

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  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

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

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

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](http://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.

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Kopanang

Moab Khotsong

Tau Lekoa

Mponeng

Savuka

TauTona

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53

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Regional overview

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Brazil

Regional overview

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Regional overview

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La Colosa

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Regional overview	
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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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profile

Corporate

Mineral Resource and Ore Reserve Report 2008

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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  
and Ore Reserves *cont.*

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



Mineral Resource and Ore Reserve Report 2008

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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

Mineral Resource and Ore Reserve Report 2008

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and Ore Reserves - by operation

Mineral Resources

Mineral Resource and Ore Reserve Report 2008

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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 Nologwa, 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 Nologwa

Kopanang

Tau Lekoa

Klerksdorp

Carletonville

Pretoria

Johannesburg

Durban

Port Elizabeth

East London

Bloemfontein

Cape Town

SOUTH AFRICA

0

400km

Operations

N

Moab Khotsong

Mineral Resource and Ore Reserve Report 2008

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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

Wolverdam

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

Measured

5 x 5

x

Based on constrained kriging variance, supported mines

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 Cadmine

®

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.

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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 Nologwa

Resource

8.83

(0.49)

(0.25)

(0.45)

7.65

(1.19)

(13)

Transfer of the SV4 section from

Great Nologwa to Moab Khotsong

Reserve

3.90

(0.31)

(0.30)

(0.67)

2.63

(1.28)

(33)

Transfer of the SV4 section from

Great Nologwa 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

3  
O  
8  
) as a by-product from its South African gold  
mining operations. AngloGold Ashanti currently produces between 550 and 650 tonnes of U

3  
O  
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

3  
O  
8  
was not considered a Mineral Resource until the  
year 2005. Due to the rapid increase in the U

3  
O  
8  
price over the last few years, renewed focus has been placed  
on the U

3  
O  
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 Khotsoeng. 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

Changes in gold contained

Moz

Deple-

Model

Scope

Net change

Mine

Category 2007

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

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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 Nologwa 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 Nologwa 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 Nologwa, 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 Nologwa 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 Nologwa.

The C Reef has been mined on a limited scale in the central part of Great Nologwa, 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 Nologwa  
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-off  
 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-off  
 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 stratigraphically 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  
fault  
Diag?  
Shaft flat fault  
Buf  
fer dyke  
MZ2 fault  
South Africa  
Kopanang *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

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

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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-off

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

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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 Nologwa 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 Nologwa 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 unconformably overlies the Mapaiskraal Member of the Stilfontein Formation (MB5). Towards the south of Kopanang and Great Nologwa, 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

Mineral Resource and Ore Reserve Report 2008

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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 8°, 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 Zaaipplaats 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 Zaaipplaats 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-off

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 Leko 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 Leko, dips towards the west at an average angle of 30°. Tau Leko has a twin shaft system and mines to a depth of 1,650m. Tau Leko 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 Leko, and extends from the north-east into Tau Leko, 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 Leko. 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 Leko

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 Leko

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 Leko:

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 Leko:

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 Booyens 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

Contained

Contained

Tonnes

Grade

gold

gold

Mponeng

Category

million

g/t

tonnes

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

Contained

Contained

Tonnes

Grade

gold

gold

Mine/Project

Category

million

g/t

tonnes

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

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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

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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

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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

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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

Contained

Contained

Tonnes

Grade

gold

gold

Mine/Project

Category

million

g/t

tonnes

Moz

Vaal River Surface

SA Met - Rock Dump

Measured

-

-

-

-

Indicated

63.57

0.62

39.33

1.27

Inferred

5.02

0.69

3.45

0.11

Total

68.59

0.62

42.79

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 <i>cont.</i>	

Mineral Resource and Ore Reserve Report 2008

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Vaal River Surface:

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 Surface:

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  
 (0.18)  
 0.17  
 (0.03)  
 1.84  
 (0.04)  
 (2)

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.

Ore Reserve modifying factors  
 as at 31 December 2008

Metal-  
 lurgical  
 Gold price    Cut-off  
 Cut-off  
 Stopping  
 Dilution    Mine call  
 recovery  
 used  
 grade  
 value  
 width  
 factor  
 factor  
 Cerro Vanguardia    US\$/oz  
 g/t Au    cmg/t Au  
 cm

(MCF)

%

Comments

Heap leach

600

0.35

–

–

–

100.0

65.5

Stockpile full grade ore

–

–

–

–

–

–

–

Vein Mineral Resources

720

2.05

–

–

30

90.0

94

The average MCF over the  
last two years

Details of average drillhole spacing and type in relation to the Mineral Resource classification

Type of drilling

Cerro

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Vanguardia

m (- x -)

Cerro

Measured

12.5 x 12.5

–

x

–

–

–

Vanguardia

Indicated

40 x 40



x

x

-

-

-

Inferred

80 x 80

x

x

-

-

-

Grade control

5 x 10

-

x

-

-

-

Argentina

Regional overview *cont.*

Mineral Resource and Ore Reserve Report 2008

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#### LOCATION

The Cerro Vanguardia property is located 160km north-west of Puerto San Julian and is situated within the southern Deseado Masive.

#### GEOLOGY

The oldest rocks in this part of Patagonia are of Precambrian-Cambrian age which are overlain by Permian and Triassic continental clastic rocks which have been faulted into a series of horsts and grabens, and are associated with both limited basaltic sills and dykes and with calc-alkaline granite and granodiorite intrusions. Thick andesite flows of Lower Jurassic age occur above these sedimentary units. A large volume of rhyolitic ignimbrites was emplaced during the Middle and Upper Jurassic age over an area of approximately 100,000km

2

. These volcanic rocks include the Chon Aike formation ignimbrite units that host the gold-bearing veins at Cerro Vanguardia. Post-mineral units include Cretaceous and Tertiary rocks of both marine and continental origin, the Quaternary La Avenida formation, the Patagonia gravel and the overlying La Angelita basalt flows. These flows do not cover the area of the Cerro Vanguardia veins.

Gold and silver mineralisation at Cerro Vanguardia occurs within a vertical range of about 150m to 200m, in a series of narrow, banded quartz veins that occupy structures within the Chon Aike ignimbrites. These veins form a typical structural pattern related to major north-south (Concepcion) and east-west (Vanguardia) shears. Two sets of veins have formed in response to this shearing: one set strikes about N40W and generally dips 65° to 90° to the east while the other set strikes about N75W and the veins dip 60° to 80° to the south. They are typical of epithermal, low-temperature, adularia-sericite character and consist primarily of quartz in several forms as massive quartz, banded chalcedonic quartz and quartz-cemented breccias. Dark bands in the quartz are due to finely disseminated pyrite, now oxidised to limonite. The veins show sharp contacts with the surrounding ignimbrite, which hosts narrow stockwork zones that are weakly mineralised, and appear to have been cut by a sequence of north-east trending faults that have southerly movement with no appreciable lateral displacement.

Cerro Vanguardia  
Argentina

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource by-product: Silver (Ag)

Metric

Contained

Contained

Reserve

Tonnes

Grade

silver

silver

Cerro Vanguardia

category

Mt

kg/t

tonnes

Moz

Measured

11.01

26.86

295.73

9.51

Indicated

22.00

65.11

1,432.67

46.06

Inferred

4.97

83.46

414.81

13.34

Cerro Vanguardia

Total

37.99

56.42

2,143.21

68.91

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Cerro Vanguardia

Category

million

g/t

tonnes

Moz  
Heap leach  
Measured  
9.54  
0.76  
7.26  
0.23  
Indicated  
12.61  
0.61  
7.71  
0.25  
Inferred  
2.21  
0.60  
1.33  
0.04  
Total  
24.36  
0.67  
16.30  
0.52  
Vein Mineral Resources  
Measured  
1.47  
8.03  
11.78  
0.38  
Indicated  
9.40  
7.32  
68.78  
2.21  
Inferred  
2.76  
6.93  
19.12  
0.62  
Total  
13.62  
7.32  
99.68  
3.21  
Cerro Vanguardia  
Total  
37.99  
3.05  
115.98  
3.73  
Argentina  
Cerro Vanguardia *cont.*

Cerro Vanguardia:  
 Ore Reserve reconciliation  
 2007 vs 2008

Ounces (millions)

1.88

2007

-0.18

Depletion

-0.03

Scope

Change

1.84

2008

0.17

Model

Change

1.6

Change

2.0

1.8

Cerro Vanguardia:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

3.50

2007

-0.16

Depletion

0.00

Gold price

0.00

Other

0.28

Explo-

ration

3.73

2008

0.00

Cost

3.5

3.3

0.11

Metho-

dology

Change

3.7

Mineral Resource and Ore Reserve Report 2008

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*Heap-Leach Ore Reserves (in situ and stockpiles)*

Ore reserves from heap leaching are included in this report this year. A successful feasibility study was completed and the company intends to continue with the project. The heap leach Ore Reserve has two components:

- stockpiles that have been drilled and surveyed in order to estimate the grade and to generate a block model, and
- future in situ production from the pit.

..  
/  
4644000  
2550000  
2520000  
2540000  
2560000  
2580000  
CVSA Geological Map  
2550000  
2520000  
2540000  
2560000  
2580000  
4642000  
4640000  
4638000  
4636000  
4634000  
4632000  
4644000  
4642000  
4640000  
4638000  
4636000  
4634000  
4632000

Cerro Vanguardia

Planta

0

2km

Scale

0.5

1

1:50,000

..

LEGEND

Planta

Filones

Cerro Vanguardia

Acceso Principal

Caminos

Escombreras

Pits Actuales

0

Angelita Basalt

La Avenida FM

Monte Leon FM

MLG4

MLF3

MLG3

MLF2

MLG2

MLF1

MLG1

Brechosa / Estratificada Superior

Granosa

Geologia

Mineral Resource and Ore Reserve Report 2008

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Argentina

Cerro Vanguardia *cont.*

Ore Reserve by-product: Silver (Ag)

Metric

Imperial

Contained

Reserve

Tonnes

Grade

silver

Silver

Cerro Vanguardia

category

(Mt)

(kg/t)

tonnes

(Moz)

Proved

9.99

23.51

234.87

7.55

Probable

12.29

71.19

874.57

28.12

Cerro Vanguardia

Total

22.27

49.81

1,109.43

35.67

Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

V Scavuzzo

AusIMM

224834

9 years

Ore Reserve

AM Petermann



AusIMM  
300299  
8 years  
Cerro Vanguardia  
– Surface (Metric)  
Tonnes above cut-off (millions)  
0.00  
Cut-off grade (g/t)  
1.00  
2.00  
4.00  
5.00  
Average  
grade  
above  
cut-off  
(g/t)  
0.0  
5.0  
15.0  
10.0  
7.0  
10.0  
8.0  
9.0  
11.0  
3.00  
Tonnes above cut-off  
Ave grade above cut-off  
Ore Reserve  
as at 31 December 2008  
Contained  
Contained  
Tonnes  
Grade  
gold  
gold  
Cerro Vanguardia  
Category  
million  
g/t  
tonnes  
Moz  
Heap leach  
Proved  
8.87  
0.70  
6.23  
0.20  
Probable  
5.60

0.56  
3.16  
0.10  
Total  
14.47  
0.65  
9.39  
0.30  
Vein Mineral Resources  
Proved  
1.12  
6.86  
7.66  
0.25  
Probable  
6.68  
6.00  
40.08  
1.29  
Total  
7.80  
6.12  
47.74  
1.54  
Cerro Vanguardia  
Total  
22.27  
2.56  
57.13  
1.84

**INFERRED MINERAL RESOURCE IN PIT OPTIMISATION**

Inferred Mineral Resources were used in the pit optimisation process and 0.14 million ounces are present in the optimised pit.

Mineral Resource and Ore Reserve Report 2008

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Regional overview

Australia

The Australian assets (formerly Acacia Resources Ltd) were acquired at the end of 1999 and comprise the Sunrise Dam and Boddington gold mines, and more recently the Tropicana Project.

AngloGold Ashanti owns 100% of Sunrise Dam Gold Mine. AngloGold Ashanti has a 33.33% interest in Boddington with joint venture partner Newmont Mining Corporation holding 66.67%. Boddington Gold Mine is managed by the BGM Management Company Pty Ltd (BGMMCo), which is now 100% owned by Newmont.

The management of the company reports to a joint venture executive committee, which controls the joint venture. AngloGold Ashanti's interest in Boddington was sold to Newmont post the 2008 financial year-end.

The Tropicana Project is a joint venture with Independence Group NL (IGO) in which AngloGold Ashanti Australia Limited (AGAA) holds 70% and free carries IGO to the end of the pre-feasibility stage.

Mineral Resource and Ore Reserve gold prices and exchange rates

Units

2008

2007

Sunrise Dam

Gold price – Mineral Resource

US\$/oz

1,000

700

Gold price – Ore Reserve

US\$/oz

720

600

Exchange rate

US\$/Aus\$

0.80

0.71

Boddington

Gold price – Mineral Resource

US\$/oz

1,000

700

Gold price – Ore Reserve

US\$/oz

725

575

Exchange rate

US\$/Aus\$

0.85

0.77

Darwin

Adelaide

Perth

Boddington

Sunrise Dam

Melbourne

Canberra

Sydney

Brisbane  
Laverton  
Kalgoorlie  
N  
Operations  
0  
800km  
Tasmania  
*Western*  
*Australia*  
AUSTRALIA  
Tropicana

Mineral Resource and Ore Reserve Report 2008

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Details of average drillhole spacing and type in relation to Mineral Resource classification

Type of drilling

Mine/

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Project

m (- x -)

Boddington

Measured

40 x 35

x

x

–

–

Categorisation heavily dependent on spacing. Also based on estimation quality – slope of regression and (average) weighted distance of data from block.

Indicated

130 x 105

x

x

–

–

Categorisation heavily dependent on spacing. Also based on estimation quality – slope of regression and (average) weighted distance of data from block.

Inferred

160 x 225

x

x

–

–

Categorisation heavily dependent on spacing. Also based on estimation quality – slope of regression and (average) weighted distance of data from block.

Grade control

–

–

–

—  
—  
Sunrise Dam Measured  
25 x 25

x  
x

—  
—

Indicated  
40 x 40

x  
x

—  
—

Inferred  
50 x 100

x  
x

—  
—

Grade control  
6 x 8

—  
x

—  
—

Tropicana  
Measured

25 x 25  
x

x  
—

—  
—

Indicated  
50 x 50

x  
x

—  
—

Inferred  
100 x 100

x  
x

—  
—

Grade control

—  
—  
—  
—  
—

#### ORE RESERVE ESTIMATION

The Ore Reserve is estimated by Lerch's Grossman (LG) pit optimisation using the relevant Mineral Resource models and updated geotechnical and metallurgical parameters and appropriate operating costs. The recoverable gold Mineral Resource model has been estimated either by a geostatistical technique called multiple indicator kriging or uniform conditioning (non-linear geostatistical methods) and reflects the selectivity or selective mining unit (SMU) of the mining equipment that is intended to be used to recover the Mineral Resource within the Ore Reserve pit design.

#### MODIFYING FACTORS

The Boddington cut-off grade (COG) is formulated on a net revenue basis (Net Smelter Return - NSR) taking into account gold and copper grade/metal price/recovery. The 0.40g/t COG approximates a life of mine cut-off grade. This represents diorite material and using unit gold/copper prices of A\$850/oz and A\$2.40/lb respectively. This NSR with gold leach and gravity contributions cut-off grade is A\$9.33/t and includes stockpile rehandle mining cost of A\$0.76/t thereby allowing for an elevated cut-off grade strategy over the life of mine and inclusive of an end of mine life rehandle cost.

Australia

Regional overview *cont.*

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve modifying factors

as at 31 December 2008

Metal-

lurgical

Gold price    Cut-off

Cut-off

Stoping

Dilution    Mine call

recovery

used

grade

value

width

factor

factor

Mine

US\$/oz

g/t Au    cmg/t Au

cm

(MCF)

%

Comments

Boddington

Surface

725

0.55

–

–

–

–

80.4

Cu average recovery 82.3%

Sunrise Dam

Surface – Mega Pit

720

1.0

–

–

–

–

83.5

Surface –

North Wall Cutback

–

–

–

–

–

–



-  
 Total stockpiles  
 -  
 -  
 -  
 -  
 -  
 -  
 -  
 Underground  
 720  
 1-3.2  
 -  
 -  
 10-63%  
 100.0  
 76-94  
 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  
 Boddington 33.33% Resource 10.28  
 (0.02)  
 0.29  
 1.36  
 11.91  
 1.63  
 16  
 Growth in Mineral Resource due to  
 successful near mine exploration  
 drilling and higher gold price  
 Reserve  
 5.54  
 (0.01)

-  
 1.15  
 6.69  
 1.14  
 21  
 Growth in Ore Reserve due to  
 successful reserve conversion  
 drilling and higher gold price  
 Sunrise Dam  
 100% Resource  
 3.08  
 (0.28)  
 0.99  
 0.06  
 3.85  
 0.78  
 25  
 Underground drilling exploration  
 success and higher gold price  
 Reserve  
 1.63  
 (0.54)  
 0.62  
 0.18  
 1.90  
 0.27  
 16  
 Underground drilling exploration  
 success and higher gold price  
 Tropicana  
 70% Resource  
 2.84  
 -  
 0.18  
 0.49  
 3.51  
 0.67  
 24  
 Exploration success and higher  
 gold price  
 Reserve  
 -  
 -  
 -  
 -  
 -  
 -  
 -  
 Total  
 Resource 16.19  
 (0.30)

1.47  
1.90  
19.27  
3.08  
19  
Reserve  
7.18  
(0.54)  
0.62  
1.34  
8.59  
1.41  
20

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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Boddington

Australia

The Boddington operation is situated approximately 130km south-east of Perth in Western Australia and is a joint venture between AngloGold Ashanti (33.33%) and Newmont (67.67%), with Newmont managing the operation. Construction of the 35.2Mt per annum basement treatment plant is well advanced and production is anticipated to commence in 2009.

GEOLOGY

Boddington is located in the Archaean Saddleback Greenstone Belt, a north-west trending, fault bounded sliver of greenstones approximately 50km long and 8km wide. The greenstone belt rocks mainly comprise Archaean volcanic and shallow-level intrusive rocks. The greenstones were intruded by a suite of dioritic intrusions and granodiorite-tonalite intrusions.

The main zone of gold mineralisation occurs reasonably continuously over a strike length of over 6km and a width of about 1km. The previous oxide operation, which closed in 2001, produced approximately 6.1 million ounces over a mine life of 15 years from a lateritic deposit developed over a large basement Mineral Resource. The basement Mineral Resource, beneath the oxide pits, is hosted predominantly by andesitic volcanics and diorites, and contains both gold and copper mineralisation. There is a wide range of alteration intensity and distribution, with four alteration or deformation events having been identified (D1 to D4). The major structures controlling mineralisation are the late D4 biotite-altered west-southwest and northwest-trending strike slip faults. A variety of earlier D1, D2 and D3 shear zones are also important zones of structural preparation which become zones of high-grade mineralisation when interacted with D4 faults.

The alteration types that are associated with gold and copper mineralisation are clinozoisite-biotite-sulphide veins and late actinolite-sulphide veins. These vein types form the basis of the stockwork mineralisation of the Wandoo resource.

The bulk of the gold mineralisation is associated with the late-stage clinozoisite-biotite-sulphide alteration event with gold grades in this alteration being typically less than 3g/t Au and averaging about 1g/t Au. The second mineralising alteration style of late actinolite-sulphide veining contains generally higher levels of gold, averaging 5g/t Au to 8g/t Au, but ranging from 30g/t Au to 70g/t Au in the larger veins.

Mineral Resource and Ore Reserve Report 2008

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MINERAL RESOURCE ESTIMATION

The Mineral Resources and Ore Reserves of the Boddington expansion project have been updated as part of the annual evaluation process by BGMMCo personnel. The geostatistical method of uniform conditioning is used to estimate the Mineral Resource. All available geological drillhole information is validated for use in the models and the local geology of the orebody is used to classify the drillhole information into appropriate geostatistical domains. Detailed statistical analyses are conducted on each of these domains and this allows for the identification of high-grade outliers. If these values are anomalous to the general population characteristics then they are cut back to the appropriate upper limit of the population.

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Boddington

Category

million

g/t

tonnes

Moz

Measured

67.82

0.83

56.29

1.81

Indicated

373.10

0.65

243.67

7.83

Inferred

129.87

0.54

70.39

2.26

Boddington

Total

570.79

0.65

370.35

11.91

Exclusive Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold  
gold  
Boddington  
Category  
million  
g/t  
tonnes  
Moz  
Measured  
10.89  
0.44  
4.84  
0.16  
Indicated  
165.50  
0.53  
87.17  
2.80  
Inferred  
129.87  
0.54  
70.39  
2.26  
Boddington  
Total  
306.26  
0.53  
162.40  
5.22  
Dacite  
Diorite  
Fragmental  
Dolerite  
Andesite  
Wandoo North Pit  
Wandoo South Pit  
Boddington Geology

Mineral Resource and Ore Reserve Report 2008

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Australia

Boddington *cont.*

Boddington:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

5.54

2007

-0.01

Depletion

1.15

Scope

Change

6.69

2008

0.00

Model

Change

5.5

Change

6.5

Boddington:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

10.28

2007

-0.02

Depletion

1.74

Gold price

0.01

Other

0.40

Explo-

ration

11.92

2008

-0.39

Cost

10.8

9.8

-0.11

Metho-

dology

Change

11.8

6.0

Mineral Resource by-products: Copper (Cu)

Metric  
Contained Copper  
Reserve  
Tonnes  
Grade  
Tonnes  
Pounds  
Boddington  
category  
million  
(ppm)  
million  
millions  
Measured  
67.82  
1,043  
0.07  
155.93  
Indicated  
373.10  
986  
0.37  
810.79  
Inferred  
129.87  
912  
0.11  
261.13  
Boddington  
Total  
570.79  
976  
0.56  
1,227.85  
Ore Reserve  
as at 31 December 2008  
Contained  
Contained  
Tonnes  
Grade  
gold  
gold  
Boddington  
Category  
million  
g/t  
tonnes  
Moz  
Proved  
56.93  
0.90



51.45

1.65

Probable

207.60

0.75

156.50

5.03

Boddington

Total

264.53

0.79

207.95

6.69

Ore Reserve by-products: Copper (Cu)

Metric

Contained Copper

Reserve

Tonnes

Grade

Tonnes

Pounds

Boddington

category

million

(ppm)

million

millions

Proved

56.93

1,112

0.063

139.51

Probable

207.60

1,091

0.227

499.52

Boddington

Total

264.53

1,096

0.290

639.03

Mineral Resource and Ore Reserve Report 2008

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Boddington

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

0.0

2800

0.00

0.50

1.00

1.50

2.00

2400

2000

400

800

1200

1600

0.00

1.00

0.50

Tonnes above cut-off

Ave grade above cut-off

Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

K Gleeson

AusIMM

202246

19 years

Ore Reserve

L Setiawan

AusIMM

991262

17 years

Mineral Resource and Ore Reserve Report 2008

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Sunrise Dam

Australia

Sunrise Dam lies some 220km north-north-east of Kalgoorlie and 55km south of Laverton in Western Australia. The mine, 100% owned by AngloGold Ashanti, comprises an open-pit operation and an underground project. Mining is carried out by contractors and ore is treated in a conventional gravity and leach process plant. The mining of the open pit has reached its final depth and only a small north wall cutback is now in operation.

GEOLOGY

At Sunrise Dam, gold mineralisation is structurally controlled and vein hosted. The style of mineralisation can be differentiated depending on the structure or environment in which it is hosted. There are three dominant domains recognised:

- Shear-related and high strain – e.g. Sunrise Shear Zone,
- Stock work development in planar faults with brittle characteristics (these occur in all rock types and are commonly concentrated at lithofacies contacts within the volcanic stratigraphy or the porphyry margin and within hinge domains within the magnetite shales) – e.g. Western Shear Zone, Watu, Cosmo, Summercloud; and
- 

Placer-style mineralisation hosted within the fluvial sediments.

The vein and shear styles of gold mineralisation are introduced primarily during the third and fourth deformation stages and variations in structural style, ore and gangue mineralogy and alteration intensity are observed locally. Secondary (supergene) gold mineralisation is also an important part of the Cleo-Sunrise ore system and is highlighted by extremely high gold grades developed near the base of Tertiary paleochannels and horizontal blankets of mineralisation related to iron redox fronts and associated water tables.

MINERAL RESOURCE ESTIMATION

Open-pit estimates are generated using a geostatistical method called multiple-indicator kriging. All available geological drillhole information is validated for use in the models and the local geology of the orebody is used to classify the drillhole information into appropriate geostatistical domains. Detailed statistical analyses are conducted on each of these domains and this allows for the identification of high-grade outliers. If these

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values are anomalous to the general population characteristics then they are cut back to the appropriate upper limit of the population.

Estimation of the underground Mineral Resource uses the geological model boundaries to subdivide all drillhole data into appropriate domains. Statistical analyses are performed on these domains and, in a similar manner to that of open-pit estimation, high-grade outliers are identified and appropriately cut back to the upper limit of the population. A geostatistical method called ordinary kriging is used to produce estimates of a pre-determined block size. These block sizes are 10m x 10m and 20m x 20m. The geostatistical technique of conditional simulation has been used to estimate the Cosmo ore zone.

50,050m

50,300m

50,550m

50,800m

2,400m

2,300m

2,200m

2,100m

2,000m

1,900m

1,800m

1,700m

Sunrise Dam Gold Mine - section 100500m N

Legend

Lake clay

Saprolite

Undifferentiated

Quartz-feldspar rhyolite

Coarsely

quartz-phyric rhyolite

Quartz diorite

Diorite / Dolerite

Basalt

Basaltic andesite

Andesite

Non-stratified monomictic

Breccia hyaloclastite

Stratified monomictic breccia

(resedimented hyaloclastite)

Polymictic-monomictic

conglomerate

Sandstone - siltstone

Siltstone

Magnetite shale (BIF)

Schist

Shear

Fault

Pit

Mineral Resource

as at 31 December 2008

Contained

Contained  
 Tonnes  
 Grade  
 gold  
 gold  
 Sunrise Dam  
 Category  
 million  
 g/t  
 tonnes  
 Moz  
 North Wall Cutback  
 Measured  
 2.76  
 3.32  
 9.17  
 0.30  
 Indicated  
 1.78  
 2.76  
 4.89  
 0.16  
 Inferred  
 –  
 –  
 –  
 –  
 Total  
 4.53  
 3.10  
 14.06  
 0.45  
 Golden Delicious  
 Measured  
 –  
 –  
 –  
 –  
 Indicated  
 1.04  
 1.84  
 1.91  
 0.06  
 Inferred  
 2.64  
 1.64  
 4.33  
 0.14  
 Total  
 3.68  
 1.70

6.24  
0.20  
Total stockpiles  
Measured  
16.72  
1.32  
22.06  
0.71  
Indicated  
-  
-  
-  
-  
Inferred  
-  
-  
-  
-  
Total  
16.72  
1.32  
22.06  
0.71  
Underground  
Measured  
-  
-  
-  
-  
Indicated  
6.84  
6.57  
44.92  
1.44  
Inferred  
5.29  
6.15  
32.54  
1.05  
Total  
12.13  
6.39  
77.47  
2.50  
Sunrise Dam  
Total  
37.06  
3.23  
119.83  
3.85

Mineral Resource and Ore Reserve Report 2008

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Australia

Sunrise Dam *cont.*

Sunrise Dam:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

1.63

2007

-0.53

Depletion

0.18

Scope

Change

1.90

2008

0.62

Model

Change

1.1

Change

2.1

1.6

Sunrise Dam:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

3.08

2007

-0.28

Depletion

0.06

Gold price

-0.01

Other

1.00

Explo-

ration

3.85

2008

0.01

Cost

3.3

2.8

-0.01

Metho-

dology

Change

3.8

Exclusive Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Sunrise Dam

Category

million

g/t

tonnes

Moz

Measured	10.01	1.01	10.13	0.33
----------	-------	------	-------	------

Indicated	2.75	5.68		
-----------	------	------	--	--

15.66	0.50			
-------	------	--	--	--

Inferred	7.93	4.65		
----------	------	------	--	--

36.88

1.19

Sunrise

Dam

Total	20.69	3.03	62.66	2.01
-------	-------	------	-------	------

Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Sunrise Dam

Category

million

g/t

tonnes

Moz

North Wall Cutback

Proved

2.42

3.68

8.90

0.29

Probable

1.48

3.12

4.62

0.15

Total

3.90

3.47

13.52



0.44  
 Total stockpiles  
 Proved  
 8.48  
 1.67  
 14.20  
 0.46  
 Probable  
 –  
 –  
 –  
 –  
 Total  
 8.48  
 1.67  
 14.20  
 0.46  
 Underground  
 Proved  
 –  
 –  
 –  
 –  
 Probable  
 5.42  
 5.80  
 31.45  
 1.01  
 Total  
 5.42  
 5.80  
 31.45  
 1.01  
 Sunrise Dam  
 Total  
 17.80  
 3.32  
 59.16  
 1.90

**INFERRED MINERAL RESOURCE IN PIT OPTIMISATION**

0.26 million ounces of Inferred Mineral Resources are included in the business plan.

The Exclusive Mineral Resource includes Inferred Mineral Resource and low-grade stockpiles that do not currently meet the Ore Reserve cut-off grade requirements.

Mineral Resource and Ore Reserve Report 2008

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Sunrise Dam –

Surface (Metric)

Tonnes above cut-off (millions)

0.00

Cut-off grade (g/t)

5.00

Average

grade

above

cut-off

(g/t)

0.0

25.0

20.0

15.0

5.0

10.0

1.00

2.00

3.00

4.00

Tonnes above cut-off

Ave grade above cut-off

10.21

9.21

8.21

7.21

6.21

5.21

4.21

3.21

2.21

1.21

Competent persons

Professional

Registration

Relevant

Sunrise Dam

Type

Name

organisation

number

experience

Surface

Mineral Resource

J Biggam

AusIMM

112082

15 years

Ore Reserve  
M Janas  
AusIMM  
210148  
17 years  
Underground  
Mineral Resource  
J Biggam  
AusIMM  
112082  
15 years  
Ore Reserve  
S Tombs  
AusIMM  
105785  
32 years

Mineral Resource and Ore Reserve Report 2008

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Tropicana

Australia

The Tropicana gold deposit is located approximately 350km north-east of Kalgoorlie within the Great Victoria Desert, Western Australia. Tropicana is the first deposit discovered in this remote greenfields exploration area.

GEOLOGY

The Tropicana deposit comprises two known mineralised zones, the Tropicana zone to the north and Havana zone to the south. Together the known mineralised zones define a system that extends over a 4km strike length. The lenses have been tested to a vertical depth of 350m to 400m, and are open down dip.

The Tropicana and Havana zones are grossly "stratiform" within the preferred gneissic host sequence.

The Havana zone consists of multiple stacked lenses, whereas Tropicana comprises one main mineralised lens.

MINERAL RESOURCE ESTIMATION

The geostatistical method of uniform conditioning is used to estimate the Mineral Resource. All available geological drillhole information is validated for use in the models and the local geology of the orebody is used to classify the drillhole information into appropriate geostatistical domains. Detailed statistical analyses are conducted on each of these domains and this allows for the identification of high-grade outliers. If these values are anomalous to the general population characteristics, then they are cut back to the appropriate upper limit of the population.

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Tropicana

Category

million

g/t

tonnes

Moz

Measured

13.96

2.38

33.25

1.07

Indicated

21.73

2.06

44.75

1.44

Inferred

16.99

1.83

31.16

1.00

Tropicana

Total

52.68

2.07

109.16

3.51

LEGEND

Tropicana - prospect

Perth - Town

Tropicana JV

Granted tenure

Application tenure

Viking

Granted tenure

Application tenure

Bronco Plains JV

Perth

Laverton

Kalgoorlie

Esperance

WESTERN

AUSTRALIA

Esperance

Kalgoorlie

Laverton

WESTERN AUSTRALIA

Voodoo Child

Black Dragon

Tumbleweed

Rusty Nail

Kamikazi

Beachcomber

Tropicana

Havana

Screaming Lizard

Tropicana JV

Viking

Bronco

Plains JV

400

kilometers

0

200

Mineral Resource and Ore Reserve Report 2008

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Tropicana:

Mineral Resources

2007 vs 2008

Ounces (millions)

2.83

2007

0.00

Depletion

0.89

Gold price

0.00

Other

0.57

Explo-

ration

3.51

2008

-0.37

Cost

3.1

2.1

-0.39

Metho-

dology

Change

4.1

Competent person

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

M Kent

AusIMM

203631

11 years

Tropicana

- Surface (Metric)

Tonnes above cut-off

(millions)

Cut-off grade (g/t)

2.00

Average grade above cut-off (g/t)

1.00

400.0

0.0  
800.0  
200.0  
600.0  
0.00  
0.0  
1.0  
3.0  
2.0  
4.0  
Tonnes above cut-off  
Ave grade above cut-off  
0  
20  
40  
60  
70  
Metres  
SAPRK  
A  
B  
I  
SW (local)  
TFRC100  
TFRC807  
NE (local)  
3gt  
1gt  
0.5gt  
Schist  
Gamet gneiss  
Gamet  
Gneiss  
Boston Shaker  
Shear  
Longitudinal section of Tropicana  
Surface

Mineral Resource and Ore Reserve Report 2008

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Regional overview

Brazil

AngloGold Ashanti's operations in Brasil comprise the wholly-owned AngloGold Ashanti Brazil Mineração (formally Morrow Velho) and a 50% interest in the Mineração Serra Grande Mine.

Mineral Resource and Ore Reserve gold price 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 – Brazil

R\$/US\$

1.94

1.95

Details of average drillhole spacing and type in relation to the Mineral Resource classification

Type of drilling

Mine/

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Project

m (- x -)

Serra

Measured

10 x 10, 10 x 20

x

-

-

-

Grande

Indicated

10 x 20, 20 x 50

x

-

-

-

Inferred

50 x 100, 50 x 200

x

-



-  
-  
Grade control 2 x 2  
-  
-  
-  
x  
Channel sample  
N  
Operations  
0  
1000km  
Rio de Janeiro  
Manaus  
Recife  
Brasilia  
Crixas  
Belo Horizonte  
Sao Paulo  
Salvador  
Belem  
Serra Grande  
AngloGold  
Ashanti  
Brasil  
Mineração  
BRAZIL

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve modifying factors

as at 31 December 2008

Cut-off

Stoping

Mine call Metallurgical

grade

width

Dilution

factor

recovery

Mine/Project

g/t Au

metres

%

(MCF)

factor %

Comments

Brasil Mineração

Corrego Do

Sitio Oxides

1.35-1.44

3-4

28

92

88

Corrego Do

Sitio Sulphides

3.93

2.2-6.0

29

95

90

Cuiaba Sulphides –

Main Area

2.82

4-15

5

94.5

93

Lamego

Sulphides

4.27

3.4-15

5-87

95

93

Mining recovery of 95%

Serra Grande

Mina Nova

1.96  
 –  
 5  
 100  
 95  
 Open Pit  
 1.0  
 –  
 30  
 100  
 95  
 Serra Grande – Mina 3  
 2.97  
 –  
 5  
 100  
 95  
 Total stockpiles  
 5.15  
 –  
 5  
 100  
 95  
 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  
 Brasil  
 100% Resource  
 10.92  
 (0.43)  
 0.04  
 –  
 10.53

(0.39)

(4)

Mineral Resource conversion

Mineração

process

Reserve

2.48

(0.34)

0.45

(0.03)

2.56

0.08

3

Mineral Resource converted into

Ore Reserves, mainly at Cuiaba

Mine

Serra Grande

50% Resource

0.91

(0.10)

0.20

(0.03)

0.98

0.07

8

Exploration process and new

orebody discovery Pequizao

Reserve

0.39

(0.09)

0.05

0.01

0.36

(0.03)

(8)

Lower grade or thickness in some

small areas

Total

Resource 11.82

(0.53)

0.24

(0.03)

11.50

(0.32)

(3)

Reserve

2.87

(0.43)

0.50

(0.02)

2.92

0.05

2

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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Brasil Mineração

Brazil

## GEOLOGY

AngloGold Ashanti Brasil Mineração (Brasil Mineração) has mining rights over 61,864ha in the state of Minas Gerais in south-eastern Brazil. The Brasil Mineração complex is located in the municipalities of Nova Lima, Sabará and Santa Bárbara, south and east of the city of Belo Horizonte and within the mining district referred to as the Iron Quadrilateral (Quadrilátero Ferrífero). This area hosts numerous historic and current gold mining operations, as well as a number of open-pit limestone and iron ore operations. Currently AngloGold Ashanti mines gold-bearing ore at the Cuiabá underground mine and from the Córrego do Sítio heap-leach mine. Cuiabá mine, located in the municipality of Sabará, has gold mineralisation associated with sulphides and quartz veins in Banded Iron Formation (BIF) and volcanic sequences. Where BIF is mineralised, the ore appears strongly stratiform due to the selective sulphidation of the iron-rich layers. Steeply plunging shear zones tend to control the ore shoots, which commonly plunge parallel to intersections between the shears and other structures. The controlling mineralisation structures are the apparent intersection of thrust faults with tight isoclinal folds in a ductile environment. The host rocks at Brasil Mineração are BIF, and mafic volcanics (principally basaltic). Mineralisation is due to the interaction of low salinity carbon dioxide rich fluids with the high-iron BIF, basalts and carbonaceous graphitic schists. Sulphide mineralisation consists of pyrite and pyrrhotite with subordinate arsenopyrite and chalcopyrite; the latter tends to occur as a late-stage fracture fill and is not associated with gold mineralisation. Wallrock alteration is typically carbonate, potassic and silicic. The Lamego deposit is close to Cuiabá and the style of mineralisation is similar. Some 30km to the south-east, the mineralised orebodies at Córrego do Sítio are narrow NE-SW elongated lenses dipping at 20° to 30° and with a pitch angle to the north-east. In general, the mineralised orebodies comprise sericitic zones and quartz veinlets. The gold occurs as inclusions (microscopic or sub-microscopic) in millimetre-size acicular crystals of arsenopyrite, and also as intergrowths on the margins of the sulphide. Other typical minerals in the orebodies are pyrrhotite, pyrite and chalcopyrite.

Mineral Resource and Ore Reserve Report 2008

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## PROJECTS

The Córrego do Sítio Underground Sulphide Project is ongoing, with the target on exploiting the sulphide Mineral Resources of the Córrego do Sítio underground orebodies, namely Cachorro Bravo, Laranjeiras and Carvoaria Velha. The project is in the feasibility study phase. This project is expected to produce 90,000 ounces of gold annually.

The development of a ramp and the exposure of the Cachorro Bravo and Laranjeiras orebodies are continuing. The development of access drives to the Carvoaria Velha orebody is ongoing and exposure of the Laranjeira orebody to increase the extent of the mineable resource has begun. Trial mining on the Cachorro Bravo orebody is in progress as is confirming the operational mining parameters for the feasibility study. Two mine methods are being tested: sublevel stoping and cut and fill. The metallurgical process has been confirmed and pressure oxidation via autoclaves is the best option given the characteristics of the ore.

AngloGold Ashanti has bought the São Bento (SB) mine, a Brazilian gold operation wholly owned by Eldorado Gold Corporation (Eldorado) and held in São Bento Mineração S.A. (SBMSA) an indirect, wholly-owned subsidiary of Eldorado, located in the vicinity of the Córrego do Sítio mine, in the municipality of Santa Bárbara in the Iron Quadrangle region of the state of Minas Gerais. This acquisition will double the scale and enhance the feasibility of Córrego do Sítio Project and thereby increase the dominant position of AngloGold Ashanti as a gold producer in Brazil's Iron Quadrangle.

The Lamego Project explores the orebodies on the Lamego property, close to the Cuiabá mine. This project is expected to produce approximately 345,000 ounces.

Given proximity of the Lamego Project to Cuiabá mine, there is the added benefit that ore from Lamego can be treated at the Cuiabá Plant, the expansion of which was designed to treat this additional ore.

## **CUIABÁ GEOLOGY**

Balan o orebody

Galinheiro Sul orebody

Galinheiro Extension

orebody

Surucucu

orebody

Serrotinho orebody

Fonte Grande

Sul orebody

Canta Galo orebody

200m

Cuiabá Banded Iron Formation

Banded massive disseminated sulphides

Mineral Resource and Ore Reserve Report 2008

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Brazil

Brasil Mineração *cont.*

Exclusive Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Brasil Mineração

Category

million

g/t

tonnes

Moz

Measured	3.16	6.68
----------	------	------

21.08

0.68

Indicated	6.40	6.42
-----------	------	------

41.06

1.32

Inferred	24.78	6.90
----------	-------	------

171.10

5.50

Brasil Mineração

Total

34.34

6.79

233.23

7.50

The Exclusive Mineral Resource is predominantly from the Lamego Sulphides and MMV. This Exclusive Mineral Resource has the potential to be mineable, depending on the gold price and the outcome of technical studies.

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Brasil Mineração

Category

million

g/t

tonnes

Moz

Corrego do Sitio

Measured

1.50

6.43



9.65  
0.31  
Indicated  
5.86  
6.61  
38.70  
1.24  
Inferred  
5.69  
6.60  
37.51  
1.21  
Total  
13.04  
6.58  
85.87  
2.76  
Cuiaba  
Measured  
6.24  
8.21  
51.24  
1.65  
Indicated  
3.58  
7.06  
25.26  
0.81  
Inferred  
11.92  
7.75  
92.41  
2.97  
Total  
21.74  
7.77  
168.90  
5.43  
Lamego  
Measured  
0.55  
6.20  
3.38  
0.11  
Indicated  
1.61  
7.21  
11.57  
0.37  
Inferred  
5.04

5.05  
25.44  
0.82  
Total  
7.19  
5.62  
40.39  
1.30  
MMV - Morrow Da Gloria Sulphides  
Measured  
0.06  
7.21  
0.46  
0.02  
Indicated  
0.05  
5.92  
0.29  
0.01  
Inferred  
0.74  
6.71  
4.95  
0.16  
Total  
0.85  
6.70  
5.70  
0.18  
MMV - Luzia Da Mota Oxides  
Measured  
0.19  
3.23  
0.63  
0.02  
Indicated  
0.50  
3.00  
1.51  
0.05  
Inferred  
0.23  
2.97  
0.70  
0.02  
Total  
0.93  
3.04  
2.83  
0.09  
MMV - Raposos Sulphides

Measured

0.35

6.77

2.37

0.08

Indicated

0.86

6.65

5.74

0.19

Inferred

2.18

7.13

15.55

0.50

Total

3.39

6.97

23.66

0.76

Brasil Mineração

Total

47.15

6.94

327.36

10.53

MINERAL RESOURCE ESTIMATION

Three dimensional models of the BIF and sulphide orebodies are created from the drillhole data. Prototype block models of 10m x 10m x 10m are used to quantify the volume of the orebody and ordinary kriging is used as the geostatistical technique to interpolate grade estimates for all blocks. Other geostatistical techniques such as uniform conditioning and indicator kriging are also used to quantify the proportion of economic ore. This is reported according to the dimensions of the smallest mining unit.

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource by-products: Sulphur (S)

Metric

Imperial

Resource

Tonnes

Contained

Pounds

Brasil Mineração

category

million

Grade (%S)

Sulphur (Mt)

million

Measured

6.24

6.4

0.40

883

Indicated

3.58

6.7

0.24

528

Inferred

11.92

7.3

0.86

1,905

Brasil Mineração

Total

21.74

6.9

1.50

3,316

Brasil Mineraç~

ao:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

2.48

2007

-0.34

Depletion

-0.03

Scope

Change

2.56

2008

0.45

Model  
 Change  
 2.1  
 Change  
 2.9  
 Brasil Mineraç~  
 ao:  
 Mineral Resource reconciliation  
 2007 vs 2008  
 Ounces (millions)  
 10.91  
 2007  
 -0.43  
 Depletion  
 0.00  
 Gold price  
 0.00  
 Other  
 0.26  
 Explo-  
 ration  
 10.52  
 2008  
 0.00  
 Cost  
 9.9  
 -0.22  
 Metho-  
 dology  
 Change  
 10.9  
 2.3  
 2.5  
 2.0  
 10.4  
 Mineral Resources below infrastructure  
 as at 31 December 2008  
 Metric  
 Imperial  
 Contained  
 Contained  
 Tonnes  
 Grade  
 gold  
 gold  
 Brasil Mineração  
 Category  
 million  
 g/t  
 tonnes  
 Moz

Cuiaba

Total

13.84

7.82

108.32

3.48

Corrego do Sitio

Total

9.33

7.12

66.40

2.16

Lamego

Total

4.98

5.51

27.43

0.88

Brasil Mineração

Total

28.15

7.18

202.15

6.50

Mineral Resource and Ore Reserve Report 2008

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Brazil

Brasil Mineração *cont.*

Ore Reserve by-products: Sulphur (S)

Metric

Imperial

Resource Tonnes

Contained

Pounds

Brasil Mineração

category

million

Grade (%S)

Sulphur (Mt)

million

Proved

4.92

5.3

0.26

577

Probable

3.26

5.5

0.18

398

Brasil Mineração

Total

8.19

5.4

0.44

974

Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Brasil Mineração

Category

million

g/t

tonnes

Moz

Corrego do Sitio

Proved

0.57

6.67

3.79

0.12  
Probable  
2.12  
5.96  
12.62  
0.41  
Total  
2.69  
6.11  
16.42  
0.53  
Cuiaba  
Proved  
4.92  
7.50  
36.93  
1.19  
Probable  
3.26  
6.14  
20.04  
0.64  
Total  
8.19  
6.96  
56.98  
1.83  
Lamego  
Proved  
0.22  
5.36  
1.18  
0.04  
Probable  
0.88  
5.77  
5.10  
0.16  
Total  
1.10  
5.69  
6.28  
0.20  
Brasil Mineração  
Total  
11.98  
6.65  
79.68  
2.56

INFERRED MINERAL RESOURCE IN PIT OPTIMISATION

Inferred Mineral Resources were used in the optimisation process and 0.32Moz are present in the LOM plan.



#### ORE RESERVE ESTIMATION

Pit optimisation is done using Whittle

®

, pit shells are calculated based on the dilution, MCF and the appropriate gold price. These are used to estimate the Ore Reserve.

For the underground operations (Cuiabá, Lamego and Córrego do Sítio Sulphides), the gold price and operational costs are taken into consideration in determining Ore Reserves. Ore Reserves are scheduled and designed using Mine2-4D

®

computer software.

Mining parameters such as the mining method, minimum mining width, MCF, dilution and recovery are all applied in the process.

Mineral Resource and Ore Reserve Report 2008

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Competent persons

Professional

Registration

Relevant

Brasil Mineração

Type

Name

organisation

number

experience

Corrégo do Sítio

Mineral Resource

P de Tarso Ferreira

AusIMM

224828

23 years

Ore Reserve

MG de Simoni

AusIMM

224826

16 years

Cuiabá

Mineral Resource

P de Tarso Ferreira

AusIMM

224828

23 years

Ore Reserve

S Botelho

AusIMM

224833

22 years

Lamego MMV

Mineral Resource

P de Tarso Ferreira

AusIMM

224828

23 years

Other Resources

Mineral Resource

P de Tarso Ferreira

AusIMM

224828

23 years

Ore Reserve

L Nunes Coelho

AusIMM

222679

6 years

Brasil Mineração

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average grade

above cut-off (g/t)

6.00

7.00

8.00

9.00

0.0

15.0

5.0

10.0

5.00

2.00

0.00

1.00

3.00

4.00

Tonnes above cut-off

Ave grade above cut-off

Brasil Mineração

– Underground (Metric)

Tonnes above

cut-off (millions)

Cut-off grade (g/t)

Average grade above cut-off (g/t)

20.00

0.00

5.00

10.00

15.00

0.0

40.0

10.0

30.0

20.0

7.00

12.00

17.00

22.00

Tonnes above cut-off

Ave grade above cut-off

Ore Reserves below infrastructure

as at 31 December 2008

Metric

Imperial

Contained

Contained

Tonnes

Grade  
gold  
gold  
Brasil Mineração  
Category  
million  
g/t  
tonnes  
Moz  
Cuiaba  
Total  
1.95  
6.28  
12.27  
0.39  
Corrego do Sitio  
Total  
1.98  
6.09  
12.04  
0.39  
Lamego  
Total  
0.26  
6.02  
1.58  
0.05  
Brasil Mineração  
Total  
4.19  
6.18  
25.89  
0.83

Mineral Resource and Ore Reserve Report 2008

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Serra Grande

Brazil

#### GEOLOGY

The Serra Grande joint venture (50% attributable to AngloGold Ashanti) is co-owned with Kinross Gold Corporation. Serra Grande controls, or has an interest in, approximately 21,068ha in and around the Crixás mining district in the north-western areas of the Goiás State in central Brazil. Serra Grande is located 5km from the city of Crixás.

The operation comprises three underground mines, Mina III, Mina Nova and Mina Palmeiras, and one open pit mine in the outcrop of Mina III (between level 50 and surface). The processing circuit is equipped with grinding, leaching, filtration, precipitation and smelting facilities.

The gold deposits are hosted in a sequence of schists and volcanics occurring in a typical greenstone belt structural setting. The host rocks are of the Pilar de Goiás Group of the Upper Archaean located in the Crixás Greenstone Belt. Gold mineralisation is associated with quartz vein hosted in graphitic schists, massive and disseminated sulphides hosted in a sequence of hydrothermal schists and locally in dolomites. The ore shoots plunge downwards to the north-west and the dips varies between 6° and 35°. The deposits occur in the Rio Vermelho and Ribeirão das Antas formations.

The greenstone belt lithologies are surrounded by Archaean tonalitic gneiss and granodiorite.

The metamorphosed sediments are primarily composed of quartz, chlorite, sericite, graphitic and garnetiferous schists. The carbonates have been metamorphosed to ferroan dolomite marble with siderite and ankerite veining having developed in the surrounding wallrock, usually associated with quartz veining. The basalts are relatively unaltered but do show pronounced stretching with the elongation of pillow structures evident. The ultra-basics

## Mineral Resource and Ore Reserve Report 2008

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form the western edge of the belt and the basic volcanics and sediments form the core of the unit. The northern edge of the belt is in contact with a series of laminated quartzites and quartz sericite schists of the Lower Proterozoic Araxa Group and a narrow band of graphitic schists and intermediate to ultra-basic volcanics. The Crixás greenstone belt comprises a series of Archaean to Palaeoproterozoic metavolcanics, metasediments and basement granitoids stacked within a series of north to north-east transported thrust sheet. Thrusting (D1) was accompanied by significant F1 folding/foliation development and progressive alteration in a brittle-ductile regime. D1 thrusting developed with irregular thrust ramp geometry, in part controlled by concealed early basin faults. The main Crixás orebodies are adjacent to a major north-north-west basement fault, and an inferred major east-west to south-east flexure in the original volcano-sedimentary basin. Early D1 alteration fluids were focused from south to north, adjacent to the north-north-west structural corridor, and up the main fault ramp/corner, to become dispersed to the east and north in foreland thrust fault zones. Fluid alteration also diminished to the west away from the main fault flexure. A series of concealed east-west to north-west-south-east basement block faults may have provided secondary fluid migration, and development of early anti-formal warps in the thrust sheets; these structures probably define the quasi-regular spacing of significant mineralisation within the belt. The D1 thrust stack was gently folded by non-cylindrical folds. Gold mineralising fluids probably migrated during this event, with similar south-south-west to north-north-east migration, and focusing by bedding slip during folding. Gold mineralisation became minor and dispersed to the north and east along the frontal thrust flat zone. Concentrations of gold along the base of quartz vein may be due to the damming of fluids migrating upward along the layering in a westerly direction with dips of between 6° and 35°. The stratigraphy is overturned and thrust towards the east.

VII

III

I

IX

400

350

300

250

200

**PERPENDICULAR SECTION**

N-48 N-53 K-119

N-52

K-120

N-130

N-134

**LEGENDA**

S

N

N-185

K-61 N-161 N-109

N-108

N-100

N-19

K-119

Superfice

N-1

Vent shaft (P2)

N-5 N-47

N-18

Vent shaft (P3)

Vent shaft (P1)

N-27

N-55

I

X

III

VII

IX

XI

VI

V

XXII

Ramp

400

300

200

100

NW

SE

**LONGITUDINAL SECTION OF MINA NOVA**

Basalt

Altered basalt

Carbonates

Carbonate schist

Chlorite schist

Greywacke

Quartz vein

Mineralisation > 2.0ppm

Mineral Resource and Ore Reserve Report 2008

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Brazil

Serra Grande *cont.*

Serra Grande:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

0.39

2007

-0.09

Depletion

0.01

Scope

Change

0.36

2008

0.05

Model

Change

0.2

Change

0.3

Serra Grande:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

0.91

2007

-0.10

Depletion

0.00

Gold price

-0.03

Other

0.20

Explo-

ration

0.98

2008

0.00

Cost

0.8

0.00

Metho-

dology

Change

1.0

0.9

0.4

Mineral Resource



as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Serra Grande

Category

million

g/t

tonnes

Moz

Mina Nova

Measured

0.88

3.60

3.18

0.10

Indicated

0.27

3.10

0.83

0.03

Inferred

0.34

3.67

1.25

0.04

Total

1.49

3.53

5.26

0.17

Open pit

Measured

0.77

3.97

3.06

0.10

Indicated

0.25

2.86

0.72

0.02

Inferred

—

—

—

—

Total

1.02  
3.70  
3.78  
0.12  
Palmeiras  
Measured  
—  
—  
—  
—  
Indicated  
—  
—  
—  
—  
Inferred  
0.49  
8.09  
3.95  
0.13  
Total  
0.49  
8.09  
3.95  
0.13  
Pequizao  
Measured  
—  
—  
—  
—  
Indicated  
—  
—  
—  
—  
Inferred  
0.92  
6.77  
6.23  
0.20  
Total  
0.92  
6.77  
6.23  
0.20  
Total stockpiles  
Measured  
0.06  
4.76  
0.27

0.01  
Indicated

—

—

—

—

Inferred

—

—

—

—

Total

0.06

4.76

0.27

0.01

Mina 3

Measured

0.50

7.11

3.55

0.11

Indicated

0.48

5.67

2.74

0.09

Inferred

0.96

4.79

4.60

0.15

Total

1.94

5.61

10.90

0.35

Serra Grande

Total

5.92

5.13

30.39

0.98

Exclusive Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Serra Grande  
 Category  
 million  
 g/t  
 tonnes  
 Moz  
 Measured  
 Indicated  
 0.02  
 Inferred  
 16.03  
 0.52  
 Serra  
 Grande  
 Total  
 16.83  
 0.54

0.04	2.83	0.12	—
0.23	2.91	0.68	
2.71	5.92		
2.99	5.64		

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Serra Grande

Category

million

g/t

tonnes

Moz

Mina Nova

Proved

0.79

3.24

2.56

0.08

Probable

0.21

3.00

0.62

0.02

Total

1.00

3.19

3.19

0.10

Open pit

Proved

0.82

3.64

2.98

0.10

Probable

0.19

2.36

0.44

0.01

Total

1.01

3.40

3.42

0.11

Total stockpiles

Proved

0.06

4.76  
0.27  
0.01  
Probable  
—  
—  
—  
—  
Total  
0.06  
4.76  
0.27  
0.01  
Mina 3  
Proved  
0.39  
5.98  
2.33  
0.08  
Probable  
0.37  
5.58  
2.04  
0.07  
Total  
0.76  
5.79  
4.37  
0.14  
Serra Grande  
Total  
2.82  
3.99  
11.25  
0.36  
Competent persons  
Professional  
Registration  
Relevant  
Category  
Name  
organisation  
number  
experience  
Mineral Resource  
EM de Araujo  
AusIMM  
224825  
20 years  
Ore Reserve  
EM de Araujo

AusIMM

224825

20 years

Serra Grande

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

0.0

0.5

1.0

1.5

2.0

2.5

5.00

0.00

1.00

3.00

4.00

2.00

3.0

4.0

5.0

6.0

7.0

8.0

Tonnes above cut-off

Ave grade above cut-off

#### INFERRED MINERAL RESOURCE IN PIT OPTIMISATION

Inferred Mineral Resources were used in the optimisation process and 0.21Moz from Mina 3 are present in the LOM plan.

Mineral Resource and Ore Reserve Report 2008

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Regional overview

Colombia

In 2003, AngloGold Ashanti was the first company to instigate a systematic grassroots exploration program in Colombia. Since the start of exploration, AngloGold Ashanti has staked a total of 13.9 million hectares of exploration claims countrywide. Of these, 11.2 million hectares have been explored with systematic stream sediment sampling, prospecting and in some areas, airborne geophysics. As a result of this work 423 mineral contracts covering 825,025 ha are active with follow up work from drill target definition through pre-feasibility studies either operated 100% by AngloGold Ashanti or in joint ventures with partners, B2Gold, Mineros S.A, Mega Uranium and Glencore. AngloGold Ashanti has thus far relinquished 10.4 million hectares and plans to complete first stage exploration on the remaining 2.7 million hectares in 2009. To date the program has generated 42 drill targets of which 24 have been drilled with two resulting in significant discoveries, Gramalote and La Colosa.

Cartagena

COLOMBIA

Bogotá

La Colosa

Gramalote

Quebradona

500

kilometers

0

250

SOUTH

AMERICA

Segovia

Antioquia

LEGEND

La Colosa - Prospect

Bogotá

JV Areas

Mineros SA - AGA

Glencore

B2Gold

Tenure

Granted

Free Area

Applications

Details of average drillhole spacing and type in relation to Mineral Resource classification

Type of drilling

Mine/

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Project

m (- x -)

Gramalote

Measured



-  
-  
-  
-  
-

Indicated

-  
-  
-  
-  
-

Inferred

70 x 100

x  
-  
-  
-

Approximate drillhole spacing

Grade control

-  
-  
-  
-  
-

La Colosa

Measured

-  
-  
-  
-  
-

Indicated

-  
-  
-  
-  
-

Inferred

100 x 100

x  
-  
-  
-

Additional geological holes were drilled at different spacings and angles, HQ to NQ size

Grade control

-  
-  
-  
-



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

Percentage

Deple-

Model

Scope

Net change

Mine

attributable Category

2007

tion

(1)

change

(2)

change

(3)

2008

Diff

% Comment

Gramalote

49% Resource

1.59

-

-

(0.55)

1.04

(0.55)

(35)

Reduced ownership from 75%

to 49%

Reserve

-

-

-

-

-

-

-

La Colosa

100% Resource

-

-

12.32

-

12.32

12.32

-

Conceptual study was completed  
in 2008 and project has now  
advanced to pre-feasibility stage

Reserve

—  
—  
—  
—  
—  
—  
—  
—

Total  
Resource  
1.59

—  
12.32

(0.55)

13.36

11.77

740

Reserve

—  
—  
—  
—  
—  
—  
—

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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Gramalote

Colombia

#### BACKGROUND

The Gramalote project is located 120 road kilometres west-north-west of Medellin, the capital of the Antioquia department. Site access is by paved road from Medellin (2.5 hours) and from Bogota (7 hours).

The Gramalote project presently is a joint venture with Vancouver-based B2Gold Corp. In 2005, Sociedad Kedahda (AngloGold Ashanti's former subsidiary now called AngloGold Ashanti Colombia SA) entered into a joint venture agreement with the Colombian-based Grupo Nus. As part of the joint venture agreement, Sociedad Kedahda could earn a 75% interest in the Gramalote property by completing cash payments, complying with specific work expenditures and presenting a feasibility study on or before July 2010. In August 2007, Vancouver-based B2Gold Corp. purchased the rights to the Grupo Nus option agreement, including the remaining 25% interest in the Gramalote property from the Grupo Nus. In November 2007, AngloGold Ashanti in turn decided to reduce its interest in the Gramalote property to 49% and offered B2Gold the opportunity to become the project operator with overall responsibility for taking the project through feasibility. During 2008, B2Gold drilled 30,131m on the global Gramalote project, including drill investigations at Gramalote Ridge (mostly Mineral Resource infill work), La Trinidad (7,019m in 20 holes), El Balzal, La Reina, El Topazio and La Malasia.

#### GEOLOGY

The Gramalote area is underlain by medium to coarse-grained biotite +/- hornblende tonalite and granodiorite of the Paleocene to Cretaceous Antioquian batholith. Tonalite from the Gramalote exploration adit gave zircon ages of 59±1.2ma. Magmatism, structural events and mineralisation are intimately related.

The location of drill targets is controlled by N70-75E striking steeply south-east dipping transfer zones developed between two sub-regional faults (Rio Nus, Quebrada Socorro).

On the local prospect scale, extensional domains with quartz veinlets and compressional domains with shear zones have formed.

Mineral Resource and Ore Reserve Report 2008

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There are two principal mineralised sectors at Gramalote are Las Torres and Cerro Gramalote. Both occur in extensional domains striking N20-30W and dipping 75° to 80° south-west. Gold grades of more than 1g/t often correlate with increased fracturing (>9 fractures/veinlets per metre) and the dominant alteration is potassic K-feldspar. Quartz-sericite overprints and quartz-pyrite-chalcopyrite-molybdenite+gold veinlets follow subsidiary structures.

Shear zone domains strike N50-60E and dip 75-80SE. Individual shears zones are often up to 40m apart and north-south veins follow extension fractures between them. These veins have been targets for small-scale mining at Los Mangos. Alteration in shear zone domains is dominantly (quartz-) sericite with remnant potassic K-feldspar alteration. Veinlets are quartz-molybdenite-chalcopyrite-pyrite+sphalerite+gold.

In summary, three styles of alteration-mineralisation are distinguished at Gramalote: Potassic K-feldspar alteration with associated veinlets and sporadically veins; (overprinting) quartz-sericite alteration with veins and syn-deformation veinlets; and Sericite/chlorite-quartz-calcite/illite-smectite alteration on reactivated fault planes.

Gold grades are attractive, especially in areas characterised by potassic K-feldspar dominated alteration and quartz-pyrite-chalcopyrite veinlets. Las Torres and Cerro Gramalote have been drilled on 100m lines. El Barzal has been partially drill tested and the La Concha prospect remains undrilled.

#### MINERAL RESOURCE ESTIMATION

At Gramalote, some 12,551m of diamond drilling (43 holes) has been used to support the calculation of an Inferred Mineral Resource.

The Inferred Mineral Resource estimate was generated using an indicator kriging method. All available geological drillhole, surface and underground mapping information has been validated for use in the modelling process.

Mineral Resource and Ore Reserve Report 2008

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Competent person

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

R Jahoda

AusIMM

990544

20 years

Gramalote:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

1.59

2007

0.00

Depletion

0.00

Gold price

-0.55

Other

0.00

Explo-

ration

1.04

2008

0.00

Cost

0.0

0.00

Metho-

dology

Change

1.0

1.5

0.5

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Gramalote

Category

million

g/t

tonnes

Moz

Measured

—

—

—

—

Indicated

—

—

—

—

Inferred

28.35

1.14

32.33

1.04

Gramalote

Total

28.35

1.14

32.33

1.04

Colombia

Gramalote *cont.*



Mineral Resource and Ore Reserve Report 2008

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La Colosa

Colombia

La Colosa is a significant ‘in-house’ greenfields project discovered by AngloGold Ashanti’s Colombian greenfields exploration team during 2006. The project is 100% owned by AngloGold Ashanti Ltd. and located 150km west of Colombia’s capital city, Bogota and 30km west of the major town, Ibague, in the department of Tolima.

#### GEOLOGY

The La Colosa copper-poor porphyry gold system is genetically associated with Miocene porphyritic intrusive centres intruded into Paleozoic schists. The highest grade gold mineralisation is closely associated with a suite of early porphyry intrusions/breccias with potassic and sodic-calcic alteration, 5% pyrite and traces of chalcopyrite and molybdenite. The coherent body suffered little dilution by intermineral/postmineral phases or fault propagation. Late stage alteration causing removal of gold is virtually absent.

The early porphyry stage is divided into three phases. The earliest is crowded diorite porphyry (E1) and is volumetrically minor. The two principal early diorite porphyries, both later than the crowded phase, comprise coarse grained (E2) and fine-grained (E3) varieties. The coarse-grained phase is characterised by prominent plagioclase phenocrysts about 0.5cm across, whereas the fine-grained phase contains homogeneously distributed, millimetre-sized plagioclases.

The inter-mineral-stage diorite porphyry intrusions are divided into two phases: coarse-grained (I1) and fine-grained (I2), both of which are texturally similar to the two main early-stage phases.

The late-mineral dacite porphyry is typified by rounded quartz phenocrysts, locally up to 1cm across.

Contacts between porphyry phases are commonly characterised by broad zones of intrusion breccias, i.e. a concentration of xenoliths of earlier porphyry in a later one. The texture of the breccias is commonly diffuse implying varied degrees of assimilations of the earlier by later phases.

Mineral Resource and Ore Reserve Report 2008

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The most abundant intrusion breccia logged comprises clasts of the early, coarse-grained porphyry (E2) in a matrix of fine-grained porphyry (E3) and is called EBX2. The intrusion breccia may occur either as vertically continuous bodies along the contacts between the two porphyry phases or internally between within the fine-grained variety. Similar intrusion breccia was also formed at the inter-mineral porphyry stage, where the fine-grained phase cements clasts of the coarse-grained phase (IBX breccias).

A distinctive intrusion breccia occurs as a 5m to >15m wide rind to the porphyry stock, where it consists of variously orientated schist, hornfels and intrusive clasts in an early, fine-grained porphyry matrix (SBX breccias).

The early porphyry intrusion is elliptical in shape with a known maximum axis of at least 1,200m and a minimum east-west axis of 400m. The early porphyry intrusion is more abundant at shallow depths and is intruded by the inter-mineral porphyry intrusion. The early porphyry, therefore, caps and flanks the deeper inter-mineral porphyry.

The late-mineral dacite porphyry occurs as a series of dykes, all more than 40m thick but showing continuity over at least 600 vertical metres. These dykes are assumed to be lateral offshoots of a ~1-km

2

mapped body

of dacite porphyry.

#### ALTERATION AND MINERALISATION

The paragenesis of the main alteration/mineralisation mineral assemblage observed at Colosa starts with pervasive sodic-calcic alteration overprinted by potassic alteration and in turn cut by a sodic-calcic event.

The two dominant alteration types are the potassic and second sodic-calcic. Potassic alteration, biotite and subordinate K-feldspar, occurs mainly as a pervasive replacement of the porphyries, especially the early phases. Early hydrothermal biotite is fine grained and commonly pale brown, suggesting the addition of phlogopitic (magnesium-rich) biotite. The second sodic-calcic alteration clearly overprints the potassic assemblage and is largely confined to irregular, centimetre-scale patches and well defined veinlets.

The patches and veinlets contain epidote, actinolite and chlorite, typically with white, 'albite-rich' haloes.

Intermediate argillic and sericitic alteration are only weakly developed and only form mappable zones in the dacite and in the northern limit of the deposit.

The three early porphyries – crowded, coarse-grained and fine-grained – and their associated intrusion breccias appear to have been altered and mineralised at the same time. There is scant evidence for veinlet introduction between the three intrusive events. Crowded and coarse-grained porphyry clasts making up the intrusion breccias do not appear to have confined veinlets. The gold content of the three early porphyry phases is similar.

The veinlets at Colosa appear to span the potassic to sodic-calcic alteration events. The earliest veinlets are composed of only biotite. However, most early veinlet generations are composed of quartz, magnetite, pyrite, pyrrhotite plus minor chalcopyrite and molybdenite. The veinlets may be either quartz or magnetite dominated. The quartz-rich veinlets have the characteristics of both A- and B-types in porphyry copper systems. Where molybdenite is present, it commonly occurs along both edges of the veinlets, a widely observed B-type feature.

The main control of gold grade in the diorite/dacite intrusive stock is the intrusive phase where the mineralisation is hosted. Early intrusive phases present the highest and more consistent gold grade (average: >1.1 ppm). The inter-mineral diorite has average gold grades of less than 0.7 ppm, the late dacite phase generally only has >300ppb gold, grades close to the contact with early diorite phases.

Within the gold grade variation that characterise each intrusive phase, gold grades presents a second order correlation with the alteration assemblage. The Ca-Na and K alteration with or without chloritic alteration have the best gold grades. Areas with intense illite alteration generally have average gold grades less than 0.3 ppm.

The contact breccias and hornfels developed at the contact between porphyritic rock and schist present a mineralised haloe of at least 60m with an average gold grade of >1 ppm.

Colombia

La Colosa *cont.*

Mineral Resource and Ore Reserve Report 2008

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GOLD DEPARTMENT

Gold grains vary from almost pure gold to a lesser amount of gold-silver telluride. The chemical composition of Au-Ag-Te grains is variable. The gold grains are generally fine grained around 15 microns. Coarse grained gold (116 microns) was found in samples from metamorphic rocks. Gold grains occur both liberated and 'locked' in sulphides and silicates. The percentage is not clearly established, but a significant amount of gold is associated with silicates such as K-feldspar and plagioclase. Sulphide minerals associated with gold are dominantly pyrite and, in a much lesser amount, pyrrhotite and arsenopyrite.

MINERAL RESOURCE ESTIMATION

At La Colosa, some 17,039m of diamond drilling (59 holes) has been used to support the estimation of an Inferred Mineral Resource. A mineralised envelope was prepared from composites >0.5 ppm Au and confirmed by indicator kriging and boundary analysis.

Gold grades were estimated using ordinary block Kriging methodology. Kriging was performed on a parent block sized 50m (X) by 50m (Y) by 10m (Z) for lithological domains (wireframes) in the mineralised envelope and for the waste surrounding mineralisation. Quantitative Kriging neighbourhood analysis (QKNA) was used to optimise search range and block discretisation. All available geological drillhole, surface sampling and mapping information has been validated for use in the modelling process.

La Colosa:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

0.00

2007

0.00

Depletion

0.00

Gold price

0.00

Other

12.32

Explo-

ration

12.32

2008

0.00

Cost

4.0

0.0

0.00

Metho-

dology

Change

12.0

2.0

6.0

8.0

10.0

Mineral Resource exclusive of Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

La Colosa

Category

million

g/t

tonnes

Moz

Measured

–

–

–

–

Indicated

–

–

–

–

Inferred

381.42

1.00

383.12

12.32

La Colosa

Total

381.42

1.00

383.12

12.32

Competent person

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

R Jahoda

AusIMM

990544

20 years

Mineral Resource and Ore Reserve Report 2008

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The Mongbwalu Project is one of AngloGold Ashanti's most important exploration projects and is situated within the 10,000km

2 covered by Concession 40 in the Ituri Province of north-eastern Democratic Republic of Congo (DRC). Concession 40 has a rich history of gold occurrences and cover the entire Kilo Archaean granite-greenstone belt that extends approximately 850km west-northwest of Lake Albert. Details of average drillhole spacing and type in relation to the Mineral Resource classification

Type of drilling

Mine/Project

Category

Spacing

Diamond

RC

Blasthole Other

Comments

m (- x -)

Mongbwalu

Measured

-

-

-

-

-

Indicated

-

-

-

-

-

Inferred

50 x 50

x

x

-

-

Grade control

-

-

-

-

Regional overview

Democratic Republic

of Congo

Uganda

**Lake A**

**lbert**

Lake Albert

Mongbwalu

DRC

0

30

60

kilometers

Mount Tsi

Bunia West

Petsi

Lodjo

Bunia

**Sudan**

Kinshasa

Democratic

Republic

of Congo

LEGEND

Bunia - Town

Lodjo - Prospect

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

Percentage

Deple-

Model

Scope

Net change

Mine

attributable Category

2007

tion

(1)

change

(2)

change

(3)

2008

Diff

% Comment

Mongbwalu

86.2% Resource

2.52

–

–

–

2.53

–

–

Reserve

–

– –

– –

–

–

Total

Resource

2.52

–

–

–

2.53

–

–

Reserve

–

–

–



—  
—  
—  
—

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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#### MONGBWALU

Concession 40 is held in a joint venture between AngloGold Ashanti Kilo (AGAK) and OKIMO, a governmental body which currently holds a 13.8% non-contributory share. AGAK is 100% owned by AngloGold Ashanti Ltd. The findings of the DRC Minerals Review Commission have resulted in AngloGold Ashanti and the AGAK joint venture engaging the DRC government to seek resolution and secure the rights to Concession 40.

Exploration activities over the Concession 40 licence were suspended in November 2008 following the deteriorating security situation which led to the precautionary withdrawal of most non-essential staff from the concession.

Most of AngloGold Ashanti's exploration activities in Concession 40 have focused on the delineation of Mineral Resources in the vicinity of the abandoned Adidi-Kanga, Nzebi, and Senzere gold mines. These old mines are collectively centred around the village of Mongbwalu, situated 48km north-west of the regional town of Bunia and 320km south-east of Kampala in neighbouring Uganda.

The most prospective parts of the greenstone belt have been covered by a total of 5,575km

2

of airborne

magnetic and radiometric surveys. Three fly camps have been established as bases for the regional field work.

#### GEOLOGY

Granitoids are the predominant rock type within the Kilo granite-greenstone belt. The granitoids contain rafts of Kibalian amphibolites and basic talc carbonate schists that have been intruded by diorite-tonalite-granodiorite assemblages. The Mongbwalu resource mineralisation is hosted in multiple, shallow dipping mylonite bodies that average 25m in width. Within the mylonite zones, the gold is primarily concentrated in boudinaged quartz

Mongbwalu

Democratic Republic

of Congo

veins that appear to be orientated sub-parallel to the mylonite zones and their immediate wall-rock. The alteration assemblage consists of chlorite-biotite-quartz-sericite and mineralisation occurs as pyrite-pyrrhotite (<2%) and free gold.

The easterly dipping mylonite zones are continuous throughout the area drilled, with the most prospective zone located close to the old Adidi Mine. Two north-south trending faults have offset the mineralisation and kept the mineralisation within 150m to 200m of the surface. The mylonite can be traced along a strike length of approximately 7km and given its shallow dip there is good potential to find additional ounces close to surface.

#### MINERAL RESOURCE ESTIMATION

AngloGold Ashanti began drill testing of the Mineral Resource potential of the Mongbwalu area in mid-2005 and by the end of 2006, the broader Mongbwalu area (Nzebi-Adidi-Kanga-Pluto sectors) had been diamond drilled on a 200m x 200m grid. The program covered an area 2.2km by 2.7km centred over the southern part of the Adidi mine.

From this drilling, distinct zones with potentially economic grades of gold in quartz-veins were delineated.

Infill RC and diamond drilling on 50m x 50m centres was undertaken during 2007 to cover those areas of maximum potential to host near surface open-pit extractable or shallow underground extractable mineralisation. The aim was to define an initial Inferred Mineral Resource by the end of 2007. Data obtained from a total of 87,933m of drilling was used for Mineral Resource modelling and estimation.

The principle Mongbwalu Mylonite horizons and other important geological units defined by drillhole logging and interpretation were modelled using conventional 3D wireframing techniques and Datamine

®

software.

To define the Inferred Mineral Resource, ore envelopes were created using manual wireframing in Datamine

®

at cut-off grades of 0.5g/t Au and 3.0g/t Au. Following geostatistical evaluation of the drillhole assay database, gold grades were interpolated into a 3D block-model incorporating the principle geological units and ore envelopes using ordinary Kriging to define the Inferred Mineral Resource, at a cut-off grade of 0.5g/t.

Initial scoping level mining metallurgical, geotechnical, hydrogeological, environmental, socio-political and infrastructural engineering studies were undertaken in parallel with the drilling to support the Mineral Resource estimate.

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Mongbwalu

Category

million

g/t

tonnes

Moz

Measured

–

–

–

–

Indicated

-  
-  
-  
-

Inferred

29.25

2.69

78.53

2.52

Mongbwalu

Total

29.25

2.69

78.53

2.52

Mineral Resource and Ore Reserve Report 2008

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Democratic Republic of Congo

Mongbwalu *cont.*

Competent person

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

M O'Brien

AusIMM

206669

29 years

Mongbwalu:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

2.52

2007

0.00

Depletion

0.00

Gold price

0.00

Other

0.00

Explo-

ration

2.53

2008

0.00

Cost

0.0

0.00

Metho-

dology

Change

1.5

0.5

1.0

2.0

2.5

3.0

Mineral Resource and Ore Reserve Report 2008

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Regional overview

Ghana

AngloGold Ashanti has two mines in Ghana, Obuasi which has both surface and underground operations and Iduapriem, an open pit mine. Obuasi and Iduapriem are both wholly owned by AngloGold Ashanti.

Mineral Resource and Ore Reserve gold price

Units

2008

2007

Gold price – Mineral Resource

US\$/oz

1,000

700

Gold price – Ore Reserve

US\$/oz

720

600

Accra

Sekondi Takoradi

Tarkwa

Kumasi

Tamale

Bolgatanga

*Lake*

*Volta*

GHANA

Obuasi

Iduapriem

N

Operations

0

300km

Details of average drillhole spacing and type in relation to Mineral Resource classification

Type of drilling

Mine/

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Project

m (- x -)

Iduapriem

Measured

50 x 50 and

x

x

-

-

100 x 50

Indicated

50 x 75 and

x

x

—

—

100 x 75

Inferred

50 x 100 and

x

x

—

—

100 x 100

Grade control

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve modifying factors

as at 31 December 2008

Metal-

Gold price

Cut-off

Stoping

Mine call

lurgical

used

grade

width

Dilution

factor

Recovery

Mine

USD\$/oz

g/t Au

cm

%

(MCF)

factor %

Comments

Iduapriem

Ajopa 600

0.6-0.71

–

7-8

100

94.5-97

Block 3W

600

0.6-0.71

–

7-8

100

94.5-97

Block 5

600

0.6-0.71

–

7-8

100

94.5-97

Blocks 7 and 8

720

0.6-0.71

–

7-8

100



94.5-97  
Full Grade Ore stockpile  
720  
0.6-0.71  
—  
7-8  
100  
94.5-97  
Obuasi  
KMS 50-60  
720  
2.2-4.0  
—  
12  
88  
83  
Sansu Low  
720  
2.2-4.0  
—  
12  
88  
83  
Grade Sulphides  
Upper Mine  
720  
2.2-4.0  
—  
12  
88  
83  
Above 50 Base  
720  
2.2-4.0  
—  
12  
88  
83  
Other Surface Resources  
720  
—  
—  
—  
100            47  
Tailings – Kokoteasua  
720  
—  
—  
—  
100  
25

Heap Leach

720

-

-

-

100

47

Surface Oxides

720

-

-

-

100

47

Surface Sulphides

720

-

-

-

100

47

Ghana

Regional overview *cont.*

Details of average drillhole spacing and type in relation to Mineral Resource classification (cont.)

Type of drilling

Mine/

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Project

m (- x -)

Obuasi

Measured

20 x 0,

x

x

-

-

20 x 20 and

50 x 50

Indicated

30 x 0,

x

x

-

x

Both air core and RC, are drilled on

30 x 30 and

offset patterns

50 x 50,

60 x 0,

60 x 60

Inferred

90 x 0,

x

x

—

x

Air core and RC and some diamond

90 x 90 and

holes. Both air core and RC, are

120 x 0

drilled on offset patterns.

Grade control

—

—

—

—

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

Percentage

Deple-

Model

Scope

Net change

Mine

attributable Category

2007

tion

(1)

change

(2)

change

(3)

2008

Diff

% Comment

Iduapriem

100% Resource

3.50 (0.23)

(0.58)

1.02

4.87

1.37

39

Increase due to higher resource

gold price and remodelling of

block 7&8

Reserve

2.42

(0.21) 0.34 0.01 2.55 0.14 6

Pit expansion due to higher gold price

Obuasi

100% Resource

33.43

(0.66) 2.18 2.40

37.35 3.92 12

Exploration

below

50

level

Reserve

8.33 (0.60)

2.06

(0.13)

9.66		
1.33		
16		
Increase due to changed mine design and schedule		
Total		
Resource	36.93	
(0.89)	2.76	3.42
42.22	5.29	14
Reserve		
10.75		
(0.81)	2.39	
(0.11)		
12.22	1.47	14

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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Iduapriem

Ghana

GEOLOGY

The Iduapriem mine is situated in the western region of Ghana, some 85km north of the coastal city of Takoradi, and 10km south-west of Tarkwa. Iduapriem is an open-pit mine which commenced mining operations in 1992. Its processing facilities include a carbon-in-pulp (CIP) plant.

The Iduapriem gold mine is located along the southern end of the Tarkwa basin. The mineralisation is contained in the Proterozoic Banket Series conglomerates within the Tarkwaian System. The outcropping Banket Series in the mine area form prominent arcuate ridges extending southwards from Tarkwa, westwards through Iduapriem and northwards towards Teberebie. The gold is particulate and free milling. Mineralogical studies indicate that the grain size of native gold particles ranges between 2 microns and 500 microns (0.002 to 0.5mm) and averages 130 microns (0.13mm). Sulphide minerals are present only at trace levels and are not associated with the gold.

MINERAL RESOURCE ESTIMATION

All geological interpretations are used to produce a three-dimensional wire frame model of the orebody using Datamine® software. A block model comprising of 25m x 5m x 6m blocks is used within the geological model outlines and where appropriate, selective sub-celling is used for definition on the geological and mineralisation boundaries. The geostatistical techniques used for grade interpolation into the blocks include ordinary kriging and inverse distance squared (ID2) methods.

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Iduapriem

Category

million

g/t

tonnes

Moz

Ajopa

Measured

3.65

2.18

7.96

0.26

Indicated

1.81

2.07

3.74

0.12

Inferred

2.04

2.09

4.26

0.14

Total

7.50

2.13                      15.97                      0.51

Block 3W

Measured

–

–

–

–

Indicated

3.12

1.38

4.31

0.14

Inferred

1.76

1.18

2.07

0.07

Total		
4.88	1.31	6.38
0.21		
Block 5		
Measured		
6.59		
1.22		
8.03		
0.26		
Indicated		
1.95		
1.27		
2.48		
0.08		
Inferred		
2.77		
1.29		
3.57		
0.12		
Total		
11.31		
1.25		
14.09		
0.45		
Blocks 7 and 8		
Measured		
20.96		
1.41		
29.55		
0.95		
Indicated		
37.87		
1.74		
65.73		
2.11		
Inferred		
4.66		
1.59		
7.40		
0.24		
Total		
63.48		
1.62		
102.69		
3.30		
Total stockpiles		
Measured		
2.66		
1.17		
3.11		
0.10		



Indicated

-  
-  
-  
-

Inferred

16.50  
0.56  
9.32  
0.30

Total

19.16  
0.65  
12.43  
0.40

Iduapriem

Total

106.32  
1.43  
151.55  
4.87

Mineral Resource exclusive of Ore Reserve

Contained

Contained

Tonnes

Grade

gold

gold

Iduapriem

Category

million

g/t

tonnes

Moz

Measured

3.64  
1.23  
4.47  
0.14

Indicated

21.62  
1.63  
35.26  
1.13

Inferred

27.72  
0.96  
26.63  
0.86

Iduapriem

Total

52.98

1.25

66.36

2.13

The Exclusive Mineral Resource is derived predominately from Blocks 3W, 5, 7 & 8 and Ajopa. It is partly due to Inferred Mineral Resources within the optimised Ore Reserve pit shell. It is also due to Mineral Resources being located outside the Ore Reserve pit shell but within the optimised Mineral Resource pit shell (mainly down-dip extensions of the ore zones).

A resource conversion drilling programme will be carried out in 2010 and 2011 to convert the Inferred Mineral Resources to the Indicated and Measured categories in order to qualify them to be included in the Ore Reserve.

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Iduapriem

Category

million

g/t

tonnes

Moz

Ajopa

Proved

3.09

2.13

6.57

0.21

Probable

0.94

1.85

1.75

0.06

Total

4.03

2.06

8.32

0.27

Block 3W

Proved

–

–

–

–

Probable

1.63

1.49

2.42

0.08

Total

1.63

1.49

2.42

0.08

Block 5

Proved

6.09

1.17  
 7.15  
 0.23  
 Probable  
 1.82  
 1.19  
 2.16  
 0.07  
 Total  
 7.91  
 1.18  
 9.31  
 0.30  
 Blocks 7 and 8  
 Proved  
 18.37  
 1.33  
 24.48  
 0.79  
 Probable  
 18.75  
 1.70  
 31.81  
 1.02  
 Total  
 37.12  
 1.52  
 56.30  
 1.81  
 Total stockpiles  
 Proved  
 2.68  
 1.16  
 3.11  
 0.10  
 Probable  
 –  
 –  
 –  
 –  
 Total  
 2.68  
 1.16  
 3.11  
 0.10  
 Iduapriem  
 Total  
 53.37  
 1.49  
 79.45  
 2.55

Ghana

Iduapriem *cont.*

Iduapriem:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

2.42

2007

-0.21

Depletion

0.01

Scope

Change

2.55

2008

0.34

Model

Change

2.3

Change

2.4

Iduapriem:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

3.50

2007

-0.23

Depletion

1.92

Gold price

0.28

Other

0.00

Explo-

ration

4.87

2008

-1.18

Cost

3.5

0.0

0.58

Metho-

dology

Change

5.5

2.5

2.5

4.5

1.5

0.5

**ORE RESERVE ESTIMATION**

Pit optimisation is done using the relevant economic assumptions, geotechnical parameters and mining assumptions. Iduapriem uses NPV Scheduler® and the ultimate pit shell is based on optimal criteria.

The subsequent pit design is done using Datamine® software, which forms the basis for the Ore Reserve.

Mineral Resource and Ore Reserve Report 2008

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Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

K Osei

AusIMM

112723

14 years

Ore Reserve

EB Boakye

AusIMM

222459

22 years

Iduapriem

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

1.0

1.5

2.0

2.5

3.0

3.5

4.0

0.0

20.0

40.0

60.0

80.0

100.0

3.00

0.00

1.00

2.00

Tonnes above cut-off

Ave grade above cut-off

Mineral Resource and Ore Reserve Report 2008

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Obuasi

Ghana

#### LOCATION

The Obuasi mine is located in the Ashanti region of Ghana, some 80km from Kumasi. It is an underground mine extending over 9km on strike and mining to a depth of 1,500m below surface. Large-scale open-pit mining took place between the years 1990 and 2000. The mine has three active treatment plants: the sulphide treatment plant to process underground ore, the tailings treatment plant to handle tailings reclamation operations and an oxide treatment plant to treat other small volumes from surface sources.

#### GEOLOGY

The gold deposits at Obuasi are part of a prominent gold belt of Proterozoic (Birimian) volcano-sedimentary and igneous formations. These deposits extend for a distance of approximately 300km, in a north-east/south-west trend, in south-western Ghana. Obuasi mineralisation is shear-zone-related and there are three main structural trends hosting gold mineralisation namely the Obuasi trend, the Gyabunsu trend and the Binsere trend.

The underground mine is situated on the Obuasi trend.

Two main ore types are mined, namely quartz veins and sulphide ore. The quartz vein type consists mainly of quartz with free gold in association with lesser amounts of various metal sulphides containing iron, zinc, lead and copper. The gold particles are generally fine-grained and are occasionally visible to the naked eye. This ore type is generally non-refractory.

Sulphide ore is characterised by the inclusion of gold in the crystal structure of a sulphide mineral. The gold in these ores is fine-grained and often locked in arsenopyrite. Higher gold grades tend to be associated with finer grained arsenopyrite crystals. Other prominent minerals include quartz, chlorite and sericite. Sulphide ore is generally refractory.



Mineral Resource and Ore Reserve Report 2008

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26 Level

12 Level

8 Level

20 Level

32 Level

38 Level

41 Level

-1000m

-500m

Zero

250m

LEGEND

Main Fissure

Obuasi

Fissure

Footwall

Quartz

0

150m

Scale

SECTION THROUGH KWESI MENSAH SHAFT

K - Fissure

N - Fissure

12/74

Fissure

Cote D Or

Fissure

Cote D Or Spur

Cowsu

Spur

Big Blow

4 & 5 Lodes

3 West

Auriferous Quartz Vein

Carbonaceous/Graphitic Fissure

Barren Metavolcanic (Dyke)

Mineral - Auriferous - Metavolcanic (Dyke)

Phyllites, Greywackes and Shists

N

SECTION THROUGH ADANSI SHAFT

N

OXIDISED

ZONE

50

41

38

30

26

20

16  
12  
8  
100m  
0  
-100m  
-200m  
-300m  
-400m  
-500m  
-600m  
-700m  
S.V.S  
ORE BODY folded  
phyllite  
and  
siltstone  
granulated  
phyllite  
folded phyllites  
siltstones and  
greywackers  
Ashanti  
fissure  
schist  
greywacker  
phyllite  
Insintiam reef  
ADANSI  
SHAFT  
Obuasi  
Fissure  
Cote d'or  
fissure  
0  
120m  
Scale  
LEGEND

Auriferous Quartz Vein  
Carbonaceous/Graphitic Fissure  
Barren Metavolcanic (Dyke)  
Phyllites, Greywackes and Shists

#### MINERAL RESOURCE ESTIMATION

Mineral Resource estimates are derived from interpretations of information about the location, shape, continuity and grade of the individual orebodies.

The underground Mineral Resource is estimated using block models within the delineated mineralised ore zones. The geological interpretation is based on diamond drill and cross-cut sampling information. A prototype block model of 20m x 5m x 15m representing the minimum mining unit was used and estimates are based on ordinary kriging. The block models are optimised and flagged either as a Mineral Resource or inventory.

Although no open-pit mining has taken place since 2005, three pits still contain a Mineral Resource.

The Mineral Resource was estimated using three dimensional computer block models constructed using the

Datamine

®

software. Geological interpretation was based on trench and reverse circulation and or diamond drilling data. A prototype block model of 30m x 30m x 10m was used by the geological model and ordinary kriging as the primary estimation methodology.

Surface stockpiles volumes are based on surveyed figures and grades based on historical sampling. Tailings are part of the Mineral Resource with tonnes and grades based on combinations of 3D block models of some dams and historical metallurgical discharge data.

Mineral Resource and Ore Reserve Report 2008

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Ghana

Obuasi *cont.*

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Obuasi

Category

million

g/t

tonnes

Moz

Adansi 50-60

Measured

1.69

5.66

9.59

0.31

Indicated

1.27

4.68

5.94

0.19

Inferred

2.82

5.55

15.63

0.50

Total

5.78

5.39

31.16

1.00

Adansi 60-70

Measured

0.26

5.21

1.34

0.04

Indicated

0.31

5.31

1.63

0.05

Inferred

1.68  
7.14  
11.97  
0.39  
Total  
2.24  
6.67  
14.93  
0.48  
KMS 50-60  
Measured  
0.87  
18.38  
15.90  
0.51  
Indicated  
1.62  
18.75  
30.29  
0.97  
Inferred  
3.51  
11.77  
41.36  
1.33  
Total  
5.99  
14.61  
87.56  
2.82  
KMS 60-70  
Measured  
0.32  
26.67  
8.56  
0.28  
Indicated  
0.43  
25.58  
10.88  
0.35  
Inferred  
3.13  
18.01  
56.34  
1.81  
Total  
3.87  
19.56  
75.78  
2.44

Total stockpiles  
 Measured  
 0.91  
 1.53  
 1.40  
 0.05  
 Indicated  
 -  
 -  
 -  
 -  
 Inferred  
 -  
 -  
 -  
 -  
 Total  
 0.91  
 1.53  
 1.40  
 0.05  
 Upper Mine  
 Measured  
 3.48  
 10.25  
 35.65  
 1.15  
 Indicated  
 1.70  
 8.83  
 15.03  
 0.48  
 Inferred  
 1.63  
 10.39  
 16.96  
 0.55  
 Total  
 6.81  
 9.93  
 67.64  
 2.18  
 Above 50 Base  
 Measured  
 45.52  
 7.62  
 347.11  
 11.16  
 Indicated  
 19.28  
 7.55

145.65

4.68

Inferred

24.01

8.41

201.92

6.49

Total

88.81

7.82

694.69

22.34

Open-Pit - Anyankyirem

Measured

0.56

2.18

1.23

0.04

Indicated

4.01

2.35

9.40

0.30

Inferred

1.09

2.25

2.44

0.08

Total

5.66

2.31

13.07

0.42

Open-Pit - Anyinam

Measured

—

2.11

—

—

Indicated

0.52

2.86

1.48

0.05

Inferred

1.42

3.35

4.74

0.15

Total

1.93

3.22  
6.23  
0.20  
Open-Pit - Gyabunsu-Sibi  
Measured  
0.01  
1.68  
0.01  
—  
Indicated  
0.86  
2.29  
1.96  
0.06  
Inferred  
0.74  
2.28  
1.69  
0.05  
Total  
1.60  
2.28  
3.66  
0.12  
Other surface resources  
Measured  
—  
—  
—  
—  
Indicated  
0.18  
2.70  
0.49  
0.02  
Inferred  
—  
—  
—  
—  
Total  
0.18  
2.70  
0.49  
0.02  
Kokoteasua (Tailings Dam)  
Measured  
3.44  
1.67  
5.73  
0.18



Indicated

2.54

1.70

4.32

0.14

Inferred

—

—

—

—

Total

5.98

1.68

10.05

0.32

Pompora (Tailings Dam)

Measured

—

—

—

—

Indicated

30.21

1.60

48.18

1.55

Inferred

—

—

—

—

Total

30.21

1.60

48.18

1.55

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource (*cont.*)

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Obuasi

Category

million

g/t

tonnes

Moz

Sansu

Measured

–

–

–

–

Indicated

28.28

1.15

32.52

1.05

Inferred

30.34

1.18

35.69

1.15

Total

58.62

1.16

68.22

2.19

Sansu low-grade sulphides

Measured

3.30

4.70

15.49

0.50

Indicated

2.97

4.46

13.27

0.43

Inferred

2.02

4.90

9.90  
 0.32  
 Total  
 8.29  
 4.66  
 38.65  
 1.24  
 Obuasi  
 Total  
 226.90  
 5.12  
 1161.71  
 37.35  
 Exclusive Mineral Resource  
 Contained  
 Contained  
 Tonnes  
 Grade  
 gold  
 gold  
 Obuasi  
 Category  
 million  
 g/t  
 tonnes  
 Moz  
 Measured  
 29.68  
 7.06  
 209.61  
 6.74  
 Indicated  
 52.29  
 2.83  
 147.80  
 4.75  
 Inferred  
 28.74  
 6.45  
 185.32  
 5.96  
 Obuasi  
 Total  
 110.71  
 4.90  
 542.73  
 17.45

The Obuasi Exclusive Mineral Resource is made up of Mineral Resources from underground, open pit and tailings. The bulk of the Exclusive Mineral Resource (84%) is from underground and of this Mineral Resource, 36% are locked up in Mineral Resource blocks and remnants in historical mined out areas in the north of the mine. This Mineral Resource cannot be accessed due to old infrastructure and currently there are no plans to bring it to Ore

Reserve. The remainder of the underground Exclusive Mineral Resource is mineable between Mineral Resource and Ore Reserve cut-offs, below 50 level and in areas where more investigation is required. Some of these Exclusive Mineral Resources will be brought into the Ore Reserves as mining development is put into place to access these areas, and also as the economic criteria change.

Approximately 11% of the Exclusive Mineral Resource is from tailings and will be brought into the Ore Reserves as infrastructure is developed and capacity is increased in the tailings treatment plant. Two of the tailings dams are also active and an Exclusive Mineral Resource margin will be maintained.

Not one of the three open pits in the Mineral Resource is currently included in the Ore Reserve. This represents 4% of the Exclusive Mineral Resource. To bring open pits into the Ore Reserve will require more geotechnical investigation, optimisation and mine design. However, there are currently no plans to engage in large scale open-pit mining at Obuasi.

Mineral Resource below infrastructure  
as at 31 December 2008

Metric

Imperial

Contained

Contained

Tonnes

Grade

gold

gold

Obuasi

Category

million

g/t

tonnes

Moz

KMS 50-60 level

Total

5.99

14.61

87.56

2.82

KMS 60-70 level

Total

3.87

19.56

75.78

2.44

Adansi 50-60 level

Total

5.78

5.39

31.16

1.00

Adansi 60-70 level

Total

2.24

6.67

14.93

0.48

Obuasi  
Total  
17.89  
11.71  
209.43  
6.73

Mineral Resource and Ore Reserve Report 2008

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Ghana

Obuasi *cont.*

Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Obuasi

Category

million

g/t

tonnes

Moz

KMS 50-60

Proved

2.86

14.14

40.39

1.30

Probable

1.43

14.14

20.17

0.65

Total

4.28

14.14

60.56

1.95

Total stockpiles

Proved

0.74

1.35

1.00

0.03

Probable

–

–

–

–

Total

0.74

1.35

1.00

0.03

Above 50 Base

Proved	
19.95	
7.64	
152.50	
4.90	
Probable	
9.96	
7.74	
77.12	
2.48	
Total	
29.91	
7.68	
229.62	
7.38	
Other surface resources	
Proved	
–	
–	
–	
–	
Probable	
0.18	
2.66	
0.48	
0.02	
Total	
0.18	
2.66	
0.48	
0.02	
Tailings – Kokoteasua	
Proved	
3.07	
1.85	
5.68	
0.18	
Probable	
1.73	
1.85	
3.20	
0.10	
Total	
4.80	
1.85	
8.88	
0.29	
Obuasi	
Total	
39.92	
7.53	

300.53  
 9.66  
 Obuasi:  
 Ore Reserve reconciliation  
 2007 vs 2008  
 Ounces (millions)  
 8.33  
 2007  
 -0.60  
 Depletion  
 -0.12  
 Scope  
 Change  
 9.66  
 2008  
 2.06  
 Model  
 Change  
 7.6  
 Change  
 9.6  
 8.6  
 Obuasi:  
 Mineral Resource reconciliation  
 2007 vs 2008  
 Ounces (millions)  
 33.4  
 2007  
 -0.66  
 Depletion  
 0.00  
 Gold price  
 2.40  
 Other  
 2.87  
 Explo-  
 ration  
 37.35  
 2008  
 0.00  
 Cost  
 34.0  
 30.0  
 -0.69  
 Metho-  
 dology  
 Change  
 40.0  
 38.0  
 36.0  
 32.0



#### ORE RESERVE ESTIMATION

The three dimensional Mineral Resource models are used as the basis for the Ore Reserves. An ore envelope is developed using the Mineral Resource block model, geological information and the relevant cut-off grade, which is then used for mine design. Datamine

®

software called Mineral Resource Optimizer is used to generate the ore envelope. An appropriate mining layout is designed that incorporates mining extraction losses, dilution factors and MCF.

Mineral Resource and Ore Reserve Report 2008

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Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

H Eybers

AusIMM

229471

22 years

Ore Reserve

R Downing

AusIMM

229889

22 years

Obuasi

– Underground (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average grade

above cut-off (g/t)

0.0

8.0

13.0

18.0

23.0

28.0

33.0

50.0

100.0

150.0

20.00

0.00

5.00

10.00

15.00

Tonnes above cut-off

Ave grade above cut-off

Obuasi

– Surface (Metric)

Tonnes above

cut-off (millions)

Cut-off grade (g/t)

Average grade above cut-off (g/t)

5.00

0.00  
1.00  
2.00  
2.00  
4.00  
0.0  
1.5  
3.0  
4.5  
6.0  
7.5  
9.0  
10.5  
2.0  
3.0  
4.0  
5.0  
6.0  
7.0  
Tonnes above cut-off  
Ave grade above cut-off  
Ore Reserves below infrastructure  
as at 31 December 2008  
Metric  
Imperial  
Contained  
Contained  
Tonnes  
Grade  
gold  
gold  
Obuasi  
Category  
million  
g/t  
tonnes  
Moz  
KMS 50-60 level  
Total  
4.28  
14.14  
60.56  
1.95

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource and Ore Reserve gold prices

Units

2008

2007

Gold price – Mineral Resource

US\$/oz

1,000

700

Gold price – Ore Reserve

US\$/oz

720

600

Regional overview

Guinea

Siguiri mine is AngloGold Ashanti's only operation in the Republic of Guinea in West Africa. The mine is 85% owned by AngloGold Ashanti and 15% by the government of Guinea.

#### MINERAL RESOURCE ESTIMATION

Mineral Resource definition drilling consists of Air Core (AC), Reverse Circulation (RC) and Diamond Drilling (DD) boreholes. All available geological drillhole information is validated for usage in the models and the local geology of the orebody is used to classify the drillhole information into appropriate geostatistical domains. Detailed statistical analyses are conducted on each of these domains and this allows for the identification of high grade outliers. If these values are anomalous to the general population characteristics then they are cut back to the appropriate upper limit of the population.

The Mineral Resources are estimated using three dimensional computer block models constructed in Datamine

®

software. Geological interpretation is based on Geological borehole data. A prototype block model ranging from 10m x 10m x 2.5m to 50m x 25m x 6m block sizes depending on the shape of the Ore body is used within the Geological model outlines. Ordinary and indicator kriging are used to estimate gold grades and a limiting pit shell at \$1,000/oz is used to quantify the total Mineral Resources.

N

Operations

0

200km

Conakry

Labe

Dabola

Kankan

Siguiri

GUINEA

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve modifying factors

as at 31 December 2008

Mine call

Cut-off

Dilution

factor

Metallurgical

Siguiri

grade g/t Au

%

(MCF) %

recovery %

Siguiri

Spent heap leach

0.35-0.55

–

100

93

Full Grade Ore

0.35-0.55

–

100

96

Marginal Ore

0.35-0.55

–

100

93

Siguiri Oxides

Bidini

0.35-0.55

–

100

96

Eureka East

0.35-0.55

–

100

96

Kalamagna

0.35-0.55

–

100

96

Kami

0.35-0.55

–

100

96

Kosise  
 0.35-0.55  
 –  
 100  
 96  
 Kozan North  
 0.35-0.55  
 –  
 100  
 96  
 Kozan South  
 0.35-0.55  
 –  
 100  
 96  
 Seguelen  
 0.37-0.57  
 –  
 100  
 96  
 Sintroko South  
 0.4-0.60  
 –  
 100  
 96  
 Sokunu  
 0.35-0.55  
 –  
 100  
 96  
 Soloni  
 0.35-0.55  
 –  
 100  
 96  
 Sorofe  
 0.35-0.55  
 –  
 100  
 96

**ORE RESERVE ESTIMATION**

The Mineral Resource models for each pit are depleted to the mining surfaces. Costs are assigned on a pit by pit basis reflecting the current existing cost structure of the operation. The relevant dilution and ore loss factors are applied and the optimisation is done in Earthworks

®  
 NPV Scheduler software. The relevant metallurgical recoveries, geotechnical parameters, cut-off grades and economics are applied to generate the final Ore Reserve. Details of average drillhole spacing and type in relation to the Mineral Resource classification  
 Type of drilling  
 Mine/  
 Category

Spacing

Diamond

RC

Blasthole Other

Comments

Project

m (- x -)

Siguiri

Measured

5 x 10

-

x

-

-

Indicated

20 x 40

-

x

-

-

Both AC and RC, drilled in an

25 x 25

offset pattern

25 x 50

Inferred

20 x 40

-

x

-

-

AC and RC and some DD holes,

25 x 50

drilled in an offset pattern

50 x 50

Grade control

5 x 12.5

-

x

-

-

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

Percentage

Deple-

Model

Scope

Net change

Mine

attributable Category

2007

tion

(1)

change

(2)

change

(3)

2008

Diff

% Comment

Siguiri

100% Resource

4.95

(0.48)

0.83

0.64

5.94

0.99

20

Increase due to higher resource  
gold price and increases in the  
resource at Sintroko and Foulata

Reserve

2.63

(0.46)

0.04 1.04

3.25

0.62

24

Seguelen NW and Sintroko upgraded  
from Inferred to Indicated, coupled  
with mining efficiency increase

Total

Resource

4.95

(0.48)

0.83

0.64



5.94  
0.99  
20  
Reserve  
2.63  
(0.46) 0.04  
1.04  
3.25  
0.62  
24  
*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.*  
Guinea  
Regional overview *cont.*

Mineral Resource and Ore Reserve Report 2008

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Siguiri

Guinea

SOCIÉTÉ ASHANTI GOLDFIELDS (SAG) DE GUINÉE

Siguiri gold mine is situated in the Siguiri district in the north-east of the Republic of Guinea, West Africa, about 850km from the capital city of Conakry. The SAG concession consists of four blocks totalling 1,494.58km

2

All ore and waste is mined by a mining contractor in a conventional open-pit mining operation. Processing is done via a Carbon-In-Pulp (CIP) plant.

#### GEOLOGY

This concession is dominated by Proterozoic Birimian rocks which consist of turbidite facies sedimentary sequences and volcanoclastic sequences. The mineralisation at Siguiri is structurally controlled and occurs either as sheeted veins or within shear zones. There are two main types of oxide mineralisation in the Siguiri basin: eluvial- or alluvial-hosted laterite mineralisation and primary quartz-vein-related or shear hosted mineralisation. The laterite mineralisation occurs as aprons of colluvial or as palaeo-channels of alluvial lateritic gravel adjacent to and immediately above the in situ vein-related or shear zone mineralisation. The vein-related mineralisation is hosted in meta-sediments with the better mineralisation associated with vein stockworks, that occur preferentially in the coarser, brittle siltstones and sandstones. Whereas the shearzone related mineralisation can cross cut both sedimentary and volcanoclastic lithologies. Mineralisation at Siguiri has been deeply weathered to a vertical depth of up to 100m, and the mineralised saprolite provides the primary oxide feedstock for the CIP plant. Fresh hard mineralisation is not processed in the current plant. The practice at Siguiri was to blend the laterite and saprolite ore types and to process these using the heap-leach method. With the percentage of available laterite ore decreasing, however, a CIP plant was brought on stream during 2005 to treat predominantly saprolite oxide ore.

#### MINERAL RESOURCE: SEGUELEN

The Mineral Resource as published for Seguelen does not reflect the full potential of the orebody. An additional 10 million tonnes grading at 1.2 grams per tonne (380 thousand ounces) have been delineated by a 50m x 50m drill pattern. This mineralisation is currently not accessible due to its proximity to the Kintinian village and hence cannot be considered at this stage to have a reasonable and realistic prospect for eventual economic extraction. Based on mineralised trends there may even be further untested potential beneath the Kintinian village. Negotiations with the local authorities are underway in an effort to secure access.

Mineral Resource and Ore Reserve Report 2008

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Guinea

Siguiri *cont.*

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Siguiri

Category

million

g/t

tonnes

Moz

Total stockpiles

Measured

24.18

0.59

14.19

0.46

Indicated

31.95

0.54

17.29

0.56

Inferred

13.40

0.57

7.61

0.25

Total

69.53

0.56

39.09

1.26

Bidini

Measured

0.90

0.75

0.67

0.02

Indicated

5.20

0.97

5.05

0.16

Inferred

5.22  
1.01  
5.27  
0.17  
Total  
11.33  
0.97  
11.00  
0.35  
Eureka East  
Measured  
—  
—  
—  
—  
Indicated  
0.57  
0.70  
0.40  
0.01  
Inferred  
0.07  
1.76  
0.12  
—  
Total  
0.64  
0.82  
0.52  
0.02  
Eureka North  
Measured  
0.45  
0.70  
0.31  
0.01  
Indicated  
0.35  
1.18  
0.41  
0.01  
Inferred  
0.41  
1.10  
0.45  
0.01  
Total  
1.20  
0.97  
1.17  
0.04

Foulata  
Measured

—  
—  
—  
—

Indicated

—  
—  
—  
—

Inferred

5.04  
1.32  
6.65  
0.21

Total

5.04  
1.32  
6.65  
0.21

Kalamagna  
Measured

—  
—  
—  
—

Indicated

7.60  
0.69  
5.24  
0.17

Inferred

1.10  
0.64  
0.70  
0.02

Total

8.69  
0.68  
5.94  
0.19

Kami

Measured

7.59  
0.76  
5.77  
0.19

Indicated

6.45  
0.80

5.16  
0.17  
Inferred  
6.04  
0.69  
4.17  
0.13  
Total  
20.08  
0.75  
15.10  
0.49  
Kosise  
Measured  
0.41  
0.74  
0.31  
0.01  
Indicated  
9.18  
0.81  
7.46  
0.24  
Inferred  
3.21  
0.94  
3.01  
0.10  
Total  
12.80  
0.84  
10.77  
0.35  
Kozan North  
Measured  
—  
—  
—  
—  
Indicated  
6.50  
0.73  
4.74  
0.15  
Inferred  
6.99  
0.79  
5.52  
0.18  
Total  
13.49

0.76  
10.27  
0.33  
Kozan South  
Measured  
—  
—  
—  
—  
Indicated  
3.18  
0.68  
2.16  
0.07  
Inferred  
1.15  
0.63  
0.73  
0.02  
Total  
4.33  
0.67  
2.89  
0.09  
Seguelen  
Measured  
—  
—  
—  
—  
Indicated  
17.73  
1.09  
19.27  
0.62  
Inferred  
11.59  
1.14  
13.16  
0.42  
Total  
29.32  
1.11  
32.43  
1.04  
Sintroko South  
Measured  
—  
—  
—  
—

Indicated

23.67

1.21

28.55

0.92

Inferred

2.00

2.38

4.75

0.15

Total

25.67

1.30

33.30

1.07



Mineral Resource and Ore Reserve Report 2008

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Mineral Resource (*cont.*)

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Siguiri

Category

million

g/t

tonnes

Moz

Sokunu

Measured

–

–

–

–

Indicated

3.15

0.76

2.40

0.08

Inferred

1.16

0.77

0.89

0.03

Total

4.31

0.76

3.29

0.11

Soloni

Measured

–

–

–

–

Indicated

6.37

0.76

4.84

0.16

Inferred

3.82

0.77

2.94  
 0.10  
 Total  
 10.20  
 0.76  
 7.79  
 0.25  
 Sorofe  
 Measured  
 -  
 -  
 -  
 -  
 Indicated  
 3.31  
 0.77  
 2.55  
 0.08  
 Inferred  
 2.88  
 0.65  
 1.87  
 0.06  
 Total  
 6.19  
 0.71  
 4.42  
 0.14  
 Sigui  
 Total  
 222.82  
 0.83  
 184.63  
 5.94  
 Sigui:  
 Ore Reserve reconciliation  
 2007 vs 2008  
 Ounces (millions)  
 2.63  
 2007  
 -0.46  
 Depletion  
 1.04  
 Scope  
 Change  
 3.25  
 2008  
 0.04  
 Model  
 Change  
 2.2

Change

3.2

Siguiri:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

4.95

2007

-0.48

Depletion

1.58

Gold price

0.06

Other

0.83

Explo-

ration

5.94

2008

-1.00

Cost

5.5

3.5

0.00

Metho-

dology

Change

6.5

4.5

2.7

Exclusive Mineral Resource

Contained

Contained

Tonnes

Grade

gold

gold

Siguiri

Category

million

(g/t)

tonnes

Moz

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

Siguiri

Total

107.06

0.86

91.91

2.95

The Exclusive Mineral Resource represents the future potential at Siguiri and comes from three areas:

- material that is economic at the Mineral Resource gold price of US\$1,000 per ounce, but not at the Ore Reserve price of US\$720 per ounce (67% of the Exclusive Mineral Resource);
- new deposits currently at the Inferred level of confidence. These areas will be in-fill drilled in the future (22% of the Exclusive Mineral Resource); and
- from Inferred Mineral Resources within the current pit designs (12% of the Exclusive Resource).

Mineral Resource and Ore Reserve Report 2008

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Guinea

Siguiri *cont.*

Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Siguiri

Category

million

g/t

tonnes

Moz

Total stockpiles

Proved

56.13

0.56

31.48

1.01

Probable

–

–

–

–

Total

56.13

0.56

31.48

1.01

Bidini

Proved

–

–

–

–

Probable

1.15

1.16

1.34

0.04

Total

1.15

1.16

1.34

0.04

Eureka East

Proved

—  
—  
—  
—

Probable

0.30  
0.81  
0.24  
0.01

Total

0.30  
0.81  
0.24  
0.01

Kalamagna

Proved

—  
—  
—  
—

Probable

4.91  
0.76  
3.73  
0.12

Total

4.91  
0.76  
3.73  
0.12

Kami

Proved

—  
—  
—  
—

Probable

10.58  
0.86  
9.05  
0.29

Total

10.58  
0.86  
9.05  
0.29

Kosise

Proved

—  
—

—  
—  
Probable  
7.08  
0.78  
5.50  
0.18  
Total  
7.08  
0.78  
5.50  
0.18  
Kozan North  
Proved  
—  
—  
—  
—  
Probable  
4.02  
0.84  
3.37  
0.11  
Total  
4.02  
0.84  
3.37  
0.11  
Kozan South  
Proved  
—  
—  
—  
—  
Probable  
1.13  
0.79  
0.89  
0.03  
Total  
1.13  
0.79  
0.89  
0.03  
Seguelen  
Proved  
—  
—  
—  
—  
Probable

14.12

1.30

18.35

0.59

Total

14.12

1.30

18.35

0.59

Sintroko South

Proved

—

—

—

—

Probable

14.09

1.36

19.18

0.62

Total

14.09

1.36

19.18

0.62

Sokunu

Proved

—

—

—

—

Probable

3.05

0.78

2.40

0.08

Total

3.05

0.78

2.40

0.08

Soloni

Proved

—

—

—

—

Probable

4.84

0.84

4.06



0.13  
 Total  
 4.84  
 0.84  
 4.06  
 0.13  
 Sorofe  
 Proved

–  
 –  
 –  
 –  
 Probable

1.84  
 0.84  
 1.55  
 0.05  
 Total  
 1.84  
 0.84  
 1.55  
 0.05

Siguiri  
 Total  
 123.24  
 0.82  
 101.12  
 3.25

**INFERRED MINERAL RESOURCE IN BUSINESS PLAN**

Inferred Mineral Resources were used in the pit optimisation process if their total percentage amounted to less than 15% of the total Ore Reserve. If the Inferred Mineral Resource was greater than 15%, the optimisation was redone excluding the Inferred Mineral Resource. The Inferred Mineral Resource within an optimised shell and subsequent design was used for scheduling. The final schedule included 366,000 ounces of Inferred Mineral Resource in the final designs, which represents 12% of the scheduled ounces.

Mineral Resource and Ore Reserve Report 2008

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Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

P Winkler

AusIMM

220329

25 years

Ore Reserve

T Mushi

SAIMM

702438

9 years

Siguiri

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

0.0

2500

0.50

1.00

2.50

3.00

4.00

2000

1500

500

1000

0.00

2.00

1.00

Tonnes above cut-off

Ave grade above cut-off

3.50

2.00

1.50

Mineral Resource and Ore Reserve Report 2008

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Regional overview

Mali

Mineral Resource and Ore Reserve gold prices

Units

2008

2007

Gold price – Mineral Resource

US\$/oz

1,000

700

Gold price – Ore Reserve

US\$/oz

720-870

600

AngloGold Ashanti has interests in three operations in the West African country of Mali – Sadiola (38%), Yatela (40%) and Morila (40%). The Sadiola and Yatela operations are managed by AngloGold Ashanti, while Randgold Resources Limited manages Morila.

MINERAL RESOURCE ESTIMATION

The Mineral Resource is taken as the material that falls within the \$1,000/oz economic shell optimised for each individual deposit. A three dimensional surface is generated to create the outline of the geological model. This model is then used as a prototype model to estimate grades. Block sizes between 25m x 25m x 10m and 30m x 30m x 10m (X Y Z) and where appropriate selective sub-celling are used for definition on the geological and mineralisation boundaries. The dimensions of these sub cells are 12.5m x 12.5m x 3.33m and 10m x 10m x 5.0m. All the deposits have kriged block models and where appropriate a geostatistical technique called Uniform Conditioning is used to estimate the proportion of economic ore that occur above the Mineral Resource cut-off and this is reported according to the dimensions of the practical mining unit.

Sadiola

Yatela

Kayes

Gao

Ségou

Nioro

Tombouctou

MALI

Bamako

Sikasso

Morila

Operations

N

0

500km

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve modifying factors

as at 31 December 2008

Gold price

Cut-off

Mine call

Metallurgical

used

grade

Dilution

factor

Recovery

Mine

USD\$/oz

g/t Au

%

(MCF)

factor %

Comments

Morila

Main Pit

720

1.0

10

100

89-91.5

5% ore loss

Stockpile FGO

720

1.4

–

100

89-91.5

No factors applied

Stockpile Marginal

720

1.0

–

100

89

ORE RESERVE ESTIMATION

The Mineral Resource models are used as the basis for the Ore Reserves. Pit optimisation is done using Whittle® software. The typical Whittle approach for a mill-constrained operation is followed. Optimisations are run on Measured and Indicated Mineral Resources and Measured, Indicated and Inferred Mineral Resources. All appropriate costs, metallurgical recovery factors and geotechnical parameters are applied to generate the final Ore Reserves.

Details of average drillhole spacing and type in relation to Mineral Resource classification

Type of Drilling

Mine/Project

Category

Spacing

Diamond

RC

Other

Comments

m (- x -)

Morila

Measured

10 x 10

x

x

Indicated

30 x 30

x

x

Inferred

50 x 50

x

x

Grade control

10 x 10,

x

x

Blastholes were only used for

50 x 50

sampling when there was

insufficient RC coverage.

Sadiola

Measured

20 x 20 and

25 x 25

x

x

x

Indicated

25 x 50

x

x

x

Inferred

>25 x 50

x

x

Grade control

5 x 10

x

x

Yatela

Measured

10 x 10 and

25 x 25

x

x

Indicated

25 x 25 and

35 x 45

x

x

Inferred

>25 x 25 and

> 35 x 45

x

Grade control

5 x 10

x

x

Mineral Resource and Ore Reserve Report 2008

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Mali

Regional overview *cont.*

Ore Reserve modifying factors (*cont.*)

as at 31 December 2008

Gold price

Cut-off

Mine call

Metallurgical

used

grade

Dilution

factor

Recovery

Mine

US\$/oz

g/t Au

%

(MCF)

factor %

Comments

Sadiola

FE3

870

1.09

–

100

78-93

123 tonnes and 109 metal

Factor; COG is for FGO only

FE4

870

1.12

–

100

78-93

130 tonnes and 120 metal

Factor; COG is for FGO only

Main Pit – Oxide

870

1.26

–

100

78-93

100 tonnes and 100 metal

Factor; COG is is for FGO only

Total stockpiles

870

1.20

–

100  
 78-93  
 No factors are applied  
 on stockpile  
 Yatela  
 Alamoutala Pit  
 -  
 -  
 -  
 -  
 -  
 Main Pit  
 870  
 0.54  
 -  
 100  
 75-85  
 96% - MRF on metal  
 Total stockpiles  
 870  
 0.54  
 -  
 100  
 75-85  
 100% - MRF on metal  
 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  
 Morila  
 40% Resource  
 0.68  
 (0.22)  
 0.01



-  
 0.46  
 (0.22)  
 (32)  
 Reserve  
 0.63  
 (0.19)  
 0.02  
 -  
 0.46  
 (0.17)  
 (27)  
 Depletion  
 Sadiola  
 38% Resource  
 1.93  
 (0.42)  
 0.47  
 1.15  
 3.13  
 1.20  
 62  
 Higher Mineral Resource gold  
 price resulted in increased Mineral  
 Resources, specifically from the  
 deep sulphides  
 Reserve  
 0.39  
 (0.20)  
 -  
 0.23  
 0.42  
 0.03  
 6  
 Positive RRF for FE3 and FE4,  
 removal of MCF for sulphides,  
 and positive effect of economics  
 on FE3 and FE4 reserves  
 Yatela  
 40% Resource  
 0.34  
 (0.08)  
 0.03  
 0.07  
 0.35  
 0.01  
 3  
 Reserve  
 0.20  
 (0.08)  
 0.02

0.02  
0.16  
(0.04)  
(18)  
Depletion  
Total  
Resource  
2.95  
(0.72)  
0.50  
1.22  
3.95  
0.10  
34  
Reserve  
1.22  
(0.47)  
0.04  
0.25  
1.04  
(0.18)  
(15)

- 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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Morila

Mali

OVERVIEW

The Morila mine is situated some 280km by road south-east of Bamako, the capital city of Mali. The mine is operated by Morila SA, a joint venture company incorporating Randgold Resources Ltd (40%), AngloGold Ashanti Ltd (40%), and the Government of Mali (20%). Randgold Resources took over the operation of Morila mine from AngloGold Ashanti Ltd in February 2008.

MINING

Mining at Morila is from a single open-pit operation employing conventional truck and shovel methods. The mining method used is standard open-cut mining, involving a fleet of 10 drill rigs to drill and blast the ore and waste rock, prior to loading by four hydraulic shovels/excavators into a fleet of 18 Caterpillar 777 dump trucks. In 2007, the mine began dumping waste into the previously mined pushbacks. The pit mining operations will end in April 2009 after which the mine will treat low-grade stockpiles.

GEOLOGY

The Morila orebody is located predominantly in metasediments within a broad NNW-trending corridor of shearing. This shear zone has both near vertical and flat lying components. It is interpreted as being a second order shear off the main Banafin shear, approximately 25km to the east. The Doubalakoro granite pluton bounds the sediments to the west and the Massigui granite to the east. The deposit occurs within a sequence of metamorphosed Birimian meta-sediments (amphibolite facies). Gold mineralisation is associated with silica feldspar alteration and the sulphide minerals arsenopyrite, pyrrhotite, and pyrite (with minor chalcopyrite).

PROCESSING

Ore is processed at a rate of 4.2Mtpa via a conventional carbon-in-leach (CIL) plant after passing through primary and secondary crushing processes followed by further comminution via a semi-autogenous grinding (SAG)

Mineral Resource and Ore Reserve Report 2008

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Mali

Morila *cont.*

Morila:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

0.63

2007

-0.19

Depletion

0.00

Scope

Change

0.46

2008

0.02

Model

Change

0.3

Change

0.6

Morila:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

0.67

2007

-0.22

Depletion

0.00

Gold price

0.00

Other

0.01

Explo-

ration

0.46

2008

0.00

Cost

0.3

0.2

0.00

Metho-

dology

Change

0.6

0.5

0.4

0.5  
0.4  
Mineral Resource  
as at 31 December 2008  
Contained  
Contained  
Tonnes  
Grade  
gold  
gold  
Morila  
Category  
million  
g/t  
tonnes  
Moz  
Main Pit  
Measured  
0.82  
2.69  
2.19  
0.07  
Indicated  
—  
—  
—  
—  
Inferred  
—  
—  
—  
—  
Total  
0.82  
2.69  
2.19  
0.07  
Total stockpiles  
Measured  
7.44  
1.65  
12.25  
0.39  
Indicated  
—  
—  
—  
—  
Inferred  
—  
—

–  
 –  
 Total  
 7.44  
 1.65  
 12.25  
 0.39  
 Morila  
 Total  
 8.25  
 1.75  
 14.44  
 0.46  
 Exclusive Mineral Resource  
 Contained  
 Contained  
 Tonnes  
 Grade  
 gold  
 gold  
 Morila  
 Category  
 million  
 g/t  
 tonnes  
 Moz  
 Morila  
 Measured  
 –  
 –  
 –  
 –  
 Indicated  
 –  
 –  
 –  
 –  
 Inferred  
 –  
 –  
 –  
 –  
 Morila  
 Total  
 –  
 –  
 –  
 –

mill and ball mill. After crushing and milling, the slurried ore passes through the cyanide leach circuit for gold extraction after which the leached ore is pumped and deposited into the tailings storage facility (TSF). Supernatant water from the TSF is reclaimed and collected in the return water dam before being returned to

the mill for re-use.

The entire Mineral Resource is contained in the LOM pit design.

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Morila

Category

million

g/t

tonne

Moz

Main

Pit

Proved

0.67	2.74	1.82
------	------	------

0.06

Probable

0.14

1.09	0.16	
------	------	--

0.01

Total

0.81	2.45	1.98
------	------	------

0.06

Total

stockpiles

Proved

4.83	1.92	9.28
------	------	------

0.30

Probable

2.61	1.14	2.97
------	------	------

0.10

Total

7.44	1.65	
------	------	--

12.25

0.39

Morila

Total

8.25

1.72

14.23

0.46

Competent persons

Professional

Registration

Relevant

Category



Name  
organisation  
number  
experience  
Mineral Resource  
A Kone  
AusIMM  
222568  
16 years  
Ore Reserve  
S Ndede  
AusIMM  
201772  
19 years  
Morila  
– Surface (Metric)  
Tonnes above cut-off (millions)  
Cut-off grade (g/t)  
Average  
grade  
above  
cut-off  
(g/t)  
0.0  
0.5  
1.0  
1.5  
2.5  
3.5  
2.0  
3.0  
4.0  
1.0  
2.0  
3.0  
4.0  
5.0  
6.0  
7.0  
5.00  
0.00  
4.00  
3.00  
2.00  
1.00  
Tonnes above cut-off  
Ave grade above cut-off

Mineral Resource and Ore Reserve Report 2008

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Sadiola

Mali

Sadiola is situated in the north-west of Mali, 77km to the south of the regional capital of Kayes. The mining operations take place in five open pits, the Sadiola Main Pit and four satellite pits, namely FE3 Pits 1 to 3 and pit FE4. Ore is treated in a 4.8Mt/year CIP processing plant. The plant was originally designed to treat soft oxide ore, but has been progressively adapted to receive soft sulphide ores and even some types of hard oxide ores. The down dip extension of the mineralisation mined in the Sadiola Main Pit has been named the Deep Sulphides Project (DSP), in which the gold ore occurs in the underlying fresh rock. A full feasibility study of the DSP is scheduled for completion in 2009. The project may substantially extend the life of Sadiola's operations and leverage exploration efforts and further discoveries of hard-rock gold deposits in the district.

GEOLOGY

The Sadiola deposits are located within the Malian portion of the Keniéba-Kedougou window, a major early Proterozoic-Birimian outlier along the north-east margin of the Kenema-Man shield. The deposits are confined to the north portion of the window.

The Sadiola Hill deposit is underlain by the north-trending Sadiola Fracture Zone (SFZ), over a drilled strike length of approximately 2,500m, running along the contact of marbles and greywackes and intruded by bodies of diorite and quartz-feldspar porphyries. North-east trending structures, often intruded by quartz-feldspar porphyries, extending to the east of the SFZ, also carry gold and have been adding ounces to the overall production from the Sadiola Main Pit. The mineralised zones have been intensely weathered to a maximum depth of 200m.

The Sadiola Hill deposit originally consisted of two zones, an upper oxidised cap and an underlying sulphide zone. From 1996 until 2002, shallow saprolite oxide ore was the primary ore source. Since 2002, the deeper saprolitic sulphide ore has been mined, progressively replacing the depleted oxide Ore Reserve.

The satellite pits are located to south-east of the Sadiola Hill mine and are underlain by a different type of ore. The mineralised zones straddle the contact between marbles to the west and carbon-rich pelites to the east, following a NNW-trend in the FE3 Pits 1 and 2, NNE at Pit 3, and a NE-strike in FE4 pit, due to regional folding. Gold mineralisation is mostly associated with lens-shaped breccia zones running broadly parallel to the enclosing metasediments and folded accordingly.

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At this stage all the gold is recovered from mostly soft, oxidised ore. Some gold-rich, hard oxide nodes have been also treated in the Sadiola plant, after first stage crushing. The sulphide potential underneath the current satellite pits is targeted for investigation in 2009.

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Sadiola

Category

million

g/t

tonnes

Moz

FE2

Measured

–

–

–

–

Indicated

–

–

–

–

Inferred

0.77

1.36

1.05

0.03

Total

0.77

1.36

1.05

0.03

FE3

Measured

–

–

–

–

Indicated

1.66

1.91

3.18

0.10

Inferred

—  
—  
—  
—

Total

1.66  
1.91  
3.18  
0.10

FE3S

Measured

—  
—  
—  
—

Indicated

1.72  
2.15  
3.69  
0.12

Inferred

0.17  
2.88  
0.48  
0.02

Total

1.88  
2.21  
4.17  
0.13

FE4

Measured

—  
—  
—  
—

Indicated

1.24  
2.24  
2.77  
0.09

Inferred

0.45  
1.75  
0.78  
0.03

Total

1.68  
2.11  
3.55

0.11  
FN2  
Measured

—  
—  
—  
—

Indicated

0.21  
1.51  
0.32  
0.01

Inferred

0.26  
4.01  
1.03  
0.03

Total

0.47  
2.89  
1.35  
0.04

FN3

Measured

—  
—  
—  
—

Indicated

0.04  
1.71  
0.07

—

Inferred

0.60  
1.30  
0.77  
0.03

Total

0.64  
1.32  
0.84  
0.03

Main Pit

Measured

—  
—  
—  
—

Indicated

4.99

1.90  
9.46  
0.30  
Inferred  
0.49  
1.52  
0.75  
0.02  
Total  
5.48  
1.86  
10.21  
0.33  
Sekokoto  
Measured  
—  
—  
—  
—  
Indicated  
—  
—  
—  
—  
Inferred  
0.55  
1.50  
0.82  
0.03  
Total  
0.55  
1.50  
0.82  
0.03  
Tambali South  
Measured  
—  
—  
—  
—  
Indicated  
2.15  
1.30  
2.79  
0.09  
Inferred  
1.57  
1.57  
2.46  
0.08  
Total

3.72  
 1.41  
 5.25  
 0.17  
 Total stockpiles  
 Measured  
 9.37  
 1.56  
 14.59  
 0.47  
 Indicated  
 -  
 -  
 -  
 -  
 Inferred  
 -  
 -  
 -  
 -  
 Total  
 9.37  
 1.56  
 14.59  
 0.47  
 Deep Sulphides  
 Measured  
 -  
 -  
 -  
 -  
 Indicated  
 12.80  
 2.83  
 36.15  
 1.16  
 Inferred  
 5.96  
 2.74  
 16.30  
 0.52  
 Total  
 18.75  
 2.80  
 52.45  
 1.69  
 Sadiola  
 Total  
 44.98  
 2.17  
 97.46

3.13



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Mali

Sadiola *cont.*

Sadiola:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

0.39

2007

-0.20

Depletion

0.22

Scope

Change

0.42

2008

0.00

Model

Change

0.2

Change

0.4

0.3

Sadiola:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

1.93

2007

-0.42

Depletion

1.15

Gold price

-0.49

Other

0.05

Explo-

ration

3.13

2008

0.49

Cost

2.0

1.0

0.41

Metho-

dology

Change

3.0

Exclusive Mineral Resource

Contained  
 Contained  
 Tonnes  
 Grade  
 gold  
 gold  
 Sadiola  
 Category  
 million  
 g/t  
 tonnes  
 Moz  
 Measured  
 4.12  
 0.75  
 3.11  
 0.10  
 Indicated  
 20.72  
 2.36  
 48.90  
 1.57  
 Inferred  
 10.80  
 2.26  
 24.45  
 0.79  
 Sadiola  
 Total  
 35.65  
 2.14  
 76.45  
 2.46

The Exclusive Mineral Resources for the Sadiola pits are those Mineral Resources that are outside the current Ore Reserve designs but inside the Mineral Resource shells. Any Inferred Mineral Resources within the design shells are also reported in the Exclusive Mineral Resources. Unless the gold price increases and the costs are favourable, only the Inferred Mineral Resource portion of the Mineral Resource within the LOM shell will be converted to Ore Reserves through grade control drilling.

FE3 Pit 1 has no Inferred Mineral Resource in the published Mineral Resource and therefore the only possibility for converting the Exclusive Mineral Resource to the Proved Ore Reserve is through favourable gold price and cost changes. The FE3S Pit has 5% of Inferred Mineral Resource within the design shell and FE4 has 22%.

The FE3S Inferred Mineral Resources can be upgraded into Ore Reserve by normal grade control drilling.

For FE4 infill drilling has been completed and the FE4 Mineral Resource model will be revised in the first quarter of 2009. This should lead to an increase in Ore Reserve. For the Main Pit, only 4% of the Exclusive Mineral Resource is within the design pit.

These will be converted to Ore Reserve in 2009 through grade control drilling. The rest of the Main Pit Exclusive Mineral Resource can only be converted to Ore Reserve if the Deep Sulphides Project is successful.

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Sadiola

Category

million

g/t

tonnes

Moz

FE3

Proved

–

–

–

–

Probable

1.64

2.47

4.05

0.13

Total

1.64

2.47

4.05

0.13

FE4

Proved

–

–

–

–

Probable

1.04

2.53

2.63

0.09

Total

1.04

2.53

2.63

0.09

Main Pit

Proved

–

2.31  
 0.01  
 –  
 Probable  
 0.43  
 3.14  
 1.36  
 0.04  
 Total  
 0.44  
 3.13  
 1.37  
 0.04  
 Total stockpiles  
 Proved  
 2.42  
 2.06  
 4.99  
 0.16  
 Probable  
 –  
 –  
 –  
 –  
 Total  
 2.42  
 2.06  
 4.99  
 0.16  
 Sadiola  
 Total  
 5.54  
 2.35  
 13.04  
 0.42

3D model of the FE3 pits at Sadiola

**INFERRED MINERAL RESOURCE IN PIT OPTIMISATION**

The Inferred Mineral Resource was used in the pit optimisation process and 0.11 million ounces are present in the optimised pit, of which 0.06 million ounces are included in the final production schedule.

Mineral Resource and Ore Reserve Report 2008

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Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

A Ngilazi

AusIMM

229909

16 years

Ore Reserve

K Bartsch

AusIMM

107390

20 years

Sadiola

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

5.00

0.00

4.00

3.00

2.00

1.00

0.0

200.0

400.0

600.0

Tonnes above cut-off

Ave grade above cut-off

0.56

1.56

2.56

3.56

4.56

5.56

6.56

7.56

Mineral Resource and Ore Reserve Report 2008

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Yatela

Mali

The Yatela Mine is situated some 25km north of Sadiola and approximately 50km south-west of Kayes. The Yatela operation is currently mining from two open pits, the Yatela Main Pit and the satellite Alamoutala pits. The Yatela Main Pit is currently mining Pushback 7, toward the western end of the pit. The mine is approaching the end of its life.

Ore is processed through a 3.0Mtpa heap leach plant, commissioned in 1998. The pregnant liquor pond for gold recovery uses the carbon in solution process. Loaded carbon is sent to the Sadiola Mine for elution, regeneration, electro-winning and smelting.

GEOLOGY

The Yatela deposit is located within the Malian portion of the Keniéba-Kedougou window, a major Early Proterozoic-Birimian outlier along the north-east margin of the Kenema-Man shield.

The Yatela deposit is located in the north of the window and is hosted by sediments of the Kofi Formation, which have been intruded by numerous felsic intrusives. The sediments consist of fine-grained greywacke and pelites, which are locally carbon-rich, and impure limestones with minor tuffs and acid volcanics.

The primary gold mineralisation at Yatela is associated with a sheared contact between predominantly dolomitic rocks of the Kofi Formation to the west and a large, weakly mineralised, dioritic intrusion to the east. This primary mineralisation was concentrated to economic grades through dissolution of carbonate-rich rocks by supergene processes. Karsting of carbonate rocks has resulted in the development of deep, coalescent pot holes, collectively named the Yatela Basin, which were gradually filled by sandstones and conglomerates during peneplanation of the Proterozoic rocks. The chaotic collapse during karsting, coupled with the infill sediments resulted in the orebody being hosted in a melange-type of rocks made up of sedimentary rocks and dissolution residues. Gold is disseminated in the unconsolidated ferruginous, sandy-clayed layer that lines the bottom and walls of a deep trough with steep margins. The ore zone dips steeply on the west wall and more gently to the west on the east wall, following a keel-like geometry with tight closure towards the south. The supergenie enrichment of low-grade primary gold mineralisation, associated with the karst forming process, is the most important geological feature to the economics of the Yatela deposit.

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In the Alamoutala pits, the gold mineralisation is mined from the saprolitised marbles and karstic rocks in the south, and from weathered Birimian rocks to the north. The Alamoutala area is underlain by north-trending Birimian clastic metasediments and calcitic marbles, which are intruded by a coarse grained granodiorite body. Gold mineralisation is found along an intermittently sheared and fractured contact, named the Alamoutala Fracture Zone, between the metaclastics and the carbonate units. These rocks have locally been strongly biotite- and feldspar-altered. High-grade gold mineralisation is also hosted in magnetite-bearing, skarn-like calc-silicate rocks along the contact with the granodiorite intrusive.

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Yatela

Category

million

g/t

tonnes

Moz

Alamoutala Pit

Measured

0.04

1.03

0.04

–

Indicated

–

1.65

–

–

Inferred

–

1.00

–

–

Total

0.04

1.05

0.05

–

Main Pit

Measured

0.43

4.41

1.89

0.06

Indicated

1.58  
4.35  
6.89  
0.22  
Inferred  
0.30  
3.51  
1.05  
0.03  
Total  
2.31  
4.25  
9.83  
0.32  
Total stockpile  
Measured  
1.30  
0.70  
0.91  
0.03  
Indicated  
—  
—  
—  
—  
Inferred  
—  
—  
—  
—  
Total  
1.30  
0.70  
0.91  
0.03  
Yatela  
Total  
3.65  
2.95  
10.78  
0.35  
Mali  
Yatela *cont.*  
3D model of the Main Pit at Yatela



Mineral Resource and Ore Reserve Report 2008

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Yatela:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

0.20

2007

-0.08

Depletion

0.02

Scope

Change

0.16

2008

0.02

Model

Change

0.0

Change

0.2

Yatela:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

0.34

2007

-0.08

Depletion

0.00

Gold price

0.07

Other

0.02

Explo-

ration

0.35

2008

0.00

Cost

0.2

0.01

Metho-

dology

Change

0.3

Exclusive Mineral Resource

Contained

Contained

Tonnes

Grade

gold  
gold  
Yatela  
Category  
million  
g/t  
tonnes  
Moz  
Measured  
0.22  
1.80  
0.39  
0.01  
Indicated  
0.70  
2.63  
1.85  
0.06  
Inferred  
0.30  
3.51  
1.05  
0.03  
Yatela  
Total  
1.22  
2.70  
3.29  
0.11  
Ore Reserve  
as at 31 December 2008  
Contained  
Contained  
Tonnes  
Grade  
gold  
gold  
Yatela  
Category  
million  
g/t  
tonnes  
Moz  
Main Pit  
Proved  
0.07  
4.86  
0.32  
0.01  
Probable  
0.79

4.86  
 3.86  
 0.12  
 Total  
 0.86  
 4.86  
 4.18  
 0.13  
 Total stockpile  
 Proved  
 1.30  
 0.70  
 0.91  
 0.03  
 Probable  
 –  
 –  
 –  
 –  
 Total  
 1.30  
 0.70  
 0.91  
 0.03  
 Yatela  
 Total  
 2.16  
 2.36  
 5.09  
 0.16

The Exclusive Mineral Resources for Yatela are those Mineral Resources that fall outside the current life of mine (LOM) but inside the Mineral Resource shells for the Yatela Main and Alamoutala pits. Any Inferred Mineral Resources within the LOM shell are also considered Exclusive. Currently only Inferred Mineral Resources within the LOM shell at the Yatela Main Pit are convertible to Ore Reserves and this will be done through grade control drilling. In addition the Yatela Main Pit will also be optimised in order to ensure that all recoverable material is mined before the envisaged closure.

The Alamoutala Mineral Resources have been depleted to LOM design and are therefore exhausted. However, whilst the satellite pits were mined and exhausted in 2008, the Alamoutala Main Pit stopped mining in 2005. There is therefore a possibility of reviving the Alamoutala Main Pit under the prevailing gold price and cost regime. Some drilling has been carried out to the south and some further drillholes are planned across the existing pit to accurately determine the hard/soft boundary to see whether it is possible to mine the pit deeper.

Mineral Resource and Ore Reserve Report 2008

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Yatela

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

0.82

1.82

2.82

3.82

4.82

5.82

6.82

0.0

10.0

20.0

30.0

40.0

2.00

0.00

1.00

Tonnes above cut-off

Ave grade above cut-off

Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

A Ngilazi

AusIMM

229909

16 years

Ore Reserve

K Bartsch

AusIMM

107390

20 years

Mali

Yatela *cont.*

Mineral Resource and Ore Reserve Report 2008

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Regional overview

Namibia

Navachab Gold Mine, AngloGold Ashanti's sole operation in Namibia, is wholly owned by the Company.

MINERAL RESOURCE ESTIMATION

Mineral Resource estimation is performed using Datamine

®

software. Block dimensions of 25m x 25m x 5m

(X Y Z) are used as the prototype model. Grade interpolation is done into these blocks using Ordinary and Indicator Kriging methods. A geostatistical technique called Uniform Conditioning is then used to estimate the proportion of economic ore that occur above the Mineral Resource cut-off and this is reported according to the selective mining unit (SMU).

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 – South Africa

ZAR/US\$

8.07

7.70

N

Operations

0

300km

Okahandja

Walvis Bay

Luderitz

Keetmanshoop

Karibib

Tsumeb

Windhoek

Navachab

NAMIBIA

Details of average drillhole spacing and type in relation to Mineral Resource classification

Type of drilling

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Navachab

m (- x -)

Navachab

Measured

10 x 10

-

x

-

-

Indicated

25 x 25

x

x

-

-

Inferred

50 x 50

x

x

-

-

Grade control

5 x 10 and 10 x 10

-

x

-

-

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

Percentage

Deple-

Model

Scope

Net change

Mine

attributable Category

2007

tion

(1)

change

(2)

change

(3)

2008

Diff

% Comment

Navachab

100% Resource

4.42

(0.19)

(0.15)

0.25

4.33

(0.10)

(2)

Reserve

1.47

(0.08)

0.01

(0.06)

1.34

(0.13)

(9)

Depletion and application of a 6%

grade adjustment

Total

Resource

4.42

(0.19)

(0.15)

0.25

4.33

(0.10)

(2)

Reserve

1.47

(0.08)

0.01

(0.06)

1.34

(0.13)

(9)

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.*

Ore Reserve modifying factors

as at 31 December 2008

Metallurgical

Cut-off

Mine call

recovery

grade

factor

factor

Navachab

g/t Au

(MCF)

%

Comments

Gecko

0.5

100

72-94

94% Grade adjustment factor

applied – a combination of

RRF and MRF

Grid A

0.5

100

72-94

94% Grade adjustment factor

applied – a combination of

RRF and MRF

Main Pit

0.5

100

72-94

94% Grade adjustment factor

applied – a combination of

RRF and MRF

Stockpile - full grade ore



0.5

100

72-94

94% Grade adjustment factor  
applied – a combination of  
RRF and MRF

Namibia

Regional overview *cont.*

ORE RESERVE ESTIMATION

MineSight

®

optimisation software is used to generate optimised pit shells using economic parameters. The final pits are then designed based on the optimised pit shell, recommended slope geometry and ramp access requirements.

Mineral Resource and Ore Reserve Report 2008

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Navachab

Namibia

Navachab gold mine is located 10km south-west of Karibib and 170km north-west of Windhoek, the capital of Namibia. Navachab mine is an open-pit mine. Its processing plant, with a production capacity of 120,000 tonnes per month, includes mills, CIP and electro-winning facilities.

GEOLOGY

The Navachab gold deposit is located in the Pan-African Damara Orogen and is hosted by greenschist-amphibolite facies calc-silicates, marbles and volcano-clastic rocks. The rocks have been intruded by granite, pegmatite and aplitic dykes and have also been deformed into a series of alternating dome and basin-like structures. The mineralised zone forms a sheet-like body which plunges at an angle of approximately 20° to the north-west. The mineralisation is predominantly hosted in a sheeted vein set ( $\pm 60\%$ ) and a replacement skarn body ( $\pm 40\%$ ). The mineralisation in the main pit is hosted by a NE-SW striking metamorphosed sequence of greenschist-amphibolite facies, calc-silicates, marbles and volcano-clastic rocks that dip at 70° to the west. The gold is very fine-grained and associated with pyrrhotite and minor amounts of pyrite, chalcopyrite, arsenopyrite, sphalerite, maldonite and bismuthinite. An estimated 90% of the gold occurs as free gold and the remainder is present in minerals such as maldonite (Au

2

Bi). Approximately 80% of the gold is free milling. Silver is also present and the gold to silver ratio is approximately 15 to 1.

Mineral Resource and Ore Reserve Report 2008

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Mineral Resource  
as at 31 December 2008

Contained  
Contained

Tonnes

Grade

gold

gold

Navachab

Category

million

g/t

tonnes

Moz

Anomaly 16

Measured

-

-

-

-

Indicated

1.28

1.28

1.64

0.05

Inferred

5.91

0.80

4.72

0.15

Total

7.19

0.89

6.37

0.21

Gecko

Measured

-

-

-

-

Indicated

0.33

1.43

0.47

0.02

Inferred

0.88

1.21

1.07  
0.03  
Total  
1.21  
1.27  
1.54  
0.05  
Grid A  
Measured  
0.40  
1.99  
0.79  
0.03  
Indicated  
0.31  
1.62  
0.50  
0.02  
Inferred  
0.10  
1.17  
0.11  
—  
Total  
0.81  
1.75  
1.41  
0.05  
Main Pit  
Measured  
1.56  
1.35  
2.10  
0.07  
Indicated  
60.02  
1.26  
75.43  
2.43  
Inferred  
35.42  
1.14  
40.34  
1.30  
Total  
97.00  
1.22  
117.88  
3.79  
Total stockpiles  
Measured

11.88

0.62

7.36

0.24

Indicated

–

–

–

–

Inferred

–

–

–

–

Total

11.88

0.62

7.36

0.24

Navachab

Total

118.08

1.14

134.55

4.33

W

E

Karibib FM

Oberwasser FM

Oxide

(MDMV)

Okawayo FM

MC

Zone

SC

LS

LSC

LS

Etusis FM

Chuos FM

Oxide

Calcrete

Spes Bona FM

35m

An E-W section through the Navachab Main Pit

Namibia

Navachab *cont.*

Exclusive Mineral Resource

Contained

Contained

Tonnes

Grade  
gold  
gold  
Navachab  
Category  
million  
g/t  
tonnes  
Moz  
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  
Navachab  
Total  
83.30  
1.09  
90.58  
2.91

Mineral Resource and Ore Reserve Report 2008

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Navachab:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

1.47

2007

-0.08

Depletion

-0.06

Scope

Change

1.34

2008

0.01

Model

Change

1.2

Change

1.4

Navachab:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

4.42

2007

-0.19

Depletion

1.24

Gold price

-0.57

Other

-0.02

Explo-

ration

4.33

2008

-0.42

Cost

0.0

-0.14

Metho-

dology

Change

3.0

1.3

5.0

4.0

2.0

1.0

Ore Reserve  
as at 31 December 2008

Contained  
Contained

Tonnes  
Grade

gold  
gold

Navachab  
Category

million  
g/t

tonnes  
Moz

Gecko  
Proved

–

–

–

–

Probable

0.16	1.54	0.25
------	------	------

0.01

Total

0.16	1.54	0.25
------	------	------

0.01

Grid

A

Proved

0.38	1.92	0.72
------	------	------

0.02

Probable

0.22	1.64	0.36
------	------	------

0.01

Total

0.59	1.82	1.08
------	------	------

0.04

Main

Pit

Proved

1.18	1.35	1.60
------	------	------

0.05

Probable

27.20	1.27	
-------	------	--

34.58

1.11

Total

28.38	1.27	
-------	------	--

36.18

1.16

Total



stockpile		
Proved		
5.65	0.72	4.07
0.13		
Probable		
—	—	
—		
—		
Total		
5.65	0.72	4.07
0.13		
Navachab		
Total		
34.78		
1.20		
41.58		
1.34		

The largest portion (2.55Moz) of the Exclusive Mineral Resource is to be found in the Main Pit. A pre-feasibility study on the expansion of operations at Navachab is in progress and may bring approximately 1.02Moz into Ore Reserve. A five year drilling program has been developed to increase confidence and to follow the extent of the mineralisation at Navachab. Approximately 0.11Moz is tied up in the marginal ore stockpiles at a grade of 0.53g/t and the intention is to test this for economic viability through the DMS project (dense medium separation) during 2009. If the gold recoveries through the DMS process prove to be as designed then the marginal ore stockpiles will be included in the Ore Reserve by 2011.

Further minor amounts of Exclusive Mineral Resources are at the satellite ore bodies, such as Anomaly 16 (0.21Moz), Gecko (0.04Moz) and Grid A (0.01Moz). Drilling to improve the confidence in the ounces at Gecko has commenced and it is expected that all the Exclusive Mineral Resource ounces at Gecko will be included in the Ore Reserve by the end of 2009.

#### INFERRED MINERAL RESOURCE IN BUSINESS PLAN

The Inferred Mineral Resource was used in the pit optimisation process and 0.14 million ounces are present in the optimised pit but 0.18 million ounces are included in the final production scheduling as the pit is designed beyond the optimised shell because of mining width constraints.

Mineral Resource and Ore Reserve Report 2008

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Namibia

Navachab *cont.*

Competent persons

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

F Badenhorst

AusIMM

211026

17 years

Ore Reserve

G Botshiwe

AusIMM

229475

9 years

Navachab

– Surface (Metric)

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

5.00

0.00

1.00

2.00

3.00

4.00

0.0

1.0

2.0

3.0

4.0

5.0

6.0

7.0

0.0

100.0

150.0

200.0

250.0

300.0

350.0

400.0

50.0

Tonnes above cut-off

Ave grade above cut-off

Mineral Resource and Ore Reserve Report 2008

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Regional overview

Tanzania

Geita is the largest of AngloGold Ashanti's seven open-pit mines in Africa. Prior to April 2004, Geita was managed under the joint venture agreement between Ashanti and AngloGold. Since the merger of the two companies, Geita is now a wholly-owned subsidiary.

MINERAL RESOURCE ESTIMATION

As with any estimation techniques the results are very dependent upon the data quality and availability. The geological model is a critical input to the Mineral Resource estimation process. The orebody boundaries for the individual deposits are defined from the detailed logging of all geological boreholes and after validation this information is used to create a three dimensional model. This model is subsequently populated with an appropriately dimensioned block model. The size of this block model is determined by analysing different block sizes in relation to the variance of the blocks. A block size which gives an optimal variance is then chosen. Ordinary kriging is used to interpolate values into the blocks. A geostatistical technique called Uniform Conditioning is then used to estimate the proportion of economic ore that occur above the Mineral Resource cut-off and this is reported according to the selective mining unit (SMU).

Mineral Resource and Ore Reserve gold price

Units

2008

2007

Gold price – Mineral Resource

US\$/oz

1,000

700

Gold price – Ore Reserve

US\$/oz

720

600

N

Operations

0

800km

Dar-es-

Salaam

Arusha

Mwanza

Lake

Victoria

Lake

Tanganyika

Tanga

Dodoma

Tabora

Kigoma

TANZANIA

Geita

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve modifying factors

as at 31 December 2008

Cut-off

Mine call

Metallurgical

grade

Dilution

factor

recovery

Geita

g/t Au

%

(MCF)

factor %

Comments

Area 3 West

1.25-2.66

–

93.3

51.5-80.6

MCF reflects reconciliation concerns

in first 5 years of the BP

Chipaka

1.23-2.23

–

93.3

58.6-87.8

MCF reflects reconciliation concerns

in first 5 years of the BP

Full Grade stockpile

0.91-3.07

–

100

75.2-92.8

Used either \$720/oz or \$900/oz,

depending on source

Geita Hill Open Pit

0.72-1.17

–

90.2

78.6-87.8

12% reduction in tonnes over LOM,

23.5% drop in metal (2009), and

14.5% over rest of LOM

Marginal stockpile

0.83-1.09

–

100

75.2-92.8

Used either \$720/oz or \$900/oz,  
depending on source

Matandani

1.14-1.57

–

93.3

82.5

Only oxides considered for  
conversion to Ore Reserves

Nyankanga Open Pit

0.7-1.05

–

90.2

88.2-91.6

4% reduction in tonnes over LOM,  
22.7% drop in metal (2009-2010),  
and 17.2% over rest of LOM

Ridge 8

1.14-2.01

–

93.3

66.4-85.1

MCF reflects reconciliation concerns  
in first 5 years of the BP

Roberts

1.12-1.63

–

93.3

84.5-92.0

MCF reflects reconciliation concerns  
in first 5 years of the BP

Star and Comet

0.78-1.25

–

90.2

84.4-92.8

4% reduction in tonnes and 12.6%  
drop in metal contained over LOM

Details of average drillhole spacing and type in relation to Mineral Resource classification

Type of drilling

Category

Spacing

Diamond

RC

Blasthole Other

Comments

Geita

m (- x -)

Measured

–

–

x

-

-

-

-

10 x 10

Indicated

40 x 40

x

x

-

-

-

Inferred

50 x 50

x

x

-

-

-

50 x 80

Grade control

5 x 10 and 10 x 10

-

x

-

-

-

Tanzania

Regional overview *cont.*

#### ORE RESERVE ESTIMATION

The Mineral Resource models as produced by the geology department are used as the basis for the Ore Reserve. Appropriate mining dilution is used as a modifying factor in the Ore Reserve conversion process. Appropriate reserve cut-off grades are applied and optimised pit shells are generated taking into cognisance the economic parameters. The final pits are then designed taking into consideration the optimised pit shell and recommended slope geometry.

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

Geita

Resource

12.45

(0.43)

0.37

0.46

12.86

0.40

3

Increase in underground potential due to lower cut-off and charges in Open Pit/UG interface (predominantly at Geita Hill). This offset the decrease due to model changes at Nyankanga.

Reserve

6.48

(0.33)

(0.12)

(0.92)

5.11 (1.37)

(21)

Decrease due to Mineral Resource model changes and the application of grade factors to mitigate low model confidence. Cost increases also contributed to the decrease in Ore Reserves.



Total  
Resource

12.45

(0.43)

0.37

0.46

12.86

0.40

3

Reserve

6.48

(0.33)

(0.12)

(0.92)

5.11 (1.37)

(21)

*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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Geita

Tanzania

The Geita gold mine is located approximately 910km from Dar es Salaam in the Lake Zone of northern Tanzania; the tenement is situated within the Sukumaland Greenstone Belt of the Lake Victoria goldfields which host other gold mines including Golden Pride, Bulyanhulu, Tulawaka and North Mara. This geological terrain is considered to be one of the most productive Archaean Greenstone Belts in East Africa. Mining at Geita is undertaken by standard open-pit mining methods.

GEOLOGY

The Geita Greenstone trend is a component of the Sukumaland Greenstone Belt; it strikes east-west, is 60km long and up to 15km wide. The terrain is made up of upper to mid-Nyanzian greenstone facies rocks, mainly clastic sediments, intermediate to felsic volcanoclastics and Banded Iron Formation that forms a sedimentary sequence up to 1,000m thick.

In the mine lease area, north-west trending deformation corridors separate the Geita Greenstone trend into three distinct sub-terrains. Namely, Nyamulilima in the west (hosting the Star and Comet, Ridge 8, and Roberts deposits), Geita in the central part (hosting the Nyankanga, Geita Hill, Lone Cone, and Chipaka deposits) and Kukuluma to the north-east (hosting the Matandani, Kukuluma, and Area 3 West deposits). Approximately 83% of this resource is situated in the Geita Sub-Terrain, with 13% in the Nuyamulilima Sub-Terrain, and 4% in the Kukuluma Sub-Terrain.

Late dextral faults have utilised these corridors, reactivating the pre-existing fault systems. Gold mineralisation and hydrothermal alteration of the host lithologies, on all scales, is associated with late stage ductile to brittle-ductile deformation.

*Projects*

With approximately 58% of the Kukuluma Sub-Terrain Mineral Resource comprising refractory ore, currently not economically treatable in the Geita treatment plant, a metallurgical project has been initiated to determine a treatment method for this material. Success in this regard could increase the potential of the underground Mineral Resource extension significantly below the Kukuluma and Matandani open pits.

Mineral Resource and Ore Reserve Report 2008

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With 3.6 million Mineral Resource ounces potentially exploitable by underground mining methods, Geita gold mine has begun an underground mining project to bring these Mineral Resources to Ore Reserves. To facilitate these projects the mine has initiated a 3D geological model of the Geita Trend that will amalgamate structure and mineralogy so as to optimise the definition of underground Mineral Resource extensions.

Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Geita

Category

million

(g/t)

tonnes

Moz

Area 3 West

Measured

–

–

–

–

Indicated

1.01

2.49

2.53

0.08

Inferred

0.01

4.65

0.02

–

Total

1.02

2.50

2.55

0.08

Chipaka

Measured

–

–

–

–

Indicated

2.50

2.28

5.71

0.18  
Inferred  
—  
—  
—  
—  
Total  
2.50  
2.28  
5.71  
0.18  
Geita Hill Open Pit  
Measured  
—  
—  
—  
—  
Indicated  
18.07  
2.99  
54.09  
1.74  
Inferred  
0.12  
2.42  
0.29  
0.01  
Total  
18.19  
2.99  
54.37  
1.75  
Geita Hill Underground  
Measured  
—  
—  
—  
—  
Indicated  
6.27  
4.99  
31.31  
1.01  
Inferred  
3.13  
5.30  
16.59  
0.53  
Total  
9.40  
5.10

47.90

1.54

Kalondwa Hill

Measured

—

—

—

—

Indicated

—

—

—

—

Inferred

1.05

3.67

3.84

0.12

Total

1.05

3.67

3.84

0.12

Lone Cone

Measured

—

—

—

—

Indicated

2.75

2.45

6.74

0.22

Inferred

1.69

2.40

4.05

0.13

Total

4.44

2.43

10.78

0.35

Lithologies

Mbuga

Conglomerate

Quartz Vein

Gabbro dyke

Felsic dyke













Geita Hill

Matandani Kuhuluma

Area 3

**KUKULUMA SUB -TERRAIN**

395000

400000

405000

410000

415000

420000

425000

9700000

9695000

9690000

9685000

9680000

9675000

1:150,000

±

Mineral Resource and Ore Reserve Report 2008

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Tanzania

Geita *cont.*

Mineral Resource (*cont.*)

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

Geita

Category

million

(g/t)

tonnes

Moz

Matandani

Measured

–

–

–

–

Indicated

3.34

3.24

10.80

0.35

Inferred

0.03

4.74

0.13

–

Total

3.37

3.25

10.94

0.35

Nyankanga Open Pit

Measured

–

–

–

–

Indicated

26.13

4.80

125.29

4.03

Inferred

10.77  
2.68  
28.81  
0.93  
Total  
36.89  
4.18  
154.10  
4.95  
Nyankanga Underground  
Measured  
—  
—  
—  
—  
Indicated  
3.21  
5.91  
18.99  
0.61  
Inferred  
5.48  
5.26  
28.85  
0.93  
Total  
8.69  
5.50  
47.83  
1.54  
Ridge 8  
Measured  
—  
—  
—  
—  
Indicated  
1.60  
2.14  
3.41  
0.11  
Inferred  
0.03  
1.20  
0.04  
—  
Total  
1.62  
2.12  
3.44  
0.11

Ridge 8 Underground

Measured

—

—

—

—

Indicated

1.10

8.17

9.03

0.29

Inferred

2.13

5.26

11.17

0.36

Total

3.23

6.25

20.20

0.65

Roberts

Measured

—

—

—

—

Indicated

6.47

1.61

10.41

0.34

Inferred

0.25

4.12

1.04

0.03

Total

6.72

1.70

11.45

0.37

Star and Comet

Measured

—

—

—

—

Indicated

3.36

4.96

16.66  
0.54  
Inferred  
0.45  
2.09  
0.94  
0.03  
Total  
3.81  
4.62  
17.60  
0.57  
Total stockpiles  
Measured  
—  
—  
—  
—  
Indicated  
8.02  
1.14  
9.15  
0.29  
Inferred  
—  
—  
—  
—  
Total  
8.02  
1.14  
9.15  
0.29  
Geita  
Total  
108.97  
3.67  
399.87  
12.86  
Exclusive Mineral Resource  
Contained  
Contained  
Tonnes  
Grade  
gold  
gold  
Geita  
Category  
million  
g/t  
tonnes

Moz  
Measured  
—  
—  
—  
—  
Indicated  
35.95  
3.32  
119.38  
3.84  
Inferred  
25.12  
3.81  
95.77  
3.08  
Geita  
Total  
61.07  
3.52  
215.15  
6.92



Mineral Resource and Ore Reserve Report 2008

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The Exclusive Mineral Resource at Geita consists of the Mineral Resource that occurs between the Ore Reserve pit shell (\$720) and the Mineral Resource pit shell (\$1000). This material is sub economic to mine at the current Ore Reserve gold price and forms potential extensions to current life of mine (LOM) in an elevated gold price environment. A significant portion of this material is in the Inferred Mineral Resource category and infill drilling programs are planned to upgrade potentially economic areas to Indicated Mineral Resources.

In instances where the ore body extends down dip to below the current LOM design pit shell, a 35 m crown pillar below the bottom of the pit shell forms part of the Exclusive Mineral Resource. This material is not planned to be mined.

A large portion of the Exclusive Mineral Resources also occurs as underground extensions to the current open pit design shells. Scoping and pre-feasibility studies are currently in progress to determine the economic viability of this material. As part of these studies, exploration drives and infill drilling are planned to upgrade the confidence category of the Mineral Resource.

Geita:

Ore Reserve reconciliation

2007 vs 2008

Ounces (millions)

6.48

2007

-0.33

Depletion

-0.92

Scope

Change

5.11

2008

-0.12

Model

Change

3.7

Change

4.7

Geita:

Mineral Resource reconciliation

2007 vs 2008

Ounces (millions)

12.45

2007

-0.43

Depletion

1.33

Gold price

-0.02

Other

0.00

Explo-

ration

12.86

2008

-0.85

Cost  
12.2  
11.2  
0.37  
Metho-  
dology  
Change  
5.7

Mineral Resource and Ore Reserve Report 2008

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Geita

– Underground (Metric)

Tonnes above cut-off

Ave grade above cut-off

Tonnes above cut-off (millions)

Cut-off grade (g/t)

0.00

5.00

10.00

Average grade

above cut-off (g/t)

0.0

10.0

5.0

15.0

0.0

10.0

20.0

30.0

40.0

50.0

60.0

70.0

Geita

– Surface (Metric)

Tonnes above cut-off

Ave grade above cut-off

Tonnes above

cut-off (millions)

Cut-off grade (g/t)

Average grade above

cut-off (g/t)

0.0

10.0

20.0

30.0

40.0

50.0

60.0

70.0

80.0

90.0

3.0

4.0

5.0

6.0

7.0

8.0

9.0

10.0  
 0.00  
 3.00  
 5.00  
 1.00  
 2.00  
 4.00  
 Ore Reserve  
 as at 31 December 2008  
 Contained  
 Contained  
 Tonnes  
 Grade  
 gold  
 gold  
 Geita  
 Category  
 million  
 g/t  
 tonnes  
 Moz  
 Area 3 West  
 Proved  
 -  
 -  
 -  
 -  
 Probable  
 0.63  
 2.44  
 1.54  
 0.05  
 Total  
 0.63  
 2.44  
 1.54  
 0.05  
 Chipaka  
 Proved  
 -  
 -  
 -  
 -  
 Probable  
 1.19  
 2.40  
 2.84  
 0.09  
 Total  
 1.19  
 2.40

2.84  
0.09  
Geita Hill Open Pit  
Proved  
—  
—  
—  
—  
Probable  
16.44  
2.59  
42.62  
1.37  
Total  
16.44  
2.59  
42.62  
1.37  
Matandani  
Proved  
—  
—  
—  
—  
Probable  
0.49  
2.96  
1.44  
0.05  
Total  
0.49  
2.96  
1.44  
0.05  
Nyankanga Open Pit  
Proved  
—  
—  
—  
—  
Probable  
21.92  
3.80  
83.34  
2.68  
Total  
21.92  
3.80  
83.34  
2.68  
Ridge 8

Proved

—  
—  
—  
—

Probable

0.68  
2.62  
1.78  
0.06

Total

0.68  
2.62  
1.78  
0.06

Roberts

Proved

—  
—  
—  
—

Probable

2.23  
1.65  
3.68  
0.12

Total

2.23  
1.65  
3.68  
0.12

Star and Comet

Proved

—  
—  
—  
—

Probable

3.18  
4.41  
14.01  
0.45

Total

3.18  
4.41  
14.01  
0.45

Total stockpiles

Proved

—  
—

—

Probable

7.54

1.03

7.80

0.25

Total

7.54

1.03

7.80

0.25

Geita

Total

54.30

2.93

159.06

5.14

Tanzania

Geita *cont.*

Mineral Resource and Ore Reserve Report 2008

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Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

S Robins

AusIMM

222533

13 years

Ore Reserve

A Murray

AusIMM

208304

20 years

Chipaka deposit

Geita hill deposit

Conceptual Nyankanga

position

A

B



Mineral Resource and Ore Reserve Report 2008

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In March 1999 AngloGold Ashanti acquired the Pikes Peak Mining Company, and interests in the Cripple Creek & Victor Gold Mining Company (CC&V) and the Jerritt Canyon joint ventures.

#### MINERAL RESOURCE ESTIMATION

A single unified Mineral Resource model has been developed for the entire district. The unified model encompasses all known deposits and drilling within the CC&V property. Smaller sub-models are maintained for Altman and Wild Horse to accommodate the vertical shift in the mining benches. The estimation method is multiple indicator kriging (MIK) and the primary variable estimated is the recoverable gold (not contained gold). An estimated iron and oxide model is utilised to interpolate block specific coefficients for input into the metallurgical recovery function.

The method for calculating nominal shake leach values (SLV) is a robust regression technique using geologically logged categorical variables. Modelling software is MineSight

®

and updated drillhole information is used

throughout. The drillhole database is thoroughly reviewed before each Mineral Resource estimation and the estimation domains are based primarily on lithology for each deposit.

Regional overview

United States

N

Operations

0

1000km

Cripple Creek

& Victor

New York

Philadelphia

Denver

Chicago

Los Angeles

San Francisco

Washington DC

UNITED STATES OF AMERICA

*Colorado*

Mineral Resource and Ore Reserve gold price

Units

2008

2007

Gold price – Mineral Resource

US\$/oz

1,000

700

Gold price – Ore Reserve

US\$/oz

720

600

Mineral Resource and Ore Reserve Report 2008

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Ore Reserve modifying factors

as at 31 December 2008

Cut-off

Mine call

Metallurgical

grade

factor

recovery

CC&V

g/t Au

(MCF)

factor %

Comments

Altman

0.36

100

50

Cresson

0.35

100

54

Globe Hill

0.21

100

77

Schist Island

0.24

100

61

South Cresson

0.26

100

50

Wild Horse Extension

0.26

100

50

Wildhorse

0.34

100

60

Details of average drillhole spacing and type in relation to Mineral Resource classification

Type of drilling

Category

Spacing

Diamond

RC

Blasthole Other

Comments

CC&V

m (- x -)

Measured

30 x 30

x

x

-

-

Indicated

45 x 45

x

x

-

-

Inferred

75 x 75

x

x

-

-

Grade control

5 x 6

-

-

x

-

**ORE RESERVE ESTIMATION**

The Ore Reserve pit designs were based on LG optimisations of the geological model. The LG algorithm applies economic values to individual blocks and then generates a pit shell based on geotechnical constraints.

Successive nested shells are generated until the economic limits of the pit are established. These shells are then used as a template for final mine design. Pit slope designs for all deposits were based on geotechnical studies and fell into two categories of overall angles (60° and 45°). All deposits were designed using a 10.7m (35 feet) bench height.

**INFERRED MINERAL RESOURCE IN BUSINESS PLAN**

Inferred Mineral Resource is not used in the pit optimisation.

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

Percentage

Deple-

Model

Scope

Net change

Mine

attributable Category

2007

tion

(1)

change

(2)

change

(3)

2008

Diff

% Comment

CC&V

100% Resource

12.07

(0.48)

–

1.72

13.31

1.24

10

Successful exploration of  
completion of conceptual studies  
for MLE2 and MLE3

Reserve

4.75

(0.48)

0.20

0.45

4.93

0.17

4

Stated reserves fill current leach  
pad capacity, including the addition  
of MLE1 (phase 5 extension).

Reserve is constrained by leach  
pad capacity until the pre-feasibility  
study of MLE2 is completed.

Total

Resource 12.07

(0.48)

—

1.72

13.31

1.24

10

Reserve

4.75

(0.48)

0.20

0.45

4.93

0.17

4

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.*

United States

Regional overview *cont.*

Mineral Resource and Ore Reserve Report 2008

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Cripple Creek and Victor

United States

#### BACKGROUND

Cripple Creek & Victor (CC&V) is located south-west of Colorado Springs in the state of Colorado in the United States. Large-scale surface mining began in 1991 and grew with the start of production at the CC&V Cresson Project in 1994. Today, CC&V is a low-grade, open-pit operation. The ore is treated using a valley-type, heap-leach process with activated carbon used to recover the gold. The resulting doré buttons are shipped to a refinery for final processing.

#### MINE LIFE EXTENSION PROJECT

CC&V has completed a feasibility study for a mine life extension (MLE) project that would extend its LOM. The MLE would extend mining slightly in two areas of the existing Main Cresson Mine, extend mining to the north into the Wild Horse Extension of the East Cresson Mine, and extend mining to the north and south of the Schist Island Mine in the areas of the prior Globe Hill Mine. Processing and recovery of the additional gold will be completed through a Phase 5 extension of the existing VLF. Overburden resulting from mining in these extension areas will be placed into portions of the existing Main Cresson Mine, East Cresson Mine, and North Cresson Mine as mine backfill or placed for storage in the existing Squaw Gulch Overburden Storage Area. Approximately 103 million tonnes of additional ore and 250 million tonnes of additional overburden will be mined within the proposed MLE areas for a total of 353 million tonnes over the additional four years of mining in the MLE area. The ore will be crushed and processed using the existing crushing and conveying facilities. Ore will be processed on the existing VLF and the Phase 5 extension, and recovered in the existing process facility.

## Mineral Resource and Ore Reserve Report 2008

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## GEOLOGY

The mining district is located between the towns of Cripple Creek and Victor. The dominant geological feature is a Tertiary-aged, diatreme intrusive complex 6.4km long, 3.2km wide. The diatreme-intrusive complex is hosted in Precambrian age rocks including biotite gneiss, granodiorite, quartz monzonite and granite.

The diatreme is primarily composed of highly variable eruptive phase Cripple Creek Breccias, and volcanoclastics, intruded by stocks, dykes, sills and discordant breccias, composed of alkaline phonolite-phonotephrite petrographic series rock types followed by late lamprophyre dikes and breccia pipes. The host rocks have undergone a complex history of structural deformation and hydrothermal activity and alteration.

Gold mineralisation post dates volcanic activity, and is hosted in all rock types as veins and disseminated and/or structurally controlled orebodies. The gold mineralisation has been dated between 27.8Ma and 26.6Ma.

District structures are generally near vertical and strike north-north-west to north-east. These structures commonly controlled the intrusions and acted as primary conduits for late-stage, gold mineralising solutions. Higher grade pods of mineralisation occur at structural intersections and/or as sheeted vein zones along zones of strike deflection. High-grade gold mineralisation is associated with K-feldspar + pyrite +/- carbonate alteration and occurs adjacent to the major structural and intrusive dyke zones. The broader zones of disseminated mineralisation occur primarily as micro-fracture halos around the stronger alteration zones in the more permeable Cripple Creek Breccia wall rocks.

The average depth of oxidation is 120m and is also developed along major structural zones to even greater depths. Individual orebodies can be tabular, pipe-like, irregular or massive. Individual gold particles are generally less than 20 microns in size. Gold occurs as native gold with pyrite, native gold and gold-silver tellurides.

In the oxide zone, gold occurs with hydrous iron and manganese oxides. Silver is present but is economically unimportant. Iron and manganese oxides, pyrite, K-feldspar alteration and quartz can encapsulate gold mineralisation locally.

## Mineral Resource

as at 31 December 2008

Contained

Contained

Tonnes

Grade

gold

gold

CC&amp;V

Category

million

g/t

tonnes

Moz

Cresson

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  
CC&V  
Total  
523.26  
0.79  
413.88  
13.31  
Exclusive Mineral Resource  
Contained  
Contained  
Tonnes  
Grade  
gold  
gold  
CC&V  
Category  
million  
g/t  
tonnes  
Moz  
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  
CC&V  
Total  
354.99  
0.73  
260.69  
8.38  
United States  
Cripple Creek and Victor *cont.*



The Exclusive Mineral Resources at CC&V lie peripheral to, and along mineralised strike extensions in the current pit designs. None of this material will be brought into the Ore Reserves during 2009 as CC&V is currently engaged in a Mine Life Extension (MLE-2) Pre-Feasibility Study. The study will be completed at the end of 2009 and a portion of the material is then expected to be brought into the Ore Reserves in 2010.

Mineral Resource and Ore Reserve Report 2008

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Cripple Creek and Victor:

Ore Reserve

reconciliation

2007 vs 2008

Ounces (millions)

4.75

2006

-0.48

Depletion

0.45

Scope

Change

4.93

2008

0.19

Model

Change

4.3

Change

4.9

Cripple Creek and Victor:

Mineral Resource

reconciliation

2007 vs 2008

Ounces (millions)

12.07

2007

-0.48

Depletion

2.81

Gold price

0.09

Other

0.00

Explo-

ration

13.31

2008

-1.19

Cost

10.4

0.00

Metho-

dology

Change

13.4			
12.4			
11.4			
4.7			
4.5			
Ore Reserve			
as at 31 December 2008			
Contained			
Contained			
Tonnes			
Grade			
gold			
gold			
CC&V			
Category			
million			
g/t			
tonnes			
Moz			
Altman			
Proved			
0.73	0.87	0.63	
0.02			
Probable			
0.08	0.59	0.04	—
Total			
0.80	0.84	0.68	
0.02			
Cresson			
Proved			
63.07	0.93		
58.41			
1.88			
Probable			
31.98	0.89		
28.49			
0.92			
Total			
95.05	0.91		
86.90			
2.79			
Globe			
Hill			
Proved			
7.11	0.51	3.66	
0.12			
Probable			
4.30	0.45	1.94	
0.06			
Total			
11.41	0.49	5.60	

0.18		
Schist		
Island		
Proved		
12.42	0.74	9.24
0.30		
Probable		
7.78		
0.75		
5.87		
0.19		
Total		
20.20		
0.75		
15.11		
0.49		
South Cresson		
Proved		
12.02		
0.85		
10.22		
0.33		
Probable		
2.48		
0.89		
2.21		
0.07		
Total		
14.50		
0.86		
12.43		
0.40		
Wild Horse Extension		
Proved		
16.55		
1.32		
21.78		
0.70		
Probable		
8.98		
1.11		
9.95		
0.32		
Total		
25.53		
1.24		
31.73		
1.02		
Wildhorse		
Proved		
0.67		

0.97  
0.65  
0.02  
Probable  
0.11  
0.79  
0.09  
—  
Total  
0.78  
0.94  
0.74  
0.02  
CC&V  
Total  
168.27  
0.91  
153.19  
4.93

Mineral Resource and Ore Reserve Report 2008

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Competent persons

Professional

Registration

Relevant

Category

Name

organisation

number

experience

Mineral Resource

T Brown

AusIMM

226857

24 years

Ore Reserve

A Keith

SME

1689600

27 years

CC&V

– Surface (Metric)

Tonnes above cut-off

Ave grade above cut-off

Tonnes above cut-off (millions)

Cut-off grade (g/t)

Average

grade

above

cut-off

(g/t)

0.5

4.5

5.5

6.5

0.0

200.0

400.0

800.0

0.0

5.00

0.4

1.2

3.5

1.5

2.5

600.0

0.8

1.6

United States

Cripple Creek and Victor *cont.*

Mineral Resource and Ore Reserve Report 2008

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Definitions

MINERAL RESOURCE

The SAMREC/JORC definition of a Mineral Resource is as follows:

A Mineral Resource is a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

The Mineral Resource is estimated using all drilling and sampling information along with a detailed geological model. The geological models are based on core logging, mapping, geophysics, geochemistry and geological understanding that have been developed for each deposit. Most of the AngloGold Ashanti deposits have been the subject of research by world experts in the class of gold deposit.

The grade estimation for each deposit has been developed over the life of the mine and is constantly reviewed in terms of grade control information and reconciliation with the metallurgical plant. In general, the deep South African mines utilise a process of compound log normal macro kriging for the estimation of the Mineral Resource, while the open pits and shallow underground mines generally use recoverable Mineral Resource models, estimated using uniform conditioning or multiple indicator kriging.

In order to comply with the economic requirement of the definition of Mineral Resource, all AngloGold Ashanti Mineral Resources are constrained at an upside gold price, with all other parameters being kept the same as used for estimation of the Ore Reserve. In the underground gold mines, scoping studies are conducted on all coherent blocks of ground that lie above the calculated Mineral Resource cut-off. These studies include all cost and capital requirements to access the block. In the case of open pit operations, pit optimisations are conducted at the Mineral Resource gold price and all material outside these shells is excluded from the Mineral Resource, unless it is potentially mineable from underground.

It is the opinion of AngloGold Ashanti that the Mineral Resource represents a realistic view of an upside potential to the Ore Reserve. In interpreting the Mineral Resource it is critical to factor in the following:

•

The Mineral Resource is quoted in situ and has not been corrected for dilution, mining losses or recovery.

•

The Mineral Resource includes a high percentage of inferred material, which, following further exploration drilling may be converted to an Indicated or Measured Mineral Resource.

•

Many of the areas lying in the exclusive Mineral Resource are currently being actively drilled and are the subject of economic and technical studies. It can, however, not be assumed at this stage that the company has intent to mine these areas.

Mineral Resource classification is based on the '15% Rule'. A Measured Mineral Resource should be expected to be within 15% of the quarterly metal estimate at least 90% of the time, while for an Indicated Mineral Resource estimate the annual metal estimate should be within 15% of the metal estimated at least 90% of the time. For an Inferred Mineral Resource the annual error may for 90% of the time, be greater than 15%.

The process and methodology of classification are at the discretion of the competent person and involves expressing the '15% Rule' as a required level of information, in tangible terms the spacing of the drillhole or tunnel spacing in a particular deposit. Techniques such as conditional simulation or even an empirical reconciliation-based approach are employed. However, all operations are responsible for demonstrating, through reconciliation, that their classification system conforms to the 15% rule set out above.

AngloGold Ashanti quotes its Mineral Resource as inclusive of the Ore Reserve. However, in this document the exclusive Mineral Resource is also quoted. The exclusive Mineral Resource is defined as the inclusive Mineral Resource less the Ore Reserve before dilution and other factors are applied.

Mineral Resource and Ore Reserve Report 2008

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The exclusive Mineral Resource consists of the following components:

- Inferred Mineral Resource within the optimised shell;
- Other Inferred Mineral Resource;
- Measured and Indicated Mineral Resource that lies between the life of mine (LOM) pit shell/mine design and the Mineral Resource pit shell. This material will become economic if the gold price increases; and
- Mineral Resource where the technical studies to engineer an Ore Reserve have not yet been completed.

ORE RESERVE

The SAMREC/JORC definition of an Ore Reserve is as follows:

An Ore Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource.

It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.

These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

Ore Reserves are sub-divided, in order of increasing confidence, into Probable Ore Reserves and Proved Ore Reserves.

In the underground operations Ore Reserves are based on a full mine design and in the case of open pits on a pit optimisation followed by a final pit design. Ore Reserves are reported according to tonnage, mean grade(s), and contained metal inclusive of mining dilution, mining ore losses and mine call factors. These modifying factors are based on measurements, rather than estimates. Tonnage and grade estimates for surface stockpile materials that meet Ore Reserve criteria are itemised separately.

Only those Ore Reserves included for treatment in the business unit plan production schedule are considered in the Ore Reserve statement. These sometimes include marginal or sub-grade ores as well as Inferred Mineral Resource. These Inferred Mineral Resources are not included in the Ore Reserve statement.

For new projects an Ore Reserve is only reported if an auditable pre-feasibility or feasibility study has been completed that demonstrates the viability of the project and meets the company's investment requirements.

There should also be intent on the part of the company to proceed to feasibility and ultimately a mining phase.

Definitions

*cont.*



Mineral Resource and Ore Reserve Report 2008

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ALL TERMS

*BIF*

Banded Ironstone Formation. A chemically formed iron-rich sedimentary rock.

*By-products*

Any products that emanate from the core process of producing gold, including silver, uranium and sulphuric acid.

*Calc-silicate rock*

A metamorphic rock consisting mainly of calcium-bearing silicates such as diopside and wollastonite, and formed by metamorphism of impure limestone or dolomite.

*Capital expenditure*

Total capital expenditure on tangible assets which includes stay-in-business and project capital.

*Carbon-in-leach (CIL)*

Gold is leached from a slurry of gold ore with cyanide in agitated tanks and adsorbed on to carbon granules in the same circuit. The carbon granules are separated from the slurry and treated in an elution circuit to remove the gold.

*Carbon-in-pulp (CIP)*

Gold is leached conventionally from a slurry of gold ore with cyanide in agitated tanks. The leached slurry then passes into the CIP circuit where carbon granules are mixed with the slurry and gold is adsorbed on to the carbon. The granules are separated from the slurry and treated in an elution circuit to remove the gold.

*Comminution*

Comminution is the crushing and grinding of ore to make gold available for treatment. (See also “Milling”).

*Contained gold*

The total gold content (tons multiplied by grade) of the material being described.

*Cut-off grade – surface mines (COG)*

The minimum grade at which a unit of ore will be mined to achieve the desired economic outcome.

*Depletion*

The decrease in quantity of ore in a deposit or property resulting from extraction or production.

*Development*

The process of accessing an orebody through shafts and/or tunnelling in underground mining operations.

*Discontinued operation*

A component of an entity that, pursuant to a single plan, has been disposed of or abandoned or is classified as held-for-sale until conditions precedent to the sale have been fulfilled.

*Doré*

Impure alloy of gold and silver produced at a mine to be refined to a higher purity, usually consisting of 85% gold on average.

*Electro-winning*

A process of recovering gold from solution by means of electrolytic chemical reaction into a form that can be smelted easily into gold bars.

*Elution*

Recovery of the gold from the activated carbon into solution before zinc precipitation or electro-winning.

*Full grade ore (FGO)*

FGO is ore material with sufficient grade to carry the full operating cost. FGO cut-off is the break-even grade where cost is representative of all costs to carry the full operation excluding direct mining cost.

of terms

Glossary

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*Gold produced*

Refined gold in a saleable form derived from the mining process.

*Grade*

The quantity of gold contained within a unit weight of gold-bearing material generally expressed in ounces per short ton of ore (oz/t), or grams per metric tonne (g/t).

*Leaching*

Dissolution of gold from crushed or milled material, including reclaimed slime, prior to adsorption on to activated carbon.

*Life of mine (LOM)*

Number of years that the operation is planning to mine and treat ore, and is taken from the current mine plan.

*Marginal ore (MO)*

MO is ore material with grade below the FGO cut-off that can be economically treated at the end of mine life when overhead and mining costs are reduced. MO cut-off is the break-even grade where cost is representative of the reduced cost that will be experienced after mining has ended.

*Metallurgical plant*

A processing plant erected to treat ore and extract gold.

*Milling*

A process of reducing broken ore to a size at which concentrating can be undertaken. (See also “Comminution”)

*Mine call factor (MCF)*

The ratio, expressed as a percentage, of the total quantity of recovered and unrecovered mineral product after processing with the amount estimated in the ore based on sampling. The ratio of contained gold delivered to the metallurgical plant divided by the estimated contained gold of ore mined based on sampling.

*Mineral deposit*

A mineral deposit is a concentration (or occurrence) of material of possible economic interest in or on the Earth’s crust.

*Mining reconciliation factor (MRF)*

This is the variance between the gold called for as defined by the ore perimeters and what the processing plant receives. It is expressed in both a grade and tonnage number.

*Ounce (oz) (troy)*

Used in imperial statistics. A kilogram is equal to 32.1507 ounces. A troy ounce is equal to 31.1035 grams.

*Pay limit*

The grade of a unit of ore at which the revenue from the recovered mineral content of the ore is equal to the total cash cost including Ore Reserve Development and stay-in-business capital. This grade is expressed as an in-situ value in grams per tonne or ounces per short ton (before dilution and mineral losses).

*Precipitate*

The solid product of chemical reaction by fluids such as the zinc precipitation referred to below.

*Price received (\$/oz and R/kg)*

Attributable gold income including realised non-hedge derivatives divided by attributable ounces or kilograms sold.

*Productivity*

An expression of labour productivity based on the ratio of grams of gold produced per month to the total number of employees in underground mining operations.

*Reclamation*

In the South African context, reclamation describes the process of reclaiming slimes (tailings) dumps using high-pressure water cannons to form a slurry which is pumped back to the metallurgical plants for processing.

*Glossary*

of terms *cont.*

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*Recovered grade*

The recovered mineral content per unit of ore treated.

*Reef*

A gold-bearing sedimentary horizon, normally a conglomerate band that may contain economic levels of gold.

*Refining*

The final purification process of a metal or mineral.

*Region*

Defines the operational management divisions within AngloGold Ashanti, namely South Africa, Argentina, Australia, Brazil, Ghana, Guinea, Mali, Namibia, Tanzania and United States of America.

*Rehabilitation*

The process of reclaiming land disturbed by mining to allow an appropriate post-mining use. Rehabilitation standards are defined by country-specific laws including, but not limited to the South African Department of Minerals and Energy, the US Bureau of Land Management, the US Forest Service, and the relevant Australian mining authorities, and address among other issues, ground and surface water, topsoil, final slope gradient, waste handling and re-vegetation issues.

*Resource reconciliation factor (RRF)*

This is the variance between the resource model and the ore perimeters.

*Seismic event*

A sudden inelastic deformation within a given volume of rock that radiates detectable seismic energy.

*Shaft*

A vertical or subvertical excavation used for accessing an underground mine; for transporting personnel, equipment and supplies; for hoisting ore and waste; for ventilation and utilities; and/or as an auxiliary exit.

*Smelting*

A pyro-metallurgical operation in which gold is further separated from impurities.

*Stay-in-business capital*

Capital expenditure to maintain existing production assets. This includes replacement of vehicles, plant and machinery, ore reserve development and capital expenditure related to safety, health and the environment.

*Stope*

Underground excavation where the orebody is extracted.

*Stoping*

The process of excavating ore underground.

*Stripping ratio*

The ratio of waste tonnes to ore tonnes mined calculated as total tonnes mined less ore tonnes mined divided by ore tonnes mined.

*Tailings*

Finely ground rock of low residual value from which valuable minerals have been extracted.

*Tailings dam (slimes dam)*

Dam facilities designed to store discarded tailings.

*Tonne*

Used in metric statistics. Equal to 1,000 kilograms.

*Ton*

Used in imperial statistics. Equal to 2,000 pounds. Referred to as a short ton.

Glossary  
of terms *cont.*

*Tonnage*

Quantity of material measured in tonnes or tons.

*Waste*

Material that contains insufficient mineralisation for consideration for future treatment and, as such, is discarded.

#### ABBREVIATIONS

\$

United States dollars

*A\$ or AUD*

Australian dollars

*ADS*

American Depositary Share

*ADR*

American Depositary Receipt

*ARS*

Argentinean peso

*ASX*

Australian Stock Exchange

*Au*

Contained gold

*BCM*

Bank cubic metres, ie ore in the ground

*BIF*

Banded iron formation

*BRL*

Brazilian real

*capex*

Capital expenditure

*CIL*

Carbon-in-leach

*CIP*

Carbon-in-pulp

*CLR*

Carbon Leader Reef

*FGO*

Full grade ore

*g*

Grams

*g/t*

Grams per tonne

*g/TEC*

Grams per total employee costed

*JORC*

Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves

*JSE*

JSE Limited

*kg*

Kilograms

*LOM*

Life of mine

*m<sup>2</sup>/TEC*

Square metres per total employee costed

*M or m*

Metre or million, depending on the context

*Moz*

Million ounces

*Mt*

Million tonnes or tons

*Mtpa*

Million tonnes/tons per annum

*oz*

Ounces (troy)

*oz/t*

Ounces per ton

*R or ZAR*

South African rands

*SAMREC*

South African Code for the Reporting of Mineral Resources and Mineral Reserves

*t*

Tons (short) or tonnes (metric)

*tpm*

Tonnes/tons per month

*tpa*

Tonnes/tons per annum

*tpd*

Tonnes/tons per day

*VCR*

Ventersdorp Contact Reef

*VR*

Vaal Reef

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Certain statements contained in this document, including, without limitation, those concerning AngloGold Ashanti's strategy to reduce its gold hedging position, including the extent and effect of the hedge reduction, the economic outlook for the gold mining industry, expectations regarding gold prices, production, cash costs and other operating results, growth prospects and outlook of AngloGold Ashanti's operations, individually or in the aggregate, including the completion and commencement of commercial operations of certain of AngloGold Ashanti's exploration and production projects and completion of acquisitions and dispositions, including the disposition of AngloGold Ashanti's interest in the Boddington Project, AngloGold Ashanti's liquidity and capital resources and capital expenditure, and the outcome and consequence of any pending litigation proceedings, contain certain forward-looking statements regarding AngloGold Ashanti's operations, economic performance and financial condition. Although AngloGold Ashanti believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, amongst other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in gold prices and exchange rates, and business and operational risk managements. For a discussion of such risk factors, refer to the section titled "Risk management and internal controls" in these annual financial statements. AngloGold Ashanti undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of these annual financial statements or to reflect the occurrence of unanticipated events. All subsequent written or oral forward-looking statements attributable to AngloGold Ashanti or any person acting on its behalf are qualified by the cautionary statements herein.

Forward-looking  
statements

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Administrative  
information

ANGLOGOLD ASHANTI  
LIMITED

Registration No.

1944/017354/06

Incorporated in the Republic of  
South Africa

Share codes:

ISIN: ZAE000043485

JSE:

ANG

LSE:

AGD

NYSE:

AU

ASX:

AGG

GhSE (Shares):

AGA

GhSE (GhDS):

AADA

Euronext Paris:

VA

Euronext Brussels:

ANG

JSE Sponsor:

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*Executive*

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S Venkatakrishnan \*

*Non-Executive*

RP Edey \* (Chairman)

Dr TJ Motlatsi (Deputy Chairman)

FB Arisman #

RE Bannerman ‡

JH Mensah ‡

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Ms L Eatwell

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AngloGold Ashanti posts information that is important to investors on the main page of its website at [www.anglogoldashanti.com](http://www.anglogoldashanti.com) and under the "Investors" tab on the main page. This information is updated regularly. Investors should visit this website to obtain important information about AngloGold Ashanti.

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www.bnymellon.com\shareowner

Global BuyDIRECTSM

BoNY maintains a direct share

purchase and dividend reinvest-

ment plan for AngloGold Ashanti.

Telephone: +1-888-BNY-ADRS

The Annual Financial Statements 2008 is available in printed or CD format from the contacts whose details appear above or on the Internet

at the above-mentioned website address. In addition, AngloGold Ashanti must by no later than 30 June 2009, produce a Form 20-F (a report

required by the Securities and Exchange Commission in the United States), copies of which will be available free of charge on EDGAR

at [www.sec.gov](http://www.sec.gov), or from the contacts detailed above. A signed copy of the Annual Financial Statements 2008 may be viewed at the

company's registered address.

Supplementary information on Mineral Resources, Ore Reserves and development, prepared on a business unit basis, is obtainable from the

above sources as well as in PDF format on the AngloGold Ashanti website. Plans of the South Africa region underground workings are also

available on request.

Russell and Associates

[www.anglogoldashanti.com](http://www.anglogoldashanti.com)

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AngloGold Ashanti Limited

Date: March 27, 2009

By:

/s/ L Eatwell

Name: L Eatwell

Title: Company Secretary