs in native form often associated with pyrite and carbon, with quartz being the main gangue mineral.

WEST WITS OPERATIONS

Two reef horizons are exploited at the West Wits operations: the VCR, located at the top of the Central Rand Group, and the CLR near the base. The separation between the two reefs increases from north to south, from 400 metres to 900 metres, owing to non-conformity of the VCR horizon. TauTona and Savuka exploit both reefs, while Mponeng currently only mines the VCR. The structure is relatively simple, with rare instances of faults greater than 70 metres.

The CLR consists of one or more conglomerate units and varies from several centimetres to more than three metres in thickness. Regionally, the VCR dips at approximately 21°, but may vary between 5° and 50°, accompanied by changes in thickness of the conglomerate units. Where the conglomerate has the attitude of the regional dip, it tends to be thick, well-developed and accompanied by higher gold accumulations. Where the attitude departs significantly from the regional dip, the reef is thin and gold grades tend to be erratic.

VAAL RIVER OPERATIONS

In order of importance, the reefs mined at the Vaal River operations are the VR, the VCR and the C Reef:

•

The VR contains approximately 85% of the Ore Reserve tonnage with mining grades of between 10g/t and 20g/t gold and comprises a series of oligomictic conglomerates and quartzite packages developed on successive non-conformities. Several distinct facies have been identified, each with its own unique gold distribution and grade characteristic;

Carletonville
Fochville
Mponeng
TauTona
Savuka
Welverdiend
Location of West Wits operations
Province
Gold Fields
(Driefontein)
Gauteng
Orkney
Province
Tau
Lekoa
Weltevreden
Moab
Khotsong
Kopanang
Great
Noligwa

Location of Vaal River operations
Free State

Mineral Resource and Ore Reserve Report 2008
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Mineral Resource and Ore Reserve gold prices and exchange rates

Units	2008	2007
Gold price – Mineral Resource		
US$/oz	1,000	700
Gold price – Ore Reserve		
US$/oz	720	600
Exchange rate – South Africa		
ZAR/US$	8.67	7.70

- The VCR has a lower gold grade than the VR, and contains approximately 15% of the estimated Ore Reserve. The economic portion is concentrated in the western part of the lease area and can take the form of a massive conglomerate, a pyritic sand unit with intermittent pebble layers, or a thin conglomerate horizon. The reef is located at the contact between the overlying Kliprivierberg Lavas of the Ventersdorp Super Group and the underlying sediments of the Witwatersrand Super Group, which creates a distinctive seismic reflector. The VCR is located up to one kilometre above the VR; and
- The C Reef is a thin, small-pebble conglomerate with a carbon-rich basal contact, located approximately 270 metres above the VR. It has less than 1% of the estimated Ore Reserve with gold grades similar to those of the VR, but less continuity. The most significant structural features are the north-east striking normal faults which dip to the north-west and south-east, resulting in zones of fault loss.

MINERAL RESOURCE ESTIMATION

A multi-disciplinary approach is adapted to Mineral Resource estimation whereby inputs are required from the geoscience, survey, and mine planning departments. A computerised system called the Mineral Resource Inventory System (MRIS) integrates all the input information to produce the final Mineral Resource per operation. Mineral Resource estimates are computed from a composite grid of value estimates, comprising various block sizes. The macro block sizes vary from 210m x 210m to 420m x 420m with micro blocks of 30m x 30m.

Compound lognormal macro co-kriging estimation techniques are used to produce estimates for the larger block sizes. This technique uses the Bayesian approach whereby the assayed (observed) data in the mined-out areas are used to infer the population characteristics of the area ahead of current mining. The geological model forms the basis for this estimation and all surface borehole information from the peripheral areas of the mine lease play a crucial role in determining the geological model boundaries. Simple kriging is used for the 30-metre block sizes and these estimates are constrained by the kriging variance.

The Mineral Resources are initially reported as inclusive of Ore Reserves as they form the basis for the Ore Reserve conversion process. Mineral Resource cut-offs are computed by operation, for each reef horizon. These cut-offs incorporate a profit margin that is relevant to the business plan. Mineral Resource grade tonnage curves are produced for the individual operations, which show the potential of the orebody at different cut-offs. These curves are produced for dimensions equivalent to a practical mining unit for underground operations.

EXCLUSIVE MINERAL RESOURCE

The exclusive Mineral Resource is defined as the inclusive Mineral Resource minus the in-situ Ore Reserve before stoping width, dilution and mine call factors are applied. Scoping studies are conducted on this exclusive Mineral

Resource, where capital requirements and current costs are used to test economic potential. If these studies show no reasonable economic potential at the Mineral Resource gold price then the material is excluded from the Mineral Resource. All planned pillars (ahead of current mining) form part of the exclusive Mineral Resource.

South Africa

cont.

Mineral Resource and Ore Reserve Report 2008
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Details of average drillhole spacing and type in relation to Mineral Resource classification

Mine/Project	Category	Spacing	Diamond	Chip	Comments
		m (- x -)	drilling	sampling	
South African mines	Measured	5 x 5	x	Based on constrained kriging variance, supported by chip sampling in stopes	
	Indicated	2 x 200	x	x	Supported by underground drillholes and chip sampling of reef development ends
	Inferred	1,000 x 1,000	x		Supported by surface drillholes
Grade control		5 x 5	x	Chipped channel samples	

ORE RESERVE ESTIMATION

All mine designs are undertaken using the Cadsmine ® software package and include the delineation of mining or stoping areas for each mining level and section, usually leading from an extension to the existing mining sequence, and the definition of the necessary development layouts. The in situ Mineral Resource is scheduled monthly for the full Life-Of-Mine (LOM) plan. The value estimates for these schedules are derived directly from the Mineral Resource Inventory System (MRIS).

Modifying factors are applied to the in situ Mineral Resource to arrive at an Ore Reserve. These factors comprise a dilution factor to accommodate the difference between the mill width and the stoping width as well as the mine call factor (MCF).

INFERRED MINERAL RESOURCE IN BUSINESS PLAN

The LOM plans include minimal Inferred Mineral Resources.

Mineral Resource and Ore Reserve Report 2008
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Ore Reserve modifying factors
as at 31 December 2008

Ore Reserve	Cut-off	Stoping	Mine call	Cut-off			
	value	width	Dilution	factor	Metallurgical	Mine	
	grade g/t Au	cmg/t Au	cm	%	(MFC) %	recovery %	
Great Noligwa							
Crystalkop Reef	4.70	600	128	10.0	66.62	96.13	
Vaal Reef	3.74	600	160	34.0	66.62	96.13	
Kopanang							
Crystalkop Reef	4.90	500	102	23.0	68.49	97.81	
VR Base	4.90	500	102	23.0	68.49	97.81	

VR EDOM
4.90
500
102
18.0
68.49
97.81
Moab Khotsong
Middle Mine Area
4.70
700
149
49.0
79.11
97.20
PZ 2
5.03
700
139
25.0
78.00
96.67
Top Mine Area
4.17
700
168
28.0
67.00
97.20
Tau Lekoa
VCR Base
2.78
400
144
31.0
84.32
97.35
Mponeng
CL Below 120 Level
7.50
750
100
10.0
81.00
98.67
VCR 109 to 120 level
5.36
750
140
40.0
90.13

98.21
VCR Above 901 Level
5.36
750
140
39.0
90.13
98.21
VCR Below 120 level
5.36
750
140
36.0
90.13
98.21
Savuka
Carbon Leader Reef
7.96
900
113
81.0
62.70
97.50
Ventersdorp Contact Reef
7.96
900
113
54.0
62.70
97.50
TauTona
CLR Base
7.67
729
95
112.0
80.97
97.82
CLR Below 120
7.67
729
95
92.0
81.01
97.82
Remnant CLR Shaft Pillar
7.29
729
100
54.0
80.97

97.82
VCR Shaft Pillar
7.54
729
127
100.0
85.00
97.82
Vaal River Surface
SA Met – Rock Dump
0.32
–
–
–
100.00
91.00
SA Met – Tailings Dump
0.25
–
–
–
100.00
48.00
West Wits Surface
WWGO – Rock Dump
0.24
–
–
–
100.00
91.00
South Africa
cont.

Mineral Resource and Ore Reserve Report 2008
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Development sampling results – January to December 2008
Development values represent actual results of sampling, no allowances having been made for adjustments necessary in
estimating Ore Reserves.
Advanced
Average
Sampled gold
Uranium
metres
Sampled
channel
Average
Average
Average
Average
Statistics are shown in metric units
(total)
metres width (cm)
g/t
cm g/t
kg/t
cm kg/t
VAAL RIVER
Great Noligwa
Vaal Reef
4,825
404
124.3
29.34
3,647
1.60
199.35
Kopanang
Vaal Reef
24,818
2,564
18.4
79.62
1,465
5.25
96.09
Moab Khotsong
Vaal Reef
16,558
1,478
124.3
19.64
2,441
1.07

129.42
Tau Lekoa
Ventersdorp Contact Reef
7,509
546
86.2
13.07
1,127
–
–
WEST WITS
Mponeng
Ventersdorp Contact Reef
17,673
3,208
74.0
33.50
2,479
–
–
Savuka
Ventersdorp Contact Reef
–
–
–
–
–
–
–
Carbon Leader Reef
2,882
274
50.1
80.74
4,045
–
–
TauTona
Ventersdorp Contact Reef
315
–
–
–
–
–
–
Carbon Leader Reef
8,657
264
16.0
153.06

2,449
1.74
27.85

Mineral Resource and Ore Reserve Report 2008
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Reconciliation of Mineral Resource and Ore Reserve
as at 31 December 2008
Changes in gold contained
Moz
Deple-
Model
Scope
Net change
Mine
Category 2007
tion
(1)
change
(2)
change
(3)
2008
Diff
%
Comment
Great Noligwa
Resource
8.83
(0.49)
(0.25)
(0.45)
7.65
(1.19)
(13)
Transfer of the SV4 section from
Great Noligwa to Moab Khotsong
Reserve
3.90
(0.31)
(0.30)
(0.67)
2.63
(1.28)
(33)
Transfer of the SV4 section from
Great Noligwa to Moab Khotsong
Kopanang
Resource
9.35
(0.60)
(0.16)
0.89
9.49
0.14

1
Reserve
4.34
(0.36)
0.03
–
4.00
(0.34)
(8)
Favourable economics offset by depletions and grade reduction
Moab Khotsong
Resource 13.79
(0.38)
2.92
1.90 18.24
4.45
32
Transfer of the SV4 section from Great Noligwa to Moab Khotsong
Reserve
6.97
(0.21)
(0.01)
0.57
7.32
0.36
5
Transfer of the SV4 section from Great Noligwa to Moab Khotsong
Tau Lekoa
Resource
6.49
(0.18)
(0.68)
(0.32)
5.31
(1.18)
(18)
Significant geological structure and facies changes to the north of Tau Lekoa
Reserve
1.29
(0.15)
(0.22)
–
0.92
(0.37)
(29)

Lower average resource value (down by 53 cmg/t), geological losses and reclassification of Mineral Resources resulting from information gained from borehole G55
Mponeng
Resource 41.56
(0.76)
5.78
2.85 49.43
7.87
19
Granting of the WUDL's licence and transfers from TauTona
Reserve
10.15
(0.62)
1.41
2.06 12.99
2.84
28
Increasing in grade, additional ground from TauTona 123-126 level as well as Mponeng PASR blocks 3 & 5
Savuka
Resource
2.62
(0.12)
1.58
0.28
4.37
1.75
67
Improved economic outlook as result of an increase in gold price
Reserve
0.69
(0.07)
0.25
(0.10)
0.76
0.07
11
Grade increase of 13% and favourable economics extended LOM by one year
TauTona
Resource
9.04

(0.33)
(0.56)
(1.01)
7.14
(1.90)
(21)
Transfers to Mponeng
Reserve
4.61
(0.29)
–
(1.25)
3.08
(1.53)
(33)
TauTona 123-126 level ground transferred to Mponeng, reduction through changed mine design of scattered grid to bracket geological structure, lower value estimates due to increase sampling and drilling, slightly offset by higher MCF and inclusion of CLR Eastern block
South Africa
cont.

Mineral Resource and Ore Reserve Report 2008
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URANIUM
AngloGold Ashanti produces a uranium oxide concentrate (U_3O_8) as a by-product from its South African gold mining operations. AngloGold Ashanti currently produces between 550 and 650 tonnes of U_3O_8 annually, with the potential to increase this to 1,000 tonnes by the year 2012.
Although mined as a by-product of gold for many years, U_3O_8 was not considered a Mineral Resource until the year 2005. Due to the rapid increase in the U_3O_8 price over the last few years, renewed focus has been placed on the U_3O_8 content within the Witwatersrand reefs with the result that in 2005, uranium was reported for the first time as a fully SAMREC compliant Mineral Resource.
The AngloGold Ashanti mines in the Vaal River region that currently produce uranium oxide as a by-product are Great Noligwa, Kopanang, and Moab Khotsong. The uranium oxide is extracted from the VR, although Great Noligwa mine also produces some uranium oxide from the C Reef. The mines in the West Wits region that have uranium Mineral Resources are Mponeng, Savuka and TauTona and in this mining region the uranium is only present in the CLR.
The surface tailings storage facilities that have been classified as uranium resources are the Kopanang Pay dam and the tailings storage facilities in the West Wits region. Uraninite and brannerite are the most common uranium-bearing minerals, although uraniferous leucoxene and coffinite are also present. Uraninite was the original primary uranium-bearing mineral and was possibly introduced as detrital material during the deposition of the Witwatersrand sediments.
Reconciliation of Mineral Resource and Ore Reserve (*cont.*)
as at 31 December 2008

Mine	Category	2007	Changes in gold contained Moz				Net change	Model	Scope	Deple-tion

(1)
change
(2)
change
(3)
2008
Diff
%
Comment
Vaal River
Resource
5.10
(0.12)
0.13
(0.10)
5.02
(0.08)
(2)
Surface (VRGO)
Reserve
1.92
(0.12)
0.02
0.09
1.91
(0.01)
(1)
Favourable economics
West Wits
Resource
1.44
(0.01)
0.03
(0.10)
1.37 (0.07)
(5)
Surface
Reserve
–
–
–
0.04
0.04
0.04
0
South Africa
Resource 98.21
(2.97)
8.81
3.96 108.01
9.79

10
Total
Reserve
33.88
(2.14)
1.17
0.74 33.66 (0.23)
(1)

1. Depletion: reduction in Ore Reserve based on ore delivered to the plant and corresponding in situ reduction in the Mineral Resource.
2. Model change: difference between the Ore Reserve based on the start of year and end of year Mineral Resource models.
3. Scope change: difference resulting from change in cut-off grade, mine call factor, new project studies and any other factors influencing the
Mineral Resource and Ore Reserve estimations.

Mineral Resource and Ore Reserve Report 2008
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South Africa
cont.
Mineral Resource – Uranium (U
3
0
8
)
Metric
Imperial
Contained
Resource
Tonnes
Grade
uranium oxide
Pounds
Mine/Project
category
million
(kg/t)
tonnes
millions
Great Noligwa
Measured
–
–
–
–
Indicated
17.71
0.50
8,844
19.50
Inferred
2.25
0.37
937
2.07
Total
20.23
0.48
9,780
21.56
Kopanang
Measured
–
–
–
–
Indicated

22.58
0.73
16,531
36.44
Inferred
1.79
0.63
1,133
2.50
Total
24.36
0.72
17,663
38.94
Moab Khotsong
Measured
2.64
0.75
1,982
4.37
Indicated
22.62
0.76
17,235
38.00
Inferred
12.44
0.63
7,864
17.34
Total
37.70
0.72
27,081
59.70
Mponeng
Measured
–
–
–
–
Indicated
27.08
0.19
5,130
11.31
Inferred
18.65
0.19
3,453
7.61

Total
45.72
0.19
8.583
18.92
Savuka
Measured
–
–
–
–
Indicated
6.15
0.22
1,328
2.93
Inferred
–
–
–
–
Total
6.15
0.22
1,328
2.93
TauTona
Measured
–
–
–
–
Indicated
8.81
0.30
2,602
5.74
Inferred
–
–
–
–
Total
8.81
0.30
2,602
5.74
Vaal River Surface
Measured
–
–

–
–
Indicated
55.52
0.10
5,363
11.82
Inferred
–
–
–
–
Total
55.52
0.10
5,363
11.82
West Wits Surface
Measured
–
–
–
–
Indicated
138.97
0.08
10,770
23.74
Inferred
–
–
–
–
Total
138.97
0.08
10,770
23.74
Total
Measured
2.64
0.75
1,982
4.37
Indicated
299.44
0.23
67,801
149.48
Inferred
35.39

0.38
13,386
29.51
Total
337.47
0.25
83,169
183.36

Mineral Resource and Ore Reserve Report 2008
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Ore Reserve – Uranium (U
3
0
8
)
Imperial
Contained
Resource
Tonnes
Grade
uranium oxide
Pounds
Mine/Project
category
million
(kg/t)
tonnes
millions
Great Noligwa
Proved
–
–
–
–
Probable
12.51
0.31
3,892
8.85
Total
12.51
0.31
3,892
8.85
Kopanang
Proved
–
–
–
–
Probable
9.41
0.36
3,432
7.57
Total
9.41
0.36
3,432

7.57
Moab Khotsong
Proved
–
–
–
–
Probable
25.28
0.47
11,877
26.18
Total
25.28
0.47
11,877
26.18
Total
Proved
–
–
–
–
Probable
47.21
0.41
19,201
42.33
Total
47.21
0.41
19,201
42.33

Mineral Resource and Ore Reserve Report 2008

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LOCATION

Great Noligwa is located about 15km south-east of the town of Orkney, in the southern part of the Klerksdorp goldfield. The mine exploits the VR at depths varying between 1,500m and 2,600m below surface. Scattered mining methods are employed where access to the reef is from the footwall haulage and return airway development, with cross-cuts developed every 180m to the reef horizon. Raises are then developed on-reef to the level above, and the reef is stoped out on-strike. The Great Noligwa lease area is constrained to the north by Pamodzi Gold Mine, to the east by Buffelsfontein Gold Mine, to the south by the Jersey and Die Hoek faults, (which displace the reef down by approximately 1,000m and 900m respectively), and to the west by Kopanang Mine.

GEOLOGY

The VR is the principal economic horizon at Great Noligwa, accounting for over 90% of the gold produced at the mine. The VR is part of the Witwatersrand Supergroup and is stratigraphically located near the middle of the Central Rand Group in the Johannesburg Subgroup on an unconformity below the Krugersdorp Formation. The VR unit can reach a maximum thickness of more than two metres and consists of a thin basal conglomerate (the C Facies) and a thicker sequence of upper conglomerates (the A Facies), separated by internal quartzite (the B Facies). Across most of the Great Noligwa lease area, the A Facies is the principal economic horizon within the VR, although sporadic remnants of C Facies may be preserved below the A Facies. The high gold values in the VR are often associated with high uranium values. Uranium is a very important by-product of Great Noligwa.

The C Reef has been mined on a limited scale in the central part of Great Noligwa, where a high-grade, north-south orientated channel containing two economic horizons has been exposed. To the east and west of this channel the C Reef is poorly developed with relatively small areas of economic interest. High uranium values in the C Reef are also often associated with high gold values. To the north, the C Reef sub-crops against the Gold Estates Conglomerates and in the extreme south of the mine the C Reef has been eliminated by a deeply eroded Kimberley Channel and the Jersey fault.

Great Noligwa

South Africa

Mineral Resource and Ore Reserve Report 2008
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Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Great Noligwa
Category
million
g/t
tonnes
Moz
Crystalkop Reef
Measured
0.82
7.96
6.51
0.21
Indicated
6.87
9.13
62.74
2.02
Inferred
1.65
8.20
13.52
0.44
Total
9.34
8.86
82.76
2.66
Vaal Reef
Measured
6.64
14.20
94.23
3.03
Indicated
3.39
14.71
49.84
1.60
Inferred
0.87
12.61

10.98
0.35
Total
10.89
14.23
155.06
4.99
Great Noligwa
Total
20.23
11.76
237.82
7.65
Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Great Noligwa
Category
million
g/t
tonnes
Moz
Measured
2.46
12.87
31.67
1.02
Indicated 6.10
9.69 59.10 1.90
Inferred 2.52
9.73 24.50 0.79
Great Noligwa
Total
11.08
10.41
115.28
3.71
The shaft pillar and the C Reef form potential mineable areas. Approximately 14% of the Exclusive Mineral Resource is expected to be taken up in safety and remnant pillars ahead of current mining.
GM SECTION
GREAT NOLIGWA MINE
MAIN-SUB VENT
GREAT NOLIGWA MINE
VENT MAIN-SUB
A.E.I MAN WINDER

BLAIR ROCK & SIEMENS
MAN WINDER
-522m
Below datum
Nx hole for
surface fridge
plant overflow
-1134,7m
CABLE POCKET
-1140,7m
PUMP STATION
-1134,7m
CABLE POCKET
-1451,6m
PUMP
STATION
DAM
-1756,5m
CABLE POCKET
-1756,5m
PUMP
STATION
64 level
70 level
76 level
Shaft
bottom
Datum - 2000m
Datum - 500m
MOAB KHOTSONG MINE MAIN
Datum - 500m
KERVAL ROAD
DYKE
MM shaft
JERSEY FAULT

Mineral Resource and Ore Reserve Report 2008
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South Africa
Great Noligwa *cont.*
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
F Putter
SACNASP
400052/95
25 years
Ore Reserve
A Kruger
PLATO
PMS0114
31 years
Ore Reserve
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Great Noligwa
Category
million
g/t
tonnes
Moz
Crystalkop Reef
Proved
0.72
5.97
4.32
0.14
Probable
2.67
5.92
15.80
0.51
Total
3.39
5.93

20.12
0.65
Vaal Reef
Proved
5.75
7.25
41.70
1.34
Probable
2.57
7.71
19.83
0.64
Total
8.33
7.39
61.53
1.98
Great Noligwa
Total
11.72
6.97
81.64
2.63
Great Noligwa
– Underground (Metric)
Tonnes above cut-of
f (millions)
0.00
Cut-off grade (g/t)
15.0
0.0
20.1
10.0
25.0
5.0
5.00
10.00
15.00
20.00
21.0
0.0
26.0
16.0
Average
grade
above
cut-of
f (g/t)
Tonnes above cut-off
Ave grade above cut-off

Great Noligwa:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
3.90
2007
-0.31
Depletion
-0.67
Scope
Change
2.62
2008
-0.30
Model
Change
2.3
1.3
3.3
Great Noligwa:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
8.83
2007
-0.49
Depletion
0.83
Gold price
-1.24
Other
-0.42
Explo-
ration
7.65
2008
-0.03
Cost
6.5
5.5
0.17
Metho-
dology
Change
8.5
7.5
Change

Mineral Resource and Ore Reserve Report 2008
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LOCATION

Kopanang Mine is located on the farms Pretoriuskraal 53 and Grootdraai 468 in the Free State province, just south of the Vaal River and about 10km south-east of the town of Orkney, which is itself located about 170km south-west of Johannesburg. The mine, in production since 1984, was originally known as Vaal Reef's 9 Shaft and forms part of the Klerksdorp goldfield. The mine is located immediately south of the Vaal River, is bound to the south by the Jersey Fault and to the east by Great Noligwa Mine, and incorporates an area of 35km 2 .

Dolomites of the Transvaal Supergroup outcrop on surface and these result in a very subdued topography with few rock exposures being present.

GEOLOGY

Gold-bearing conglomerates of the Central Rand Group of the Witwatersrand are exploited, the most important of which is known as the VR. These conglomerates are exposed via a twin-shaft system that reaches a maximum depth of 2,340m. The VR is exploited at depths of between 1,300m and 2,600m below surface. On Kopanang, almost all of the gold produced is from the VR, although minor amounts of gold are extracted from the secondary C Reef, which is stratigraphicaly located about 250m above the VR.

The VR is a medium- to high-grade reef consisting of a basal conglomerate called the Stilfontein Reef and an overlying reef called the Upper Vaal. Current terminology separates the reef into A, B and C Facies, where the C Facies is the basal Stilfontein, the A Facies, the Upper Vaal, and the B Facies an internal layer of quartzite. At Kopanang, the Upper VR, or A Facies, consists of a series of small pebble conglomerates and grits and contains very little gold. Further to the east at Great Noligwa, the A Facies becomes more robust and better developed and contains high gold values.

The B facies is simply a fine-grained grey, black speckled orthoquartzite that separates the A and C Facies.

The C Facies is the basal conglomerate of the VR and is the main gold carrier on Kopanang. It varies very little in thickness, with a thickness of 7-10cm being typical. The conglomerate comprises mostly quartz (92-98%) and chert (2-8%), with occasional porphyry clasts (<2%). The matrix is generally very pyritic and the base is non-channelised, and often contains a well-developed carbon seam.

Kopanang
South Africa

Mineral Resource and Ore Reserve Report 2008

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The C Reef contains two economic conglomerates, although the lowermost conglomerate is only preserved as small remnants. Gold concentrations are typically associated with a carbon seam. The C Reef sub-crops in the north against the Gold Estates Conglomerates Formation. To the south of this unconformity, the reef can be eliminated by the Kimberley Channels or bedding parallel faulting.

The VR and C Reef generally dip towards the south-east at dips of between 10° and 20°.

Kopanang is situated in a structurally complicated area of the Witwatersrand Basin, which has been subjected to numerous tectonic events. The complexity of the faulting at Kopanang became evident during initial surface diamond borehole drilling. Prior to 1970, 12 surface boreholes had been drilled on the farm Pretoriuskraal 53 and only five of these intersected the VR, the rest had been faulted out. Approximately 20% of the ground in the mine lease area has been eliminated due to the presence of faulting. At least nine structural groups, of differing ages, are thought to be present on this mine. The interaction of different aged structures on the mine can be very complicated, and the relationship of different aged structures is further complicated as many of these faults appear to have been reactivated at latter stages, or may have been active over long periods of time. This time frame ranges from late Archaean to Cretaceous, and therefore involves some 2.7 billion years of structural deformation.

Shaft Section at Kopanang

Chuniespoort

Ventersdorp

Klerksdorp/Mondeor

G.E.C

Kimberley channels

MBA

MB1

MB2/3

Vaal Reef

MB5/6

MB7/10

44 level

47 level

50 level

53 level

56 level

59 level

62 level

64 level

68 level

70 level

73 level

75 level

0

200

400

600

800

V9

PK1

PK2

PK6 PK9

PK4 MZ2

MA1
Popeye II
Shaft flat fault
Shaft steep fault
Shaft flat fault
Popeye III
BW fault
Pillar fault
Pillar fault
PK17 Zuiping
Diagonal dyke
Zuiping A fault
Jersey fault
PK17
foult
Diag?
Shaft flat fault
Buf
fer dyke
MZ2 fault
South Africa
Kopanang *cont.*

Mineral Resource and Ore Reserve Report 2008
– 27 –
Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Kopanang
Category
million
g/t
tonnes
Moz
Crystalkop Reef
Measured
0.11
10.74
1.20
0.04
Indicated
0.31
12.58
3.89
0.13
Inferred
0.99
13.28
13.10
0.42
Total
1.41
12.93
18.19
0.59
VR Base
Measured
2.49
17.67
44.02
1.42
Indicated
17.81
11.28
200.88
6.46
Inferred
0.66
11.68

7.68
0.25
Total
20.96
12.05
252.58
8.12
VR EDOM
Measured
0.19
14.53
2.71
0.09
Indicated
1.67
12.06
20.12
0.65
Inferred
0.14
10.06
1.45
0.05
Total
2.00
12.15
24.28
0.78
Kopanang
Total
24.36
12.11
295.05
9.49
Kopanang:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
9.35
2007
-0.60
Depletion
0.89
Gold price
0.00
Other
-0.17
Explo-
ration
9.49
2008

0.00
Cost
8.6
0.01
Metho-
dology
Change
9.6
Kopanang:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
4.34
2007
-0.59
Depletion
0.00
Scope
Change
4.00
2008
0.25
Model
Change
3.6
Change
4.2
9.1
4.0
3.8
Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Kopanang
Category
million
g/t
tonnes
Moz
Measured 1.66 19.76 32.88 1.06
Indicated
4.82 12.06 58.11
1.87
Inferred 1.79 12.43 22.24 0.71
Kopanang
Total 8.27

13.69
113.23
3.64
The VR in the western portion of the mine lease (Gencor 1E area) forms a potential mineable area. Approximately 44% of the exclusive Mineral Resource is expected to be taken up in safety and remnant pillars ahead of current mining.

Mineral Resource and Ore Reserve Report 2008
– 28 –
Ore Reserve
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Kopanang
Category
million
g/t
tonnes
Moz
Crystalkop Reef
Proved
0.01
4.51
0.05
–
Probable
0.02
4.89
0.09
–
Total
0.03
4.74
0.14
0.01
VR Base
Proved
0.98
9.42
9.25
0.30
Probable
13.32
7.71
102.71
3.30
Total
14.30
7.83
111.96
3.60
VR EDOM
Proved
0.13

7.58
1.00
0.03
Probable
1.73
6.61
11.41
0.37
Total
1.86
6.67
12.41
0.40
Kopanang
Total
16.19
7.69
124.51
4.00
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
A J Johnston
SACNASP
400055/01
20 years
Ore Reserve
W Kinnear
PLATO
PMS0198
18 years
Tonnes above cut-off (millions)
0.00
Cut-off grade (g/t)
15.0
0.0
20.0
10.0
25.0
5.0
5.00
10.00
15.00
20.00

22.0
12.0
27.0
17.0
Average
grade
above
cut-of
f (g/t)
Kopanang
– Underground (Metric)
Tonnes above cut-off
Ave grade above cut-off
South Africa
Kopanang *cont.*

Mineral Resource and Ore Reserve Report 2008
– 29 –

LOCATION

The Moab Project was approved in 1997 to exploit two distinct portions of the Moab Lease area, namely the Middle Mine (85 Level to 101 Level) and the Lower Mine (101 Level to 118 Level). During 2008, the SV4 section of Great Noligwa was incorporated into Moab Khotsong and this section is now termed the Top Mine.

The orebody of interest in the Moab Khotsong lease area is the VR, the principal reef in the Klerksdorp goldfield. The VR has been extensively mined on the adjacent Kopanang and Great Noligwa mines. Stratigraphically, it is located within the Johannesburg Subgroup of the Central Rand Group (Witwatersrand Supergroup). It is a thin (up to 4m thick), persistent stratigraphic unit that marks the base of the Strathmore Formation. Over much of the Klerksdorp mining area, the VR unconformable overlies the Mapaiskraal Member of the Stilfontein Formation (MB5). Towards the south of Kopanang and Great Noligwa, the VR oversteps onto the Mizpah Member.

GEOLOGY

The Mineral Resource at Moab Khotsong is structurally complex and highly faulted, with large fault-loss areas. Mining is based on a backfill system combined with bracket pillars. The raise lines are spaced 200m apart on the dip of the reef, with 25m-long panels. Backfill is carried to within four metres of the advancing stope faces and 75% of the total area extracted is likely to be backfilled.

The geological setting of Moab Khotsong is one of crystal extension, bounded in the north-west and south-east by major south-dipping fault systems with north-dipping Zuiping faults sandwiched between them. The Die Hoek and Buffels East faults structurally bound the reef blocks of the ‘Moab Upper Mine’ to the north-west and south-east respectively. The northern boundary is a Zuiping-type fault. The southern boundary fault of the ’Moab Upper Mine’ is currently not defined.

Moab Khotsong
South Africa

Due to the magnitude of throw across the Die Hoek fault, more than 700m down to the south, geological structures encountered on the up-thrown side of the fault cannot be projected to the down-thrown side and vice versa. No information pertaining to the reef blocks being accessed can be gleaned from the mapping of the access development. Only once the development is through the Die Hoek fault, does mapping thereof have any bearing on the reef blocks, and even then a great amount of exploration drilling is required to accurately delineate these blocks.

The C Reef is preserved in the northern part of the mine where the reef has been intersected by a number of boreholes. No development or stoping has taken place on the C Reef at Moab Khotsong.

Project Zaaiplaats 2

Project Zaaiplaats 2 (PZ2) is situated at Moab Khotsong in the Vaal River region of AngloGold Ashanti's South African operations. Moab Khotsong is the newest mine in the region and the PZ2 project is aimed at optimally extracting the deeper portion (lower mine) of the Vaal River at Moab Khotsong. The PZ2 project is planned to extend the life of Moab Khotsong for another 15 years until mid-2030s. The project also allows other opportunities (mining and metallurgical) to come to the fore that would otherwise have been uneconomic.

The orebody is accessed via twin double-declines angled at 8º, the upper and lower declines, from which five production levels will originate. These will allow two attacking points into the orebody, as well as providing sufficient ventilation capacity. One of the lower declines will be a dedicated ore-handling system via a conveyor belt; each of the decline sets will have a dedicated men (using chairlifts and a monorail) and material decline; the remaining upper decline will carry the majority of the services into the orebody. Shaft bottom will be 4,027m below datum (3,509m below collar).

Brownfields exploration

Brownfields exploration is currently focused on improving geological confidence in the Vaal River area and six surface drilling sites were in operation during the year.

Surface drilling continued in the Project Zaaiplaats area (Moab Lower Mine), where the target is the very prospective VR.

A long deflection to the east is in progress in drillhole MZA9. The deflection is intended to raise the confidence of an Inferred block in the north-east portion of the Zaaiplaats project area and also to confirm the structure between the Middle and Lower mines. The target block lies at an expected in-hole depth of 3,395 metres.

In the north-west of the main Zaaiplaats block, MMB5 is drilling to test a proposed target block along the Jersey Fault cut-off. By year end the current long deflection had reached a depth of 3,173 metres.

The VR was not intersected due to faulting and it is planned to drill further deflections out of the original drillhole.

A new drillhole, MGR8, was started during the year and has currently penetrated to 1,596 metres in lavas and volcanoclastic sediments of the Kameeldoorns Formation of the Platberg Group (Ventersdorp Supergroup).

Two surface boreholes in the Moab North area continued drilling into 2008. The targets were proposed VR blocks in a poorly-defined, structurally complex area north of the Moab Middle Mine area.

Drillhole MCY5 was stopped at a depth of 3,130 metres. The VR was not intersected, but the geological information was used to revise and refine the structural model.

Re-opening of borehole MCY4 was aimed at proving a proposed block of VR just north of the Moab Upper Mine area. A faulted C Reef intersection was obtained at 2,823 metres, immediately adjacent to an intrusive. The drillhole was at a depth of 3,003m by year end and drilling is continuing.

South Africa
Moab Khotsong *cont.*

Mineral Resource and Ore Reserve Report 2008
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Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Moab Khotsong
Category
million
g/t
tonnes
Moz
C Reef – GNM Shaft Pillar
Measured
0.02
8.85
0.17
0.01
Indicated
0.46
13.05
6.00
0.19
Inferred
0.13
11.67
1.56
0.05
Total
0.61
12.61
7.72
0.25
C Reef – Middle Mine
Measured
–
–
–
–
Indicated
1.21
9.62
11.61
0.37
Inferred
2.52
7.96

20.02
0.64
Total
3.72
8.50
31.63
1.02
VR – GNM Shaft Pillar
Measured
0.11
16.95
1.83
0.06
Indicated
1.50
17.68
26.51
0.85
Inferred
–
15.19
0.02
–
Total
1.61
17.63
28.35
0.91
VR – Lower Mine
Measured
–
–
–
–
Indicated
13.91
14.06
195.59
6.29
Inferred
8.86
12.11
107.32
3.45
Total
22.77
13.30
302.91
9.74
VR – Middle Mine
Measured

1.84
13.97
25.67
0.83
Indicated
4.89
25.22
123.36
3.97
Inferred
0.52
23.87
12.31
0.40
Total
7.25
22.27
161.33
5.19
VR – Top Mine
Measured
0.81
21.60
17.40
0.56
Indicated
0.54
24.11
13.00
0.42
Inferred
0.41
12.00
4.96
0.16
Total
1.76
20.12
35.35
1.14
Moab Khotsong
Total
37.72
15.04
567.30
18.24
Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes

Grade
gold
gold
Moab Khotsong
Category
million
g/t
tonnes
Moz
Measured 0.91 21.70 19.83 0.64
Indicated 5.21
20.72 107.92 3.47
Inferred 12.44 11.75
146.18 4.70
Moab
Khotsong
Total 18.56 14.76
273.92 8.81
Mineral Resource below infrastructure
as at 31 December 2008
Metric
Imperial
Contained
Contained
Tonnes
Grade
gold
gold
Moab Khotsong
Category
million
g/t
tonnes
Moz
VR – Project Zaaiplaats 2
Total
15.37
17.41
267.64
8.61
and Middle Mine

The Exclusive Mineral Resource consists of designed rock engineering bracket pillars and the shaft pillars on the VR and C Reef. The major portion (59%) of this Exclusive Mineral Resource is situated in the Lower Mine area, with minor amounts in the Middle Mine (12%), C Reef (12%) and shaft pillar (13%) areas. The bracket pillars are designed for safety reasons and will therefore not be mined, whereas the shaft pillars can only be safely extracted at the end of the mine life.

Mineral Resource and Ore Reserve Report 2008
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Moab Khotsong:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
6.97
2007
-0.21
Depletion
0.57
Scope
Change
7.32
2008
-0.01
Model
Change
7.0
6.8
Change
7.2
Moab Khotsong:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
13.79
2007
-0.38
Depletion
2.00
Gold price
-0.10
Other
1.43
Explo-
ration
18.24
2008
0.00
Cost
13.0
1.49
Metho-
dology
Change
18.0
17.0
14.0
15.0
16.0

Ore Reserve
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Moab Khotsong
Category
million
g/t
tonnes
Moz
VR – Lower Mine
Proved
–
–
–
–
Probable
11.87
9.37
111.16
3.57
Total
11.87
9.37
111.16
3.57
VR – Middle Mine
Proved
1.26
9.80
12.36
0.40
Probable
6.44
13.83
89.10
2.87
Total
7.70
13.17
101.46
3.26
VR – Top Mine
Proved
0.60
10.82
6.44

0.21
Probable
0.82
10.68
8.75
0.28
Total
1.41
10.74
15.19
0.49
Moab Khotsong
Total
20.99
10.86
227.81
7.32
Ore Reserve below infrastructure
as at 31 December 2008
Metric
Imperial
Contained
Contained
Tonnes
Grade
gold
gold
Moab Khotsong
Category
million
g/t
tonnes
Moz
VR – Project Zaaiplaats 2
Total
11.87
9.37
111.16
3.57
South Africa
Moab Khotsong *cont.*

Mineral Resource and Ore Reserve Report 2008
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Tonnes above cut-off (millions)
0.00
Cut-off grade (g/t)
30.0
0.0
20.0
40.0
10.0
5.00
10.00
15.00
20.00
15.0
20.0
Average
grade
above
cut-of
f (g/t)
Moab Khotsong
– Underground (Metric)
Tonnes above cut-off
Ave grade above cut-off
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
T Adam
GSSA
5532
30 years
Ore Reserve
J Wall
PLATO
PMS0164
26 years

Mineral Resource and Ore Reserve Report 2008

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LOCATION

Tau Lekoa is located about 8km west of the town of Orkney, at the western extreme of the Klerksdorp goldfields. The mine exploits the VCR at depths varying between 900m and 1,700m below surface. The VCR, the only reef exploited at Tau Lekoa, dips towards the west at an average angle of 30°. Tau Lekoa has a twin shaft system and mines to a depth of 1,650m. Tau Lekoa uses hydropower which has a centralised electro-hydraulic system as its primary source of energy production. Hydropower has been instrumental in improving labour productivity, which has played a vital role in assisting the mine to achieve its business objectives.

GEOLOGY

The VCR is a gold-bearing quartz pebble conglomerate (up to 5m thick) capping the uppermost angular unconformity of the Witwatersrand Supergroup. The topography of the VCR depositional area is uneven, and consists of a series of slopes and horizontal terraces at different elevations. The VCR is deposited over a number of terraces that are separated by slope material. Typically the terrace reef is a thicker, more robust conglomerate unit than the slope material, where hangingwall-footwall conditions may occur. The deepest terraces are the youngest, whereas the oldest terrace occupies a topographical horizon 28m above the youngest terrace. Generally the younger the terrace, the more mature the channel fill. The main channel is the youngest, most mature VCR facies at Tau Lekoa, and extends from the north-east into Tau Lekoa, before turning sharply towards the west. The older middle and upper terraces contain more immature conglomerates with more erratic gold grades.

New lease area

The Goedgenoeg Lease Area is situated to the north-west of Tau Lekoa. The mineral rights were allowed to lapse in 2004, however, due to improvements in the gold price, AngloGold Ashanti re-applied for prospecting rights during 2008.

This area lies below the current mine infrastructure and does not currently form part of the Mineral Resource.

Tau Lekoa

South Africa

Mineral Resource and Ore Reserve Report 2008
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Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Tau Lekoa
Category
million
g/t
tonnes
Moz
VCR Base
Measured
2.70
6.69
18.06
0.58
Indicated
4.19
5.50
23.07
0.13
Inferred
3.07
5.62
17.24
0.55
Total
9.96
5.86
58.37
1.88
VCR Jonkerskraal
Measured
0.70
5.97
4.16
0.13
Indicated
5.90
4.88
28.80
0.93
Inferred
0.01
2.79

0.04
–
Total
6.61
4.99
33.00
1.06
VCR Weltevreden
Measured
0.02
4.71
0.08
–
Indicated
17.35
4.17
72.35
2.33
Inferred
0.23
5.79
1.32
0.04
Total
17.60
4.19
73.76
2.37
Tau Lekoa
Total
34.18
4.83
165.13
5.31
Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Tau Lekoa
Category
million
g/t
tonnes
Moz
Measured
2.39
6.86

16.36
0.53
Indicated
22.73
4.23
96.18
3.09
Inferred
3.31
5.62
18.60
0.60
Tau Lekoa
Total
28.42
4.61
131.13
4.22
The Exclusive Mineral Resource is sensitive to the gold price and a large portion of this Mineral Resource is due to the difference in Mineral Resource and Ore Reserve gold prices. Approximately 33% of the Exclusive Mineral Resource is expected to occur in safety and remnant pillars ahead of current mining.
Tau Lekoa:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
1.29
2007
-0.15
Depletion
0.00
Scope
Change
0.92
2008
-0.22
Model
Change
0.7
0.5
Change
1.1
0.9
Tau Lekoa:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
6.49
2007
-0.18
Depletion
0.00

Gold price
0.00
Other
-0.67
Explo-
ration
5.31
2008
-0.32
Cost
5.1
4.1
-0.01
Metho-
dology
Change
6.1

Mineral Resource and Ore Reserve Report 2008
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South Africa
Tau Lekoa *cont.*
Ore Reserve
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Tau Lekoa
Category
million
g/t
tonnes
Moz
VCR Base
Proved
0.95
3.70
3.50
0.11
Probable
2.42
4.24
10.29
0.33
Total
3.37
4.09
13.79
0.44
VCR Jonkerskraal
Proved
0.38
4.01
1.52
0.05
Probable
3.64
3.67
13.35
0.43
Total
4.02
3.70
14.87
0.48
Tau Lekoa

Total
7.39
3.88
28.66
0.92
Competent persons
Professional
Registration
Relevant
Type
Name
organisation
number
experience
Mineral Resource
F Fouche
GSSA
962596
14 years
Ore Reserve
R Brokken
PLATO
PMS0171
27 years
Tonnes above cut-off (millions)
0.00
Cut-off grade (g/t)
30.0
0.0
20.0
40.0
10.0
5.00
10.00
15.00
20.00
Average
grade
above
cut-of
f (g/t)
0.0
20.0
5.0
10.0
15.0
25.0
30.0
Tau Lekoa
– Underground (Metric)
Tonnes above cut-off

Ave grade above cut-off

Mineral Resource and Ore Reserve Report 2008
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LOCATION

Mponeng lies on the West Wits Line, close to Carletonville in the province of Gauteng, about 65km south-west of Johannesburg. Mining at Mponeng is conducted at an average depth of 2,800m. The mine operates two vertical hoisting shafts, a sub-shaft and two service shafts. The Mponeng lease area is constrained to the north by TauTona and Savuka, and to the south only by the depth of the orebody, which is open-ended.

GEOLOGY

The VCR, the only reef currently being mined at Mponeng, comprises a quartz pebble conglomerate (up to 3m thick) capping the topmost angular unconformity of the Witwatersrand Supergroup. The footwall stratigraphy partially controls the reef type. Most of the VCR mined lies on footwall strata of the Kimberley Formation, which is relatively argillaceous. More durable quartzites of the Elsburg Formation lie to the west, while the eastern side of the mine is dominated by the Booysens Shale.

Mponeng is also planning to mine the CLR. The CLR at Mponeng is on average a 20cm thick, tabular, auriferous quartz pebble conglomerate formed near the base of the Central Rand Group. The CLR is on average 900m deeper than the VCR and an exploration drilling programme is currently underway to improve resource confidence and confirm the geological structures that occur at the lower levels. Of the three economic units that exist within the CLR, the Mponeng CLR target area is dominated by Unit 3 with a smaller portion of Unit 2 towards the east. Unit 2 is a complex channel deposit, and Unit 3 is the oldest of the CLR channel deposits sitting at the base of the package.

Mponeng Carbon Leader Reef Project

Two economically viable reefs are mined in the West Wits area, the shallower VCR and the deeper CLR. Both have been extensively mined at AngloGold Ashanti’s TauTona and Savuka operations, while Mponeng has only mined the VCR. Both reefs can be accessed down to 120 level (3,645m below datum), but there is currently no infrastructure in place that can service stoping operations below 120 level.

Mponeng is in a prime position to exploit the CLR, and had in fact originally been designed with this in mind via its sub-shaft deepening project which began in the mid-1990s. Due to economic factors at the time, this sub-shaft was stopped at 120 level in 2000 and is now being used to service the VCR mining operations.

Mponeng
South Africa

Mineral Resource and Ore Reserve Report 2008

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The high-grade CLR below 120 level has remained inaccessible and this represents an enormous opportunity for Mponeng and for AngloGold Ashanti. A project team has been set up to design a “new mine” to access the CLR via tertiary shafts from Mponeng, enabling the mine to extend its life, while maintaining production at current levels.

The mine has been designed according to the sequential grid mining method, a technique developed at Elandsrand and Mponeng in the 1990s. This method involves pre-developing stoping grids and extracting the reef between the dip-stabilising pillars. This method has proved successful in the management of seismicity, both in reducing seismic energy and increasing mining flexibility. The shafts and infrastructure have been designed to fit the existing shaft system at Mponeng, and have the capacity to sustain high levels of production.

The extension of Mponeng via the CLR Project provides a strong base from which several regional benefits can be realised, as well as enabling other smaller projects to be brought in to match the extended life of the asset and region.

Mineral Resource

as at 31 December 2008

Mponeng Category	Contained Tonnes million	Grade gold g/t	Contained gold tonnes	gold Moz
CLR Below 120 Level				
Measured	–	–	–	–
Indicated	25.57	18.88	482.69	15.52
Inferred	18.65	16.65	310.52	9.98
Total	44.22	17.94	793.21	25.50
Mponeng WUDL				
Measured				

–
–
–
–
Indicated
–
–
–
–
Inferred
4.47
13.33
59.61
1.92
Total
4.47
13.33
59.61
1.92
TauTona CLR Shaft Pillar
Measured
0.27
38.48
10.52
0.34
Indicated
1.23
43.20
53.33
1.72
Inferred
–
–
–
–
Total
1.51
42.34
63.85
2.05
TauTona VCR Shaft Pillar
Measured
0.13
14.49
1.86
0.06
Indicated
1.38
19.36
26.74
0.86

Inferred
–
–
–
–
Total
1.51
18.95
28.60
0.92
VCR 109 to 120 level
Measured
1.61
19.36
31.07
1.00
Indicated
7.91
16.51
130.51
4.20
Inferred
–
–
–
–
Total
9.51
16.99
161.58
5.20
VCR Above 109 Level
Measured
5.22
11.13
58.09
1.87
Indicated
12.11
8.00
96.95
3.12
Inferred
–
–
–
–
Total
17.33
8.94
155.05

4.99
VCR Below 120 level
Measured
0.01
22.52
0.32
0.01
Indicated
8.63
17.55
151.43
4.87
Inferred
–
–
–
–
Total
8.64
17.56
151.75
4.88
VCR Block 1
Measured
–
–
–
–
Indicated
2.99
4.42
13.24
0.43
Inferred
–
–
–
–
Total
2.99
4.42
13.24
0.43
South Africa
Mponeng *cont.*

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource (*cont.*)

as at 31 December 2008

Mine/Project	Category	Tonnes million	Grade gold g/t	Contained gold tonnes	Contained gold Moz
VCR Block 3	Measured	–	–	–	–
	Indicated	7.13	4.28	30.53	0.98
	Inferred	–	–	–	–
	Total	7.13	4.28	30.53	0.98
VCR Block 5	Measured	0.01	1.78	0.02	–
	Indicated	6.04	6.77	40.92	1.32
	Inferred	–	–		

–
–
Total
6.05
6.76
40.94
1.32
VCR Outside Project areas
Measured
0.01
2.00
0.02
–
Indicated
9.91
3.94
39.03
1.26
Inferred
–
–
–
–
Total
9.92
3.94
39.05
1.26
Mponeng
Total
113.29
13.57
1537.41
49.43
Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Mponeng
Category
million
g/t
tonnes
Moz
Measured
5.57
13.79

76.76
2.47
Indicated
68.59
12.82
879.29
28.27
Inferred
23.12
16.01
370.14
11.90
Mponeng
Total
97.28
13.63
1,326.18
42.64
The CLR in the deeper portion of the orebody (below 126 level) and the VCR in the north of the mine lease are potentially mineable areas. Approximately 35 to 50% of the Exclusive Mineral Resource is expected to occur in safety and remnant pillars ahead of current mining.
Mineral Resource below infrastructure
as at 31 December 2008
Metric
Imperial
Contained
Contained
Tonnes
Grade
gold
gold
Mponeng
Category
million
g/t
tonnes
Moz
VCR below 120 level
Total
8.64
17.56
151.75
4.88
CLR below 120 level
Total
45.72
18.74
857.06
27.56
WUDLS
Total

4.47
13.33
59.61
1.92
Mponeng
Total
58.84
18.16
1,068.43
34.35

Mineral Resource and Ore Reserve Report 2008
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Mponeng:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
10.15
2007
-0.62
Depletion
2.06
Scope
Change
13.00
2008
1.41
Model
Change
10.4
9.4
Change
12.4
Mponeng:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
41.56
2007
-0.76
Depletion
1.91
Gold price
0.93
Other
5.78
Explo-
ration
49.42
2008
0.00
Cost
40.8
0.00
Metho-
dology
Change
48.8
46.8
44.8
42.8
11.4

Ore Reserve
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Mponeng
Category
million
g/t
tonnes
Moz
CLR Below 120 Level
Proved
–
–
–
–
Probable
14.78
14.46
213.77
6.87
Total
14.78
14.46
213.77
6.87
VCR 109 to 120 Level
Proved
0.88
11.02
9.67
0.31
Probable
7.48
8.72
65.25
2.10
Total
8.36
8.96
74.92
2.41
VCR Above 109 Level
Proved
1.58
8.11
12.80

0.41
Probable
5.37
4.80
25.76
0.83
Total
6.94
5.55
38.56
1.24
VCR Below 120 Level
Proved
0.01
12.50
0.19
0.01
Probable
7.69
9.97
76.71
2.47
Total
7.71
9.98
76.90
2.47
Mponeng
Total
37.80
10.69
404.15
12.99
Ore Reserve below infrastructure
as at 31 December 2008
Metric
Imperial
Contained
Contained
Tonnes
Grade
gold
gold
Mponeng
Category
million
g/t
tonnes
Moz
VCR below 120 level
Total

7.71
9.98
76.90
2.47
CLR below 120 level
Total
14.78
14.46
213.77
6.87
Mponeng
Total
22.49
12.92
290.67
9.35
South Africa
Mponeng *cont.*

Mineral Resource and Ore Reserve Report 2008
– 41 –
Competent person
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
G Flitton
GSSA
964758
7 years
Ore Reserve
P Enslin
PLATO
PMS0183
25 years
Mponeng
– Underground (Metric)
Tonnes above cut-off (millions)
0.00
Cut-off grade (g/t)
100.0
0.0
50.0
150.0
5.00
10.00
15.00
20.00
Average
grade
above
cut-off
(g/t)
13.0
23.0
18.0
28.0
Tonnes above cut-off
Ave grade above cut-off

Mineral Resource and Ore Reserve Report 2008

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LOCATION

The Savuka mine is located about 18km south of the town of Carletonville, in the West Wits goldfields. The mine exploits the CLR at depths varying between 2,600m and 3,500m below surface. The VCR, which on average is about 700m above the CLR, is also exploited at Savuka, but to a lesser extent than the CLR. A combination of mining methods is used: longwall, conventional and sequential grid mining.

GEOLOGY

The CLR is a thin, on average 20cm thick, tabular, auriferous quartz pebble conglomerate formed near the base of the Central Rand Group. The CLR has been divided into three stratigraphic units. Economically the most important is Unit 1 which is present as a sheet-like deposit over the whole mine. Unit 2 is a complex channel deposit that is presently only being mined along the south and west at Savuka. The reef may be over 2m thick where Unit 2 is developed. Unit 3 is preserved below Unit 1 in the southern parts of Savuka and is the oldest of the CLR conglomerates.

The VCR comprises a quartz pebble conglomerate (up to 5m thick) capping the topmost angular unconformity of the Witwatersrand Supergroup. The topography of the VCR depositional area is uneven, and consists of a series of slopes and horizontal terraces at different elevations. It sub-outcrops against the base of the Ventersdorp Lavas in a direction parallel to strike across the north-western part of the lease area.

Faulting of the orebody, in conjunction with the numerous intrusives that also intersect the orebody on the various levels, is responsible for most of the risk inherent with this type of deep-level gold mining. The Geoscience Department ensures that all information regarding these features is gathered ahead of the current workings so as to ensure the safe planning of the operation. Maximum levels of effort are spent on ensuring the accuracy and validity of the data.

Savuka

South Africa

Mineral Resource and Ore Reserve Report 2008
– 43 –
Savuka:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
0.69
2007
-0.10
Scope
Change
0.76
2008
0.25
Model
Change
0.7
0.5
Change
0.9
Savuka:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
2.62
2007
-0.12
Depletion
0.28
Gold price
0.00
Other
1.58
Explo-
ration
4.37
2008
0.00
Cost
2.5
0.00
Metho-
dology
Change
3.5
0.8
0.6
-0.07
Depletion
4.0
3.0

Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Savuka
Category
million
g/t
tonnes
Moz
Measured
0.93
12.26
11.41
0.37
Indicated
3.92
22.13
86.66
2.79
Inferred
–
–
–
–
Savuka
Total
4.85
20.23
98.07
3.15

The Exclusive Mineral Resource is sensitive to the gold price and a large portion of this Mineral Resource is due to the difference in Mineral Resource and Ore Reserve gold prices. Approximately 46% of the Exclusive Mineral Resource is expected to occur in safety and remnant pillars ahead of current mining.

Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Savuka
Category
million
g/t
tonnes

Moz
Carbon Leader Reef
Measured
0.54
16.98
9.13
0.29
Indicated
5.61
21.07
118.24
3.80
Inferred
–
–
–
–
Total
6.15
20.71
127.38
4.10
Ventersdorp Contact Reef
Measured
0.42
6.74
2.85
0.09
Indicated
0.40
14.25
5.66
0.18
Inferred
–
–
–
–
Total
0.82
10.38
8.51
0.27
Savuka
Total
6.97
19.50
135.89
4.37

Mineral Resource and Ore Reserve Report 2008
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Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
G Flitton
GSSA
964758
7 years
Ore Reserve
P Enslin
PLATO
PMS0183
25 years
Ore Reserve
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Savuka
Category
million
g/t
tonnes
Moz
Carbon Leader Reef
Proved
0.05
7.29
0.34
0.01
Probable
3.49
6.64
23.20
0.75
Total
3.54
6.65
23.54
0.76

Ventersdrop Contact Reef
Proved
0.01
2.17
0.02
–
Probable
0.05
3.27
0.15
0.01
Total
0.06
3.06
0.18
0.01
Savuka
Total
3.60
6.59
23.71
0.76
Savuka
– Underground (Metric)
Tonnes above cut-off (millions)
0.00
Cut-off grade (g/t)
5.00
10.00
15.00
20.00
Average
grade
above
cut-off
(g/t)
19.0
24.0
29.0
4.5
0.0
3.0
7.5
1.5
6.0
Tonnes above cut-off
Ave grade above cut-off
South Africa
Savuka *cont.*

Mineral Resource and Ore Reserve Report 2008

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LOCATION

TauTona lies on the West Wits Line, just south of Carletonville in the North West Province, about 70km south-west of Johannesburg. Mining at TauTona takes place at depths ranging from 2,000m to 3,640m. The mine has a three-shaft system and is in the process of converting from longwall mining to scattered grid mining.

GEOLOGY

The CLR is a thin, on average 20cm thick, tabular, auriferous quartz pebble conglomerate formed near the base of the Central Rand Group. The CLR has been divided into three facies units. Economically the most important is Unit 1, which is present as a sheet-like deposit over the whole mine, although reef development and grades tend to drop off very rapidly where Unit 1 overlies Unit 2. Unit 2 is a complex channel deposit that is only present along the eastern-most limit of current mining at TauTona. The Unit 2 CLR may be over 2m thick. Unit 3 is preserved below Unit 1 in the southern parts of TauTona and is the oldest of the CLR conglomerates.

Production levels on the VCR at TauTona are currently limited, amounting to an average of 10% of total production volumes. The VCR comprises a quartz pebble conglomerate (up to 2m thick) capping the top-most angular unconformity of the Witwatersrand Supergroup. The topography of the VCR depositional area is uneven, and consists of a series of slopes and horizontal terraces at different elevations.

TauTona

South Africa

Mineral Resource and Ore Reserve Report 2008
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TAUTONA SHAFT SYSTEM
Surface + 1829m amsl
sea level
66 Level -1 822m BC, +7m amsl
Main Shaft
Sub Vertical Shaft
Tertiary Vertical Shaft
Carbon Leader Reef
100 Level -2 859m BC, +1030m bmsl
120 Level -3 476m BC, +1647m bmsl
Ventersdorp Contact Reef
900m
Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
TauTona
Category
million
g/t
tonnes
Moz
CLR Base
Measured
0.68
26.20
17.82
0.57
Indicated
7.52
23.50
176.69
5.68
Inferred
–
–
–
–
Total
8.20
23.73
194.51
6.25
CLR Below 120
Measured

0.04
22.97
0.82
0.03
Indicated
0.49
33.87
16.66
0.54
Inferred
–
–
–
–
Total
0.53
33.13
17.48
0.56
Remnant CLR Shaft Pillar
Measured
0.06
34.74
1.92
0.06
Indicated
0.03
41.91
1.32
0.04
Inferred
–
–
–
–
Total
0.09
37.34
3.24
0.10
VCR Shaft Pillar
Measured
0.13
15.62
2.08
0.07
Indicated
0.24
20.14
4.90
0.16

Inferred
–
–
–
–
Total
0.38
18.54
6.98
0.22
TauTona
Total
9.19
24.18
222.22
7.14
South Africa
TauTona *cont.*

Mineral Resource and Ore Reserve Report 2008
– 47 –
TauTona:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
4.61
2007
-0.29
Depletion
-1.25
Scope
Change
3.08
2008
0.00
Model
Change
2.5
1.5
Change
4.5
3.5
TauTona:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
9.04
2007
-0.33
Depletion
0.00
Gold price
-1.01
Other
-0.90
Explo-
ration
7.14
2008
0.00
Cost
6.9
4.9
0.34
Metho-
dology
Change
8.9
7.9
5.9

Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
TauTona
Category
million
g/t
tonnes
Moz
Measured 0.70
24.17 16.89 0.54
Indicated 3.68
23.76 87.44 2.81
Inferred –
–
–
–
TauTona
Total 4.38
23.82 104.34 3.35
Mineral Resource below infrastructure
as at 31 December 2008
Metric
Imperial
Contained
Contained
Tonnes
Grade
gold
gold
TauTona
Category
million
g/t
tonnes
Moz
CLR below 120 level
Total
0.53
33.13
17.48
0.56
The Exclusive Mineral Resource is dependant on mining strategy, but approximately 3.0Moz or 92% of the Exclusive Mineral Resource is expected to be taken up in safety and remnant pillars ahead of current mining.

Mineral Resource and Ore Reserve Report 2008
– 48 –
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
R Burnett
SACNASP
400133/03
23 years
Ore Reserve
M W Armstrong
PLATO
PMS0054
24 years
Ore Reserve below infrastructure
as at 31 December 2008
Metric
Imperial
Contained
Contained
Tonnes
Grade
gold
gold
TauTona
Category
million
g/t
tonnes
Moz
CLR below 120 level
Total
0.63
15.87
10.00
0.32
TauTona
– Underground (Metric)
Tonnes above cut-off (millions)
0.00
Cut-off grade (g/t)
5.00
10.00
15.00

20.00
Average
grade
above
cut-off
(g/t)
24.0
29.0
4.5
0.0
3.0
10.5
1.5
9.0
7.5
6.0
Tonnes above cut-off
Ave grade above cut-off
Ore Reserve
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
TauTona
Category
million
g/t
tonnes
Moz
CLR Base
Proved
0.33
10.10
3.34
0.11
Probable
8.56
8.99
76.88
2.47
Total
8.89
9.03
80.23
2.58
CLR Below 120
Proved
–

10.54
0.03
–
Probable
0.63
15.89
9.97
0.32
Total
0.63
15.87
10.00
0.32
Remnant CLR Shaft Pillar
Proved
–
10.55
0.04
–
Probable
–
–
–
–
Total
–
10.55
0.04
–
VCR Shaft Pillar
Proved
0.07
8.02
0.57
0.02
Probable
0.51
9.62
4.87
0.16
Total
0.58
9.43
5.44
0.18
TauTona
Total
10.10
9.48
95.70
3.08

South Africa
TauTona *cont.*

Mineral Resource and Ore Reserve Report 2008

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Metallurgy as a business unit produces gold in addition to that derived from the primary reef sources by treating lower-grade surface sources of gold-bearing material. The strategy is the maximum utilisation of the treatment gap. The surface source operations comprise the Vaal River and West Wits surface sources operations.

The Vaal River Surface Operations are located immediately to the north and south of the Vaal River, close to the town of Orkney, North West Province, South Africa. These operations comprise waste rock dumps and tailings dams resulting from the mining and processing of the VR and VCR which are mined at the Vaal River underground mines in the Klerksdorp area.

The West Wits Surface Operations are located on the West Wits Line, near the town of Carletonville, straddling the border between the North West Province and Gauteng, South Africa. These operations comprise waste rock dumps and tailings dams sourced from the mining and processing of CLR and VCR which are mined at the West Wits underground mines in the Carletonville/Fochville area.

The waste rock dumps have been built from waste rock mined from underground access development workings, which was hoisted and transported and deposited via conveyor belt. The gold contained within these rock dumps was sourced from three areas:

- minor reefs that were developed in order to access the primary reef;
- reefs that were contained within small fault blocks that were exposed by off-reef development; and
- cross-tramming of reef to the waste tips.

The tailings storage facilities store the residue product from the gold plants. These tailings were pumped in a slurry form onto tailings dams and have been built up over a period of years.

RECLAMATION METHODOLOGY

Bulldozers are used to create furrows through the waste rock dumps in order to mix rock from different parts of the waste rock dumps that were deposited over different time periods. This is an attempt to create a degree of homogenisation. The material is then loaded onto rail hoppers by means of a front end loader and transported to the metallurgical plants.

Surface operations

South Africa

Mineral Resource and Ore Reserve Report 2008

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The West Gold Plant, Kopanang Gold Plant, Noligwa Gold Plant, Mispah Gold Plant and Savuka Gold Plant are fed from the waste rock dumps (WRD). Currently WRD 2, WRD 4 and Noligwa WRD are being reclaimed in the Vaal River area, while the Savuka WRD is being reclaimed in the West Wits area.

The Sulphur Paydam (SPD) is being reclaimed by means of remote controlled high-pressure hydraulic monitors. In order to facilitate blending of low and higher grade material (necessitated by a definite grade gradient that exists from the bottom to the top of the tailings dam), reclamation takes place in a three-bench, full-face operation. From the reclamation face, the slurry flows via trenches to the SPD pump station, where oversized material is screened out and then pumped to the East Gold and Acid Flotation (EGAF) Plant for processing.

The Exclusive Mineral Resource largely comprises tailings storage facilities.

Mineral Resource
as at 31 December 2008

Mine/Project	Category	Contained Tonnes million tonnes	Grade gold g/t	Contained gold Moz
Vaal River Surface				
SA Met - Rock Dump	Measured	–	–	–
	Indicated	63.57	0.62	1.27
	Inferred	5.02	0.69	0.11
	Total	68.59	0.62	1.38
SA Met - Tailings Dump	Measured	–	–	–

–
–
Indicated
355.03
0.32
113.36
3.65
Inferred
–
–
–
–
Total
355.03
0.32
113.36
3.65
Vaal River Surface
Total
423.62
0.37
156.15
5.02
West Wits Surface
WWGO - Rock Dump
Measured
–
–
–
–
Indicated
5.09
0.27
1.35
0.04
Inferred
8.16
0.61
4.96
0.16
Total
13.25
0.48
6.31
0.20
WWGO - Tailings Dump
Measured
–
–
–
–

Indicated
138.97
0.26
36.16
1.16
Inferred
–
–
–
–
Total
138.97
0.26
36.16
1.16
West Wits Surface
Total
152.22
0.28
42.47
1.37
Surface operations
Total
575.84
0.35
198.62
6.18
Exclusive Mineral Resource
as at 31 December 2008
Contained
Contained
Tonnes
Grade
gold
gold
Mine/Project
Category
million
g/t
tonnes
Moz
Vaal River Surface
Measured
–
–
–
–
Indicated 302.65
0.31
93.32
3.00

Inferred
5.02 0.69
3.45
0.11
Total
307.67 0.31
96.77
3.11
West Wits Surface
Measured
–
–
–
–
Indicated
138.97 0.26
36.16
1.16
Inferred
8.16 0.61
4.96
0.16
Total
147.13 0.28
41.12
1.32
Surface operations
Total
454.79
0.30
137.89
4.43
South Africa
Surface operations *cont.*

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Vaal River Suface:
Ore Reserve reconciliation
2007 vs 2008
Ounces (thousands)
1.92
2007
-0.12
Depletion
0.09
Scope
Change
1.91
2008
0.01
Model
Change
1.8
Change
1.9
Vaal River Suface:
Mineral Resource reconciliation
2007 vs 2008
Ounces (thousands)
5.10
2007
-0.12
Depletion
0.00
Gold price
0.09
Other
0.13
Explo-
ration
5.02
2008
0.01
Cost
5.0
4.8
-0.00
Metho-
dology
Change
5.2
Ore Reserve
as at 31 December 2008
Contained
Contained

Tonnes
Grade
gold
gold
Mine/Project
Category
million
g/t
tonnes
Moz
Vaal River Surface
SA Met - Rock Dump
Proved
–
–
–
–
Probable
63.57
0.62
39.33
1.27
Total
63.57
0.62
39.33
1.27
SA Met - Tailings Dump
Proved
–
–
–
–
Probable
52.38
0.38
20.04
0.64
Total
52.38
0.38
20.04
0.64
Vaal River Surface
Total
115.95
0.51
59.38
1.91
West Wits Surface
WWGO - Rock Dump

Proved
–
–
–
–
Probable
5.09
0.27
1.35
0.04
Total
5.09
0.27
1.35
0.04
West Wits Surface
Total
5.09
0.27
1.35
0.04
West Wits Surface:
Ore Reserve reconciliation
2007 vs 2008
Ounces (millions)
0.00
2007
-0.00
Depletion
0.04
Scope
Change
0.04
2008
-0.00
Model
Change
0.01
0.00
Change
0.03
0.02
West Wits Surface:
Mineral Resource reconciliation
2007 vs 2008
Ounces (millions)
1.44
2007
-0.01
Depletion
0.05

Gold price
0.00
Other
0.03
Explo-
ration
1.37
2008
-0.15
Cost
1.2
0.00
Metho-
dology
Change
1.4
1.3
1.5

Mineral Resource and Ore Reserve Report 2008
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Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
T Flitton
GSSA
964771
7 years
Ore Reserve
R Brokken
PLATO
PMS0171
27 years
South Africa
Surface operations *cont.*

Mineral Resource and Ore Reserve Report 2008
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Regional overview
Argentina
AngloGold Ashanti has a single operation in Argentina, the Cerro Vanguardia mine, which is a joint venture with Formicruz (the province of Santa Cruz). The province of Santa Cruz holds 7.5% and the remaining 92.5% belongs to AngloGold Ashanti.
MINERAL RESOURCE ESTIMATION
The Mineral Resource estimates are computed using the relevant computer modules of Datamine
®
software
package. The geological model is a critical input to the Mineral Resource estimation process. The orebody boundaries for each geological entity (veins, stock work, wall rock) are defined from the detailed logging of all geological boreholes and after validation this information is used in the system to create a three dimensional model. This model is subsequently populated with a 5 x 25 x 5m (X by Y by Z) block model. The block sizes used are chosen to represent the dimensions in which the deposit is intended to be mined. Volumetric measurements of the orebody are subsequently computed in the system using the relevant block dimensions. Ordinary kriging is used to perform the grade interpolation. Field tests are conducted to determine appropriate in-situ densities. The mining of a specific area of the orebody is surveyed and an accurate measurement of the corresponding mass associated with the mining area is recorded. The in-situ density is then computed by dividing the mass by the surveyed volume. Using the volume, grade and density information, the Mineral Resource estimates are computed for the individual orebodies.
ORE RESERVE ESTIMATION
The appropriate Mineral Resource models are used as the basis for Ore Reserves. All relevant modifying factors such as mining dilution and costs are used in the Ore Reserve conversion process. This is based on the original block grades and tonnage and includes waste material (both internal and external). Appropriate Ore Reserve cut-off grades are applied and all blocks above this cut-off are reported. For the reserve optimisation, Whittle
®
software was used and Datamine
®
software was utilised to design the pits.
N
0
1000km
Buenos Aires
San Julian
Rio Gallegas
Bahia Blanca
Cordoba
Santa Fe
Cerro Vanguardia
ARGENTINA
Operations

Mineral Resource and Ore Reserve Report 2008
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Mineral Resource and Ore Reserve gold prices and exchange rate
Units
2008
2007
Gold price – Mineral Resource
US$/oz
1,000
700
Gold price – Ore Reserve
US$/oz
720
600
Exchange rate
AR/US$
3.10
3.15
Reconciliation of Mineral Resource and Ore Reserve
as at 31 December 2008
Changes in gold contained
Moz
Percentage
Deple-
Model
Scope
Net change
Mine
attributable Category
2007
tion
(1)
change
(2)
change
(3)
2008
diff
% Comment
Cerro 92.5% Resource
3.50
(0.16)
0.39
–
3.73
0.23
7
Exploration
additions
Vanguardia
Reserve

1.88
(0.18)
0.17
(0.03)
1.84
(0.04)
(2)
Scope change due to mining, lower grades and higher costs
Total Resource
3.50
(0.16)
0.39
–
3.73
0.23
7
Reserve
1.88