

ANGLOGOLD ASHANTI LTD

Form 6-K

March 29, 2007

**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 29, 2007

Commission File Number 1-14846

AngloGold Ashanti Limited

(Translation of registrant's name into English)

11 Diagonal Street

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** **Supplementary Information:**  
**Mineral Resource and Ore Reserve**

Supplementary  
Information:  
Mineral Resource  
and Ore Reserve  
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**It is AngloGold Ashanti policy to report  
its Mineral Resource and Ore Reserve  
in accordance with the JORC and  
SAMREC codes.**

Mineral Resource  
and Ore Reserve  
Summary

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**\_Mineral Resource and Ore Reserve 2006**

**MINERAL RESOURCE AND ORE RESERVE**

Moz

**December 2005 Mineral Resources**

175.8

Reductions

2006 total depletion

-8.3

Tau Tona – areas on both the Ventersdorp Contact Reef and Carbon Leader Reef Shaft Pillars were determined not to have economic potential.

-1.9

Moab Khotsong – due to new exploration drilling

-1.4

Sadiola – due to a change in methodology when compared to the 2005 Mineral Resource

-0.9

Bibiani Mine – due to sale of asset

-0.9

Other – total of non-significant changes

-0.5

Additions

Obuasi – due to exploration and changes in estimation methodology below 50 level area

5.2

Boddington – due to successful exploration

2.1

Navachab – due to successful exploration, increased gold price and improved mining efficiencies.

2.1

Geita – due to revised Mineral Resource Models, successful exploration and increased gold price.

2.1

Siguiri – due to successful exploration and increased gold price.

1.5

Savuka – due to increased gold price

1.2

Cripple Creek and Victor – due to successful exploration and gold price

1.1

Iduapriem – due to increased gold price

0.7

Cerro Vanguardia – due to successful exploration

0.6

West Wits Surface – due to inclusion of tailing dams as a result of the increased gold price

0.5

Serra Grande – due to the successful exploration in the Open Pit and Mina Nova areas

0.2

Yatela – due to increased gold price

0.2

Other – total of non-significant changes

2.0

December 2006 Mineral Resources

181.6

Ore Reserves and Mineral Resources are reported in accordance with the minimum standard described by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves

(The 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 (the SAMREC 2000 Code). Mineral Resources are inclusive of the Ore Reserve component unless otherwise stated.

**Mineral Resources**

The 2006 Mineral Resource increased by 14.1 million ounces to 181.6 million ounces before depletion. After a depletion of 8.3 million ounces, the net increase is 5.8 million ounces. Mineral Resources were estimated at a gold price of \$650 per ounce in contrast to the \$475 used in 2005. The increased gold price resulted in an increase of 5.8 million ounces while successful exploration and revised modelling resulted in a further increase of 7.6 million ounces.

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MINERAL RESOURCE AND ORE RESERVE

**Ore Reserves**

Total AngloGold Ashanti Ore Reserves increased from 63.3 million ounces in 2005 to 66.9 million ounces in December 2006. A year-on-year increase of 10.1 million ounces (16%) occurred before depletion and an increase of 3.6 million ounces (6%) occurred after depletion.

A gold price of \$550 was used for Ore Reserve estimates in contrast to the \$400 used in 2005. The change in economic assumptions made from 2005 to 2006 resulted in the Ore Reserve increasing by 3.7 million ounces while exploration and modelling resulted in an additional increase of 6.6 million ounces.

Moz

**December 2005 Ore Reserves**

63.3

Reductions

2006 total depletion

-6.5

Moab Khotsong – due to drop in values as a result of drilling

-0.4

Bibiani Mine – due to sale of asset

-0.1

Other – total of non-significant changes

-0.4

Additions

Mponeng – due to the inclusion of the VCR below 120 level project and higher gold price

2.9

Cripple Creek and Victor – due to planned extension of life

1.1

Sadiola – due to the inclusion of the Deep Sulphide Project

1.0

Boddington – due to upgrade of Inferred Mineral Resources in the Pit and increased gold and copper prices.

0.7

Sunrise Dam – due to inclusion of North-Wall Cutback and Cosmo Ore-bodies because of an increased gold price

0.7

Iduapriem – due to increased gold price

0.5

Tau Leko – due to increased gold price

0.5

AGA Mineração – due to Córrego do Sítio Sulphide exploration drilling and Cuiabá development

0.5

Cerro Vanguardia – due to successful exploration program and increased gold price

0.4

Siguiri – additional pit included due to increased gold price

0.4

Navachab – due to the increased gold price marginal ore is now economic and the pit is larger

0.3

Savuka – due to the increased gold price

0.3

Yatela – due to the inclusion of an additional cutback

0.2

Serra Grande – due to incorporation of an open pit and the development of levels with higher tons than expected

0.2

Morila – due to the increased gold price marginal ore is now economic

0.1

Other – total of non-significant changes

1.4

December 2006 Ore Reserves

66.9



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**\_Mineral Resource and Ore Reserve 2006**

**MINERAL RESOURCE AND ORE RESERVE**

**By-products**

A number of by-products are recovered as a result of the processing of gold ore reserves. These include 11.8 thousand tonnes of uranium from the South African operations, 0.19 million tonnes of copper from Australia, 0.50 million tonnes of sulphur from Brazil and 24.5 million ounces of silver from Argentina. Details of the by-product Mineral Resources and Ore Reserves are given in the supplementary statistics document which is available on the corporate website, [www.AngloGoldAshanti.com](http://www.AngloGoldAshanti.com).

**Audit of 2005 Mineral Resource and Ore Reserve statement**

During the course of the year, the AngloGold Ashanti 2005 Mineral Resource and Ore Reserve Statement was submitted to independent consultants for review. The mineral resources and ore reserves from six of AngloGold Ashanti's global operations were selected and reviewed. The company has been informed that the audit identified no material shortcomings in the process by which AngloGold Ashanti's reserves and resources were evaluated. It is the company's intention to continue this process so that all its operations will be audited over a three-year period. The audit of those operations selected for review during 2007 is currently in progress.

**Competent persons**

The information in this report that relates to exploration results, Mineral Resources or Ore Reserves is based on information compiled by the competent persons listed below. They are either members of the

AngloGold Ashanti

Mineral Resource and Ore Reserve 2006 Page 5

MINERAL RESOURCE AND ORE RESERVE

Australian Institute of Mining and Metallurgy (AusIMM) or recognised overseas professional organisations. They are all full-time employees of the company.

The competent person for AngloGold Ashanti exploration is:

E Roth, PhD (Economic Geology), BSc (Hons) (Geology), MAusIMM, 16 years experience.

Competent persons for AngloGold Ashanti's Mineral Resources are:

VA Chamberlain, MSc (Mining Engineering), BSc (Hons) (Geology), MAusIMM, 21 years experience.

MF O'Brien, MSc (Mining Economics), BSc (Hons) (Geology), Dip Data, Pr.Sci.Nat., MAusIMM, 27 years experience.

Competent persons for AngloGold Ashanti's Ore Reserves are:

CE Brechtel, MSc (Mining Engineering), MAusIMM, 31 years' experience.

D L Worrall, ACSM, MAusIMM, 26 years' experience.

J van Zyl Visser, MSc (Mining Engineering), BSc (Mineral Resource Management), PLATO, 20 years experience.

The competent persons consent to the inclusion of the exploration, Mineral Resources and Ore Reserves information in this report, in the form and context in which it appears.

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MINERAL RESOURCES AND ORE RESERVES

as at 31 December 2006

Ore Reserves by country

(attributable)

Metric

Imperial

Contained

Contained

Tonnes

Grade

gold

Tons

Grade

gold

Category

million

g/t

tonnes

million

oz/t

Moz

South

Africa

Proved

|      |      |       |
|------|------|-------|
| 15.5 | 7.86 | 122.0 |
|------|------|-------|

|      |       |  |
|------|-------|--|
| 17.1 | 0.229 |  |
|------|-------|--|

3.9

Probable

|       |      |       |
|-------|------|-------|
| 181.6 | 3.99 | 724.7 |
|-------|------|-------|

|       |       |      |
|-------|-------|------|
| 200.2 | 0.116 | 23.3 |
|-------|-------|------|

Total

|       |      |       |
|-------|------|-------|
| 197.2 | 4.29 | 846.7 |
|-------|------|-------|

|       |       |      |
|-------|-------|------|
| 217.3 | 0.125 | 27.2 |
|-------|-------|------|

Argentina\*

Proved

0.9

|      |     |  |
|------|-----|--|
| 7.09 | 6.1 |  |
|------|-----|--|

0.9

|       |     |  |
|-------|-----|--|
| 0.207 | 0.2 |  |
|-------|-----|--|

Probable

|     |      |      |
|-----|------|------|
| 6.9 | 6.22 | 42.7 |
|-----|------|------|

7.6

|       |     |  |
|-------|-----|--|
| 0.181 | 1.4 |  |
|-------|-----|--|

Total

|     |      |      |
|-----|------|------|
| 7.7 | 6.32 | 48.8 |
|-----|------|------|

8.5

|       |     |  |
|-------|-----|--|
| 0.184 | 1.6 |  |
|-------|-----|--|

Australia\*

Proved

54.9

1.18

64.7  
60.5  
0.034  
2.1  
Probable  
133.2  
1.02  
135.4  
146.8  
0.030  
4.4  
Total  
188.0  
1.07  
200.1  
207.3  
0.031  
6.4  
Brazil\*  
Proved  
3.7  
5.60  
20.8  
4.1  
0.163  
0.7  
Probable  
10.3  
7.40  
76.3  
11.4  
0.216  
2.5  
Total  
14.0  
6.92  
97.1  
15.5  
0.202  
3.1  
Ghana\*  
Proved  
50.8  
2.13  
108.2  
56.0  
0.062  
3.5  
Probable  
74.5  
3.10

231.3

82.2

0.091

7.4

Total

125.3

2.71

339.5

138.1

0.079

10.9

Guinea\*

Proved

18.2

0.60

10.8

20.1

0.017

0.3

Probable

52.7

0.85

45.0

58.1

0.025

1.4

Total

70.9

0.79

55.9

78.2

0.023

1.8

Mali\*

Proved

15.7

1.79

28.0

17.3

0.052

0.9

Probable

20.8

2.85

59.1

22.9

0.083

1.9

Total

36.4

2.39

87.2  
40.2  
0.070  
2.8  
Namibia  
Proved  
5.3  
1.08  
5.8  
5.9  
0.032  
0.2  
Probable  
10.1  
1.63  
16.5  
11.2  
0.048  
0.5  
Total  
15.5  
1.44  
22.3  
17.0  
0.042  
0.7  
Tanzania  
Proved  
4.0  
0.97  
3.9  
4.5  
0.028  
0.1  
Probable  
74.9  
3.47  
259.6  
82.6  
0.101  
8.3  
Total  
79.0  
3.34  
263.6  
87.0  
0.097  
8.5  
USA  
Proved  
93.4

0.93  
87.0  
103.0  
0.027  
2.8  
Probable  
35.6  
0.91  
32.5  
39.2  
0.027  
1.0  
Total  
129.0  
0.93  
119.5  
142.2  
0.027  
3.8  
Totals\*  
Proved  
262.4  
1.74  
457.2  
289.2  
0.051  
14.7  
Probable  
600.6  
2.70  
1,623.3  
662.1  
0.079  
52.2  
Total  
863.0  
2.41  
2,080.5  
951.3  
0.070  
66.9

\* Reserves attributable to AngloGold Ashanti

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MINERAL RESOURCES AND ORE RESERVES

as at 31 December 2006

Mineral Resources by country(1)

Metric

Imperial

Contained

Contained

Tonnes

Grade

gold

Tons

Grade

gold

Category

million

g/t

tonnes

million

oz/t

Moz

South Africa

Measured

27.3

13.97

381.0

30.0

0.408

12.2

Indicated

528.5

3.89

2,054.4

582.6

0.113

66.1

Inferred

28.4

5.66

160.7

31.3

0.165

5.2

Total

584.2

4.44

2,596.1

643.9

0.130

83.5

Argentina\*\*

Measured



11.4  
2.35  
26.7  
12.6  
0.068  
0.9  
Indicated  
17.5  
3.24  
56.6  
19.2  
0.095  
1.8  
Inferred  
10.4  
3.03  
31.4  
11.4  
0.088  
1.0  
Total  
39.2  
2.93  
114.7  
43.2  
0.085  
3.7  
Australia\*\*  
Measured  
71.2  
1.08  
76.6  
78.5  
0.031  
2.5  
Indicated  
213.9  
0.87  
186.3  
235.8  
0.025  
6.0  
Inferred  
233.3  
0.73  
170.3  
257.1  
0.021  
5.5  
Total  
518.4

0.84  
433.2  
571.5  
0.024  
13.9  
Brazil\*\*  
Measured  
8.6  
6.16  
52.7  
9.4  
0.180  
1.7  
Indicated  
18.5  
7.35  
136.3  
20.4  
0.214  
4.4  
Inferred  
25.7  
7.11  
182.9  
28.3  
0.207  
5.9  
Total  
52.8  
7.04  
371.8  
58.2  
0.205  
12.0  
Ghana\*\*  
Measured  
82.1  
3.60  
295.7  
90.4  
1.105  
9.5  
Indicated  
93.3  
4.77  
445.4  
102.9  
0.139  
14.3  
Inferred  
43.9

6.47  
284.2  
48.4  
0.189  
9.1  
Total  
219.3  
4.68  
1,025.4  
241.8  
0.136  
33.0  
Guinea\*\*  
Measured  
18.7  
0.60  
11.2  
20.6  
0.018  
0.4  
Indicated  
74.1  
0.83  
61.5  
81.6  
0.024  
2.0  
Inferred  
131.4  
0.66  
86.4  
144.8  
0.019  
2.8  
Total  
224.1  
0.71  
159.2  
247.1  
0.021  
5.1  
Mali\*\*  
Measured  
18.8  
1.90  
35.7  
20.8  
0.055  
1.1  
Indicated  
23.4

2.80  
65.6  
25.8  
0.082  
2.1  
Inferred  
16.7  
2.48  
41.5  
18.4  
0.072  
1.3  
Total  
59.0  
2.42  
142.8  
65.0  
0.071  
4.6  
Namibia  
Measured  
11.4  
0.81  
9.3  
12.6  
0.024  
0.3  
Indicated  
53.8  
1.29  
69.1  
59.3  
0.037  
2.2  
Inferred  
33.7  
1.16  
38.9  
37.1  
0.034  
1.3  
Total  
98.9  
1.19  
117.3  
109.0  
0.035  
3.8  
Tanzania  
Measured  
4.0

0.97  
3.9  
4.5  
0.028  
0.1  
Indicated  
114.2  
3.32  
379.2  
125.8  
0.097  
12.2  
Inferred  
24.3  
3.09  
75.2  
26.8  
0.090  
2.4  
Total  
142.5  
3.22  
458.3  
157.1  
0.094  
14.7  
USA  
Measured  
180.2  
0.82  
148.3  
198.7  
0.024  
4.8  
Indicated  
95.7  
0.75  
71.5  
105.4  
0.022  
2.3  
Inferred  
14.1  
0.59  
8.3  
15.6  
0.017  
0.3  
Total  
290.0  
0.79

228.1

319.7

0.023

7.3

Totals

Measured

433.7

2.40

1,041.1

478.1

0.070

33.5

Indicated

1,232.8

2.86

3,525.8

1,359.0

0.083

113.4

Inferred

561.9

1.92

1,079.9

619.4

0.056

34.7

Total

2,228.5

2.53

5,646.9

2,456.5

0.074

181.6

\*\* Resources attributable to AngloGold Ashanti

(1)

Inclusive of the Ore Reserve component

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## MINERAL RESOURCE 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 sub-divided, 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:

(i)

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

(ii)

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.

(iii)

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. 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. 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.



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## ORE RESERVE DEFINITIONS

### **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.

Traditional sensitivity studies are not applied to the Ore Reserve. Instead, the cash flow for each operation is tested using gold prices near to the average gold price for the preceding three years. Gold prices of US\$475 and US\$500/oz were used. In all cases, except for Tau Lekoa, the operations remained cash flow positive albeit at a reduced margin. In the case of Tau Lekoa the Ore Reserve dropped from 1.3 Moz to 0.4 Moz at US\$475/oz.

### **Audit of Mineral Resource and Ore Reserve**

AngloGold Ashanti has a policy whereby all estimates of Mineral Resource and Ore Reserve are subject to audit on a regular basis. These audits consist of:

- a corporate technical group review (annual)
- an external audit (once in every three years); and

- regional review (annual)

The 2006 Mineral Resources and Ore Reserves as reported for the following operations will be subject to external audit:

- Mponeng

- Geita

- Obuasi

- Morila

- Sadiola

- Yatela

- Cuiabá

- Cripple Creek and Victor

The Mponeng audit was completed in October 2006 and the remainder will be completed early in 2007.

The 2005 Mineral Resources and Ore Reserves were audited for the following operations:

- Vaal River surface sources

- Siguirí

- Tau Lekoa

- MSG

- Navachab

- Moab Khotsong

No significant issues were identified in any of the external audits.

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SOUTH AFRICAN OPERATIONS: OVERVIEW

**SOUTH AFRICA**

The South African operations comprise seven underground mines which are located in two geographical regions on the Witwatersrand Basin; known as the Vaal River and West Wits operations. Vaal River operations consist of Great Nologwa, Kopanang, Tau Lekoa and Moab Khotsong mines. The primary reefs 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 and these mines are situated near the town of Carletonville. The primary reefs mined are the Carbon Leader Reef (CLR) and Ventersdorp Contact Reef (VCR).

All seven operations are 100% owned by AngloGold Ashanti. In addition, the Vaal River Surface and West Wits Surface operations comprise of the mining of waste rock dumps and tailings dams resulting from the mining and processing of the primary and secondary reef horizons.

**Mineral Resource and Ore Reserve gold price and exchange rates**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400

Exchange rate – South Africa

ZAR/US\$

6.50

6.75

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**Mineral Resource estimation**

A multi-disciplinary approach is adopted to Mineral Resource estimation whereby inputs are required from the geology, survey, mine planning and evaluation departments. A computerised system called the Mineral Resource Inventory System (MRIS) integrates all the input information to produce the final Mineral Resource per operation. The 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 and the micro blocks comprise of 30m x 30m blocks.

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 meter 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 shows the potential of the orebody at different cut-offs. These curves are produced for dimensions equivalent to a practical mining unit for underground operations.

Orkney

*West Wits locality plan*

*Vaal River locality plan*

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SOUTH AFRICAN OPERATIONS: OVERVIEW

**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.

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

Other

Comments

m (- x -)

South Africa

South

Measured

5 x 5

X

Based on

African

constrained kriging

Mines

variance, supported

by chip sampling

in stopes.

Indicated

2 x 200

X

Supported by

underground

drillholes and chip

sampling of reef

development ends.

Inferred

1000 x 1000

X

Supported by

surface drillholes.

Grade/ore

control

5 x 5

X

Chipped channel

samples.

**Ore Reserve estimation**

All mine designs are undertaken using the Cadsmine software package and include the delineation

of mining or stoping areas for each mining level and section, usually leading from an extension to the existing mining sequence, and the definition of the necessary development layouts. The in-situ Mineral Resource is scheduled monthly for the full LOM plan. The value estimates for these schedules are derived directly from 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 plan includes minimal Inferred Mineral Resource.

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**Modifying factors**

**Ore Reserve modifying factors (as at 31 December 2006)**

Mineral Resource

Ore Reserve

Mine

Metal-

cut-off

cut-off

Cut-off

Stoping

call

lurgical

grade

grade

value

width

Dilution

(1)

\*

factor \*\* recovery

Other

South Africa

g/t (Au)

g/t (Au)

cmg/t (Au)

cm

%

%

%

factor

Great Noligwa

4.64

6.23

1000

161

42%

68%

97%

n/a

Kopanang

4.00

5.88

600

102

49%

68%

98%

n/a

Moab Khotsong – upper mine

4.80

6.61  
1000  
151  
38%  
77%  
98%  
n/a  
Tau Lekoa  
3.79  
7.14  
1000  
140  
18%  
82%  
97%  
n/a  
Mponeng  
5.50  
5.71  
800  
140  
40%  
89%  
98%  
n/a  
Vaal River Surface Rock Dumps  
0.41  
0.41  
n/a  
n/a  
n/a  
n/a  
74%  
n/a  
Savuka  
6.50  
7.63  
900  
118  
47%  
72%  
97%  
n/a  
Tau Tona  
5.13  
10.27  
1000  
97  
115%  
78%  
98%



n/a

(1) Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

\* Dilution: The difference between the tonnage broken in stopes and the tonnage milled from underground sources.

For example, if 100 tonnes broken in the stopes amounts to 132 tonnes milled, then the dilution is 32%.

\*\*Mine Call Factor (MCF): The ratio expressed as a percentage, which the specific product accounted for in the recovery, plus residues, bears to the corresponding product called for by the mine's measuring methods.

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SOUTH AFRICAN OPERATIONS: OVERVIEW

**Development sampling results**

Development values represent actual results of sampling. No allowances have been made for adjustments necessary in estimating Ore Reserves.

**JANUARY TO DECEMBER 2006**

Advanced

Sampled

Statistics are shown

metres

Sampled

Ave channel

Gold

Uranium

in metric units

(total)

metres

width (cm)

Ave g/t

Ave cm g/t

Ave kg/t

Ave cm kg/t

VAAL RIVER

Great Noligwa Mine

Vaal Reef

14,054

2,088

126.2

26.64

3,362

1.05

132.06

Kopanang Mine

Vaal Reef

25,132

2,758

15.5

152.13

2,358

12.30

190.70

Tau Lekoa Mine

Ventersdorp Contact Reef

7,548

1,968

97.7

8.71

851

—

—

Moab Khotsong Mine

Vaal Reef

18,575

498

116.5

18.23

2,124

1.38

160.65

WEST WITS

TauTona Mine

Ventersdorp Contact Reef

932

–

–

–

–

–

–

Carbon Leader Reef

12,276

120

12.2

63.03

769

0.42

5.13

Savuka Mine

Ventersdorp Contact Reef

25

–

–

–

–

–

–

Carbon Leader Reef

637

–

–

–

–

–

–

Mponeng Mine

Ventersdorp Contact Reef

16,047

2,342

86.5

23.27

2,013

-  
-

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Advanced

Sampled

Statistics are shown

feet

Sampled

Ave channel

Gold

Uranium

in imperial units

(total)

feet

width (in)

Ave oz/t

Ave ft oz/t

Ave lb/t

Ave ft lb/t

VAAL RIVER

Great Noligwa Mine

Vaal Reef

46,108

6,850

49.69

0.78

3.22

2.10

8.69

Kopanang Mine

Vaal Reef

82,454

9,049

6.10

4.44

1.64

24.60

4.21

Tau Lekoa Mine

Ventersdorp Contact Reef

24,763

6,457

38.46

0.25

1.02

—

—

Moab Khotsong Mine

Vaal Reef

60,942

1,634

45.87

0.53

2.03  
2.76  
10.55  
WEST WITS  
TauTona Mine  
Ventersdorp Contact Reef  
3,057  
—  
—  
—  
—  
—  
—  
Carbon Leader Reef  
40,276  
394  
4.80  
1.84  
0.74  
0.84  
0.34  
Savuka Mine  
Ventersdorp Contact Reef  
82  
—  
—  
—  
—  
—  
—  
Carbon Leader Reef  
2,090  
—  
—  
—  
—  
—  
Mponeng Mine  
Ventersdorp Contact Reef  
52,646  
7,684  
34.06  
0.68  
1.93  
—  
—

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SOUTH AFRICAN OPERATIONS: OVERVIEW

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

**AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)**

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec

after

after

Operation

attributable

Category

2005 Depletion

(1)

change

(2) depletion 2006

depletion

depletion

Comments

South Africa

Great Noligwa

100%

Resource

10.993

(0.915)

0.551

5 10.629

(0.364)

(3) The increased gold price resulted in an additional Mineral Resource being declared for the C Reef. Portions of the Vaal Reef and C Reef Shaft pillars were removed from the Mineral Resource

Reserve

4.612

(0.625)

0.047

1

4.034

(0.578)

(13) The inclusion of the C Reef caused a slight increase in Ore Reserve

Kopanang

100%

Resource

11.336

(0.711)

0.352

3 10.977

(0.359)

(3) The value increased as the result of new channel sampling

Reserve

5.509

(0.46)

(0.213)

(4)

4.836

(0.673)

(12) The reduction in Ore Reserve is due to a slightly lower MCF

Moab Khotsong

100%

Resource

12.965

(0.062)

(1.375)

(11) 11.528

(1.437)

(11) Overall decrease in value due to exploration results from MGR7 and MZA9

Reserve

3.616

(0.047)

(0.398)

(11)

3.171

(0.445)

(12) Reduction due to the drop in values as a result of exploration drilling

Tau Lekoa

100%

Resource

7.724

(0.186)

(0.389)

(5)

7.149

(0.575)

(7) The Jonkerskraal area was removed from the Mineral Resource and there was an overall decrease in value

Reserve

1.009

(0.178)



0.5

50

1.331

0.322

32

The significant increase is due to the increased gold price

Vaal River Surface 100%

Resource

4.311

(0.146)

0.427

10

4.592

0.281

7

The higher gold price resulted in the (VRGO)

Mispah tailings dam included in

Mineral Resource

Reserve

2.259

(0.146)

(0.201)

(9)

1.912

(0.347)

(15) Some waste rock dumps were downgraded from Indicated to Inferred

Mponeng

100%

Resource

24.388

(0.656)

0.69

3 24.422

0.034

—

The value on the Booyens area increased due to exploration drilling

Reserve

4.524

(0.617)

2.871

63

6.778

2.254

50

The inclusion of the VCR below 120 level project and the increased gold price resulted in the significant increase

Savuka

100%

Resource

1.186

(0.186)

1.17

99

2.17

0.984

83

Due to the increased gold price

Reserve

0.014

(0.093)

0.253

1 807

0.174

0.16

1,143

Due to the increased gold price

TauTona

100%

Resource

13.797

(0.62)

(1.863)

(14) 11,314

(2.483)

(18) Areas on both the Ventersdorp Contact

Reef and Carbon Leader Reef Shaft Pillars

were determined not to have economic

potential

Reserve

5.271

(0.473)

0.189

4

4.987

(0.284)

(5) Due to increase in value and gold price

West Wits Surface 100%

Resource

0.16

—

0.526

329

0.686

0.526

329

Due to inclusion of tailing dams as a  
result of the increased gold price

Reserve

—  
—  
—  
—  
—  
—  
—

South Africa Totals:

Resource

86.86

(3.482)

0.089

—

83.467

(3.393)

(4)

Reserve

26.814

(2.639)

3.048

11 27.223

0.409

2

(1)

Depletion: Reduction in Reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2)

Other change: Model and scope changes.

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**Mineral Resource: by-products**

**URANIUM**

Operation

Mineral Resource category

Tonnage (Mt)

Grade (kg/t)

Uranium (000t)

Great Noligwa

Measured

–

–

–

Indicated

22.5

0.72

16.1

Inferred

1.2

0.57

0.7

Total

23.7

0.71

16.8

Kopanang

Measured

2.7

0.54

1.4

Indicated

15.6

0.54

8.4

Inferred

1.1

0.50

0.6

Total

19.4

0.54

10.4

Moab Khotsong

Measured

–

–

–

Indicated

14.9

1.15

17.1

Inferred

4.8

0.89

4.2

Total

19.7

1.09

21.4

Mponeng

Measured

–

–

–

Indicated

15.2

0.26

4.0

Inferred

–

–

–

Total

15.2

0.26

4.0

Savuka

Measured

–

–

–

Indicated

3.7

0.38

1.4

Inferred

–

–

–

Total

3.7

0.38

1.4

TauTona

Measured

–

–

–

Indicated

9.9

0.38

3.7

Inferred

1.5

0.36

0.5

Total

11.4

0.37

4.3

Uranium total

93.1

0.63

58.3

**Ore Reserve by-products**

**URANIUM**

Operation

Ore Reserve category

Tonnage (Mt)

Grade (kg/t)

Uranium (000t)

Vaal River Complex\*

Proved

–

–

–

Probable

35.3

0.33

11.8

Total

35.3

0.33

11.8

\* As the three Vaal River Mines feed to a combination of plants it is not possible to account for the U3O8 by-product by mine.

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SOUTH AFRICAN OPERATIONS: GREAT NOLIGWA

**Great Noligwa**

Great Noligwa is located about 15km south-east of the town of Orkney, in the southern part of the Klerksdorp goldfield. The mine exploits the VR at depths varying between 1,500 and 2,800m below surface. Scattered mining methods are employed where access to the reef is from the footwall haulage and return airway development, with cross-cuts developed every 180m to the reef horizon. Raises are then developed on-reef to the level above and the reef is stoped out on strike. The Great Noligwa lease area is constrained to the north by Harmony's Orkney 2 Shaft, to the east by Buffelsfontein Gold Mine, to the south by the Jersey and Die Hoek faults, (which displaces the reef down by approximately 1,000 and 900m respectively), and to the west by Kopanang Mine.

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### Geology

The VR is the principal economic horizon at Great Noligwa, accounting for over 90% of the gold produced at the mine. Stratigraphically the VR is located near the middle of the Central Rand Group within the Bird Reefs. The VR package can reach a maximum thickness of over two metres and consists of a thin basal conglomerate (the C Facies) and a thicker sequence of upper conglomerates (the A Facies), separated by internal quartzite (the B Facies). Across most of the Great Noligwa lease area the A Facies is the principal economic horizon within the VR, although sporadic remnants of C Facies may be preserved below the A Facies.

The C Reef has been mined on a lesser scale in the central parts of Great Noligwa, where a high grade north-south orientated channel containing two economic horizons is developed. To the east and west of this channel the C Reef is poorly developed with only relatively small areas of economic interest. The C Reef also contains high uranium values where it is well developed. 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.

### Mineral Resource

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Great Noligwa – Crystalkop Reef

Measured

2,256

6.97

15,729

2,487

0.2

506

Indicated

5,904

7.17

42,348

6,508

0.21

1,362

Inferred

583



6.32  
3,688  
643  
0.18  
119  
Total  
8,744  
7.06  
61,766  
9,638  
0.21  
1,986  
Great Noligwa – Vaal Reef  
Measured  
8,118  
19.03  
154,497  
8,949  
0.56  
4,967  
Indicated  
6,237  
16.76  
104,518  
6,875  
0.49  
3,360  
Inferred  
622  
15.79  
9,819  
685  
0.46  
316  
Total  
14,977  
17.95  
268,833  
16,509  
0.52  
8,643  
Great Noligwa –  
Measured  
10,374  
16.41  
170,226  
11,436  
0.48  
5,473  
Total Mineral Resource  
Indicated

12,141

12.10

146,866

13,383

0.35

4,722

Inferred

1,205

11.21

13,507

1,328

0.33

434

Total

23,720

13.94

330,599

26,147

0.41

10,629

**Exclusive Mineral Resource**

Metric

Imperial

Au

Great Noligwa Mine

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

4.9

14.43

70.9

5.4

0.421

2.3

Indicated

6.8

8.75

59.4

7.5  
0.255  
1.9  
Inferred  
0.6  
6.93  
4.4  
0.7  
0.202  
0.1  
Total  
12.3  
10.92  
134.7  
13.6  
0.319  
4.3

The shaft pillar and the C Reef form potential mineable areas. Approximately 20 to 30% of the exclusive Mineral Resource is expected to be taken up in safety and remnant pillars ahead of current mining.

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SOUTH AFRICAN OPERATIONS: GREAT NOLIGWA

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Great Noligwa – Crystalkop Reef

Proved

416

5.49

2,283

459

0.16

73

Probable

1,458

6.15

8,966

1,607

0.18

288

Total

1,874

6

11,250

2,066

0.18

362

Great Noligwa – Vaal Reef

Proved

8,396

7.71

64,744

9,255

0.22

2,082

Probable

6,778

7.3

49,493

7,472

0.21

1,591

Total

15,174

7.53

114,237

16,726

0.22

3,673

Great Noligwa – Total Ore Reserve

Proved

8,812

7.61

67,027

9,714

0.22

2,155

Probable

8,236

7.1

58,459

9,079

0.21

1,880

Total

17,048

7.36

125,487

18,792

0.21

4,034

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

T. Flitton

SACNASP

400277/06

5 years

Ore Reserve

H. A. Kruger

PLATO

PMS0114

29 years

**Grade tonnage information**

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SOUTH AFRICAN OPERATIONS: KOPANANG

**Kopanang**

Kopanang mine is located about 10km south-east of the town of Orkney, in the southern part of the Klerksdorp goldfield. The mine exploits the VR at depths varying between 1,300 and 2,200m below surface. The C Reef is a secondary reef that occupies a stratigraphic horizon about 260m above the VR. Scattered mining methods are employed.

**Geology**

The VR is the principal economic horizon on Kopanang accounting for over 95% of the gold mined. Stratigraphically the VR is located near the middle of the Central Rand Group within the Bird Reefs. The VR package can reach a maximum thickness of over 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 Kopanang lease area only the basal C Facies is mined.

The C Reef has been mined on a limited scale in the central parts of Kopanang, where the gold and uranium values are generally lower than the VR. The C Reef sub-crops in the north against the Gold Estates Conglomerates, and is eliminated in the south by younger, deeply eroded Kimberley Channels. The C Reef also contains two economic conglomerates, although the lowermost conglomerate is only preserved as small remnants.

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SOUTH AFRICAN OPERATIONS: KOPANANG

0

200

400

600

800m

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Kopanang – Crystalkop Reef

Measured

87

15.94

1,381

95

0.46

44

Indicated

332

14.69

4,884

367

0.43

157

Inferred

834

14.69

12,248

919

0.43

394

Total

1,253

14.78



18,513  
1,381  
0.43  
595  
Kopanang – Vaal Reef  
Measured  
2,658  
17.04  
45,288  
2,930  
0.50  
1,456  
Indicated  
15,579  
16.69  
259,958  
17,172  
0.49  
8,358  
Inferred  
1,114  
15.85  
17,658  
1,228  
0.46  
568  
Total  
19,351  
16.69  
322,903  
21,330  
0.49  
10,382  
Kopanang Mine –  
Measured  
2,745  
17.00  
46,669  
3,025  
0.50  
1,500  
Total Mineral Resource  
Indicated  
15,911  
16.65  
264,842  
17,539  
0.49  
8,515  
Inferred  
1,948

15.35  
29,906  
2,147  
0.45  
961  
Total  
20,604  
16.57  
341,416  
22,711  
0.48  
10,977

**Exclusive Mineral Resource**

Metric

Imperial

Au

Kopanang Mine

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

1.7

15.63

27.2

1.9

0.456

0.9

Indicated

4.8

12.96

62.4

5.3

0.378

2.0

Inferred

1.3

14.74

19.8

1.5

0.430

0.6

Total

7.9

13.85

109.4

8.7

0.404

3.5

The Vaal Reef in the western portion of the Mine lease (Gencor 1E area) forms a potential mineable area.

Approximately 20 to 30% of

the exclusive Mineral Resource is expected to be taken up in safety and remnant pillars ahead of current mining.

*Geological section of shaft pillar area.*

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**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

S Kelly

PLATO

MS0095

23 years

Ore Reserve

J vz Visser

PLATO

PMS0119

20 years

**Grade tonnage information**

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Kopanang – Crystalkop Reef

Proved

86

7.43

635

94

0.22

20

Probable

161

6.57

|                              |
|------------------------------|
| 1,056                        |
| 177                          |
| 0.19                         |
| 34                           |
| Total                        |
| 246                          |
| 6.87                         |
| 1,691                        |
| 271                          |
| 0.2                          |
| 54                           |
| Kopanang – Vaal Reef         |
| Proved                       |
| 1,405                        |
| 8.96                         |
| 12,587                       |
| 1,549                        |
| 0.26                         |
| 405                          |
| Probable                     |
| 16,353                       |
| 8.32                         |
| 136,130                      |
| 18,027                       |
| 0.24                         |
| 4,377                        |
| Total                        |
| 17,759                       |
| 8.37                         |
| 148,717                      |
| 19,576                       |
| 0.24                         |
| 4,781                        |
| Kopanang – Total Ore Reserve |
| Proved                       |
| 1,491                        |
| 8.87                         |
| 13,222                       |
| 1,643                        |
| 0.26                         |
| 425                          |
| Probable                     |
| 16,514                       |
| 8.31                         |
| 137,186                      |
| 18,204                       |
| 0.24                         |
| 4,411                        |
| Total                        |
| 18,005                       |
| 8.35                         |

150,408

19,847

0.24

4,836

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SOUTH AFRICAN OPERATIONS: MOAB KHOTSONG

**Moab Khotsong**

Moab Khotsong, which is still in development, lies to the south of and is contiguous with the lease area of Great Noligwa. 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.

**Geology**

The Mineral Resource lies between 2,100 and 3,700m below surface, with only limited quantities of ore lying above 2,300m. The principal reef is the VR of which the gold grade and morphology are considered to be a down-dip extension to the south and south-east of Kopanang and Great Noligwa mines. The reef comprises an oligomictic conglomerate, where gold is associated with carbon. The VR package can reach a maximum thickness of over 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). The C Reef is preserved in the northern part of the mine where the reef has been intersected by a number of boreholes. No C Reef development or stoping has taken place.

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**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Moab Khotsong – Vaal Reef

Measured

593

14.62

8,671

654

0.43

279

Indicated

14,298

18.44

263,678

15,761

0.54

8,477

Inferred

4,765

18.09

86,211

5,253

0.53

2,772

Total

19,657

18.24

358,560

21,668

0.53

11,528

**Exclusive Mineral Resource**

Metric



Imperial  
 Au  
 Moab Khotsong Mine  
 Resource  
 Tonnes  
 Grade  
 Au  
 Tons  
 Grade  
 ounces  
 Exclusive Mineral Resource  
 category  
 (Mt)  
 (g/t)  
 tonnes  
 (Mt)  
 (oz/t)  
 (Moz)  
 Measured  
 0.1  
 15.16  
 2.1  
 0.2  
 0.442  
 0.1  
 Indicated  
 3.7  
 17.12  
 63.6  
 4.1  
 0.499  
 2.0  
 Inferred  
 0.3  
 9.62  
 2.5  
 0.3  
 0.281  
 0.1  
 Total  
 4.1  
 16.58  
 68.2  
 4.5  
 0.484  
 2.2

The VR in the deeper portion of the orebody (Lower Mine Area) forms a potentially mineable area. Approximately 30 to 40% of the

Exclusive Mineral Resource is expected to occur in safety and remnant pillars ahead of current mining.

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SOUTH AFRICAN OPERATIONS: MOAB KHOTSONG

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Moab Khotsong – Vaal Reef

Proved

214

8.93

1,908

236

0.26

61

Probable

8,153

11.86

96,716

8,987

0.35

3,109

Total

8,367

11.79

98,624

9,223

0.34

3,171

**Exploration**

Current brownfield exploration is focused on improving geological confidence in the lower mine and eastern boundary of the upper mine. The drilling of three surface boreholes (MZA9, MGR7 and MMB5) and one long inclined borehole (LIB) (LIB13) is currently in progress.

LIB12, a very successful borehole drilled from the 95H 105 crosscut, intersected the C Reef and the Buffels East fault appreciably farther east than anticipated. This borehole indicated that a large block of VR may be present to the east of the current limit of stoping. LIB13, drilling from the 95H RAW East, intersected both VR and the C Reef confirming the geology indicated by LIB12. Three short deflections

across the C Reef were completed and the first of three short deflections across the Vaal Reef is currently in progress. A long deflection is scheduled to commence drilling.

On completion of LIB13, a new hole, LIB9, will be drilled from the same site to test the structure interpretation between surface boreholes CY1 and MCY2. This drilling program is scheduled to be completed by June 2008.

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**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

AC Barnard

PLATO

MTS0077

12 years

Ore Reserve

J Wall

PLATO

PMS0164

28 years

**Grade tonnage information**

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SOUTH AFRICAN OPERATIONS: TAU LEKOA

### **Tau Lekoa**

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

### **Geology**

The VCR is a gold bearing quartz pebble conglomerate (up to 5m thick) capping the 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. The VCR is deposited over a number of terraces that are separated by slope material. Typically the terrace reef is a thicker, more robust conglomerate unit than the slope material, where hangingwall-footwall conditions may occur. The deepest terraces are the youngest, whereas the oldest terrace occupies a topographical horizon 28m above the youngest terrace. Generally the younger the terrace the more mature the channel fill. The Main Channel is the youngest most mature VCR facies at Tau Lekoa, and extends from the northeast into Tau Lekoa, before turning sharply towards the west. The older Middle and Upper Terraces contain more immature conglomerates with more erratic gold grades.

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10 metre running dyke

5 metre running dyke

Goeden Fault

Buffeldoorn Fault

VCR

VCR

Nooitgedacht Fault

Schoonspruit Fault

Ventersdorp

Lavas

Witwatersrand

quartzites and

conglomerates

W

E

300 Level

600 Level

900 Level

1050 Level

1200 Level

1350 Level

1500 Level

1650 Level

1704 Level

0

150

300m

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Tau Lekoa Mine –

Measured

5,795

6.66

38,585

6,388

0.19

1,241

Ventersdorp Contact Reef

Indicated

35,043

5.09

178,451

38,628

0.15

5,737

Inferred

1,001

5.31

5,314

1,103

0.15

171

Total

41,838

5.31

222,350

46,119

0.16

7,149

**Exclusive Mineral Resource**

Metric

Imperial

Au

Lekoa Mine

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

4.0

6.61

26.6

4.4

0.193

0.9

Indicated

28.2

4.98

140.4

31.1

0.145

4.5

Inferred

0.9

5.23

4.8

1.0

0.152

0.2

Total

33.1

5.19

171.8

36.5

0.151

5.5

The Exclusive Mineral Resource is sensitive to gold price and a large portion of this Mineral Resource is due to the difference in Mineral

Resource and Ore Reserve gold prices. Approximately 20 to 25% of the exclusive Mineral Resource is expected to occur in safety and

remnant pillars ahead of current mining.

*W-E Section through Tau Lekoa Shaft.*



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SOUTH AFRICAN OPERATIONS: TAU LEKOA

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Tau Lekoa –

Proved

2,092

4.75

9,935

2,306

0.14

319

Ventersdorp Contact Reef

Probable

8,086

3.89

31,459

8,913

0.11

1,011

Total

10,178

4.07

41,394

11,219

0.12

1,331

**Grade tonnage information**

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation  
number  
experience  
Mineral Resource  
S Kelly  
PLATO  
MS0095  
23 years  
Ore Reserve  
J vz Visser  
PLATO  
PMS0119  
20 years

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SOUTH AFRICAN OPERATIONS: MPONENG

**Mponeng**

Mponeng lies on the West Wits Line, close to Carletonville in the Gauteng Province and about 65km from 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, but is constrained only by the depth of the ore-body, which is open-ended, towards the south.

**Geology**

The VCR is the only reef that is currently being mined at Mponeng. The VCR comprises of 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 incompetent Booyens Shale.

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SOUTH AFRICAN OPERATIONS: MPONENG

Upper Unit

Middle Unit

Lower Unit

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Mponeng Mine –

Measured

–

–

–

–

–

–

Carbon Leader Reef

Indicated

15,161

19.03

288,450

16,712

0.55

9,274

Inferred

49

25.62

1,255

54

0.75

40

Total

15,210

19.05

289,705

16,766  
 0.56  
 9,314  
 Mponeng Mine –  
 Measured  
 5,731  
 13.63  
 78,137  
 6,318  
 0.40  
 2,512  
 Ventersdorp Contact Reef  
 Indicated  
 29,992  
 13.06  
 391,777  
 33,061  
 0.38  
 12,596  
 Inferred  
 –  
 –  
 –  
 –  
 –  
 –  
 Total  
 35,724  
 13.15  
 469,914  
 39,379  
 0.38  
 15,108  
 Mponeng Mine –  
 Measured  
 5,731  
 13.63  
 78,137  
 6,318  
 0.40  
 2 512  
 Total Mineral Resource  
 Indicated  
 45,153  
 15.06  
 680,227  
 49,773  
 0.44  
 21,870  
 Inferred  
 49

25.61

1,255

54

0.74

40

Total

50,934

14.91

759,619

56,145

0.43

24,422

**Exclusive Mineral Resource**

Metric

Imperial

Au

Mponeng Mine

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

4.3

13.13

55.9

4.7

0.383

1.8

Indicated

29.4

15.82

464.4

32.4

0.461

14.9

Inferred

0.1

25.62

1.3

0.1

0.747

0.0

Total

33.7

15.49

521.7

37.1

0.452

16.8

The Carbon Leader Reef in the deeper portion of the orebody (below 126 level) and the Ventersdorp Contact Reef in the North of the

mine lease form potentially mineable areas. Approximately 35 to 40% of the exclusive Mineral Resource is expected to occur in safety

and remnant pillars ahead of current mining.

*Section through Mponeng Mine showing VCR morphology on uneven footwall.*

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**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Mponeng –

Proved

1,769

11.22

19,850

1,950

0.33

638

Ventersdorp Contact Reef

Probable

22,311

8.56

190,967

24,593

0.25

6,140

Total

24,080

8.75

210,817

26,544

0.26

6,778

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number



experience

Mineral Resource

RK Lavery

SACNASP

400144/89

25 years

Ore Reserve

R Brokken

PLATO

PMS0170

25 years

**Grade tonnage information**

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SOUTH AFRICAN OPERATIONS: TAUTONA

### **TauTona**

TauTona lies on the West Wits Line, close to Carletonville in Gauteng and about 70km south-west of Johannesburg. Mining at TauTona takes place at depths ranging from 1,800 to 3,500m, where the world's deepest stoping section is found. The mine has a main shaft system as well as a secondary and a tertiary shaft. It is predominantly a long-wall operation.

### **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 unit is the unit 1 which is present as a sheet-like deposit over the whole mine, although the reef development and grades drop off very rapidly where the No 1 unit overlies the No 2 unit and often the No 1 unit is left in the hangingwall where the No 2 unit is being mined. The No 2 unit is a complex channel deposit that is only present along the easternmost limit of the current mining at TauTona mine. The reef may be over two metres thick where the No 2 unit is developed. The No 3 unit is preserved below the No. 1 unit 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 less than 10% of total production volumes. The VCR comprises of 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.

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Surface +1829m arial

Ventersdorp Contact Reef

Lower Carbon Leader

Upper carbon leader

Main shaft

Sub vertical shaft

Tertiary vertical shaft

66 level -1822m BC. +7m arial

Carbon Leader Reef

100 level -2869m BC. +1030m arial

120 level 3476m BC. -1647m arial

sea level

N

S

**Mineral Resource**

Metric

Imperial

Au

Au

Great Noligwa Mine

Resource

Tonnes

Grade

tonnes

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

(Mt)

(Mt)

(oz/t)

(Moz)

TauTona Mine –

Measured

733

28.29

20,734

808

0.83

667

Carbon Leader Reef

Indicated

9,179

32.08

294,449

10,118

0.94

9,467  
 Inferred  
 1,510  
 8.46  
 12,777  
 1,664  
 0.25  
 411  
 Total  
 11,422  
 28.71  
 327,960  
 12,590  
 0.84  
 10,544  
 TauTona Mine –  
 Measured  
 363  
 13.67  
 4,968  
 400  
 0.4  
 160  
 Ventersdorp Contact Reef  
 Indicated  
 1,223  
 15.51  
 18,964  
 1,348  
 0.45  
 610  
 Inferred  
 –  
 –  
 –  
 –  
 –  
 –  
 Total  
 1,586  
 15.09  
 23,932  
 1,748  
 0.44  
 769  
 TauTona Mine –  
 Measured  
 1,096  
 23.45  
 25,702  
 1,208

0.68  
826  
Total Mineral Resource  
Indicated  
10,402  
30.13  
313,413  
11,466  
0.88  
10,076  
Inferred  
1,510  
8.46  
12,777  
1,664  
0.25  
411  
Total  
13,008  
27.05  
351,892  
14,338  
0.79  
11,314  
**Exclusive Mineral Resource**  
Metric  
Imperial  
Au  
TauTona Mine  
Resource  
Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
Exclusive Mineral Resource  
category  
(Mt)  
(g/t)  
tonnes  
(Mt)  
(oz/t)  
(Moz)  
Measured  
0.8  
23.05  
17.3  
0.8  
0.672  
0.6

Indicated

4.3

28.89

122.9

4.7

0.843

4.0

Inferred

1.5

8.46

12.8

1.7

0.247

0.4

Total

6.5

23.48

153.0

7.2

0.685

4.9

The shaft pillar forms a potential mineable area. Approximately 40% of the exclusive Mineral Resource is expected to occur in safety

and remnant pillars ahead of current mining.

*Schematic section through TauTona shaft system*

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SOUTH AFRICAN OPERATIONS: TAUTONA

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

TauTona Mine –

Proved

312

14.29

4 455

344

0.42

143

Carbon Leader Reef

Probable

12,192

11.64

141,921

13,440

0.34

4,563

Total

12,504

11.71

146,376

13,783

0.34

4,706

TauTona Mine –

Proved

277

8.14

2,254

305

0.24

72  
 Ventersdorp Contact Reef  
 Probable  
 979  
 6.61  
 6,473  
 1,079  
 0.19  
 208  
 Total  
 1,256  
 6.95  
 8,727  
 1,384  
 0.2  
 281  
 TauTona Mine –  
 Proved  
 589  
 11.40  
 6,709  
 649  
 0.33  
 216  
 Total Ore Reserve  
 Probable  
 13,171  
 11.27  
 148,394  
 14,519  
 0.33  
 4,771  
 Total  
 13,760  
 11.27  
 155,103  
 15,167  
 0.33  
 4,987  
**Competent persons**  
 Professional  
 Registration  
 Relevant  
 Type  
 Name  
 organisation  
 number  
 experience  
 Mineral Resource  
 R Orton  
 PLATO



MS0096

22 years

Ore Reserve

MW Armstrong

PLATO

MS0054

22 years

**Grade tonnage information**

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SOUTH AFRICAN OPERATIONS: SAVUKA

**Savuka**

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 2,600 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 unit is the unit 1 which is present as a sheet-like deposit over the whole mine. The No 2 unit is a complex channel deposit that is only present along the western most limit of the current mining at Savuka. The reef may be over two metres thick where the No 2 unit is developed. The No 3 unit is preserved below the No 1 unit in the southern parts of Savuka and is the oldest of the CLR conglomerates.

Production levels on the VCR at Savuka are not as high as on the CLR, with about 15 to 20% of the tonnage coming from the VCR. The VCR comprises of 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.

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SOUTH AFRICAN OPERATIONS: SAVUKA

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Savuka Mine –

Measured

342

16

5,433

377

0.46

175

Carbon Leader Reef

Indicated

3,389

14.99

50,819

3,736

0.44

1,634

Inferred

–

–

–

–

–

–

Total

3,731

15.08

56,251

4,113

0.44

1,809

Savuka Mine –

Measured

583

12.93

7,537

643

0.38

242

Ventersdorp Contact Reef

Indicated

297

12.52

3,717

327

0.37

120

Inferred

–

–

–

–

–

–

Total

880

12.79

11,254

970

0.37

362

Savuka Mine –

Measured

925

14.03

12,970

1,020

0.41

417

Total Mineral Resource

Indicated

3,686

14.79

54,536

4,063

0.43

1,753

Inferred

–

–

–

–

—  
—  
Total  
4,611  
14.64  
67,505  
5,083  
0.43  
2,170  
**Exclusive Mineral Resource**  
Metric  
Imperial  
Au  
Savuka Mine  
Resource  
Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
Exclusive Mineral Resource  
category  
(Mt)  
(g/t)  
tonnes  
(Mt)  
(oz/t)  
(Moz)  
Measured  
0.5  
16.06  
8.3  
0.6  
0.468  
0.3  
Indicated  
3.4  
14.99  
51.6  
3.8  
0.437  
1.7  
Inferred  
—  
—  
—  
—  
—  
—  
Total

4.0  
15.13  
60.0  
4.4  
0.441  
1.9

The exclusive Mineral Resource is sensitive to gold price and a large portion of this Mineral Resource is due to the difference in Mineral Resource and Ore Reserve gold prices. Approximately 40% of the exclusive Mineral Resource is expected to occur in safety and remnant pillars ahead of current mining.

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 39

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

( 000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Savuka – Carbon Leader Reef

Proved

367

6.71

2,462

404

0.20

79

Probable

369

5.4

1,994

407

0.16

64

Total

736

6.05

4,456

811

0.18

143

Savuka –

Proved

194

4.56

883

214

0.13

28

Ventersdorp Contact Reef

Probable

23

3.64

85

26

0.11

3

Total

217

4.46

968

239

0.13

31

Savuka – Total Ore Reserve

Proved

561

5.96

3,345

618

0.17

108

Probable

392

5.30

2,079

433

0.15

67

Total

953

5.69

5,424

1,050

0.17

174

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

RK Lavery

SACNASP

400144/89

25 years

Ore Reserve



R Brokken

PLATO

PMS0171

25 years

**Grade tonnage information**

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SOUTH AFRICAN OPERATIONS: SURFACE

**Surface operations**

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tonnes

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

South Africa Surface –

Measured

–

–

–

–

–

–

Vaal River Surface

Indicated

336,146

0.40

136,098

370,537

0.01

4,376

Inferred

10,520

0.64

6,724

11,597

0.02

216

Total

346,666

0.41

142,822

382,134

0.01

4,592  
 South Africa Surface –  
 Measured

–  
 –  
 –  
 –  
 –  
 –

West Wits Surface  
 Indicated

55,733

0.29

16,315

61,435

0.01

525

Inferred

7,388

0.68

5,027

8,144

0.02

162

Total

63,121

0.34

21,342

69,578

0.01

686

South Africa Surface –  
 Measured

–  
 –  
 –  
 –  
 –  
 –

Total Mineral Resource  
 Indicated

391,879

0.39

152,413

431,972

0.01

4,901

Inferred

17,908

0.66

11,751

19,741

0.02

378

Total

409,787

0.40

164,164

451,712

0.01

5,278

**Exclusive Mineral Resource**

Metric

Imperial

Au

Vaal River Surface

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

—

—

—

—

—

—

Indicated

229.9

0.34

78.9

253.1

0.010

2.5

Inferred

0.2

1.15

0.2

0.2

0.034

—

Total  
229.9  
0.34  
79.1  
253.2  
0.010  
2.5  
West Wits –  
Exclusive Mineral Resource  
Measured  
–  
–  
–  
–  
–  
Indicated  
55.7  
0.29  
16.3  
61.4  
0.009  
0.5  
Inferred  
7.4  
0.68  
5.0  
8.1  
0.020  
0.2  
Total  
63.1  
0.34  
21.3  
69.6  
0.010  
0.7  
Total Surface –  
Exclusive Mineral Resource  
Measured  
–  
–  
–  
–  
–  
Indicated  
285.3  
0.33  
95.2  
314.5

0.010

3.1

Inferred

7.6

0.68

5.2

8.3

0.020

0.2

Total

292.9

0.34

100.4

322.9

0.010

3.2

The exclusive Mineral Resource comprises largely of tailing storage facilities.

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 41

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

South Africa Surface –

Proved

–

–

–

–

–

–

Vaal River Surface

Probable

104,763

0.57

59,475

115,481

0.02

1,912

Total

104,763

0.57

59,475

115,481

0.02

1,912

2,259

2005

-0.146

Depletion

-0.730

Scope Change

1,912

2006

Ounces (millions)

Vaal Reef Surface (VRGO):

Ore Reserves 2005 vs 2006

Change

-0.930

Model Change

Significant Change

Ore Reserve Reconciliation

2.5

2.0

1.5

1.0

0.5

0.0

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

V Govindsammy

SACNASP

400086/04

14 years

Ore Reserve

J vz Visser

PLATO

PMS0119

20 years



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SOUTH AMERICAN OPERATIONS: 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 and Ore Reserve gold price and exchange rates**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400

Exchange rate – Argentina

AR\$/US\$

3.15

3.15

**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 bore holes 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.

Buenos Aires

Rio Gallegas

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 43

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

RC

Other

m (- x -)

Argentina

Cerro

Measured

12.5 x 5

X

X

Vanguardia

Indicated

25 x 10

X

X

Inferred

50 x 15

X

X

Grade/Ore

Control

12.5 x 5

X

**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.

**Modifying factors**

**Ore Reserve modifying factors (as at 31 December 2006)**

Argentina

Mineral Resource

Ore Reserve

cut-off

cut-off

Metallurgical

grade

grade

Dilution

(1)  
recovery  
Other  
g/t (Au)  
g/t (Au)  
%  
factor  
factor  
Cerro Vanguardia  
1.39  
1.52  
49.00%  
95.20%  
n/a

(1) There is 50cm of dilution on each side of the quartz vein.

**Summary of Mineral Resource and Ore Reserve**

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec

after

after

Operation

attributable

Category

2005 Depletion

(1)

change

(2)

depletion 2006

depletion

depletion

Comments

Argentina

Cerro Vanguardia

92.5%

Resource

3.285

(0.163)

0.567

17%

3.689

0.404

12%  
 Successful exploration  
 Reserve  
 1.344  
 (0.222)  
 0.446  
 33%  
 1.568  
 0.224  
 17%  
 Due to successful exploration  
 programme and increased gold  
 price  
 Argentina totals:  
 Resource  
 3.285  
 (0.163)  
 0.567  
 17%  
 3.689  
 0.404  
 12%  
 Reserve  
 1.344 (0.222)  
 0.446 33%  
 1.568  
 0.224  
 17%

(1)  
 Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2)  
 Other change: Model and scope changes.

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SOUTH AMERICAN OPERATIONS: CERRO VANGUARDIA

### **Cerro Vanguardia**

The Cerro Vanguardia property is located 160km northwest of Puerto San Julian. The property is situated within the southern Deseado Masive.

### **Geology**

Gold and silver mineralisation at Cerro Vanguardia occur within a vertical range of about 0 to 200m below surface 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. The first set strikes about N40W and generally dips 65° to 90° to the north-east; while the other set strikes about N75W and the veins dip 60° to 80° to the south-west.

These veins are typical of epithermal low-temperature, sericite-adularia character and consist primarily of quartz in several textures such 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 stock-work 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 important lateral displacement.

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 45

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Cerro Vanguardia –

Measured

9,616

1.17

11,234

10,599

0.03

361

stockpile full grade ore

Indicated

10,299

0.70

7,239

11,353

0.02

233

Inferred

6,263

0.67

4,200

6,904

0.02

135

Total

26,178

0.87

22,673

28,856

0.03

729

Cerro Vanguardia –

Measured

1,769

8.75

15,482

1,950

0.26

498

Vein Mineral Resource

Indicated

7,153

6.90

49,359

7,885

0.20

1,587

Inferred

4,119

6.61

27,233

4,540

0.19

876

Total

13,041

7.06

92,074

14,376

0.21

2,960

Cerro Vanguardia –

Measured

11,385

2.35

26,716

12,549

0.07

859

Total Mineral Resource

Indicated

17,452

3.24

56,598

19,238

0.09

1,820

Inferred

10,382

3.03

31,433

11,444

0.09

1,011

Total

39,219

2.93

114,747

43,232

0.09

3,689

**Exclusive Mineral Resource**

Metric

Imperial

Au

Cerro Vanguardia

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

0.9

10.50

9.8

1.0

0.306

0.3

Indicated

0.3

22.96

6.7

0.3

0.670

0.2

Inferred

4.1

6.61

27.2

4.5

0.193

0.9

Total

5.3



8.18  
43.7  
5.9  
0.239  
1.4

**Mineral Resource: by-products**

Silver

Region

Mine

Mineral Resource category

Tonnage (Mt)

Grade (kg/t)

Ag (Moz)

South America

Cerro Vanguardia

Measured

11.4

43.88

16.1

Indicated

17.5

56.94

31.9

Inferred

10.4

57.47

19.2

Total

39.3

53.29

67.2

**Inferred Mineral Resource in pit optimisation**

Inferred Mineral Resources were used in the pit optimisation process and 0.375 million ounces are present in the optimised pit.

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SOUTH AMERICAN OPERATIONS: CERRO VANGUARDIA

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Cerro Vanguardia –

Proved

18

20

369

20

0.58

12

stockpile full grade ore

Probable

–

–

–

–

–

–

Total

10

20

369

20

0.50

12

Cerro Vanguardia –

Proved

837

6.8

5.691

922

0.2

183  
 Vein Mineral Resource  
 Probable  
 6,863  
 6.22  
 42,701  
 7,565  
 0.18  
 1,373  
 Total  
 7,700  
 6.29  
 48,392  
 8,847  
 0.18  
 1,556  
 Cerro Vanguardia –  
 Proved  
 855  
 7.09  
 6,060  
 942  
 0.21  
 195  
 Total Ore Reserve  
 Probable  
 6,863  
 6.22  
 42,701  
 7,565  
 0.18  
 1,373  
 Total  
 7,718  
 6.32  
 48,761  
 8,507  
 0.18  
 1,568  
**Ore Reserve: by-products**  
 Silver  
 Region  
 Mine  
 Ore Reserve category  
 Tonnage (Mt)  
 Grade (kg/t)  
 Ag (Moz)  
 South America  
 Cerro Vanguardia  
 Proved  
 7.70

98.60  
24.50  
Probable  
0.00  
0.00  
0.00  
Total  
7.70  
98.60  
24.50

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 47

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

AHM Silva

CREA

5061

8 years

MAusMM

224831

Ore Reserve

LH De Souza

CREA 2854

22

years

MAusMM

224827

**Grade tonnage information**

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SOUTH AMERICAN OPERATIONS:

**Brazil**

AngloGold Ashanti's operations in Brazil comprise the wholly owned AngloGold Ashanti Mineração (formerly Morro Velho) and a 50% interest in the Mineração Serra Grande mines.

**Mineral Resource and Ore Reserve gold price and exchange rates**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400

Exchange rate – Brazil

R\$/US\$

2.30

2.20

AngloGold

Ashanti

Brasil

Mineraça

~o

Brasilia

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

Other

Comments

m (- x -)

Brazil

AGA Mineraça

~

o

Measured

20 x 40 and

X

Diamond drill and RC Holes

(Córrego do Sítio)

25 x 25

Indicated

50 x 50

X

Diamond drill, R Holes and  
channel samples

Inferred

150 x 150

X

Diamond drill, RC Holes and  
channel samples

Grade ore

2 x 2 and 5 x 5

X

X

Diamond drill, RC Holes and  
control

channel samples

AGA Mineração

~

o

Measured

5 x 5 and 20 x 40

X

(Cuiabá)

Indicated

20 x 60

X

Inferred

80 x 500

X

Grade ore

5 x 5

X

Channel sampling

control

Serra Grande

Measured

10 x 10 and

X

20 x 10

Indicated

10 x 20 and

20 x 50

X

Inferred

50 x 100

X

Grade ore

2 x 2 and 2.5 x 1

X

Channel sampling

control

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 49

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from 2005

Nett diff

2005

Percentage

Other

before

Dec

after

after

Operation

attributable

Category 2005 Depletion

(1)

change

(2)

depletion 2006

depletion

depletion

Comments

Brazil

AGA Mineraça

~

o

100%

Resource

11.401 -0.285

-0.085 -1% 11.031 -0.370

-3%

Reserve

2.496 -0.261 0.454 18%

2.689

0.193

8%

Ore Reserve increase due to Córrego  
do Sítio sulphide exploration drilling  
and Cuiabá development

Serra Grande

50%

Resource

0.809

-0.125

0.238

29%

0.922

0.113 14%



Due  
to  
the successful exploration in  
the open pit and Mine Nova areas  
Reserve

0.379

-0.100

0.154

41%

0.433

0.054

14%

Due to incorporation of open pit  
and the development of levels with  
higher tons than expected

Brazil Totals:

Resource

12.210

-0.410

0.153

1% 11.953

-0.257

-2%

Reserve

2.875 -0.361 0.608 21%

3.122

0.247

9%

(1) Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2) Other change: Model and scope changes.

**Modifying factors**

**Ore Reserve modifying factors (as at 31 December 2006)**

Cut-off

Metallurgical

grade

Dilution

(1)

\*

recovery

Other

Brazil

g/t (Au)

%

factor

(2)

factor

AGA Mineração

~

o – Córrego do Sítio Oxides

1.83

34%

87%

n/a

AGA Mineração

~

o – Córrego do Sítio Sulphides

4.00

n/a

94%

AGA Mineração

~

o – Cuiabá

2.92

5%

92.50%

n/a

Serra Grande

1-2.2

5% – 30%

91.0% – 96.0%

n/a

(1) Where no dilution factor is indicated the dilution is inherent in the resource model estimate

(2) A range of plant recoveries indicates variable ore types

\* Dilution: The difference between the tonnage broken in stopes and the tonnage milled from underground sources.

For example, if 100 tonnes broken in

the stopes amounts to 132 tonnes milled, then the dilution is 32%

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SOUTH AMERICAN OPERATIONS: ANGLOGOLD MINERAÇÃO

**AngloGold Ashanti Mineração**

AngloGold Ashanti Mineração has mining rights in over 30,698 hectares in the state of Minas Gerais in south-eastern Brazil. The AngloGold Ashanti Mineração complex is located in the municipalities of Nova Lima, Sabará and Santa Bárbara, near the city of Belo Horizonte. Ore is sourced from the Cuiabá underground mine, (this ore is treated at the Queiroz plant) and from the Córrego do Sítio heap-leach mine.

~

AngloGold Ashanti **Mineral Resource and Ore Reserve** 2006 *Page 51*

### **Geology**

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 AngloGold Ashanti 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.

Mineralised orebodies at Córrego do Sítio are narrow NE-SW elongated lenses showing dips of 20 to 30° and a pitch angle to SE. In general, the mineralised orebodies comprise sericitic zones and quartz veinlets. The predominant sulphide is arsenopyrite, in acicular crystals at a millimetre scale. The gold occurs as inclusions (microscopic or sub-microscopic) and also inter-growth on the borders of the sulphide. Other typical minerals in the orebodies are pyrrhotite, pyrite and chalcopyrite.

### **Mineral Resource estimation**

Three dimensional models of the BIF and sulphide orebodies are created from the drill-hole 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**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

AGA Mineração

~

o –

Measured

1,021

4.49

4,582

1,126

0.13

147

Córrego do Sítio Oxide

Indicated

724

4.78

3,461

798

0.14

111

Inferred

1,213

4.91

5,950

1,337

0.14

191

Total

2,958

4.73

13,994

3,260

0.14

450

AGA Mineração

~

o –

Measured

301

10.92

3,282

331

0.32

106

Córrego do Sítio Sulphides

Indicated

4,367

6.93

30,254

4,814

0.20

973

Inferred

4,234

7.27

30,788

4,667

0.21

990

Total

8,902

7.23

64,325

9,813

0.21

2,068

AGA Mineração

~

o –

Measured

3

7.70

23

3

0.22

1

Córrego do Sítio Transition

Indicated

755

7.23

5,457

832

0.21

175

Inferred

246  
 7.68  
 1,887  
 271  
 0.22  
 61  
 Total  
 1,004  
 7.34  
 7,367  
 1,106  
 0.21  
 237  
 AGA Mineração  
 ~  
 o –  
 Measured  
 2,382  
 6.84  
 16,298  
 2,626  
 0.20  
 524  
 Cuiabá Sulphides U/G  
 Indicated  
 8,378  
 8.49  
 71,128  
 9,235  
 0.25  
 2,287  
 Inferred  
 12,723  
 7.83  
 99,625  
 14,025  
 0.23  
 3,203  
 Total  
 23,484  
 7.97  
 187,051  
 25,886  
 0.23  
 6,014  
 AGA Mineração  
 ~  
 o –  
 Measured  
 1,775  
 7.01

12,446  
1,957  
0.20  
400  
Lamego Sulphides  
Indicated  
1,707  
6.53  
11,151  
1,881  
0.19  
359  
Inferred  
2,066  
5.34  
11,024  
2,277  
0.16  
354  
Total  
5,547  
6.24  
34,622  
6,115  
0.18  
1,113  
AGA Mineraça  
~  
o –  
Measured  
1,244  
5.05  
6,282  
1,371  
0.15  
202  
MMV Other Resource  
Indicated  
1,415  
5.33  
7,541  
1,560  
0.16  
242  
Inferred  
3,281  
6.68  
21,924  
3,616  
0.19  
705



Total  
 5,940  
 6.02  
 35,747  
 6,547  
 0.18  
 1,149  
 AGA Mineração  
 ~  
 o –  
 Measured  
 6,726  
 6.38  
 42,913  
 7,414  
 0.19  
 1,380  
 Total Mineral Resource  
 Indicated  
 17,346  
 7.44  
 128,992  
 19,120  
 0.22  
 4,147  
 Inferred  
 23,763  
 7.20  
 171,198  
 26,193  
 0.21  
 5,504  
 Total  
 47,835  
 7.17  
 343,106  
 52,727  
 0.21  
 11,031  
**Mineral Resource: by-products**  
 Sulphur  
 Region  
 Mine  
 Mineral Resource category  
 Tonnage (Mt)  
 Grade (ppm)  
 Sulphur (Mt)  
 South America  
 AGA Mineração  
 ~  
 o

Measured

2.4

7.03%

0.20

Indicated

8.4

6.60%

0.60

Inferred

12.7

7.56%

1.00

Total

23.5

7.16%

1.70

SOUTH AMERICAN OPERATIONS: ANGLOGOLD MINERAÇÃO

~

*Page 52\_AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006*

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 53

**Exclusive Mineral Resource**

Metric

Imperial

Au

AGA Mineração –

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

3.4

7.11

24.3

3.8

0.207

0.8

Indicated

6.6

7.72

51.1

7.3

0.225

1.6

Inferred

20.5

7.29

149.3

22.6

0.213

4.8

Total

30.5

7.36

224.6

33.6

0.215

7.2

The Lamego Sulphides and MMV Resources form potentially mineable areas depending on the gold price and technical studies.

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

AGA Mineraça

~

o –

Proved

390

5.24

2,044

430

0.15

66

Córrego do Sítio Oxide

Probable

372

5.85

2,172

410

0.17

70

Total

762

5.53

4,216

840

0.16

136

AGA Mineraça

~

o –

Proved

217

6.95

1,505

239  
 0.2  
 48  
 Córrego do Sítio Sulphides  
 Probable  
 1,680  
 6.6  
 11,094  
 1,852  
 0.19  
 357  
 Total  
 1,896  
 6.64  
 12,599  
 2,090  
 0.19  
 405  
 AGA Mineração  
 ~  
 0 –  
 Proved  
 1,454  
 6.66  
 9,680  
 1,603  
 0.19  
 311  
 Cuiabá Sulphides U/G  
 Probable  
 7,263  
 7.87  
 57,129  
 8,006  
 0.23  
 1,837  
 Total  
 8,717  
 7.66  
 66,810  
 9,609  
 0.22  
 2,148  
 AGA Mineração  
 ~  
 0 –  
 Proved  
 2,061  
 6.42  
 13,229  
 2,272

0.19  
425  
Total Ore Reserve  
Probable  
9,315  
7.56  
70,395  
10,268  
0.22  
2,263  
Total  
11,375  
7.35  
83,625  
12,539  
0.21  
2,689

**Ore Reserve estimation**

Pit optimisation is done using Whittle ® pit shells corresponding to the Ore Reserve gold price and operational costs. For the underground sulphide orebody (Cuiabá Mine and Córrego do Sítio Sulphides) all mining parameters such as mining method, minimum mining width, dilution, mine call factor and the appropriate gold price are considered in determining the Ore Reserves. The Ore Reserves are scheduled and designed using Mine2-4D ® computer software.

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**Ore Reserve: by-products**

Sulphur

Region

Mine

Mineral Reserve Category

Tonnage (Mt)

Grade (ppm)

Sulphur (Mt)

South America

AGA Mineraça

~

o

Proved

1.50

4.99

0.10

Probable

7.30

5.94

0.40

Total

8.80

5.78

0.50

**Grade tonnage information**

**Competent persons**

Professional

Registration

Relevant

Operation

Type

Name

organisation

number

experience

AGA Mineraça

~

o –

Mineral Resource

P de Tarso Ferreira

CREA

34645/D

21 years

Cuiabá

MAusIMM

224828

Ore Reserve

S R Bothelho

CREA

41149/D

21 years

MAusIMM

224833

AGA Mineração

~

o –

Mineral Resource

L H de Sousa

CREA

2854/D

22 years

Córrego do Sítio Oxides

MAusIMM

224827

Ore Reserve

M G Simoni

CREA

55.727/D

8 years

MAusIMM

224826

AGA Mineração

~

o –

Mineral Resource

A H M Silva

CREA

5061

8 years

Córrego do Sítio Sulphides

MAusIMM

224831

Ore Reserve

M G Simoni

CREA

55.727/D

8 years

MAusIMM

224826

SOUTH AMERICAN OPERATIONS: ANGLOGOLD MINERAÇÃO

~



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SOUTH AMERICAN OPERATIONS: SERRA GRANDE

**Serra Grande**

The Serra Grande joint venture (50% attributable to AngloGold Ashanti) is co-owned with Kinross Gold Corporation. The operation comprises two underground mines, Mina III and Mina Nova, and a new open pit. The processing circuit is equipped with grinding, leaching, filtration, precipitation and smelting facilities.

Serra Grande controls, or has an interest in, approximately 21,068 hectares in and around the Crixás mining district in the northwestern areas of the Goiás State in central Brazil. Serra Grande is located 5km from the city of Crixás.

**Geology**

The gold deposits are hosted in a sequence of schists, volcanics and carbonates occurring in a typical greenstone belt structural setting. The host rocks are of the Pilar de Goiás Group of the Upper Archaean. Gold mineralisation is associated with massive sulphides and vein quartz material associated with graphitic, sericitic schists and dolomites. The ore shoots plunge to the north-west with dips of between 6° and 35°. The stratigraphy is overturned and thrust towards the east.

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.

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SOUTH AMERICAN OPERATIONS: SERRA GRANDE

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Serra Grande – Mina Nova

Measured

581

3.97

2,308

641

0.12

74

Indicated

463

4.13

1,914

511

0.12

62

Inferred

257

4.07

1,048

284

0.12

34

Total

1,302

4.05

5,270

1,436

0.12

169

Serra Grande – open pit

Measured

803

4.37

3,511

886

0.13

113

Indicated

140

3.06

429

155

0.09

14

Inferred

—

—

—

—

—

—

Total

944

4.18

3,940

1,040

0.12

127

Serra Grande – Mina 3

Measured

441

8.90

3,925

486

0.26

126

Indicated

587

8.40

4,933

647

0.25

159

Inferred

1,699

6.24

10,607

1,872

0.18

341

Total

2,727

7.14

19,466

3,006

0.21

626

Serra Grande –

Measured

1,825

5.34

9,744

2,013

0.16

313

Total Mineral Resource

Indicated

1,190

6.11

7,276

1,313

0.18

235

Inferred

1,956

5.96

11,655

2,156

0.17

375

Total

4,973

5.77

28,676

5,482

0.17

922

**Exclusive Mineral Resource**

Metric

Imperial

Au

Serra Grande –

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)  
tonnes  
(Mt)  
(oz/t)  
(Moz)  
Measured  
—  
—  
—  
—  
—  
—  
Indicated  
0.1  
3.62  
0.4  
0.1  
0.106  
0.0  
Inferred  
2.0  
5.96  
11.7  
2.2  
0.174  
0.4  
Total  
2.1  
5.83  
12.1  
2.3  
0.170  
0.4

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**Inferred Mineral Resource in pit optimisation**

Inferred Mineral Resources were used in the pit optimisation process and 0.155 million ounces are present in the optimised pit.

**Ore Reserve**

Metric

Imperial

Metric

Imperial

Au

Resource

Tonnes

Grade

tonnes

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(000s)

(000s)

(oz/t)

(000s)

Serra Grande – Mina Nova

Proved

401

3.59

1,439

442

0.10

46

Probable

384

3.81

1,464

423

0.11

47

Total

785

3.7

2,903

856

0.11

93

Serra Grande – open pit

Proved

868

3.71

3,222

957

0.11

104

Probable

153

2.47

377

168

0.07

12

Total

1,021

3.52

3,599

1,125

0.1

116

Serra Grande – Mina 3

Proved

378

7.58

2,865

417

0.22

92

Probable

468

8.77

4,104

516

0.26

132

Total

846

8.24

6,969

932

0.24

224

Serra Grande – Total Ore Reserve

Proved

1,647

4.57

7,526

1,816

0.13

242

Probable

1,005

5.92

5,945  
1,107  
0.17  
191  
Total  
2,652  
5.08  
13,471  
2,922  
0.15  
433



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SOUTH AMERICAN OPERATIONS: SERRA GRANDE

1.75

2.1

2.50

2.25

1.50

1.25

1.50

1.25

1.75

2.1

2.50

2.25

**Grade tonnage information**

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

EM de Araujo

CREA

3688/D

20 years

MAusIMM

224825

Ore Reserve

EM de Araujo

CREA

3688/D

20 years

MAusIMM

224825

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AUSTRALIAN OPERATIONS: OVERVIEW

**Australia**

The Australian assets (formerly Acacia Resources Ltd) were acquired at the end of 1999 and comprise of Sunrise Dam and Boddington gold mines. AngloGold Ashanti owns 100% of Sunrise Dam Gold Mine and 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.

Canberra

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AUSTRALIAN OPERATIONS: OVERVIEW

**Mineral Resource and Ore Reserve gold price and exchange rates**

Sunrise Dam Gold Mine

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve Gold Price

US\$/oz

550

400

Exchange rate – Australia

US\$/ Aus\$

0.73

0.72

Boddington Gold Mine

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

500

Ore Reserve gold price

US\$/oz

500

400

Exchange rate – Australia

US\$/ Aus\$

0.74

0.73

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

RC

Comments

m (- x -)

Australia

Boddington

Measured

25 x 25

X

X

Mineral Resources were classified using a combination of drillhole spacing, number of samples in estimate and average distance to samples.

Indicated

50 x 50

X

X

Inferred

100 x 200

X

X

Grade/ore

control

Not applicable.

Sunrise Dam Measured

10 x 10

X

X

Mineral Resources were classified using a combination and 25 x 25

of drillhole spacing, number of samples in estimate, average distance to samples and confidence in geological interpretation / estimate.

Indicated

20 x 20

X

X

and 40 x 40

Inferred

50 x 100

X

X

Grade/ore

6 x 6

X

(Blastholes were historically used for grade control in control

and 10 x 10

Sunrise Pit by Placer.)

#### **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 by a geostatistical technique called multiple indicator kriging (a non-linear geostatistical method) 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.

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**Modifying factors**

The Boddington cut-off grade is formulated on a net revenue basis (Net Smelter Return - NSR) taking into account gold and copper grade/metal price/recovery. The 0.4g/t COG approximates a life of mine cut-off grade. This represents diorite material and using unit gold/copper prices of A\$675/oz and A\$1.70/lb respectively. This NSR with gold leach and gravity contributions cut-off grade is A\$7.05/t and includes stockpile rehandle mining cost of A\$0.86/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.

**Ore Reserve modifying factors (as at 31 December 2006)**

Cut-off

Metallurgical  
grade

Dilution

(1)

recovery

Other

Australia

g/t (Au)

%

factor

factor

Boddington

0.4\*

n/a

82.2%

n/a

Sunrise Dam – open pit

1.2

n/a

83.2%

n/a

Sunrise Dam – underground

3

12

85.0%

n/a

(1 Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

\* Cut-off is based on a net smelter return of A\$7.05/t which approximates to 0.4g/t Au over LOM.

**Summary of Mineral Resource and Ore Reserve**

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec  
 after  
 after  
 Operation  
 attributable  
 Category  
 2005 Depletion  
 (1)  
 change  
 (2)  
 depletion 2006  
 depletion  
 depletion  
 Comments  
 Australia  
 Boddington  
 33.33%  
 Resource  
 8.169  
 0.000  
 2.121  
 26% 10.290  
 2.121  
 26%  
 Due to successful exploration  
 Reserve  
 3.865  
 0.000  
 0.679  
 18%  
 4.544  
 0.679  
 18%  
 Due to conversion of Inferred  
 Mineral Resource in the pitshell and  
 increased gold and copper price  
 Sunrise Dam  
 100%  
 Resource  
 4.309  
 -0.696  
 0.024  
 1%  
 3.637  
 -0.672  
 -16%  
 Reserve  
 1.773  
 -0.543  
 0.659  
 37%

1.889

0.116

7%

Reserves increased due to addition  
of North-Wall cutback and the  
Cosmo orebodies due to an  
increased gold price

Australia Totals:

Resource

12.478

-0.696

2.145

17% 13.927

1.449

12%

Reserve

5.638 -0.543 1.338 24%

6.432

0.795

14%

(1) Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2) Other change: Model and scope changes.

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AUSTRALIAN OPERATIONS: SUNRISE DAM

**Sunrise Dam**

Sunrise Dam lies some 220km north-north-east of Kalgoorlie and 55km south of Laverton in Western Australia. The mine is 100% owned by AngloGold Ashanti. The mine comprises a large 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.

**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:

(i)

Shear-related and high strain – e.g. Sunrise Shear Zone.

(ii)

Stock work development in planar faults with brittle characteristics

(These occur in all rock types and are commonly concentrated at lithofacies contacts within



AngloGold Ashanti **Mineral Resource and Ore Reserve 2006** *Page 63*

the volcanic stratigraphy or the porphyry margin and within hinge domains within the magnetite shales) – e.g. Western Shear Zone, Watu, Cosmo and Summercloud.

(iii)

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 drill-hole information is validated for use in the models and the local geology of the ore body is used to classify the drill-hole 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.

Estimation for the underground Mineral Resources uses the geological model boundaries to subdivide all drill-hole 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.

Legend

Sandstone / Siltstone

Magnetite Shale

Dolerite / Basalt

Zones of Alteration

Andesite

Volcaniclastic – conglomerate

Coarse – Porphyritic

Intermed. Intrusive

Mineralised Zones

Approx. Generalised Pit shell

Lamprophyre Dykes

*Schematic geological section of Sunrise Dam (looking North).*

*Field of view is approximately 2km from West to East.*

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AUSTRALIAN OPERATIONS: SUNRISE DAM

**Exclusive Mineral Resource**

Metric

Imperial

Au

Sunrise Dam –

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

16.6

1.34

22.10

18.3

0.039

0.7

Indicated

9.2

3.60

33.00

10.1

0.105

1.1

Inferred

6.6

5.48

36.30

7.3

0.160

1.2

Total

32.3

2.83

91.40

35.7

0.082

2.9

**Inferred Mineral Resource in pit optimisation**

Inferred Mineral Resources were used in the pit optimisation process and 0.017 million ounces are present in the optimised pit.

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Sunrise Dam –

Measured

–

–

–

–

–

–

Golden Delicious

Indicated

1,038

1.84

1,910

1,144

0.05

61

Inferred

2,643

1.64

4,335

2,913

0.05

139

Total

3,681

1.70

6,244

4,058

0.05

201

Sunrise Dam – open pit

Measured

18,818

1.62

30,569

20,744

0.05

983

Indicated

8,244

3.35

27,659

9,088

0.10

889

Inferred

127

4.49

573

141

0.13

18

Total

27,190

2.16

58,801

29,972

0.06

1,890

Sunrise Dam – underground

Measured

17

6.60

112

19

0.19

4

Indicated

1,968

8.42

16,582

2,170

0.25

533

Inferred

3,847

8.16

31,385

4,240

0.24

1,009

Total  
5,832  
8.24  
48,078  
6,429  
0.24  
1,546  
Sunrise Dam –  
Measured  
18,835  
1.63  
30,681  
20,763  
0.05  
986  
Total Mineral Resource  
Indicated  
11,250  
4.10  
46,151  
12,402  
0.12  
1,484  
Inferred  
6,617  
5.48  
36,293  
7,294  
0.16  
1,167  
Total  
36,703  
3.08  
113,123  
40,459  
0.09  
3,637

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 65

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Sunrise Dam – open pit

Proved

9,085

2.34

21,278

10,014

0.07

684

Probable

6,231

4.10

25,548

6,869

0.12

821

Total

15,316

3.06

46,826

16,883

0.09

1,505

Sunrise Dam – underground

Proved

62

8.72

537

68

0.25

17

Probable

1,346  
8.45  
11,378  
1,484  
0.25  
366  
Total  
1,407  
8.47  
11,915  
1,551  
0.25  
383

Sunrise Dam – Total Ore Reserve

Proved  
9,147  
2.38  
21,815  
10,082  
0.07  
701

Probable  
7,577  
4.87  
36,926  
8,353  
0.14  
1,187  
Total  
16,723  
3.51  
58,741  
18,434  
0.10  
1,889

**Competent persons**

Professional  
Registration  
Relevant  
Type  
Name  
organisation  
number  
experience  
Mineral Resource  
M Ericksen  
MAusIMM  
109151  
21 years  
Open pit  
Ore Reserve

P Christians

MAusIMM

221754

22 years

Underground

Ore Reserve

S Tombs

MAusIMM

105785

28 years

**Grade tonnage information**



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AUSTRALIAN OPERATIONS: BODDINGTON

**Boddington**

The operation is situated approximately 120km south-east of Perth in Western Australia.

**Geology**

Boddington is located in the Archaean Saddleback greenstone belt in the south-west of Western Australia. The main zone of gold mineralisation occurs reasonably continuously over a strike length of over 5km 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. This basement Mineral Resource, beneath the oxide pits, is hosted predominantly by andesitic volcanics and diorites, and contains both gold and copper mineralisation.

**Mineral Resource estimation**

The Mineral Resource and Ore Reserve of the Boddington Expansion Project have been updated as part of the annual evaluation process by BGMMCo personnel. The methods used in the Mineral Resource estimation are similar to that used for Sunrise Dam Gold Mine Open Pit.

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 67

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Boddington – In-situ

Measured

52,384

0.88

45,909

57,743

0.03

1,476

Indicated

202,688

0.69

140,129

223,425

0.02

4,505

Inferred

226,651

0.59

134,019

249,840

0.02

4309

Total

481,723

0.66

320,057

531,008

0.02

10,290

**Mineral Resource: by-products**

Copper

Region  
Mine  
Mineral Resource category  
Tonnage (Mt)  
Grade (ppm)  
Copper (Mt)  
Australia  
Boddington  
Measured  
52.4  
1,082  
0.057  
Indicated  
202.7  
995  
0.202  
Inferred  
226.7  
955  
0.216  
Total  
481.8  
986  
0.475  
**Exclusive Mineral Resource**  
Metric  
Imperial  
Au  
Boddington –  
Resource  
Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
In-situ  
category  
(Mt)  
(g/t)  
tonnes  
(Mt)  
(oz/t)  
(Moz)  
Measured  
6.6  
0.46  
3.1  
7.3  
0.013  
0.1

Indicated

77.1

0.54

41.7

85.0

0.016

1.3

Inferred

226.7

0.59

134.0

249.8

0.017

4.3

Total

310.4

0.58

178.7

342.2

0.017

5.7

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AUSTRALIAN OPERATIONS: BODDINGTON

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Boddington – In-situ

Proved

45,735

0.94

42,845

50,414

0.03

1,377

Probable

125,435

0.78

98,353

138,268

0.02

3,162

Total

171,170

0.82

141,198

188,682

0.02

4,540

Boddington – Stockpiles

Proved

–

–

–

–

–

–

Probable

146

0.81

118

161

0.02

4

Total

146

0.81

118

161

0.02

4

Boddington – Total

Proved

45,735

0.94

42,845

50,414

0.03

1,377

Probable

125,581

0.78

98,471

138,429

0.02

3,166

Total

171,316

0.82

141,316

188,843

0.02

4,544

**Ore Reserve: by-products**

Copper

Region

Mine

Mineral Reserve category

Tonnage (mt)

Grade (ppm)

Copper (mt)

Australia

Boddington

Proved

45.70

1,138

0.05

Probable

125.60

1,099

0.14

Total

171.30

1,109

0.19

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

K Gleeson

MAusIMM

202246

18 years

Ore Reserve

S Williams

MAusIMM

204071

20 years

**Grade tonnage information**

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_*Page 69*

GHANAIAN OPERATIONS: OVERVIEW

**Ghana**

AngloGold Ashanti has two mines in Ghana: Obuasi (which comprises both surface and underground operations) and Iduapriem (open-pit). Obuasi is wholly owned and the company has an 85% stake in Iduapriem Gold Mine.

**Mineral Resource and Ore Reserve gold price**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400



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GHANAIAN OPERATIONS: OVERVIEW

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec

after

after

Operation

attributable

Category

2005 Depletion

(1)

change

(2)

depletion 2006

depletion

depletion

Comments

Ghana

Bibiani

100%

Resource

0.856 0.000

-0.856

-100%

0.000 -0.856 -100%

Sale

of

Asset

Reserve

0.143 0.000

-0.143

-100%

0.000 -0.143 -100%

Sale

of

Asset

Iduapriem

85%

Resource

3.025

-0.196

0.685  
 23%  
 3.514  
 0.489  
 16%  
 Due to increased gold price  
 Reserve  
 1.846  
 -0.181  
 0.545  
 30%  
 2.210  
 0.364  
 20%  
 Due to increased gold price  
 Obuasi  
 100%  
 Resource  
 24.873  
 -0.658  
 5.237  
 21% 29.452  
 4.579  
 18%  
 Due to exploration and changes in  
 estimation methodology below 50  
 level area  
 Reserve  
 8.644  
 -0.632  
 0.693  
 8%  
 8.705  
 0.061  
 1%  
 Significant decrease in  
 underground mine reserves offset  
 by increase in surface reserves  
 (Pompora Tailings). Overall net  
 increase as a result of below 50  
 KMS project  
 Ghana Totals:  
 Resource  
 28.754  
 -0.854  
 5.066  
 18% 32.966  
 4.212  
 15%  
 Reserve  
 10.633 -0.813 1.095 10% 10.915

0.282

3%

(1)

Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2)

Other change: Model and scope changes.

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

TYPE OF DRILLING

Country

Mine

Category

Spacing

Diamond

RC

Other

Comments

m (- x - y)

Ghana

Iduapriem

Measured

50 x 50

X

X

Indicated

50 x 75

X

X

50m x 100m spacing in some areas.

Inferred

100 x 100

X

X

Grade/Ore Control

15 x 10

X

RC drilling only. Occasionally

20m x 10m spacing.

Obuasi –

surface

Measured

20 X 20

X

X

Indicated

30 X 30

X

X

Inferred

90 X 90

X

X

Grade/Ore Control

10 X 10

X

Obuasi –  
underground

Measured

20 X 20

X

X

Channel sampling.

Indicated

60 X 60

X

X

Channel sampling.

Inferred

120 X 120

X

X

Channel sampling.

**Modifying factors**

**Ore Reserve modifying factors** (as at 31 December 2006)

Cut-off

Metallurgical

Ghana

grade

Dilution

(1)

recovery

Other

Mine

g/t (Au)

%

factor

factor

Iduapriem

0.61

8%

94.5%

n/a

Obuasi – pit

n/a

10%

75%

n/a

Obuasi – underground

6.16

23% – 28%

80%

n/a

Obuasi – tailings

n/a

n/a

41.1%

n/a

(1)

Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

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Mineral Resource and Ore Reserve 2006 Page 71

GHANAIAN OPERATIONS: OBUASI

**Obuasi**

The Obuasi mine is located in the Ashanti region of Ghana, some 80km from Kumasi. Historically, Obuasi has been an underground mine, although there was large-scale open pit mining between 1990 and 2000. The mine has two active treatment plants: the sulphide treatment plant to process underground ore and the tailings treatment plant to handle tailings reclamation operations.

**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 300 kilometres, 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: the Obuasi trend, the Gyabunsu trend and the Binsere trend.

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**\_Mineral Resource and Ore Reserve 2006**

**GHANAIAN OPERATIONS: OBUASI**

Two main ore types are mined:

- quartz veins which consist 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; and

- sulphide ore which is characterised by the inclusion of gold in the crystal structure of a sulphide material. 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 estimation**

Mineral Resource estimates are derived from interpretations of information about the location, shape, continuity and grade of the individual ore bodies. The open pit 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 comprising of 20m x 5m x 15m block sizes was used within the Geological model outlines. Ordinary kriging is used to estimate gold grades into the block model. S.V.S.

**MAIN REEF FISSURE**

OBUASI

FISSURE

ASHANTI

INSINTSIAM REEF

OXIDISED

ZONE

folded

siltstone

granulated

phyllite

siltstones and

folded phyllites

greywackes

phyllite

greywacke

schist

50

41

38

30

26

20

16

12

8

0

120

ORE BODY

and

phyllite

ADANSI

SHAFT

Metres

FISSURE

FISSURE

COTE D'OR

0

-100m

-200m

-300m

-500m

100m

-600m

-700m

-400m

Phyllites, Greywackes and Shists

Barren Metavolcanic (Dyke)

Carbonaceous/Graphitic Fissure

Auriferous Quartz Vein

LEGEND

*EW Section through Adansi (AA)*

Phyllites, Greywackes and Shists

Mineralised - Auriferous -

Barren Metavolcanic (Dyke)

Carbonaceous/Graphitic Fissure

Auriferous Quartz Vein

41 Level

38 Level

v

v

32 Level

v

v

26 Level

LEGEND

Main

Fissure

Fissure

Obuasi

N-Fissure

20 Level

12 Level

8 Level

EAST

Cote D'Or Spur

Cowsu

Spur

Fissure



12/74

Cote D'Or

Fissure

Zero

Quartz

Footwall

4 & 5 Lodes

Big Blow

K-Fissure

WEST

3 West

Metavolcanic (Dyke)

0

150

Metres

-500m

-1000m

250m

*EW Section through KMS (AA)*

AngloGold Ashanti

Mineral Resource and Ore Reserve 2006\_Page 73

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Obuasi – open pit

Measured

8,519

2.73

23,236

9,390

0.08

747

Indicated

–

–

–

–

–

–

Inferred

–

–

–

–

–

–

Total

8,519

2.73

23,236

9,390

0.08

747

Obuasi – tailings

Measured

8,190

1.93

15,807

9,028

0.06

508

Indicated

28,656

1.66

47,451

31,587

0.05

1,526

Inferred

–

–

–

–

–

–

Total

36,846

1.72

63,258

40,616

0.05

2,034

Obuasi – underground

Measured

29,757

6.73

200,289

32,801

0.20

6,439

Indicated

44,574

8.18

364,792

49,134

0.24

11,728

Inferred

30,089

8.75

263,164

33,168

0.26

8,461

Total

104,419

7.93

828,245

115,103

0.23

26,629

Obuasi – stockpile

Measured

510

2.59

1,320

562

0.08

42

Indicated

–

–

–

–

–

–

–

Inferred

–

–

–

–

–

–

Total

510

2.59

1,320

562

0.08

42

Obuasi – Total Mineral Resource

Measured

46,976

5.12

240,652

51,781

0.15

7,737

Indicated

73,230

5.63

412,243

80,721

0.16

13,254

Inferred

30,089  
8.75  
263,164  
33,168  
0.26  
8,461  
Total  
150,294  
6.10  
916,059  
165,671  
0.18  
29,452

**Exclusive Mineral Resource**

Metric

Imperial

Au

Obuasi Gold Mine –

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

30.0

5.86

175.6

33.0

0.171

5.645

Indicated

15.6

10.93

170.3

17.2

0.319

5.475

Inferred

23.2

8.01

186.2

25.6  
0.234  
5.986  
Total  
68.8  
7.73  
532.0  
75.8  
0.226  
17.106

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**\_Mineral Resource and Ore Reserve 2006**

GHANAIAN OPERATIONS: OBUASI

**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 (MRO) is used to generate the ore envelope. An appropriate mining layout is designed that incorporates mining extraction losses, dilution factors and mine call factor.

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Obuasi – tailings

Proved

11,500

1.84

21,163

12,677

0.05

680

Probable

35,353

1.28

45,190

38,970

0.04

1,452

Total

46,853

1.42

66,353

51,647

0.04

2,133  
Obuasi – underground  
Proved  
6,735  
5.54  
37,324  
7,424  
0.16  
1,200  
Probable  
27,507  
6.07  
167,073  
30,321  
0.18  
5,372  
Total  
34,242  
5.97  
204,397  
37,745  
0.17  
6,572  
Obuasi – Total Ore Reserve  
Proved  
18,235  
3.21  
58,487  
20,101  
0.09  
1,880  
Probable  
62,860  
3.38  
212,263  
69,291  
0.10  
6,824  
Total  
81,095  
3.34  
270,750  
89,392  
0.10  
8,705



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Mineral Resource and Ore Reserve 2006 Page 75

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

H Eybers

SACNASP

400098/99

21 years

Ore Reserve

J vz Visser

PLATO

PMS0119

20 years

**Grade tonnage information**

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GHANAIAN OPERATIONS: IDUAPRIEM

### **Iduapriem**

Iduapriem mine is situated in the western region of Ghana, some 70km north of the coastal city of Takoradi, and 10km south-west of Tarkwa. Iduapriem is an open-pit mine. Its processing facilities include a carbon-in-pulp (CIP) plant.

### **Geology**

The Iduapriem and Teberebie gold mines are located along the southern end of the Tarkwa basin. The mineralisation is contained in the Proterozoic Banket Series, conglomerate 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 fine-grained, particulate and free milling. Mineralogical studies indicate that the grain size of native gold particles ranges between 2 and 500 microns (0.002 to 0.5mm) and averages 130 microns (0.13mm). Sulfide 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 prototype 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 mineralization boundaries. The geostatistical techniques used for grade interpolation into the blocks include Multiple Indicator Kriging (MIK), ordinary kriging and inverse distance squared (ID2) methods.

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**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Iduapriem – surface

Measured

35,075

1.57

55,041

38,663

0.05

1,770

Indicated

20,108

1.65

33,192

22,166

0.05

1,067

Inferred

13,844

1.52

21,067

15,261

0.04

677

Total

69,028

1.58

109,300

76,090

0.05

3,514

**Exclusive Mineral Resource**

Metric

Imperial  
Au  
Iduapriem Gold Mine –  
Resource  
Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
Exclusive Mineral Resource  
category  
(Mt)  
(g/t)  
tonnes  
(Mt)  
(oz/t)  
(Moz)  
Measured  
2.5  
0.53  
1.5  
2.8  
0.016  
0.044  
Indicated  
8.4  
1.47  
12.4  
9.3  
0.043  
0.398  
Inferred  
13.8  
1.52  
21.1  
15.3  
0.044  
0.677  
Total  
24.8  
1.40  
34.8  
27.4  
0.041  
1.119

**Inferred Mineral Resource in business plan**

Inferred Mineral Resources were used in the pit optimisation process and 0.27 million ounces are present in the optimised pit.

**Ore Reserve estimation**

Pit optimisation is done using the relevant economic assumptions, geotechnical parameters and

mining assumptions. Whittle

®

pit shells are generated and the ultimate pit shell is selected based on optimal criteria. The subsequent pit design is done using Datamine

®

software, which forms the basis for the Ore Reserve.

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GHANAIAN OPERATIONS: IDUAPRIEM

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Iduapriem – surface

Proved

31,290

1.54

48,187

34,492

0.04

1,549

Probable

11,676

1.63

19,032

12,871

0.05

612

Total

42,967

1.56

67,220

47,363

0.05

2,161

Iduapriem – full grade ore

Proved

1,246

1.23

1,531

1,373

0.04

49

Probable

—  
—  
—  
—  
—  
—

Total

1,246  
1.23  
1,531  
1,373  
0.04  
49

Iduapriem – Total Ore Reserve

Proved

32,536  
1.53  
49,718  
35,865  
0.04  
1,598

Probable

11,676  
1.63  
19,032  
12,871  
0.05  
612

Total

44,213  
1.55  
68,751  
48,736  
0.05  
2,210

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

K Osei

MAuSIMM

112723

12 years

Ore Reserve

E B Boakye

MAuSIMM

222459

23 years

**Grade tonnage information**



AngloGold Ashanti **Mineral Resource and Ore Reserve** 2006 *Page 79*

GUINEA OPERATIONS: 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 and Ore Reserve gold price**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400

**Mineral Resource estimation**

Resource definition drilling consists of Air Core (AC), Reverse Circulation (RC) and Diamond Drilling (DD) boreholes. All available geological drill-hole information is validated for usage in the models and the local geology of the orebody is used to classify the drill-hole 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 \$650/oz is used to quantify the total Mineral Resources.

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GUINEA OPERATIONS: OVERVIEW

**Ore Reserve estimation**

The Mineral Resource models for each pit are combined with waste blocks and 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 drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

RC

Other

Comment

m (- x - y)

Guinea

Siguiri

Measured

5 x 10

X

Indicated

25 x 25

X

X

AC

Also includes air core drilling.

and 50 x 50

Inferred

50 x 50

X

X

AC

Also includes air core drilling.

and 80 x 25

Grade/Ore control

5 x 10

X

**Summary of Mineral Resources and Ore Reserve changes**

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff  
 2005  
 Percentage  
 Other before  
 Dec  
 after  
 after  
 Operation  
 attributable  
 Category  
 2005 Depletion  
 (1)  
 change  
 (2)  
 depletion 2006  
 depletion  
 depletion  
 Comments  
 Guinea  
 Siguiri  
 85%  
 Resource  
 4.253  
 -0.623  
 1.488  
 35%  
 5.118  
 0.865  
 20%  
 Due to successful exploration and  
 increased gold price  
 Reserve  
 1.644  
 -0.223  
 0.375  
 23%  
 1.796  
 0.152  
 9%  
 An additional pit included due to  
 increased gold price  
 Guinea Totals:  
 Resource  
 4.253  
 -0.623  
 1.488  
 35%  
 5.118  
 0.865  
 20%  
 Reserve

1.644 -0.223 0.375 23%

1.796

0.152

9%

(1)

Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2)

Other change: Model and scope changes.

**Modifying factors**

**Ore Reserve modifying factors** (as at 31 December 2006)

Cut-off

(1)

Mine call

Metallurgical

Guinea

grade

Dilution

(2)

factor

recovery

Mine

g/t (Au)

%

(MCF) %

factor

(3)

Siguiri

0.35 - 0.50

4%

96%

93.0 - 97.5%

(1)

A range of cut-offs indicate variable ore types.

(2)

A range of plant recoveries indicates variable ore types.

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GUINEA OPERATIONS: SIGUIRI

**Siguiri**

**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<sup>2</sup>

. 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. There are two main types of gold deposits that occur in the Siguiri basin: laterite mineralisation and in situ quartz-vein-related 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 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. All current Ore Reserve and Mineral Resource is located in block number 1.

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GUINEA OPERATIONS: SIGUIRI

**Inferred Mineral Resource in business plan**

Inferred Mineral Resources were used in the pit optimisation process and 0.07 million ounces are present in the optimised pit.

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg

(000s)

(oz/t)

(000s)

Siguiri – oxides

Measured

507

0.79

402

559

0.02

13

Indicated

74,056

0.83

61,527

81,633

0.02

1,978

Inferred

83,839

0.80

67,399

92,417

0.02

2,167

Total

158,402

0.82

129,328

174,609

0.02  
 4,158  
 Siguiiri – surface resources  
 Measured  
 18,191  
 0.60  
 10,844  
 20,052  
 0.02  
 349  
 Indicated  
 –  
 –  
 –  
 –  
 –  
 –  
 Inferred  
 47,542  
 0.40  
 19,017  
 52,406  
 0.01  
 611  
 Total  
 65,733  
 0.45  
 29,861  
 72,458  
 0.01  
 960  
 Siguiiri – Total Mineral Resource  
 Measured  
 18,698  
 0.60  
 11,246  
 20,611  
 0.02  
 362  
 Indicated  
 74,056  
 0.83  
 61,527  
 81,633  
 0.02  
 1,978  
 Inferred  
 131,381  
 0.66  
 86,416  
 144,823

0.02  
2,778  
Total  
224,135  
0.71  
159,189  
247,067  
0.02  
5,118  
**Exclusive Mineral Resource**  
Metric  
Imperial  
Au  
Siguiiri Gold Mine –  
Resource  
Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
Exclusive Mineral Resource  
category  
(Mt)  
(g/t)  
tonnes  
(Mt)  
(oz/t)  
(Moz)  
Measured  
0.3  
0.72  
0.2  
0.3  
0.021  
0.006  
Indicated  
19.6  
0.62  
12.2  
21.6  
0.018  
0.394  
Inferred  
115.7  
0.63  
72.4  
127.5  
0.018  
2.329  
Total



135.6  
0.63  
84.9  
149.4  
0.018  
2.729

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**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Siguiri – oxides

Proved

–

–

–

–

–

–

Probable

52,708

0.85

45,027

58,100

0.02

1,448

Total

52,708

0.85

45,027

58,100

0.02

1,448

Siguiri – surface resource

Proved

18,191

0.60

10,828

20,052

0.02

348

Probable

-  
 -  
 -  
 -  
 -  
 -  
 Total  
 18,191  
 0.60  
 10,828  
 20,052  
 0.02  
 348  
 Siguiri – Total Ore Reserve  
 Proved  
 18,191  
 0.60  
 10,828  
 20,052  
 0.02  
 348  
 Probable  
 52,708  
 0.85  
 45,027  
 58,100  
 0.02  
 1,448  
 Total  
 70,899  
 0.79  
 55,855  
 78,152  
 0.02  
 1,796  
**Competent persons**  
 Professional  
 Registration  
 Relevant  
 Type  
 Name  
 organisation  
 number  
 experience  
 Mineral Resource  
 P Winkler  
 MAuSIMM  
 220329  
 23 years  
 Ore Reserve  
 A Netherwood

MAuSIMM

100463

18 years

**Grade tonnage information**

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MALI OPERATIONS: OVERVIEW

**Mali**

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

**Mineral Resource and Ore Reserve gold price**

**Mineral Resource and Ore Reserve gold price**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400

**Mineral Resource estimation**

The Mineral Resource is taken as the material that falls within the \$650/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.

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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.

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

RC

Comment

m (- x - y)

Mali

Morila

Measured

10 x 10

X

X

Indicated

30 x 30

X

X

Inferred

50 x 50

X

X

Grade/ore control

10 x 10

X

Blastholes were only used for sampling when

and 50 x 50

there was insufficient RC coverage.

Sadiola

Measured

20 x 20 and

25 x 25

X

X

Indicated

25 x 50

X

X

Inferred

>25 x 50

X

Grade/ore control

5 x 10

X

Yatela

Measured

10 x 10

and 25 x 25

X

Indicated

25 x 25

and 35 x 45

X

Inferred

>25 x 25

and > 35 x 45

X

Grade/ore control

5 x 10

X

### **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.

### **Modifying factors**

**Ore Reserve modifying factors** (as at 31 December 2006)

Cut-off

(1)

Metallurgical

Guinea

grade

Dilution

(2)

recovery

Mine

g/t (Au)

%

factor

(3)

Morila – Pit

1.0 – 1.4

10%

89 – 91.5%

Morila – TSF

n/a

n/a

60%

Sadiola – Pit

0.57 – 1.78

5%

80 – 93%

Yatela – Pit

0.52 – 1.30

13%

75 – 85%

(1)

A range of cut-offs indicate variable ore types.

(2)

Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

(3)

A range of plant recoveries indicates variable ore types.



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MALI OPERATIONS: OVERVIEW

**Summary of Mineral Resource and Ore Reserve changes**

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec

after

after

Operation

attributable

Category

2005 Depletion

(1)

change

(2)

depletion 2006

depletion

depletion

Comments

**Mali**

Morila

40%

Resource

1.399 -0.233

-0.029 -2%

1.137 -0.262 -19%

Reserve

0.947

-0.233

0.140

15%

0.854

-0.093

-10%

Due to the increased gold price

marginal ore is now economic

Sadiola

38%

Resource

4.190

-0.294

-0.939 -22%

2.957  
 -1.233  
 -29%  
 Due to a change in methodology  
 when compared to the 2005  
 Mineral Resource  
 Reserve  
 0.864  
 -0.174  
 0.983 114%  
 1.673  
 0.809  
 94%  
 Due to the inclusion of the Deep  
 Sulphide Project  
 Yatela  
 40%  
 Resource  
 0.466  
 -0.167  
 0.198  
 42%  
 0.497  
 0.031  
 7%  
 Due increased gold price  
 Reserve  
 0.217  
 -0.156  
 0.214  
 99%  
 0.275  
 0.058  
 27%  
 Due to the inclusion of an  
 additional cutback  
 Mali Totals:  
 Resource  
 6.055  
 -0.694  
 -0.770  
 -13%  
 4.592  
 -1.464  
 -24%  
 Reserve  
 2.028 -0.563 1.337 66%  
 2.802  
 0.774  
 38%  
 (1)

Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.  
(2)

Other change: Model and scope changes.

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MALI OPERATIONS: SADIOLA

**Sadiola**

Sadiola is situated in the north-west of the country, 77km to the south of the regional capital of Kayes. Mining takes place in an open pit at Sadiola. Ore is treated in a 435,000-tonne-per-month gold plant.

**Geology**

The Sadiola deposit is located within the Malian portion of the Kenieba- Kedougou window, a major early proterozoic – Birimian outlier along the NE margin of the Kenema – Man shield. The deposit is confined in the north of the window and the mineralised zone occurs along the Sadiola Fracture Zone (SFZ), over a drilled strike length of approximately 2500m and remains open to the north and south. The observed alteration assemblages in the primary mineralisation point to a mesothermal origin for the gold deposit at Sadiola.

Deposits of this type world-wide exhibit good continuity of mineralisation both along strike and extend to great depth. The Sadiola Hill deposit generally consists of two zones, an upper oxidised cap and an underlying sulphide zone. From 1996 until 2002, shallow, saprolite oxide ore from the Sadiola Hill pit was the primary ore source. Since 2002 the deeper saprolitic sulphide ore has been mined and will progressively replace the depleting oxide Ore Reserve.

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MALI OPERATIONS: SADIOLA

**Mineral Resource**

Metric

Imperial

Au

Au

Resource

Tonnes

Grade

tonnes

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Sadiola – FE2

Measured

–

–

–

–

–

–

Indicated

–

–

–

–

–

Inferred

539

1.41

761

594

0.04

24

Total

539

1.41

761

594

0.04

24

Sadiola – FE3

Measured

–  
–  
–  
–  
–

Indicated

737  
2.00  
1,478  
813  
0.06  
48

Inferred

342  
1.95  
668  
377  
0.06  
21

Total

1,080  
1.99  
2,145  
1,190  
0.06  
69

Sadiola – FE3S

Measured

–  
–  
–  
–  
–  
–

Indicated

1,451  
2.57  
3,732  
1,600  
0.07  
120

Inferred

20  
2.65  
54  
22  
0.08  
2

Total

1,472

2.57

3,785

1,622

0.08

122

Sadiola – FE4

Measured

–

0.79

Indicated

1,743

2.30

4,002

1,922

0.07

129

Inferred

473

2.20

1,041

522

0.06

33

Total

2,217

2.28

5,043

2,443

0.07

162

Sadiola – FN2

Measured

–

–

–

–

–

–

Indicated

188

1.52

286

207

0.04

9

Inferred

252

3.98

1,003

278

0.12  
32.45  
Total  
440  
2.93  
1,289  
485  
0.09  
41  
Sadiola – FN3  
Measured  
–  
–  
–  
–  
–  
Indicated  
–  
–  
–  
–  
–  
–  
Inferred  
340  
1.42  
481  
374  
0.04  
15  
Total  
340  
1.42  
481  
374  
0.04  
15  
Sadiola – Main deposit  
Measured  
157  
3.90  
613  
173  
0.11  
20  
Indicated  
13,378  
2.77  
37,012  
14,746  
0.08



1,190  
Inferred  
11,379  
2.53  
28,815  
12,544  
0.07  
926  
Total  
24,914  
2.67  
66,440  
27,463  
0.08  
2,136  
Sadiola – Sekokoto  
Measured  
–  
–  
–  
–  
–  
–  
Indicated  
–  
–  
–  
–  
–  
–  
Inferred  
318  
1.57  
499  
350  
0.05  
16  
Total  
318  
1.57  
499  
350  
0.05  
16  
Sadiola – stockpile  
Measured  
7,450  
1.40  
10,452  
8,212  
0.04

336  
Indicated  
—  
—  
—  
—  
—  
0  
Inferred  
—  
—  
—  
—  
0  
Total  
7,450  
1.40  
10,452  
8,212  
0.04  
336

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**Inferred Mineral Resource in pit optimisation**

Inferred Mineral Resource was used in the pit optimisation process and 0.8 million ounces are present in the optimised pit.

**Mineral Resource**

*(continued)*

Metric

Imperial

Au

Au

Resource

Tonnes

Grade

tonnes

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg

(000s)

(oz/t)

(000s)

Sadiola – Tambali south

Measured

–

–

–

–

–

–

Indicated

–

–

–

–

–

–

Inferred

826

1.31

1,084

911

0.04

35

Total

826

1.31

1,084

911  
 0.04  
 35  
 Sadiola – Total Mineral Resource  
 Measured  
 7,607  
 1.45  
 11,065  
 8,385  
 0.04  
 356  
 Indicated  
 17,497  
 2.66  
 46,510  
 19,288  
 0.08  
 1,495  
 Inferred  
 14,489  
 2.37  
 34,406  
 15,972  
 0.07  
 1,106  
 Total  
 39,596  
 2.32  
 91,979  
 43,644  
 0.07  
 2,957  
**Exclusive Mineral Resource**  
 Metric  
 Imperial  
 Au  
 Sadiola Gold Mine –  
 Resource  
 Tonnes  
 Grade  
 Au  
 Tons  
 Grade  
 ounces  
 Exclusive Mineral Resource  
 category  
 (Mt)  
 (g/t)  
 tonnes  
 (Mt)  
 (oz/t)

(Moz)

Measured

—

—

—

—

—

0.0

Indicated

2.8

2.20

6.3

3.1

0.064

0.2

Inferred

14.5

2.37

34.4

16.0

0.069

1.1

Total

17.3

2.35

40.7

19.1

0.068

1.3

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MALI OPERATIONS: SADIOLA

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Sadiola – FE3

Proved

–

–

–

–

–

–

Probable

1,400

2.57

3,593

1,544

0.07

116

Total

1,400

2.57

3,593

1,544

0.07

116

Sadiola – FE4

Proved

–

0.89

–

–

0.03

–

Probable

1,144

2.48

2,841

1,261

0.07

91

Total

1,144

2.48

2,841

1,262

0.07

91

Sadiola – Main deposit

Proved

142

4.27

608

157

0.12

20

Probable

12,251

2.84

34,840

13,505

0.08

1,120

Total

12,394

2.86

35,447

13,662

0.08

1,140

Sadiola – Stockpile full grade ore

Proved

2,455

2.56

6,276

2,706

0.07

202

Probable

–

–

–

–

–

–

Total  
 2,455  
 2.56  
 6,276  
 2,706  
 0.07  
 202  
 Sadiola – Stockpile marginal  
 Proved  
 4,854  
 0.80  
 3,884  
 5,351  
 0.02  
 125  
 Probable  
 –  
 –  
 –  
 –  
 –  
 –  
 Total  
 4,854  
 0.80  
 3,884  
 5,351  
 0.02  
 125  
 Sadiola – Total Ore Reserve  
 Proved  
 7,451  
 1.45  
 10,768  
 8,214  
 0.04  
 346  
 Probable  
 14,795  
 2.79  
 41,274  
 16,310  
 0.08  
 1,327  
 Total  
 22,247  
 2.34  
 52,041  
 24,525  
 0.07  
 1,673



**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

S Robins

MAuSIMM

222533

11 years

Ore Reserve

B De Oliveira

MAuSIMM

225194

29 years

**Grade tonnage information**

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MALI OPERATIONS: YATELA

**Yatela**

Yatela is situated some 25km north of Sadiola and approximately 50km south-south-west of Kayes. Mining takes place in an open pit.

**Geology**

Yatela mineralisation occurs as a keel-shaped body in Birimian metacarbonates. The 'keel' is centred on a fault which was the feeder for the original mesothermal mineralisation, with an associated weakly mineralised diorite intrusion. This primary mineralisation was concentrated to economic grades through dissolution of carbonate-rich rocks by supergene processes. Gold is disseminated in the unconsolidated ferruginous, sandy, locally clayed layer that lines the bottom of a deep trough (max 220m deep) with steep margins. The ore dips almost vertically on the west limb and more gently towards the west on the east limb, with tight closure to the south.

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MALI OPERATIONS: YATELA

Metagreywacke

Overburden

Fine Sandstone

Oxide Footwall

Dolomite

Diorite (Micro)

Main mineralised unit

(Orebody)

Coarse Sandstone

Pebble Zone

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Yatela – Alamoutala pit

Measured

8

1.09

9

9

0.03

–

Indicated

652

1.77

1,153

718

0.05

37

Inferred

159

1.77

281

175

0.05  
 9  
 Total  
 818  
 1.76  
 1,442  
 902  
 0.05  
 46  
 Yatela – KW 18  
 Measured  
 –  
 –  
 –  
 –  
 –  
 Indicated  
 193  
 1.32  
 256  
 213  
 0.04  
 8  
 Inferred  
 8  
 1.74  
 14  
 9  
 0.05  
 –  
 Total  
 201  
 1.34  
 270  
 222  
 0.04  
 8  
 Yatela – main pit  
 Measured  
 934  
 4.40  
 4,106  
 1,030  
 0.13  
 132  
 Indicated  
 1,299  
 3.85  
 5,005  
 1,431

0.11  
 161  
 Inferred  
 839  
 3.24  
 2,715  
 925  
 0.09  
 87  
 Total  
 3,072  
 3.85  
 11,827  
 3,386  
 0.11  
 380  
 Yatela – stockpile  
 Measured  
 2,067  
 0.93  
 1,928  
 2,278  
 0.03  
 62  
 Indicated  
 –  
 –  
 –  
 –  
 –  
 –  
 –  
 Inferred  
 –  
 –  
 –  
 –  
 –  
 –  
 Total  
 2,067  
 0.93  
 1,928  
 2,278  
 0.03  
 62  
 Yatela – total Mineral Resource  
 Measured  
 3,009  
 2.01  
 6,043  
 3,317

0.06  
194  
Indicated  
2,144  
2.99  
6,414  
2,362  
0.09  
206  
Inferred  
1,006  
2.99  
3,010  
1,109  
0.09  
97  
Total  
6,158  
2.51  
15,467  
6,788  
0.07  
497

*Geological cross-section 58500 (looking North).*

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**Exclusive Mineral Resource**

Metric

Imperial

Au

Yatela Gold Mine –

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

0.4

1.99

0.7

0.4

0.058

–

Indicated

1.3

1.97

2.5

1.4

0.057

0.1

Inferred

1.0

2.99

3.0

1.1

0.087

0.1

Total

2.6

2.36

6.2

2.9

0.069

0.2

**Inferred Mineral Resource in pit optimisation**

Inferred Mineral Resource were used in the pit optimisation process and 0.04 million ounces are

present in the optimised pit.

**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Yatela – Alamoutala pit

Proved

–

–

–

–

–

–

Probable

121

1.57

189

133

0.05

6

Total

121

1.57

189

133

0.05

6

Yatela – main pit

Proved

–

–

–

–

–

–

Probable



1,311

4.91

6,439

1,445

0.14

207

Total

1,311

4.91

6,439

1,445

0.14

207

Yatela – stockpile full grade ore

Proved

484

1.76

852

534

0.05

27

Probable

–

–

–

–

–

–

Total

484

1.76

852

534

0.05

27

Yatela – stockpile marginal grade ore

Proved

1,582

0.69

1,088

1,744

0.02

35

Probable

–

–

–

–

–

–

Total

1,582

0.69

1,088

1,744

0.02

35

Yatela – total Ore Reserve

Proved

2,066

0.94

1,940

2,278

0.03

62

Probable

1,432

4.63

6,628

1,578

0.13

213

Total

3,498

2.45

8,568

3,856

0.07

275

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MALI OPERATIONS: YATELA

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

S Robins

MAuSIMM

222533

11 years

Ore Reserve

P Day

MAuSIMM

223906

15 years

**Grade tonnage information**

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MALI OPERATIONS: MORILA

**Morila**

This mine is situated some 180km by road southeast of Bamako, the capital city of Mali, which is 600km south-east of Sadiola mine. Mining is from a single open-pit operation, utilising conventional truck and shovel methods

**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 Banafing 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 chalcocopyrite).

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MALI OPERATIONS: MORILA

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Morila – main pit

Measured

2,264

3.44

7,781

2,495

0.10

250

Indicated

3,798

3.34

12,670

4,187

0.10

407

Inferred

1,235

3.31

4,084

1,361

0.10

131

Total

7,297

3.36

24,536

8,043

0.10

789

Morila – stockpiles

Measured

5,923

1.81

10,712

6,529

0.05

344

Indicated

—

—

—

—

—

—

Inferred

—

—

—

—

—

—

Total

5,923

1.81

10,712

6,529

0.05

344

Morila – tailings

Measured

29

4.33

124

32

0.13

4

Indicated

—

—

—

—

—

—

Inferred

—

—

—

—

—

Total

29  
4.33  
124  
32  
0.13  
4  
Morila – total Mineral Resource  
Measured  
8,216  
2.27  
18,617  
9,056  
0.07  
599  
Indicated  
3,798  
3.34  
12,670  
4,187  
0.10  
407  
Inferred  
1,235  
3.31  
4,084  
1,361  
0.10  
131  
Total  
13,249  
2.67  
35,372  
14,604  
0.08  
1,137  
**Exclusive Mineral Resource**  
Metric  
Imperial  
Au  
Morila Gold Mine –  
Resource  
Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
Exclusive Mineral Resource  
category  
(Mt)  
(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

0.1

1.92

0.1

0.1

0.056

0.004

Indicated

0.4

2.63

1.0

0.4

0.077

0.032

Inferred

0.2

2.24

0.4

0.2

0.065

0.011

Total

0.6

2.44

1.5

0.7

0.071

0.047

**Inferred Mineral Resources in pit optimisation**

Inferred Mineral Resource was used in the pit optimisation process and 0.046 million ounces are present in the optimised pit.



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**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Morila – stockpiles full grade ore

Proved

4,138

2.09

8,656

4,562

0.06

278

Probable

–

–

–

–

–

–

Total

4,138

2.09

8,656

4,562

0.06

278

Morila – stockpiles marginal ore

Proved

–

–

–

–

–

–

Probable

1,784  
 1.14  
 2,035  
 1,967  
 0.03  
 65  
 Total  
 1,784  
 1.14  
 2,035  
 1,967  
 0.03  
 65  
 Morila – sulphides  
 Proved  
 2,004  
 3.34  
 6,684  
 2,209  
 0.10  
 215  
 Probable  
 1,956  
 4.16  
 8,143  
 2,156  
 0.12  
 262  
 Total  
 3,960  
 3.74  
 14,827  
 4,365  
 0.11  
 477  
 Morila – sulphides marginal ore  
 Proved  
 –  
 –  
 –  
 –  
 –  
 –  
 Probable  
 771  
 1.17  
 905  
 850  
 0.03  
 29  
 Total

771  
 1.17  
 905  
 850  
 0.03  
 29  
 Morila – tailings  
 Proved  
 –  
 –  
 –  
 –  
 –  
 Probable  
 29  
 4.33  
 124  
 32  
 0.13  
 4  
 Total  
 29  
 4.33  
 124  
 32  
 0.13  
 4  
 Morila – total Ore Reserve  
 Proved  
 6,142  
 2.50  
 15,340  
 6,771  
 0.07  
 493  
 Probable  
 4,540  
 2.47  
 11,207  
 5,005  
 0.07  
 360  
 Total  
 10,682  
 2.49  
 26,547  
 11,776  
 0.07  
 854  
**Competent persons**

Professional  
Registration  
Relevant

Type

Name

organisation

number

experience

Mineral Resource

P Weedon

MAuSIMM

204701

15 years

Ore Reserve

S K Ndede

MAuSIMM

201772

18 years

**Grade tonnage information**

N  
0  
300km  
Okahandja  
Navachab  
Tsumeb  
Walvis Bay  
Luderitz  
Keetmanshoop  
Operations  
Karibib  
NAMIBIA  
Windhoek

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NAMIBIAN OPERATIONS: OVERVIEW

**Namibia**

Navachab Gold Mine is wholly owned by AngloGold Ashanti.

**Mineral Resource and Ore Reserve gold price**

**Mineral Resource and Ore Reserve gold price**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400

Exchange rate – South Africa

ZAR/US\$

6.50

6.75

**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 smallest mining unit (SMU).

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**Ore Reserve estimation**

MineSight

®  
 optimisation software is used to generate optimised pit shells taking into cognisance the economic parameters. The final pits are then designed taking into consideration the optimised pit shell, recommended slope geometry and ramp access requirements.

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

RC

Comment

m (- x - y)

Namibia

Navachab

Measured

10 x 10

X

Drillhole spacing is reduced to 5m x

5m in complex ore.

Indicated

25 x 25

X

Inferred

50 x 50

X

X

Grade/ore control

5 x 10

X

**Modifying factors**

**Ore Reserve modifying factors** (as at 31 December 2006)

Cut-off

Metallurgical

Namibia

grade

Dilution

(1)

Recovery

Other

Mine

g/t (Au)

%

Factor

Factor

Navachab – pit

0.60

n/a

92%

n/a

(1)

Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

**Summary of Mineral Resource and Ore Reserve changes**

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec

after

after

Operation

attributable

Category

2005 Depletion

(1)

change

(2)

depletion 2006

depletion

depletion

Comments

Namibia

Navachab

100%

Resource

1.793

-0.136

2.114 118%

3.771

1.978

110%

Due to successful exploration,  
increased gold price and improved  
mining efficiencies

Reserve

0.542

-0.096

0.270

50%

0.716

0.174

32%  
Due to the increased gold price  
marginal ore is now economic and  
the pit is larger  
Namibia Totals:  
Resource  
1.793  
-0.136  
2.114 118%  
3.771  
1.978  
110%  
Reserve  
0.542 -0.096 0.270 50%  
0.716  
0.174  
32%  
(1)  
Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.  
(2)  
Other change: Model and scope changes.



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NAMIBIAN OPERATIONS: NAVACHAB

**Navachab**

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 110,000 tonnes per month, includes mills, carbon-in-pulp (CIP) and electro-winning facilities.

**Geology**

The Navachab gold deposit is located in the Pan-African Damara Orogen. The mineralisation in the Main Pit is hosted by a NE-SW striking metamorphosed sequence of greenschist-amphibolite facies, calc-silicates, marbles and volcanoclastics rocks that dip at 70° to the west. The gold is very fine-grained and associated with pyrrhotite and minor amounts of pyrite, chalcopyrite, maldonite and bismuthinite. An estimated 90% of the gold occurs as free gold and the remainder is present in minerals such as maldonite (Au<sub>2</sub>Bi). Silver is also present and the gold to silver ratio is about 15 to 1.

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W

E

Karibib FM

Oberwasser FM

Oxide

(MDMV)

Okawayo FM

MC

Zone

SC

LS

LSC

LS

Etusis FM

Chuos FM

Oxide

Calcrete

Spasbunn FM

35m

*An E-W section through the valley hosting the Navachab mineralisation. LS refers to mainly quartzbiotite schist (BISH) rock type and LSC refers to calc-silicate bearing rock (CS or BSC).*

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Navachab – anomaly 16

Measured

–

–

–

–

–

–

Indicated

2

0.73  
1  
2  
0.02  
0  
Inferred  
2,240  
1.09  
2,438  
2,469  
0.03  
78  
Total  
2,242  
1.09  
2,439  
2,471  
0.03  
78  
Navachab – gecko  
Measured  
–  
–  
–  
–  
–  
–  
Indicated  
–  
–  
–  
–  
–  
Inferred  
439  
1.78  
779  
484  
0.05  
25  
Total  
439  
1.78  
779  
484  
0.05  
25  
Navachab – grid A  
Measured  
513

2.48  
1,276  
566  
0.07  
41  
Indicated  
293  
1.91  
561  
323  
0.06  
18  
Inferred  
95  
1.25  
118  
104  
0.04  
4  
Total  
901  
2.17  
1,955  
994  
0.06  
63  
Navachab – main pit  
Measured  
1,404  
1.40  
1,967  
1,548  
0.04  
63  
Indicated  
53,460  
1.28  
68,521  
58,930  
0.04  
2,203  
Inferred  
30,885  
1.15  
35,595  
34,045  
0.03  
1,144  
Total  
85,749  
1.24

106,084  
 94,522  
 0.04  
 3,411  
 Navachab – stockpiles  
 Measured  
 9,527  
 0.63  
 6,040  
 10,501  
 0.02  
 194  
 Indicated  
 –  
 –  
 –  
 –  
 –  
 –  
 Inferred  
 –  
 –  
 –  
 –  
 –  
 Total  
 9,527  
 0.63  
 6,040  
 10,501  
 0.02  
 194  
 Navachab – total  
 Measured  
 11,444  
 0.81  
 9,283  
 12,615  
 0.02  
 298  
 Mineral Resource  
 Indicated  
 53,755  
 1.29  
 69,083  
 59,255  
 0.04  
 2,221  
 Inferred  
 33,659

1.16  
38,930  
37,102  
0.03  
1,252  
Total  
98,858  
1.19  
117,297  
108,972  
0.03  
3,771

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NAMIBIAN OPERATIONS: NAVACHAB

**Inferred Mineral Resource in business plan**

Inferred Mineral Resource was used in the pit optimisation process and 0.23 million ounces are present in the optimised pit.

**Exclusive Mineral Resource**

Metric

Imperial

Au

Navachab Gold Mine –

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

6.1

0.62

3.8

6.7

0.018

0.1

Indicated

39.5

1.27

50.3

43.6

0.037

1.6

Inferred

27.0

1.15

31.2

29.7

0.034

1.0

Total

72.6

1.17

85.3

80.0

0.034

2.7

This exclusive Mineral Resource comprises largely main pit and to a lesser extent anomaly 16 and the gecko orebodies which forms potentially future Ore

Reserve dependant on the gold price and completion of technical studies.



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**Ore Reserve**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Navachab – grid A

Proved

482

2.50

1,207

532

0.07

39

Probable

224

2.02

452

247

0.06

14.55

Total

707

2.35

1,660

779

0.07

53

Navachab – main pit

Proved

660

2.07

1,367

727

0.06

44

Probable

9,916  
 1.62  
 16,067  
 10,930  
 0.05  
 517

Total  
 10,576  
 1.65  
 17,434  
 11,658  
 0.05  
 561

Navachab – stockpiles

Proved  
 565  
 1.48  
 836  
 623  
 0.04  
 27

full grade ore  
 Probable

–  
 –  
 –  
 –  
 –  
 –

Total  
 565  
 1.48  
 836  
 623  
 0.04  
 27

Navachab – stockpiles – marginal

Proved  
 3,608  
 0.65  
 2,345  
 3,977  
 0.02  
 75

Probable  
 –  
 –  
 –  
 –  
 –  
 –

Total  
 3,608  
 0.65  
 2,345  
 3,977  
 0.02  
 75  
 Navachab – total Ore Reserve

Proved

5,315

1.08

5,755

5,859

0.03

185

Probable

10,140

1.63

16,519

11,177

0.05

531

Total

15,456

1.44

22,275

17,037

0.04

716

**Grade tonnage information**

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

F P Badenhorst

SACNASP

400031/02

16 years

MAuSIMM

211026

Ore Reserve

R Schommarz

MAuSIMM

222570

16 years

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TANZANIAN OPERATIONS: 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. After the merger of the two companies, Geita is now a wholly owned subsidiary.

**Mineral Resource and Ore Reserve gold price**

**Mineral Resource and Ore Reserve gold price**

Units

2006

2005

Mineral Resource gold price

US\$/oz

650

425

Ore Reserve gold price

US\$/oz

550

400

**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

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of the blocks. A block size which gives an optimal variance is then chosen. (40m x 40m x 5m) 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).

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

RC

m (- x - y)

Tanzania

Geita

Measured

10 x 10

X

X

Indicated

40 x 40

X

X

Inferred

50 x 50

X

X

Grade/Ore Control

10 x 10

X

**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 factors 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.

**Modifying factors**

**Ore Reserve modifying factors** (as at 31 December 2006)

Cut-off

Metallurgical

Tanzania

grade

Dilution

(1)

recovery

Other

Mine

g/t (Au)

%

factor

factor

Comments

Geita

0.8 – 3.0

5%

66% - 95%

n/a

Recovery and cut-off grade vary  
with pit and ore type.

(1)

Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

**Summary of Mineral Resource and Ore Reserve changes**

**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec

after

after

Operation

attributable

Category

2005 Depletion

(1)

change

(2)

depletion 2006

depletion

depletion

Comments

Tanzania

Geita

100%

Resource

13.307

-0.636

2.065

16% 14.736

1.429

11%

Due to revised Mineral Resource

Models, exploration and increased

gold price

Reserve

8.497 -0.460 0.437 5%

8.474 -0.023

0%

Tanzania Totals:

Resource

13.307

-0.636

2.065

16% 14.736

1.429

11%

Reserve

8.497 -0.460 0.437 5%

8.474 -0.023

0%

(1)

Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2)

Other change: Model and scope changes.

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TANZANIAN OPERATIONS: GEITA

**Geita**

Geita Gold Mine is located approximately 910km from Dar es Salaam in the Lake Zone of Northern Tanzania; the tenement is geologically situated within the Sukumaland Greenstone Belt of the Lake Victoria Goldfields which hosts 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 1000m thick. In the mine lease area, north west trending deformation corridors separate the Geita Greenstone trend into three distinct sub-terrains, which have been named Nyamulilima in the west, Geita in the central part and Kukuluma to the north-east. 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.



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NYRC 126

36m@6.2g/t

NYRC 223

37m@7.1g/t

NYRC 228

24m@5.1g/t

NYRC 327

27m@5.3g/t

NYRC 355

15m@9.1g/t

NYRC 536

17m@7.1g/t

NYDD 32

19m@4.6g/t

NYDD 31

26m@3.9g/t

NYRC 133

30m@10.2g/t

SE

NW

1000m RL

500m RL

Nyankanga

section 50 120m E

500m

Ferricrete

Quartz porphyry

Felsic porphyry

Plagioclase-porphyrific diorite

Mineralisation

Diorite (shown in boreholes only)

BIF (shown in boreholes only)

Current

pitshell

LOM

pitshell

*Nyankanga section showing the ore body geometry*

**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Geita – Area 3 west

Measured

–

–

–

–

–

–

Indicated

1,127

2.11

2,377

1,242

0.06

76

Inferred

–

–

–

–

–

–

Total

1,127

2.11

2,377

1,242

0.06

76

Geita – Chipaka

Measured

–

–

–

–

–

–

Indicated

1,552

2.31

3,581

1,711

0.07

115

Inferred

—  
—  
—  
—  
—  
—  
Total  
1,552  
2.31  
3,581  
1,711  
0.07  
115  
Geita – Geita Hill surface  
Measured  
—  
—  
—  
—  
—  
—  
Indicated  
38,139  
2.68  
102,078  
42,041  
0.08  
3,282  
Inferred  
3,794  
3.58  
13,594  
4,182  
0.10  
437  
Total  
41,933  
2.76  
115,672  
46,223  
0.08  
3,719  
Geita – Kukuluma  
Measured  
—  
—  
—  
—  
—  
—  
Indicated

2,146  
3.24  
6,946  
2,366  
0.09  
223  
Inferred  
29  
3.10  
91  
32  
0.09  
3  
Total  
2,175  
3.24  
7,038  
2,398  
0.09  
226

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TANZANIAN OPERATIONS: GEITA

**Mineral Resource**

*(continued)*

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Geita – Lone Cone

Measured

–

–

–

–

–

–

Indicated

2,546

2.46

6,256

2,807

0.07

201

Inferred

415

1.98

821

457

0.06

26

Total

2,961

2.39

7,076

3,264

0.07

228

Geita – Matandani

Measured

–  
–  
–  
–  
–  
–

Indicated

6,192  
4.36  
27,010  
6,826  
0.13  
868

Inferred

24  
16.21  
389  
26  
0.47  
13

Total

6,216  
4.41  
27,400  
6,852  
0.13  
881

Geita – Nyankanga south

Measured

–  
–  
–  
–  
–  
–

Indicated

–  
–  
–  
–  
–  
–

Inferred

869  
4.00  
3,471  
957  
0.12  
112

|                               |  |
|-------------------------------|--|
| Total                         |  |
| 869                           |  |
| 4.00                          |  |
| 3,471                         |  |
| 957                           |  |
| 0.12                          |  |
| 112                           |  |
| Geita – Nyankanga surface     |  |
| Measured                      |  |
| –                             |  |
| –                             |  |
| –                             |  |
| –                             |  |
| –                             |  |
| Indicated                     |  |
| 46,025                        |  |
| 3.64                          |  |
| 167,758                       |  |
| 50,734                        |  |
| 0.11                          |  |
| 5,394                         |  |
| Inferred                      |  |
| 14,483                        |  |
| 2.14                          |  |
| 31,035                        |  |
| 15,965                        |  |
| 0.06                          |  |
| 998                           |  |
| Total                         |  |
| 60,508                        |  |
| 3.29                          |  |
| 198,793                       |  |
| 66,699                        |  |
| 0.10                          |  |
| 6,391                         |  |
| Geita – Nyankanga underground |  |
| Measured                      |  |
| –                             |  |
| –                             |  |
| –                             |  |
| –                             |  |
| –                             |  |
| Indicated                     |  |
| 2,610                         |  |
| 6.49                          |  |
| 16,946                        |  |
| 2,877                         |  |
| 0.19                          |  |
| 545                           |  |

Inferred

2,177

6.26

13,623

2,400

0.18

438

Total

4,787

6.39

30,568

5,277

0.19

983

Geita – Ridge 8 surface

Measured

–

–

–

–

–

–

Indicated

5,101

2.80

14,301

5,622

0.08

460

Inferred

132

2.29

304

146

0.07

10

Total

5,233

2.79

14,605

5,768

0.08

470

Geita – Ridge 8 underground

Measured

–

–

–

–

–

–



Indicated

408

4.91

2,004

450

0.14

64

Inferred

1,990

5.13

10,208

2,194

0.15

328

Total

2,398

5.09

12,212

2,644

0.15

393

Geita – Roberts

Measured

–

–

–

–

–

–

Indicated

4,668

2.32

10,824

5,146

0.07

348

Inferred

–

–

–

–

–

–

Total

4,668

2.32

10,824

5,146

0.07

348

Geita – Star and Comet

Measured

—  
—  
—  
—  
—  
—

Indicated

3,642  
5.24  
19,085  
4,014  
0.15  
614

Inferred

425  
4.00  
1,700  
469  
0.12  
55

Total

4,067  
5.11  
20,785  
4,483  
0.15  
668

Geita – Stockpile

Measured

4,043  
0.97  
3,923  
4,457  
0.03  
126

Indicated

—  
—  
—  
—  
—  
—

Inferred

—  
—  
—  
—  
—  
—

Total

4,043

0.97

3,923

4,457

0.03

126

Geita – Total Mineral Resource

Measured

4,043

0.97

3,923

4,457

0.03

126

Indicated

114,156

3.32

379,166

125,836

0.10

12,190

Inferred

24,338

3.09

75,236

26,828

0.09

2,420

Total

142,537

3.22

458,325

157,121

0.09

14,736

AngloGold Ashanti **Mineral Resource and Ore Reserve** 2006 *Page 109*

Kukuluma, Nyankanga South, Nyankanga underground, Ridge 8 underground and all Inferred Mineral Resource form potential future extensions to the current Ore Reserve, dependent on the gold price and technical studies.

**Inferred Mineral Resources in business plan**

Inferred Mineral Resource is used in the pit optimisation process and 0.87 million ounces are present in the optimised pit.

**Exclusive Mineral Resource**

Metric

Imperial

Au

Geita Gold Mine –

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Exclusive Mineral Resource

category

(Mt)

(g/t)

tonnes

(Mt)

(oz/t)

(Moz)

Measured

–

–

–

–

–

–

Indicated

29.9

3.04

90.8

32.9

0.089

2.9

Inferred

13.4

3.77

50.6

14.8

0.110

1.6

Total

43.3

3.27

141.4  
47.7  
0.095  
4.5

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**Ore Reserves**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

Geita – Area 3 west

Proved

–

–

–

–

–

–

Probable

433

2.78

1,204

478

0.08

39

Total

433

2.78

1,204

478

0.08

39

Geita – Chipaka

Proved

–

–

–

–

–

–

Probable

944  
 2.45  
 2,311  
 1,040  
 0.07  
 74  
 Total  
 944  
 2.45  
 2,311  
 1,040  
 0.07  
 74  
 Geita – Geita Hill surface  
 Proved  
 –  
 –  
 –  
 –  
 –  
 –  
 Probable  
 27,780  
 2.73  
 75,971  
 30,622  
 0.08  
 2,443  
 Total  
 27,780  
 2.73  
 75,971  
 30,622  
 0.08  
 2,443  
 Geita – Lone Cone  
 Proved  
 –  
 –  
 –  
 –  
 –  
 –  
 Probable  
 1,145  
 2.77  
 3,172  
 1,262  
 0.08  
 102  
 Total

1,145

2.77

3,172

1,262

0.08

102

Geita – Matandani

Proved

–

–

–

–

–

–

Probable

1,421

3.03

4,307

1,566

0.09

138

Total

1,421

3.03

4,307

1,566

0.09

138

Geita – Nyankanga surface

Proved

–

–

–

–

–

–

Probable

34,871

4.03

140,449

38,438

0.12

4,516

Total

34,871

4.03

140,449

38,438

0.12

4,516

Geita – Ridge 8 surface



Proved

—  
—  
—  
—  
—  
—

Probable

1,426  
3.06  
4,366  
1,572  
0.09  
140

Total

1,426  
3.06  
4,366  
1,572  
0.09  
140

Geita – Roberts

Proved

—  
—  
—  
—  
—  
—

Probable

3,645  
2.72  
9,913  
4,017  
0.08  
319

Total

3,645  
2.72  
9,913  
4,017  
0.08  
319

Geita – Star and Comet

Proved

—  
—  
—  
—  
—  
—

Probable

3,255

5.51

17,950

3,588

0.16

577

Total

3,255

5.51

17,950

3,588

0.16

577

Geita – stockpile full grade ore

Proved

282

2.09

589

311

0.06

19

Probable

–

–

–

–

–

–

Total

282

2.09

589

311

0.06

19

Geita – stockpile marginal

Proved

3,762

0.89

3,335

4,146

0.03

107

Probable

–

–

–

–

–

–

Total

3,762

0.89

3,335

4,146

0.03

107

Geita – total Ore Reserve

Proved

4,044

0.97

3,924

4,457

0.03

126

Probable

74,920

3.47

259,643

82,583

0.10

8,348

Total

78,964

3.34

263,567

87,040

0.10

8,474

TANZANIAN OPERATIONS: GEITA

AngloGold Ashanti\_Mineral Resource and Ore Reserve 2006\_Page 111

**Grade tonnage information**

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

J Gaunt

MAuSIMM

220840

11 years

Ore Reserve

E Smuts

MAuSIMM

211798

11 years

SAIMM

56520

Washington  
DC

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UNITED STATES OPERATIONS: OVERVIEW

**United States**

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. The stake in the Jerritt Canyon joint venture was sold to Queenstake in mid-2003. AngloGold Ashanti (Colorado) Corporation, holds a 67% interest in CC&V with a 100% interest in gold produced until loans extended to the joint venture are repaid.

**Mineral Resource and Ore Reserve gold price**

**Mineral Resource and Ore Reserve gold price**

Units

2006

2005

Mineral Resource Gold Price

US\$/oz

650

425

Ore Reserve Gold Price

US\$/oz

550

400

**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 drill hole information is used throughout. The drill-hole database is thoroughly reviewed before each Mineral Resource estimation and the estimation domains are based primarily on lithology for each deposit

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**Inferred Mineral Resource in business plan**

Inferred Mineral Resource is not used in the pit optimisation.

**Ore Reserve estimation**

The Ore Reserve pit designs were based on Lerchs-Grossmann (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.

**Modifying factors**

**Ore Reserve modifying factors** (as at 31 December 2006)

USA

Cut-off

Metallurgical

grade

Dilution

(1)

Recovery

Other

Mine

g/t (Au)

%

Factor

Factor

CC&V

0.24

n/a

62%

n/a

(1)

Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

**Details of average drill-hole spacing and type in relation to Mineral Resource classification**

Type of Drilling

Country

Mine

Category

Spacing

Diamond

RC

Comment

m (- x - y)

USA

CC&V

Measured

<30 x 30

X

X

Indicated

>30 x 30

X  
X  
Use probability field to delineate Measured  
and Indicated Resource.

Inferred  
>30 x 30  
X  
Double search range.  
Grade/Ore Control  
5 x 6  
Blastholes are used.

**Summary of Mineral Resource and Ore Reserve changes**  
**Mineral Resource and Ore Reserve comparison by operation (attributable)**

AU CONTENT (ATTRIBUTABLE) (MILLION OUNCES)

% change

% change

from

from

2005

Nett diff

2005

Percentage

Other before

Dec

after

after

Operation

attributable

Category

2005 Depletion

(1)

change

(2)

depletion 2006

depletion

depletion

Comments

USA

CC&V

100%

Resource

6.761

-0.573

1.145

17%

7.333

0.572

8%

Due to successful exploration and  
gold price

Reserve

3.303

-0.573

1.112

34%

3.842

0.539

16%

Due to planned extension of life

USA Totals:

Resource

6.761

-0.573

1.145

17%

7.333

0.572

8%

Reserve

3.303   -0.573   1.112   34%

3.842

0.539

16%

(1)

Depletion: Reduction in reserves based on ore delivered to the plant and corresponding reduction in Mineral Resource.

(2)

Other change: Model and scope changes.



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UNITED STATES OPERATIONS: CRIPPLE CREEK AND VICTOR

**Cripple Creek and Victor (CC&V)**

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.

**Geology**

The dominant geological feature of the District is a 32-28 Ma diatreme-intrusive complex hosted in Precambrian rocks located between the towns of Cripple Creek and Victor. The diatreme intrusive complex is 6.4km long, 3.2km wide and consists of diatremal breccia that has been intruded by stocks, dykes and discordant breccias. Diatremal breccia lithologies include breccias composed exclusively of volcanic, Precambrian or sedimentary material to any combination of the three. Early intrusions are predominantly within the alkaline phonolite-phonotephrite petrographic series and were followed by later lamprophyres. All rocks have undergone a complex history of structural deformation and hydrothermal activity. Gold mineralisation, dated between 27.8 Ma and 26.6 Ma is hosted in all rock types as veins and disseminated and/or structurally-controlled orebodies. Primary ore minerals include microscopic native gold, native gold with pyrite and gold tellurides. Silver is present but has minimal economic importance.

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**Mineral Resource**

Metric

Imperial

Au

Resource

Tonnes

Grade

Au

Tons

Grade

ounces

Mine/Project

category

(000s)

(g/t)

(kg)

(000s)

(oz/t)

(000s)

CC&V Measured

180,250

0.82

148,348

198,691

0.02

4,770

Mineral Resource

Indicated

95,658

0.75

71,460

105,445

0.02

2,297

Inferred

14,112

0.59

8,289

15,556

0.02

266

Total

290,020

0.79

228,097

319,692

0.02

7,333

**Exclusive Mineral Resource**

Metric

Imperial  
Au  
CC&V –  
Resource  
Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
Exclusive Mineral Resource  
category  
(Mt)  
(g/t)  
tonnes  
(Mt)  
(oz/t)  
(Moz)  
Measured  
86.8  
0.71  
61.3  
95.7  
0.021  
2.0  
Indicated  
60.1  
0.65  
39.0  
66.2  
0.019  
1.3  
Inferred  
14.1  
0.59  
8.3  
15.6  
0.017  
0.3  
Total  
161.0  
0.67  
108.6  
177.5  
0.020  
3.5  
**Ore Reserve**  
Metric  
Imperial  
Au  
Resource

Tonnes  
Grade  
Au  
Tons  
Grade  
ounces  
Mine/Project  
category  
(000s)  
(g/t)  
(kg)  
(000s)  
(oz/t)  
(000s)  
CC&V  
Proved  
93,436  
0.93  
87,016  
102,995  
0.030  
2,798  
Probable  
35,595  
0.91  
32,498  
39,237  
0.030  
1,045  
Total  
129,031  
0.93  
119,514  
142,232  
0.030  
3,842

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UNITED STATES OPERATIONS: CRIPPLE CREEK AND VICTOR

**Grade tonnage information**

**Competent persons**

Professional

Registration

Relevant

Type

Name

organisation

number

experience

Mineral Resource

L Billingsley

MAuSIMM

224930

18 years

Ore Reserve

L Billingsley

MAuSIMM

224930

18 years

**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 29, 2007

By:

/s/ L Eatwell

Name: Lynda Eatwell

Title: Company Secretary