ANGLOGOLD ASHANTI LTD
Form 6-K
March 31, 2011
UNITED STATES
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 31, 2011
Commission File Number 1-14846
AngloGold Ashanti Limited
(Name of registrant)
76 Jeppe Street
Newtown, 2001
(P.O. Box 62117, Marshalltown, 2107)
South Africa
(Address of principal executive offices)
Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F X Form 40-F
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):
Yes **No X**

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):
Yes **No X**

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.
Yes **No X**
Enclosure: Press release
ANGLOGOLD ASHANTI MINERAL RESOURCE AND ORE
RESERVE STATEMENT 2010

gold
Mineral Resource and Ore Reserve
Report **2010**
pure

Scope of report

AngloGold Ashanti's Mineral Resource and Ore Reserve are reported in accordance with the minimum standards described by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2004 Edition), and also conform to the standards set out in the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code) 2007 edition.

The Mineral Resource is inclusive of the Ore Reserve component unless otherwise stated. Note also that all Mineral Resources and Ore Reserves listed in this document are attributable unless otherwise stated.

Information is presented either by operating region, country, mine or project. The following tables and graphs are used to illustrate developments across AngloGold Ashanti's operations during 2010:

Mineral Resource and Ore Reserve comparison by region, country, mine and project; development sampling results; details of average drill-hole spacing and type; Exclusive Mineral Resource; Mineral Resource below infrastructure; Mineral Resource and Ore Reserve by-products; year-on-year reconciliation of the Mineral Resource and Ore Reserve; Inferred Mineral Resource in business plan; Ore Reserve modifying factors; grade tonnage information on the Mineral Resource and lists of appointed competent persons.

Topics for brief discussion include Regional Overview; Country Overview; Mineral Resource estimation; Ore Reserve estimation; Location; Geology; Exploration and Projects.

This document, the Mineral Resource and Ore Reserve Report 2010, is a key component of the AngloGold Ashanti suite of 2010 annual reports produced to record the company's performance regarding its finances, operations and sustainability activities for the 12 months ended 31 December 2010. Other major documents in this suite of reports are the Annual Financial Statements 2010 and the Sustainability Review 2010, both of which are available on the corporate website, www.anglogoldashanti.com. The Annual Financial Statements 2010 contains a summary extract of AngloGold Ashanti's Mineral Resource and Ore Reserve.

Note: Rounding of figures in this document may result in minor computational discrepancies. Throughout this report, dollar or $ represents US dollar unless otherwise stated. All grade tonnage graphs in this document are for Mineral Resources.

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Contents
Our areas of focus in this report

United States
Cripple Creek & Victor 233,000oz
Colombia
La Colosa
Gramalote
Brazil
Serra Grande
77,000oz
AGA Mineração
338,000oz
Operations
Projects
Marine exploration
Argentina
Cerro Vanguardia
194,000oz
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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
Corporate profile
Corporate profile
Locations of operations
Headquartered in Johannesburg, South Africa, AngloGold Ashanti has 20 operations on four continents and several exploration programmes in both the established and new gold-producing regions of the world.
AngloGold Ashanti employed 62,046 people, including contractors, in 2010 and produced 4.52Moz of gold (2009: 4.60Moz), generating $5.3bn in sales revenue (2009: $3.8bn). Capital expenditure in 2010 amounted to $1,015m (2009: $1,027m). As at 31 December 2010, AngloGold Ashanti's Ore Reserve totalled 71.2Moz. Each operation's production ounces are detailed on the map displayed.
gold
producer
A truly
of
global

Mali
Morila
95,000oz
Sadiola
118,000oz
Yatela
60,000oz
Guinea
Siguiri
273,000oz
Ghana
Iduapriem
185,000oz
Obuasi
317,000oz
DRC
Mongbwalu
Kibali
Namibia
Navachab 86,000oz
Tanzania
Geita
357,000oz
New Zealand
Offshore areas
Australia
Sunrise Dam
396,000oz
Tropicana
South Africa
Vaal River
Great Noligwa
132,000oz
Kopanang
305,000oz
Moab Khotsong
292,000oz
Tau Lekoa
(1)
63,000oz
Surface operations
179,000oz
West Wits
Mponeng
532,000oz
Savuka
22,000oz
TauTona
259,000oz
(1)
Sold effective 1 August 2010

South Africa
Offshore areas
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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010

Group overview

Mineral Resources and Ore Reserves are reported in accordance with the minimum standards described by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2004 Edition), and also conform to the standards set out in the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2007 edition). Mineral Resources are inclusive of the Ore Reserve component unless otherwise stated.

Mineral Resource

When the 2009 Mineral Resource is restated to exclude the sale of Tau Lekoa (6.2Moz), the Mineral Resource is reduced from 226.7Moz to 220.5Moz. The total Mineral Resource remained steady, dropping slightly from 220.5Moz in 2009 to 220.0Moz in December 2010. A year-on-year increase of 5.8Moz occurred before the subtraction of depletion and a decrease of 0.5Moz after the subtraction of depletion. It should be noted that changes in economic assumptions from 2009 to 2010 resulted in the Mineral Resource increasing by 3.5Moz whilst exploration and modelling resulted in an increase of 0.7Moz. The remaining increase of 1.6Moz resulted from various other factors. Depletions from the Mineral Resource for 2009 totalled 6.3Moz.

The Mineral Resource has been estimated at a gold price of US$1,100/oz (2009: US$1,025/oz).

Mineral Resource	Moz
Mineral Resource as at 31 December 2009	226.7
Sale of Tau Lekoa	-6.2
Restated 2009 Mineral Resource	220.5
Reductions	
Great Noligwa Due to economics and depletion	-2.4
TauTona Transfers to Mponeng	-1.3
Siguiri Revision to modelling procedures and increased costs	-1.0
Other Total of non-significant changes	-3.6
Additions	
Vaal River Surface An economic study demonstrated that these tailings can	3.0
West Wits Surface	

be economically reworked to recover uranium
1.3
Other
Total non-significant changes
3.5
Mineral Resource as at 31 December 2010
220.0
*
Rounding of numbers may result in computational discrepancies
Group overview
Mineral Resources and Ore Reserves
growth
underpin
{

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Ore Reserve
Moz
Ore Reserve as at 31 December 2009
71.4
Sale of Tau Lekoa
-0.8
Restated 2009 Ore Reserve
70.6
Reductions
Geita
Depletions and model changes
-0.9
Obuasi
Depletions and refinements to Ore Reserve estimation
-0.7
Siguiri
Remodelling in accordance with reconciliation and depletion
-0.7
TauTona
Depletion and transfers to Mponeng, minor model changes
-0.7
Other
Total non-significant changes
-1.2
Additions
Cripple Creek & Victor
MLE2 project study incorporated
1.4
Mponeng
Successful conversion drilling and minor transfers from TauTona
and Savuka
(1)
1.2
Sadiola
Additions from the Deep Sulphide project
0.8
Other
Total non-significant changes
1.3
Ore Reserve as at 31 December 2010
71.2
*

Rounding of numbers may result in computational discrepancies

(1)

Some of the Ore Reserves previously reflected against TauTona have now been transferred to Mponeng to facilitate the latter's mine plan

Ore Reserve

When the 2009 Ore Reserve is restated to exclude Tau Lekoa (0.8Moz), the 2009 Ore Reserve is reduced from 71.4Moz to 70.6Moz.

Using the restated figure, the AngloGold Ashanti Ore Reserve increased from 70.6Moz in 2009 to 71.2Moz in December 2010.
A year-on-year increase of 6.2Moz occurred before the subtraction of 5.6Moz for depletion, resulting in an increase of 0.6Moz after
the subtraction of depletion. It should be noted that changes in the economic assumptions from 2009 to 2010 resulted in the
Ore Reserve increasing by 2.4Moz while exploration and modelling resulted in a further increase of 3.8Moz.
The Ore Reserve has been estimated using a gold price of US$850/oz (2009: US$800/oz).

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
Group overview
Group overview
By-products
Several by-products are recovered as a result of the processing of gold Ore Reserves. These include 21,591t of uranium oxide from
the South African operations, 443,761t of sulphur from Brazil and 34.6Moz of silver from Argentina. Details of by-product Mineral
Resources and Ore Reserves are provided later in this report.
External audit of Mineral Resource
During the course of the year and as part of the rolling audit programme, AngloGold Ashanti's 2010 Mineral Resources at the following
operations were submitted for external audit by the Australian-based company Quantitative Group (QG):

- Vaal Reef at Great Noligwa, Kopanang
- Serra Grande
and Moab Khotsong mines
- Cripple Creek & Victor
- Cerro Vanguardia
- Mongbwalu

AngloGold Ashanti's 2010 Ore Reserves at the following operations were submitted for external audit by a number of international
consulting companies, namely:

- Geita
AMC
- Cripple Creek & Victor
Pincock Allen and Holt
- Obuasi
AMC
- Cerro Vanguardia
Xstract
- Siguiri
AMC
- Serra Grande
Xstract
- Sunrise Dam: Underground
Optiro
-

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

Competent persons

The information in this report relating to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled
by the Competent Persons. These individuals are identified in the operational sections of this report. The Competent Persons consent
to the inclusion of Exploration Results, Mineral Resource and Ore Reserve information in this report, in the form and context in which
it appears.
During the past decade, the company has developed and implemented a rigorous system of internal and external reviews of
Exploration Results, Mineral Resources and Ore Reserves. A documented chain of responsibility exists from the Competent Persons
at the operations to the company's Mineral Resource and Ore Reserve Steering Committee. Accordingly, the Chairman of the Mineral
Resource and Ore Reserve Steering Committee, VA Chamberlain, MSc (Mining Engineering), BSc (Hons) (Geology), MGSSA,
MAusIMM, assumes responsibility for the Mineral Resource and Ore Reserve processes for AngloGold Ashanti and is satisfied that
the Competent Persons have fulfilled their responsibilities.

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Mineral Resource by country (attributable)
Tonnes
Grade
Contained gold
As at 31 December 2010
Category
million
g/t
Tonnes
Moz
South Africa
Measured
26.51
15.30
405.52
13.04
Indicated
(1)
753.04
2.76
2,075.87
66.74
Inferred
40.82
13.81
563.55
18.12
Total
820.38
3.71
3,044.94
97.90
Democratic Republic of
Measured
–
– –
–
the Congo
Indicated
59.67
3.64
217.41
6.99
Inferred
30.54
3.27
99.94
3.21
Total

90.21
3.52
317.35
10.20
Ghana
Measured
77.12
4.83
372.49
11.98
Indicated
83.38
3.82
318.84
10.25
Inferred
105.26
3.71
390.99
12.57
Total
265.76
4.07
1,082.33
34.80
Guinea
Measured
43.18
0.65
28.28
0.91
Indicated
101.78
0.77
78.19
2.51
Inferred
77.77
0.85
66.11
2.13
Total
222.73
0.77
172.58
5.55
Mali
Measured
15.52
1.36
21.17

0.68
Indicated
54.86
1.79
98.07
3.15
Inferred
19.87
1.66
32.98
1.06
Total
90.24
1.69
152.22
4.89
Namibia
Measured
23.30
0.86
20.09
0.65
Indicated
72.57
1.28
92.78
2.98
Inferred
23.33
1.13
26.41
0.85
Total
119.20
1.17
139.28
4.48
Tanzania
Measured
–
– –
–
Indicated
80.32
3.37
270.88
8.71
Inferred
21.95
3.62
79.57

2.56
Total
102.27
3.43
350.46
11.27
Australia
Measured
34.88
1.74
60.55
1.95
Indicated
35.49
2.85
101.12
3.25
Inferred
19.84
2.90
57.63
1.85
Total
90.21
2.43
219.30
7.05
Argentina
Measured
11.12
1.50
16.63
0.53
Indicated
20.86
3.82
79.69
2.56
Inferred
10.20
3.19
32.55
1.05
Total
42.18
3.06
128.87
4.14
Brazil
Measured
11.18

6.39
71.43
2.30
Indicated
15.60
6.10
95.14
3.06
Inferred
30.80
6.81
209.73
6.74
Total
57.57
6.54
376.31
12.10
Colombia
Measured
–
– –
–
Indicated
15.78
0.93
14.75
0.47
Inferred
414.06
0.98
406.06
13.06
Total
429.85
0.98
420.81
13.53
United States
Measured
283.04
0.78
221.76
7.13
Indicated
216.53
0.73
157.18
5.05
Inferred
79.61

0.75
59.66
1.92
Total
579.18
0.76
438.60
14.10
Total
Measured
525.84
2.32
1,217.92
39.16
Indicated
1,509.88
2.38
3,599.94
115.74
Inferred
874.07
2.32
2,025.18
65.11
Total
2,909.79
2.35
6,843.04
220.01

(1)

The reduction in grade relative to the Measured and Inferred Mineral Resource is due to the inclusion of 505Mt at 0.28g/t at tailings and rock dump
Mineral Resource.

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
Group overview
Group overview
Exclusive Mineral Resource by country (attributable)
Tonnes
Grade
Contained gold
As at 31 December 2010
Category
million
g/t
Tonnes
Moz
South Africa
Measured
15.29
17.73
271.14
8.72
Indicated
563.41
1.65
927.58
29.82
Inferred
19.64
18.69
367.04
11.80
Total
598.34
2.62
1,565.75
50.34
Democratic Republic of
Measured
–
–
–
–
the Congo
Indicated
26.23
2.93
76.72
2.47
Inferred
30.54
3.27

99.94
3.21
Total
56.77
3.11
176.66
5.68
Ghana
Measured
29.69
6.96
206.52
6.64
Indicated
34.46
2.45
84.26
2.71
Inferred
105.26
3.71
391.01
12.57
Total
169.41
4.02
681.79
21.92
Guinea
Measured
4.46
0.80
3.59
0.12
Indicated
34.07
0.77
26.22
0.84
Inferred
77.77
0.85
66.11
2.13
Total
116.30
0.82
95.91
3.08
Mali
Measured

4.69
0.75
3.50
0.11
Indicated
18.27
1.69
30.79
0.99
Inferred
19.09
1.70
32.37
1.04
Total
42.05
1.59
66.66
2.14
Namibia
Measured
9.03
0.58
5.24
0.17
Indicated
42.83
1.11
47.50
1.53
Inferred
23.33
1.13
26.41
0.85
Total
75.20
1.05
79.15
2.54
Tanzania
Measured
–
– –
–
Indicated
41.62
2.93
121.83
3.92
Inferred

21.95
3.62
79.57
2.56
Total
63.57
3.17
201.40
6.48
Australia
Measured
10.83
0.93
10.10
0.32
Indicated
12.10
2.92
35.29
1.13
Inferred
19.84
2.90
57.63
1.85
Total
42.77
2.41
103.02
3.31
Argentina
Measured
1.36
3.61
4.91
0.16
Indicated
16.70
2.20
36.72
1.18
Inferred
9.95
2.97
29.56
0.95
Total
28.01
2.54
71.18
2.29

Brazil
Measured
6.37
6.15
39.19
1.26
Indicated
8.35
6.10
50.93
1.64
Inferred
28.08
6.78
190.31
6.12
Total
42.81
6.55
280.44
9.02
Colombia
Measured
–
– –
–
Indicated
15.78
0.93
14.75
0.47
Inferred
414.06
0.98
406.06
13.06
Total
429.85
0.98
420.81
13.53
United States
Measured
135.85
0.75
102.38
3.29
Indicated
137.77
0.71
98.42

3.16
Inferred
69.52
0.77
53.85
1.73
Total
343.14
0.74
254.66
8.19
Total
Measured
217.57
2.97
646.57
20.79
Indicated
951.59
1.63
1,551.01
49.87
Inferred
839.05
2.15
1,799.86
57.87
Total
2,008.21
1.99
3,997.44
128.52

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Ore Reserve by country (attributable)
Tonnes
Grade
Contained gold
As at 31 December 2010
Category
million
g/t
Tonnes
Moz
South Africa
Proved
12.03
8.24
99.07
3.19
Probable
(1)
191.99
4.41
845.74
27.19
Total
204.02
4.63
944.81
30.38
Democratic Republic of
Proved
–
–
–
–
the Congo
Probable
33.44
4.21
140.69
4.52
Total
33.44
4.21
140.69
4.52
Ghana
Proved
44.01
3.13
137.85

4.43
Probable
49.30
4.41
217.28
6.99
Total
93.31
3.81
355.13
11.42
Guinea
Proved
39.05
0.62
24.38
0.78
Probable
67.44
0.74
49.71
1.60
Total
106.49
0.70
74.08
2.38
Mali
Proved
4.96
2.23
11.03
0.35
Probable
39.18
1.78
69.82
2.24
Total
44.14
1.83
80.86
2.60
Namibia
Proved
14.27
1.02
14.49
0.47
Probable
29.74

1.45
42.99
1.38
Total
44.01
1.31
57.48
1.85
Tanzania
Proved
–
– –
–
Probable
40.92
3.20
131.06
4.21
Total
40.92
3.20
131.06
4.21
Australia
Proved
24.05
2.10
50.45
1.62
Probable
23.39
2.81
65.83
2.12
Total
47.44
2.45
116.28
3.74
Argentina
Proved
9.54
1.22
11.63
0.37
Probable
8.57
5.32
45.62
1.47
Total

18.10
3.16
57.25
1.84
Brazil
Proved
6.91
5.80
40.06
1.29
Probable
7.40
5.26
38.88
1.25
Total
14.30
5.52
78.94
2.54
United States
Proved
147.19
0.81
119.37
3.84
Probable
78.76
0.75
58.76
1.89
Total
225.95
0.79
178.13
5.73
Total
Proved
302.00
1.68
508.32
16.34
Probable
570.12
2.99
1,706.39
54.86
Total
872.12
2.54
2,214.71

71.20

(1)

The reduction in grade relative to the Proved Ore Reserve is due to the inclusion of 111Mt at 0.49g/t at tailings and rock dump Ore Reserve.

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
Group overview
Group overview
Reconciliation of Mineral Resource
as at 31 December 2010
Au Content (attributable) Moz
Previous
Gold
Metho-
Current
year
Depletion
price
Cost
Exploration
dology
Other
year
South Africa Region
Great Noligwa
6.941
-0.195
0.270
-2.471
-0.058
0.076
-0.055
4.508
Kopanang
10.036
-0.564
0.032
-0.052
-0.382
–
0.057
9.128
Moab Khotsong
20.452
-0.381
0.041
-0.086
0.287
–
–
20.312
Tau Lekoa
6.195
-0.083

–
–
–
–
-6.112
–
Vaal River Surface
1.860
-0.185
–
3.135
-0.010
0.085
–
4.886
Mponeng
49.828
-0.697
0.203
–
-1.435
0.002
1.648
49.549
Savuka
3.843
-0.044
–
-0.002
-0.249
-0.127
-0.331
3.090
TauTona
6.196
-0.304
–
-0.100
0.102
-0.159
-0.852
4.883
West Wits Surface
0.195
-0.007
–
1.342
0.002
0.010
–
1.543

Total
105.546
-2.46
0.546
1.766
-1.743
-0.113
-5.645
97.899
Continental Africa Region
Kibali
8.889
-0.576
0.740
-0.119
-0.171
-0.414
-0.048
8.299
Mongbwalu
2.098
–
–
–
–
-0.194
–
1.904
Iduapriem
4.601
-0.227
0.721
-0.322
–
0.500
–
5.273
Obuasi
29.525
-0.350
–
–
0.110
0.502
-0.262
29.525
Siguiri
6.588
-0.370
0.300
-0.643

0.035
-0.599
0.236
5.548
Morila
0.331
-0.098
0.010
–
–
0.001
–
0.244
Sadiola
3.755
-0.130
0.483
–
0.562
-0.201
0.002
4.472
Yatela
0.145
-0.071
0.039
–
0.055
0.004
0.006
0.178
Navachab
3.728
-0.132
0.154
-0.116
0.395
0.302
0.147
4.478
Geita
11.449
-0.425
0.535
-0.576
–
0.331
-0.047
11.267
Total
71.109

-2.379
2.982
-1.776
0.986
0.232
0.034
71.188
Australasia Region
Sunrise Dam
3.618
-0.360
0.044
-0.006
0.016
0.029
0.015
3.356
Tropicana
3.510
–
–
-0.687
1.007
-0.135
–
3.695
Total
7.128
-0.36
0.044
-0.693
1.023
-0.106
0.015
7.051
Americas Region
Cerro Vanguardia
3.884
-0.188
–
–
0.485
-0.038
–
4.143
AGA Mineração
10.884
-0.405
-0.054
–
0.603

-0.031
0.167
11.165
Serra Grande
1.029
-0.078
–
–
–
-0.018
–
0.933
Gramalote
1.086
–
–
–
–
–
–
1.086
La Colosa
12.317
–
–
–
–
–
0.126
12.443
CC&V
13.738
-0.483
0.721
-0.043
0.337
-0.950
0.781
14.101
Total
42.938
-1.154
0.667
-0.043
1.425
-1.037
1.074
43.871
Grand total
226.721
-6.353

4.239
-0.746
1.691
-1.024
-4.522
220.009

P
11
Au Content (attributable) Moz
Net
diff
%
Comments
-2.43
-35.05
Decrease due to footprint reduction; movement from the Mineral Resource to Inventory and change in the Mineral Resource cut-off.
-0.90
-9.04
Reclassification of the Mineral Resource; changes in structure; re-evaluation of local and macro estimates; inter-shaft transfers and movement to Inventory.
-0.14
-0.68
The changes are all data driven. New data and changes of estimation parameters resulted in lower values.
-6.19
–
Tau Lekoa was sold to Simmer and Jack Ltd; effective on 1st August 2010.
3.02
162.24
Changes were mainly due to depletions; reinstatement of 3.1Moz from Inventory (due to new extraction method for uranium) and aerial survey updates, additions and grade adjustments.
-0.27
-0.55
Model change on Elsburgs resulted in lowered values; upgrade in WUDLS; upgrade of CLR below 120 to Indicated Mineral Resource; gain due to CLR boundary change between Mponeng, TauTona and Savuka mines.
-0.75
-19.52
Changes mainly due to lower values; depletions; reconciliation adjustment; Mponeng transfers and transfers to Inventory.
-1.31
-21.14
The changes were mainly due to depletions; value changes; geological structure changes; intershaft transfers and inventory changes.
1.34
691.28
Changes were mainly due to depletions; reinstatement of 1.3Moz from Inventory (due to new extraction method for uranium) and aerial survey updates, additions and grade adjustments.
-7.64
-7.24
-0.58
-6.63
The decrease is due to corrections from old underground workings whilst a change in open pit wireframing methodology caused a loss of Mineral Resource at the KCD pit.
-0.19
-9.24
Infill drilling allowed for an upgrade of confidence.
0.67

14.56
The increase in gold price caused the Mineral Resource open pit shell to expand.
–
–
Decrease due to depletion was offset by exploration and reclassification of Mineral Resource categories.
-1.04
-15.79
Mineral Resource was factored to reflect a change in selectivity and the observed reconciliation.
-0.08
-26.28
Mining activity is restricted to processing of stockpiles.
0.71
19.09
Increase is mainly due to successful exploration programmes in 2010 and the higher gold price used in the optimisations.
0.03
22.76
Increase is mainly due to exploration and the higher gold price.
0.74
20.12
Exploration drilling confirmed the downplunge extension to the vein swarms in the Main and North pits.
-0.18
-1.58
The increase in gold price caused the Mineral Resource open pit shells to expand.
0.07
0.11
-0.26
-7.24
Changes largely due to depletion, with a small increase in the underground Mineral Resource due to model change. Reduction at Golden Delicious due to reporting within an optimisation shell for the first time.
0.18
5.27
Decrease in open pit due to the use of contract mining costs rather than owner mining costs, and reporting Havana inside pit design rather than shell. Decreases were offset by discovery of Boston Shaker and extensions to Havana Deeps.
-0.07
-1.08
0.25
6.66
Change due to positive exploration results in 2010 (0.45Moz of gold and 10.4Moz of silver from vein resources).
0.28
2.58
Cuiabá +230,000oz (Serrotinho); Raposos -176,000oz (exclusion of low grade at N10); Morro da Glória +80,000oz (new orebodies) and Lamego +34,000oz (Carruagem).
-0.09
-9.32
Exploration during 2010 resulted in Mineral Resource conversion but no extensions or additions to the current orebodies.
–
–
No additional work was done since the previous year.

0.12
1.02
No additional boreholes have been drilled since the previous year, but gains are due to an additional 1g/t Au envelope and the higher gold price that was used.
0.36
2.64
Additions from exploration and a higher gold price.
0.93
2.17
-6.71
-2.96

P
12
AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
Group overview
Group overview
Reconciliation of Ore Reserve
as at 31 December 2010
Au Content (attributable) Moz
Previous
Model
Change in
New ounces
Scope
Current
year
Depletion
Other
change
economics from projects
change
year
South Africa Region
Great Noligwa
1.601
-0.104
0.144
0.047
-0.388
–
0.114
1.415
Kopanang
3.350
-0.564
–
-0.167
–
–
0.487
3.106
Moab Khotsong
7.137
-0.304
-0.008
0.637
–
–
0.028
7.490
Tau Lekoa Reserve
0.798

-0.083
-0.714
–
–
–
–
–
Vaal River Surface
1.737
-0.184
-0.012
0.012
–
–
-0.014
1.539
Mponeng
12.716
-0.538
-0.337
0.063
–
–
2.000
13.904
Savuka
0.688
-0.022
–
–
–
–
–
0.666
TauTona
2.732
-0.331
-0.216
-0.160
–
–
0.030
2.056
West Wits Surface
0.183
-0.007
0.012
0.010
–
–
0.003

0.200
Total
30.942
-2.137
-1.131
0.442
-0.388
0
2.648
30.376
Continental Africa Region
Kibali Reserve
4.136
–
0.352
-0.141
0.277
–
-0.100
4.523
Iduapriem
2.397
-0.248
0.034
0.030
-0.031
–
0.312
2.494
Obuasi
9.648
-0.576
–
0.312
–
–
-0.461
8.923
Siguiri
3.073
-0.285
-0.015
-0.342
0.008
–
-0.057
2.382
Morila
0.321
-0.098
0.001

–
–
–
–
0.224
Sadiola
1.457
-0.208
0.123
–
-0.010
0.906
0.030
2.298
Yatela
0.044
-0.071
0.105
–
–
–
–
0.078
Navachab
1.625
-0.118
–
-0.033
–
–
0.374
1.848
Geita
5.066
-0.456
-0.043
-0.260
-0.031
–
-0.062
4.214
Total
27.767
-2.06
0.557
-0.434
0.213
0.906
0.036
26.984
Australasia Region

Sunrise Dam
1.728
-0.391
0.059
0.114
–
–
-0.133
1.377
Tropicana
2.311
–
-0.012
0.043
0.051
–
-0.031
2.361
Total
4.039
-0.391
0.047
0.157
0.051
0
-0.164
3.738
Americas Region
Cerro Vanguardia
1.879
-0.191
0.013
0.106
–
0.001
0.033
1.841
AGA Mineração
2.179
-0.363
0.264
0.094
-0.019
–
-0.008
2.146
Serra Grande
0.348
-0.079
-0.012
0.137

-0.002
–
–
0.392
CC&V
4.291
-0.483
–
0.050
–
1.869
–
5.727
Total
8.697
-1.116
0.265
0.387
-0.021
1.87
0.025
10.106
Grand total
71.445
-5.704
-0.262
0.552
-0.145
2.776
2.545
71.204

P
13
Au Content (attributable) Moz
Net
diff
%
Comments
-0.18
-11.62
Reduction as a result of further restructuring of the underground mineable footprint.
-0.24
-7.28
Decrease due to depletions and model changes as a result of new information.
0.35
4.94
Increase due to model changes as a result of new information.
-0.79
–
Tau Lekoa was sold to Simmer and Jack Ltd; effective on 1st August 2010.
-0.19
-11.40
Decrease due to normal depletions.
1.18
9.34
Increase mainly due to inclusion of TauTona ground below 120 level and Savuka areas; upgrade of the Mineral Resource.
-0.02
-3.19
The remainder of the Savuka Ore Reserves are to be mined by Mponeng.
-0.67
-24.74
Decrease due to depletion and transfer of ground to Mponeng.
0.01
9.28
Increase due to additions to the Mponeng marginal ore dump.
-0.56
-1.82
0.38
9.35
The increase is due to an improved Mineral Resource to Ore Reserve ratio due to a re-design of the underground mining layout by SRK Consulting.
0.09
4.04
Increase due to updates made to the higher-grade Ajopa geological model and well as the geological models for Blocks 7 and 8 South.
-0.72
-7.51
The overall decrease is due to improved integrity of information and refinement of the processes that were used to generate the 2010 Ore Reserve.
-0.69
-22.49

The decrease is due to depletions, geological model changes having a negative impact on grade and significantly higher operating costs.
-0.09
-30.22
The decrease in Ore Reserve is almost entirely due to depletion of the stockpile inventory.
0.84
57.72
Increase due to new Mineral Resource models, economic changes, additions from the Deep Sulphide project and the upgrading of Tambali.
0.03
77.27
Increase is due to favourable economic changes that have more than offset the annual depletion.
0.22
13.72
Increase due to a new Mineral Resource model providing additional resources in the Main and North pits; also due to the outcome of the first phase of an optimisation project which has resulted in a larger pit shell and an increased plant feed schedule.
-0.85
-16.82
Decrease is due to depletion as well as geological model changes which negatively affected the grades within the Nyankanga and Geita Hill pit shells.
-0.78
-2.81
-0.35
-20.31
Change in mine economics has modified the planned mining method in GQ and Astro from bulk to selective, reducing recoverable ounces by selectivity and sterilisation.
0.05
2.16
Gains due to Mineral Resource model update and the BFS economic assumptions, resulting in cut-off grade changes. These gains were offset by design changes and a small amount of material being removed from the schedule due to negative cash-flow.
-0.30
-7.45
-0.03
-2.02
No significant changes. Depletion of 0.19Moz was compensated for by 0.11Moz increase due to model change and 0.03Moz of scope change (ounces that were planned for open pit but are now allocated to underground).
-0.03
-1.51
No significant changes. Depletion of 0.36Moz was compensated by 0.26Moz increase due to additional Ore Reserves from Cuiabá.
0.04
12.64
Change due to model changes of 0.14Moz. The new Ore Reserves are from Palmeiras and Pequizão.
1.43
33.47
Added Ore Reserves in 2010 due to the MLE 2 project.
1.40
16.20
-0.24

-0.33

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa
South Africa
Ensuring a
future
profitable
West Wits operations
Mponeng
Savuka
TauTona
West Wits Surface operations
South Africa
Vaal River operations
Great Noligwa
Kopanang
Moab Khotsong
Vaal River Surface operations
for deep-level mining

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15

Regional overview

AngloGold Ashanti's South Africa operations comprise six deep-level mines and the surface operations. They are:

- The Vaal River operations – Great Noligwa, Kopanang, Moab Khotsong and the surface processing operation. The fourth deep-level mine in this region, Tau Lekoa, was sold during the course of the year.
- The West Wits operations – Mponeng, Savuka and TauTona and a surface processing operation.

Together, these operations produced 1.78Moz of gold in 2010, or 39% of group production, and 1.5Mlbs of uranium as a by-product.

The Mineral Resource in South Africa, attributable to AngloGold Ashanti, totalled 97.90Moz at year-end, including an attributable Ore Reserve of 30.38Moz.

All Mineral Resources and Ore Reserves listed are attributable unless otherwise stated.

Mineral Resource by region

as at 31 December 2010

	Tonnes	Grade	Contained gold
Category	million	g/t	Tonnes	Moz
South Africa Region				
Measured	26.51	15.30	405.52	13.04
Indicated (1)	753.04	2.76	2,075.87	66.74
Inferred	40.82	13.81	563.55	18.12
Total	820.38	3.71	3,044.94	97.90

Ore Reserve by region

as at 31 December 2010

	Tonnes

Grade
Contained gold
Category
million
g/t
Tonnes
Moz
South Africa Region
Proved
12.03
8.24
99.07
3.19
Probable
(2)
191.99
4.41
845.74
27.19
Total
204.02
4.63
944.81
30.38
(1)
The reduction in grade relative to the Measured and Inferred Mineral Resource is due to the inclusion of 505Mt at 0.28g/t at tailings and rock dump
Mineral Resource.
(2)
The reduction in grade relative to the Proved Ore Reserve is due to the inclusion of 111Mt at 0.49g/t at tailings and rock dump Ore Reserve.

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16
AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa
Country overview
The South African operations comprise six underground mines located in two geographical regions on the Witwatersrand Basin called
the Vaal River and West Wits operations.
The primary reefs mined by the Vaal River operations are the Vaal Reef (VR) and the Ventersdorp Contact Reef (VCR), and the
secondary Crystalkop Reef (C Reef).
The West Wits operations are situated near the town of Carletonville. The primary reefs mined are the Carbon Leader Reef (CLR)
and the VCR.
All six operations are 100% owned by AngloGold Ashanti. In addition, the Vaal River Surface and West Wits Surface operations mine
the waste rock dumps and tailings dams which result from the mining and processing of the primary and secondary reef horizons.
Mineral Resource estimation
A multi-disciplinary approach is adapted to Mineral Resource estimation whereby inputs are required from the geoscience, survey
and mine planning departments. A computerised system called the Mineral Resource Inventory System (MRIS) integrates all the input
information to produce the final Mineral Resource per operation. Mineral Resource estimates are computed from a composite grid of
value estimates, comprising various block sizes. The macro block sizes vary from 210m x 210m to 420m x 420m with micro blocks
of 30m x 30m.
Compound lognormal macro co-kriging estimation techniques are used to produce estimates for the larger block sizes. This
technique uses the Bayesian approach whereby the assayed (observed) data in the mined-out areas are used to infer the population
characteristics of the area ahead of current mining. The geological model forms the basis for this estimation and all surface borehole
information from the peripheral areas of the mine lease play a crucial role in determining the geological model boundaries. Simple
kriging is used for the 30m block sizes and these estimates are constrained by the weight of the mean.
The Mineral Resource is initially reported as inclusive of the Ore Reserve as they form the basis for the Ore Reserve conversion
process. Mineral Resource cut-offs are computed by operation, for each reef horizon. These cut-offs incorporate a profit margin that
is relevant to the business plan. Mineral Resource grade tonnage curves are produced for the individual operations, which show the
potential of the orebody at different cut-offs. These curves are produced for dimensions equivalent to a practical mining unit for
underground operations.
Ore Reserve estimation
All mine designs are undertaken using the Cadsmine ® software package and include the delineation of mining or stoping areas for
each mining level and section, usually leading from an extension to the existing mining sequence, and the definition of the necessary

development layouts. The in situ Mineral Resource is scheduled monthly for the full Life-Of-Mine (LOM) plan. The value estimates for
these schedules are derived directly from the 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 MCF.
South Africa

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17
Development sampling results – January to December 2010
Development values represent actual results of sampling, no allowances having been made for adjustments necessary in estimating
ore reserves.
Statistics are shown
Advanced
Sampled
Sampled
in metric units
metres
Sampled Ave. channel
gold
uranium
South Africa
(total)
metres
width (cm)
Ave. g/t
Ave. cm.g/t
Ave. kg/t Ave. cm.kg/t
Vaal River
Great Noligwa
Vaal Reef
2,432
20
75.0
49.72
3,729
2.43
182.01
Kopanang
Vaal Reef
24,724
3,132
23.3
55.06
1,283
3.00
70.82
Moab Khotsong
Vaal Reef
20,939
1,806
119.9
27.41
3,287
1.19
142.75
West Wits

Mponeng
Ventersdorp Contact Reef
16,636
1,092
58.4
32.02
1,870
–
–
Savuka
Carbon Leader Reef
315
58
55.8
60.29
3,364
0.67
37.22
TauTona
Ventersdorp Contact Reef
362
70
173.3
9.26
1,605
0.02
3.91
Carbon Leader Reef
11,584
560
28.5
98.63
2,811
0.89
26.11

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18
AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Great Noligwa
Location
Great Noligwa is located about 15km south-east of the town of Orkney, in the southern part of the Klerksdorp Goldfield. The Great
Noligwa mining lease area is about 49km2 and is constrained to the north by Aurora gold mine, to the east by Buffelsfontein gold
mine, to the south by Moab Khotsong gold mine and to the west by Kopanang gold mine.
The economic horizons are exploited between 1,500 and 2,600m below surface through a mining method that gains access to the
gold bearing reefs through footwall haulages and return airway development. Cross-cuts are developed every 180m from the
haulages to the reef horizon. Raises are then developed on-reef to the level above and the reef is mined out on strike.
Geology
The VR is the principal economic horizon at Great Noligwa and the C Reef is the secondary economic horizon. Both reefs are part
of the Witwatersrand Supergroup and are stratigraphically located near the middle of the Central Rand Group. The C Reef forms the
top of the Johannesburg Subgroup, while the VR is on average 260 to 270m below the C Reef, but still in the top third of the
Johannesburg Subgroup.
The VR unit can reach a maximum thickness of 2m and consists of a thin basal conglomerate (the C facies) and a thicker sequence
of upper conglomerates (the A facies). These two sedimentary facies are separated by the B facies, which is a layer of barren
orthoquartzites. The A facies is the principal economic horizon within the VR, but remnants of the C facies may be sporadically
preserved below the A facies. High gold values in the VR are often associated with high uranium values as well as the presence of
carbon at the base of the VR. Uranium is a very important by-product of Great Noligwa.
The C Reef has been mined on a limited scale in the central part of Great Noligwa, where the high-grade north-south orientated
channel containing two economic horizons has been exposed. To the east and the west of the channel the C Reef is poorly developed
with relatively small areas of economic interest. As in the case of VR, high uranium values are also often associated with high gold
values and the presence of a 5mm to 2cm carbon seam at the base of the conglomerate. 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 deep Kimberley Erosion
Channel and the Jersey fault.
Projects
Drilling is ongoing in a fault zone containing remnant blocks of VR. This ground is situated in the eastern part of the mining lease area
and is referred to as the Fish Block. The reef blocks are situated in a high-grade geozone within the Zuiping A fault loss area. During
the year a total of 15 boreholes were drilled (1,041m) from which six reef intersections were achieved. A total of 1,620m of diamond

drilling is planned for 2011 to increase the geological confidence in the proposed mining area and to test for upside potential in the
north-east of the project area.
South Africa
Great Noligwa

P
19
Mineral Resource
as at 31 December 2010
Tonnes
Grade
Contained gold
Great Noligwa
Category
million
g/t
Tonnes
Moz
Crystalkop Reef
Measured
1.90
7.69
14.60
0.47
Indicated
2.72 10.28
27.96 0.90
Inferred 0.60
10.15
6.07
0.20
Total 5.22
9.32
48.64
1.56
Vaal Reef
Measured
4.54
15.09
68.54
2.20
Indicated 1.28
15.00
19.23
0.62
Inferred 0.30
12.66
3.80
0.12
Total 6.12
14.95
91.57
2.94
Great Noligwa
Total
11.34

12.36
140.20
4.51
Reef intersection
No reef intersection
Planned holes for 2011
100m
Legend
160m (throw on fault)
160m
Reef blocks in Zuiping “A” fault

P
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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Great Noligwa
Details of average drill-hole spacing and type in relation to Mineral Resource classification

Type of drilling Mine/ Spacing Blast- Project Category m (- x -)	Diamond RC hole Other	Comments
Great Noligwa		
Measured	5 x 5	– – – Chip sampling
Indicated	100 x 100	– – – Diamond drilling
Inferred	200 x 200	– – – Diamond drilling
Grade control	–	– – – See Measured category

Exclusive Mineral Resource

The Exclusive Mineral Resource for the Measured category of VR is 1.2Mt at a grade of 20.86g/t. The Indicated Mineral Resource is
0.4Mt at a grade of 17.41g/t and the Inferred Mineral Resource is 0.15Mt at a grade of 14.17g/t.
The Exclusive Mineral Resource for the Measured category of the C Reef is 1.2Mt at a grade of 7.11g/t. The Indicated Mineral
Resource is 1.7Mt at a grade of 10.78 g/t. No Inferred category was classified in the Exclusive Mineral Resource.
Both the VR and C Reef Exclusive Mineral Resource are from areas located beyond the window of opportunity and beyond mine
infrastructure. 62% of the total Exclusive Mineral Resource tonnes are from the C Reef horizon and 38% from the VR horizon.

Exclusive Mineral Resource

as at 31 December 2010
Tonnes
Grade
Contained gold
Great Noligwa
Category
million
g/t
Tonnes
Moz
Measured 2.42
14.08
34.00
1.09
Indicated 2.20
12.13
26.69
0.86
Inferred 0.15
14.17
2.13
0.07
Great Noligwa
Total
4.77
13.18
62.82
2.02
South Africa
Great Noligwa
Great Noligwa:
Mineral Resource reconciliation
2009 vs 2010
Ounces (millions)
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
Change
6.94
2009
-0.20
Depletion
0.27
Gold
price
-0.06

Explo-
ration
0.08
Metho-
dology
4.51
2010
-2.47
Cost
-0.06
Other
Great Noligwa:
Ore Reserve reconciliation
2009 vs 2010
Ounces (millions)
1.60
1.55
1.50
1.45
1.40
1.35
1.30
1.25
1.20
1.15
Change
1.60
2009
-0.10
Depletion
0.05
Model
change
0.00
New
ounces
from
projects
0.11
Scope
change
1.42
2010
-0.39
Change in
Economics
0.14
Other

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21
Ore Reserve
as at 31 December 2010
Tonnes
Grade
Contained gold
Great Noligwa
Category
million
g/t
Tonnes
Moz
Crystalkop Reef
Proved
0.71
5.48
3.88
0.12
Probable 0.96
5.93
5.72
0.18
Total 1.67
5.74
9.60
0.31
Vaal Reef
Proved
3.32
8.19
27.18
0.87
Probable 0.83
8.66
7.23
0.23
Total 4.15
8.29
34.41
1.11
Great Noligwa
Total
5.83
7.55
44.01
1.41

Inferred Mineral Resource in business plan

Some Inferred Mineral Resource was included in the optimisation process. The Inferred Mineral Resource for the VR is estimated at

0.3Mt at 12.66g/t. For the C Reef it is estimated at 0.6Mt at a grade of 10.15g/t. The Mineral Resource is scattered throughout the
mine in the form of pillars left behind by previous mining extraction as well as pillars within the major fault loss zones.

Inferred Mineral Resource

as at 31 December 2010
Tonnes
Grade
Contained gold
Great Noligwa
million
g/t
Tonnes
Moz
Comments
Vaal Reef
0.15
7.05
1.06
0.03
Included in business plan but not published
as Ore Reserve
Total
0.15
7.05
1.06
0.03

Ore Reserve modifying factors

as at 31 December 2010
Ex-
Cut-off
Cut-off
Stoping
Gold
change
value
value
width
Dilution
Great Noligwa
price
rate
g/t Au
cmg/t Au
(cm)
(%)
MCF%
MetRF%
Mine
850
8.71

11.13		
1,800		
161.7		
52	63.20	95.99

South Africa
Great Noligwa
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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Great Noligwa
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
Geo Steyn
SACNASP
400312/05
10 years
Ore Reserve
Andre Kruger
PLATO
PMS0114
33 years
Great Noligwa
– underground (metric)
Tonnes above cut-of
f (millions)
0
20
Average grade
above cut-off (g/t)
15
10
5
12
10
8
6
4
2
0
30
28
26
24
22
20
18
16

14
12
Cut-off grade (g/t)
Tonnes above cut-off
Ave grade above cut-off

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Location
Kopanang is located in the Orange Free State province, approximately 170km south-west of Johannesburg and 10km south-east of the
town of Orkney. The mine has been in production since 1984 and was originally known as Vaal Reef 9 Shaft. Kopanang's current mine
lease incorporates an area of 35km2, directly west of neighbouring Great Noligwa mine and bound to the south by the Jersey Fault.
Dolomites of the Transvaal Supergroup outcrop on surface, resulting in a very subdued topography with very few rock exposures.
Geology
Gold and uranium-bearing conglomerates of the Central Rand Group are mined at Kopanang, the most important of which is the VR.
Gold is the primary commodity at Kopanang, with uranium oxide being extracted as a by-product. The economic VR and C Reef
conglomerates are exposed via a twin-shaft system that reaches a depth of 2,340m. The VR is exploited at depths ranging from
1,300 to 2,600m below surface. Kopanang almost exclusively mines the VR, although minor amounts of gold are also extracted from
the C Reef, which is stratigraphically about 250m above the VR. The VR and C Reef generally dip towards the south-east at between
10° and 30°.
The VR is a medium to high-grade reef consisting of a basal conglomerate called the Stilfontein Reef, occasionally overlying remnant
Grootdraai conglomerate units, with an overlying Upper Vaal unit. Current terminology separates the reef into A, B and C facies, where
the C facies is the basal Stilfontein and/or Grootdraai conglomerates.
The overlying Upper Vaal or A facies is split into three distinct sub facies; the VR A Bottom, Middle and Top, which consist of a series
of small pebble conglomerates and grits containing very little gold. Further to the east at Great Noligwa, the A facies becomes more
robust, is better developed and displays high gold values.
The B facies is simply a fine-grained, cross bedded, light grey, black speckled orthoquartzite that separates the A and C facies.
The basal C facies conglomerate of the VR is the main gold carrier on Kopanang. It varies very little in thickness, with 7 to 10cm being
typical. The conglomerate comprises mostly quartz (92-98%) and chert (2-8%), with occasional porphyry clasts (<2%). The matrix is
generally very pyritic and the base is non-channelised, often containing a well developed carbon seam.
The C Reef contains two economic conglomerates, although the lower-most conglomerate is only preserved as small remnants. Gold
concentrations are typically associated with a basal carbon seam. The C Reef sub-crops in the north against the Gold Estates
member of the Kimberley Formation. To the south of this unconformity, the reef can be eliminated by either the Kimberley erosion
channels or bedding parallel faulting.
South Africa
Kopanang

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South Africa – Kopanang
South Africa
Kopanang
Kopanang is situated in a structurally complex area of the Witwatersrand Basin, which has been subjected to numerous tectonic
events. The complexity of the faulting at Kopanang became evident during initial surface diamond borehole drilling. Prior to 1970,
12 surface boreholes had been drilled on the farm Pretoriuskraal 53 and only five of these intersected the VR, the rest had been
faulted out. Approximately 20% of the ground in the mine lease area has been eliminated due to the presence of faulting.
At least nine structural events, of differing ages, are thought to have affected the reef at Kopanang. The interaction of the resultant
geological structures can be very complicated since many of these faults have been reactivated at latter stages, or been active over
long periods of time. The tectonic time frame ranges from late Archaean to Cretaceous and therefore involves some 2.7 billion years
of structural deformation.
Exploration
The exploration at Kopanang is focussed around target blocks that will be explored from underground drilling. The VR target blocks are
situated in the shaft fault area and the ground below 68 level. Additional to this ground, the western portion of the mine lease (Gencor
1E area) forms a potential mineable area and is being explored by a combination of exploration drilling and underground development.
Mineral Resource
as at 31 December 2010
Tonnes
Grade
Contained gold
Kopanang
Category
million
g/t
Tonnes
Moz
Crystalkop Reef
Measured
0.07
12.18
0.87
0.03
Indicated 0.41
12.13
5.00
0.16
Inferred 0.89
13.75

12.18
0.39
Total 1.37
13.18
18.06
0.58
Vaal Reef EDOM
Measured
0.18
11.66
2.06
0.07
Indicated 1.36
12.20
16.62
0.53
Inferred 0.15
9.31
1.41
0.05
Total 1.69
11.89
20.08
0.65
Vaal Reef Base
Measured
3.15
16.02
50.53
1.62
Indicated 16.79
10.97
184.13
5.92
Inferred 1.09
10.18
11.11
0.36
Total 21.03
11.68
245.77
7.90
Kopanang
Total
24.09
11.78
283.90
9.13

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

Type of drilling
Mine/ Spacing

Blast-
Project
Category
m (- x -)
Diamond
RC
hole Other
Comments
Kopanang
Measured
5 x 5
–
–
–
Chip sampling
Indicated
200 x 200
–
–
–
GBH drilling
Inferred
1,000 x 1,000
–
–
–
Surface boreholes
Grade control –
–
–
–
See Measured category

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Exclusive Mineral Resource
Approximately 47% of the Exclusive Mineral Resource is expected to be taken up in safety and remnant pillars, areas beyond the
window of opportunity and areas beyond infrastructure.
Exclusive Mineral Resource
as at 31 December 2010
Tonnes
Grade
Contained gold
Kopanang
Category
million
g/t
Tonnes
Moz
Measured 2.48
15.88
39.34
1.26
Indicated 8.60
9.32
80.17
2.58
Inferred 1.75
11.45
20.05
0.64
Kopanang
Total 12.83
10.87
139.56
4.49
Mineral Resource below infrastructure
as at 31 December 2010
Tonnes
Grade
Contained gold
Kopanang
Category
million
g/t
Tonnes
Moz
Measured
0.02
7.77
0.17
0.01
Indicated

0.25
14.73
3.68
0.12
Inferred
0.26
12.03
3.15
0.10
Kopanang
Total 0.53
13.13
7.00
0.23
Kopanang:
Mineral Resource reconciliation
2009 vs 2010
Ounces (millions)
10.1
10.0
9.9
9.8
9.7
9.6
9.5
9.4
9.3
9.2
9.1
9.0
Change
10.04
2009
-0.56
Depletion
0.03
Gold
price
-0.38
Explo-
ration
0.00
Metho-
dology
9.13
2010
-0.05
Cost
0.06
Other
Kopanang:

Ore Reserve reconciliation
2009 vs 2010
Ounces (millions)
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
Change
3.35
2009
-0.57
Depletion
-0.17
Model
change
0.00
New
ounces
from
projects
0.49
Scope
change
3.11
2010
0.00
Change in
Economics
0.00
Other

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South Africa – Kopanang
South Africa
Kopanang
Ore Reserve
as at 31 December 2010
Tonnes
Grade
Contained gold
Kopanang
Category
million
g/t
Tonnes
Moz
Crystalkop Reef
Proved
0.02
5.66
0.09
–
Probable 0.33
6.98
2.29
0.07
Total 0.34
6.92
2.38
0.08
Vaal Reef EDOM
Proved
0.07
6.32
0.43
0.01
Probable 1.51
5.39
8.14
0.26
Total 1.58
5.43
8.57
0.28
Vaal Reef Base
Proved
1.16
8.00
9.24
0.30

Probable 11.51
6.64
76.41
2.46
Total 12.67
6.76
85.65
2.75
Kopanang
Total
14.59
6.62
96.61
3.11

Inferred Mineral Resource in business plan

Some Inferred Mineral Resources were included in the business plan during the optimisation process. The Inferred Mineral Resource for VR is estimated at 1.3Mt at 11.40g/t and the C Reef is estimated at 0.9Mt at 14.20g/t. The Inferred Mineral Resource consist mainly of the outer perimeters of the mining lease area, plus pillars left behind by previous mining extraction as well as pillars within major fault loss zones. The table below indicates the Inferred Mineral Resource included in the business plan but not published as part of the Ore Reserve.

Inferred Mineral Resource
as at 31 December 2010
Tonnes
Grade
Contained gold
Kopanang
million
g/t
Tonnes
Moz
Comments
Crystalkop Reef
0.19
11.51
2.23
0.07
Vaal Reef EDOM
0.10
7.02
0.68
0.02
Vaal Reef Base
0.31
7.79
2.42
0.08
Total 0.60

8.86
5.32
0.17

Ore Reserve modifying factors

as at 31 December 2010

Ex-
Cut-off
Cut-off
Stoping
Gold
change
value
value
width
Dilution
Kopanang
price
rate
g/t Au
cmg/t Au
(cm)
(%)
MCF%
MetRF%
Crystalkop
Reef
850
8.71
4.81
500
104.0
51 69.15 95.55
Vaal
Reef
850
8.71
4.81
500
104.0
48 69.15 95.55

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Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
Brenda Freese
GSSA
966602
13 years
Ore Reserve
Andre Johnson
SACNASP
400011/06
21 years
Kopanang
– underground (metric)
Tonnes above
cut-off (millions)
0
20
Average grade
above cut-off (g/t)
25
20
15
10
5
0
35
30
25
20
15
10
Cut-off grade (g/t)
Tonnes above cut-off
Ave grade above cut-off
5
15
10
Stilfontein Quartzite/
C-Facies Grits
Vaal Reef
C-Facies

MB5 Footwall
Stilfontein
Conglomerate
Grootdraai
Conglomerate
Reef “Carbon”

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South Africa – Moab Khotsong
Shaft bottom -4,026.8mBD
Reef
Old MM shaft
Main shaft
Backfill shaft
Sub RV Shaft
115L
114L
111L
108L
105L
103L
99L
98 Inner L
92 Inner L
82 Inner L
106L
103L
Shaft bottom -3,649.3mBD
102L
101L
100L
95L
85L
80L
79L
78L
77L
76L
73L
70L
64L
1200L
Top mine
Middle mine
Lower mine
Project
Zaaiplaats 2
below 101L
Location
Moab Khotsong is the newest deep level gold mine in South Africa. It is situated near the towns of Orkney and Klerksdorp and is
about 180km south-west of Johannesburg.
Following the successful exploration of the VR in the Moab Khotsong lease area, which lies to the south and is contiguous with the
Great Noligwa lease area, a decision was taken in late 1989 to exploit the Moab Khotsong Mineral Resource. Shaft sinking started

in 1991 and the first gold was produced in October 2003.

The AngloGold Ashanti Board approved the Moab Khotsong Project in its revised form in April 2003. The middle mine consists of a main shaft system and a sub vertical shaft system which are utilised to exploit the VR to depths between 2,600 and 3,054m below surface on the downthrown side of the Die Hoek and Jersey fault complex. A feasibility study of the lower mine (Zaaiplaats) was recently completed. The project will exploit the gold bearing VR to depths of 3,455m below collar. The main shaft was commissioned in June 2002 and the rock ventilation shaft in March 2003. Ore Reserve development on 85, 88, 92, 95, 98 and 101 levels is progressing to plan. Stoping operations commenced in November 2003 and the mine will reach full production in 2013.

Geology

The Mineral Resource at Moab Khotsong is structurally complex and highly faulted, with large fault-loss areas. Mining is based on a scattered mining method with an integrated backfill support 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 4m of the advancing stope faces and 75% of the total area extracted is likely to be backfilled.

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

South Africa

Moab Khotsong

Moab Khotsong

Schematic diagram

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Due to the magnitude of the displacement across the Die Hoek fault (more than 700m down to the south) geological structures encountered on the up-thrown side of the fault cannot be projected to the down-thrown side and vice versa. It is only once the development is through the Die Hoek fault that geological mappings have any bearing on the reef blocks, and a considerable amount of exploration drilling is required to accurately delineate these blocks in this structurally complex area.

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

Projects

The initial investment and development of Moab Khotsong was, in part, taken with a view that the new mine would be well-positioned to exploit additional surrounding ore blocks. The most important of these blocks will be the Zaaiplaats block, positioned to the south-west of the current Moab Khotsong infrastructure, and extending some 400m deeper than the existing mine. The Moab Khotsong business plan, without growth projects, is expected to produce some 3Moz of gold until 2022, when the mine is scheduled to close. The Zaaiplaats project will provide an additional 5Moz, a life extension of some 13 years, and the opportunity to bring in additional blocks will that rely on the new project infrastructure to be explored and accessed.

Project study work exploiting the Zaaiplaats block began in 2003, and in 2006, the study was successfully taken through the scoping and pre-feasibility phases. In 2007 strategic intent was obtained and Ore Reserves were published on the back of a comprehensive pre-feasibility study. The subsequent feasibility study was completed by the end of 2008 and showed competitive returns. The renewed success of the study was largely as a result of a much healthier gold price environment and outlook, and incorporated several technical changes, one being flatter declines that will be excavated by means of trackless machinery.

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South Africa – Moab Khotsong
An important issue was encountered whilst developing the current Moab Khotsong middle mine, where the intersection of complex
geological structures had a significant impact on the location of infrastructure, safety, production and cost performance of the mine.
Accordingly, work on the project was slowed until a higher level of confidence in the geological structural setting for Moab Khotsong
and Zaaiplaats was in place.
As operations at Moab Khotsong stabilised, it was considered appropriate to start the process of developing the Zaaiplaats opportunity with a modified approach of pre-development that will facilitate drilling platforms for the gathering of orebody
and structural information, together with the possibility of earlier gold production given the drilling outcomes expected.
This pre-development also retains the option to fundamentally change the orebody extraction approach through technology.
Exploration
Brownfields exploration is currently focussed on improving confidence in the geological model. Four surface drilling machines,
targeting the Zaaiplaats Mineral Resource, and four long inclined borehole (LIB) machines, targeting middle mine Mineral Resource
blocks, were in operation during 2010. The areas targeted by the four surface machines were on the periphery of the proposed
Zaaiplaats mining area, where multiple structures define the ore block margins.
Borehole MZA9 was intended to raise the confidence of an Inferred Mineral Resource block in the north-east portion of the Zaaiplaats
project area and also to confirm the structure between the middle and lower mines. This hole was stopped when a preferable
underground drilling option became available. In the north-west of the main Zaaiplaats block, borehole MMB5 successfully
intersected the VR target and deflection drilling is in progress. Further to the west, borehole MGR8 also successfully intersected the
VR and has moved on to deflection drilling. The long deflection of MGR6 is in progress to increase the structural confidence along
the southern margin of Zaaiplaats.
The four LIB machines, deployed in the middle mine to obtain structural information on both the VR and C Reef horizons, completed
15 boreholes and three deflections during the year. Thirteen VR intersections, four VR elimination faults and two C Reef elimination
faults were obtained.
South Africa
Moab Khotsong
Project Zaaiplaats
Kopanang Mine
Great Noligwa Mine
Moab Khotsong Mine
Top Mine
Middle Mine
Moab Khotsong

The Zaaiplaats orebody

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Mineral Resource
as at 31 December 2010
Tonnes
Grade
Contained gold
Moab Khotsong
Category
million
g/t
Tonnes
Moz
C Reef – Middle mine area
Measured
–
–
–
–
Indicated 0.02
8.21
0.20
0.01
Inferred 0.96
9.84
9.45
0.30
Total 0.99
9.80
9.66
0.31
VR – GNM shaft pillar area
Measured
0.11
16.95
1.83
0.06
Indicated 1.50
16.15
24.16
0.78
Inferred –
–
–
–
Total 1.60
16.20
25.98
0.84
VR – Top mine area
Measured

1.01
25.36
25.71
0.83
Indicated 0.75
19.91
14.86
0.48
Inferred 0.11
14.28
1.63
0.05
Total 1.87
22.51
42.20
1.36
VR – Middle mine area
Measured
1.17
17.56
20.54
0.66
Indicated 4.36
30.55
133.22
4.28
Inferred 1.80
27.02
48.64
1.56
Total 7.33
27.61
202.40
6.51
Lower mine – Area A
Measured
–
–
–
–
Indicated 0.15
23.42
3.57
0.11
Inferred 1.00
22.95
22.93
0.74
Total 1.15
23.01
26.50

0.85
Lower mine – Area B
Measured
–
–
–
–
Indicated 2.20
11.68
25.72
0.83
Inferred 1.01
12.60
12.75
0.41
Total
3.21
11.97 38.47 1.24
Lower mine – Area C
Measured
–
–
–
–
Indicated 0.12
8.92
1.06
0.03
Inferred 2.10
11.55
24.21
0.78
Total 2.21
11.41
25.27
0.81
Lower mine – Area PZ 2
Measured
–
–
–
–
Indicated 8.30
23.10
191.76
6.17
Inferred 2.88
24.12
69.54
2.24
Total 11.18

23.36
261.30
8.40
Moab Khotsong
Total
29.56
21.37
631.78
20.31

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South Africa – Moab Khotsong
Details of average drill-hole spacing and type in relation to Mineral Resource classification

Type of drilling Mine/ Spacing Blast- Project Category m (- x -) Diamond RC hole Other Comments
Moab Khotsong Measured 5 x 5 – – – Chip sampling
Indicated 200 x 200 – – – GBH drilling
Inferred 1,000 x 1,000 – – – Surface boreholes
Grade control – – – – – See Measured category

Exclusive Mineral Resource

The Exclusive Mineral Resource consists of designed rock engineering bracket pillars, designed dip pillars and the Great Noligwa shaft pillar on the VR. The major portion (59%) of this Exclusive Mineral Resource is situated in the lower mine area, with minor amounts in the top mine (7%), middle mine (29%), C Reef (2%) and shaft pillar (4%) areas. The bracket pillars are designed for safety reasons and will therefore not be mined, whereas the shaft pillars can only be safely extracted at the end of the mine life.

Exclusive Mineral Resource
as at 31 December 2010

Tonnes
Grade
Contained gold
Moab Khotsong
Category
million
g/t
Tonnes
Moz
Measured 0.45
51.14
22.97
0.74
Indicated 4.37
19.63
85.70
2.76
Inferred 9.87
19.17
189.16
6.08
Moab Khotsong
Total
14.68
20.29
297.82
9.58
South Africa
Moab Khotsong

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33
Mineral Resource below infrastructure
as at 31 December 2010
Tonnes
Grade
Contained gold
Moab Khotsong
Category
million
g/t
Tonnes
Moz
Measured
–
–
–
–
Indicated
10.95
20.70
226.62
7.29
Inferred
8.50
20.52
174.41
5.61
Moab Khotsong
Total
19.45
20.62
401.04
12.89
Ore Reserve
as at 31 December 2010
Tonnes
Grade
Contained gold
Moab Khotsong
Category
million
g/t
Tonnes
Moz
VR – Top mine area
Proved
0.97
11.44
11.10
0.36

Probable
0.75
8.92 6.70 0.22
Total 1.72
10.34
17.80
0.57
VR – Middle mine area
Proved
0.87
9.36
8.16
0.26
Probable 5.69
13.46
76.55
2.46
Total 6.56
12.91
84.71
2.72
Lower mine – Area PZ 2
Proved
–
–
–
–
Probable 10.40
12.54
130.46
4.19
Total 10.40
12.54
130.46
4.19
Moab Khotsong
Total
18.69
12.47
232.97
7.49
Moab Khotsong:
Mineral Resource reconciliation
2009 vs 2010
Ounces (millions)
20.45
20.40
20.35
20.30
20.25
20.20

20.15
20.10
20.05
20.00
Change
20.45
2009
-0.38
Depletion
0.04
Gold
price
0.29
Explo-
ration
0.00
Metho-
dology
20.31
2010
-0.09
Cost
0.00
Other
Moab Khotsong:
Ore Reserve reconciliation
2009 vs 2010
Ounces (millions)
7.5
7.4
7.3
7.2
7.1
7.0
6.9
6.8
Change
7.14
2009
-0.30
Depletion
0.64
Model
change
0.00
New
ounces
from
projects
0.03
Scope

change
7.49
2010
0.00
Change in
Economics
-0.01
Other

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Moab Khotsong
South Africa
Moab Khotsong
Inferred Mineral Resource in business plan
The Inferred Mineral Resource was used for optimisation purposes as it forms part of the business plan, but is excluded from the
published Ore Reserve. The location and amount of this material are indicated in the following diagram and table respectively.
Inferred Mineral Resource
as at 31 December 2010
Tonnes
Grade
Contained gold
Moab Khotsong
Locality code
million
g/t
Tonnes
Moz
Top mine
A
0.07
12.04
0.84
0.03
Middle mine (Southwest)
B
0.07
11.43
0.81
0.03
Middle mine (Northeast)
C
0.24
16.98
4.15
0.13
Project Zaaiplaats
D
2.74
23.82
65.36
2.10
Moab Khotsong
Total
3.13
22.74
71.16

2.29
Ore Reserve below infrastructure
as at 31 December 2010
Tonnes
Grade
Contained gold
Moab Khotsong
Category
million
g/t
Tonnes
Moz
Proved
–
–
–
–
Probable
10.40
12.54
130.46
4.19
Moab Khotsong
Total
10.40
12.54
130.46
4.19
A
C
Middle Mine
Top Mine
Project Zaaiplaats
B
D
Measured
Indicated 1
Indicated 2
Indicated 3
Inferred
Inventory
Blue Sky
Legend
Moab Khotsong
Inferred Mineral Resource within Ore Reserve design

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Ore Reserve modifying factors
as at 31 December 2010

Ex- Cut-off Cut-off Stoping Gold change value value width Dilution Moab Khotsong price rate g/t Au cmg/t Au (cm) (%) MCF% MetRF%										
Lower mine – Area PZ 2										
850	8.71	5.51	700	127.0	9	81.00	95.36			
VR – Middle mine area										
850	8.71	4.38	700	159.8	51	79.51	95.61			
VR – Top mine area										
850	8.71	4.24	700	165.2	43	74.80	95.61			

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Moab Khotsong
South Africa
Moab Khotsong
Moab Khotsong
– underground (metric)
Tonnes above
cut-off (millions)
0
20
Average grade
above cut-off (g/t)
30
28
26
24
22
20
18
16
14
29
28
27
26
25
24
23
22
21
Cut-off grade (g/t)
Tonnes above cut-off
Ave grade above cut-off
5
15
10
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
Terry Adam
GSSA
5532

32 years
Ore Reserve
Johan Wall
PLATO
PMS0164
27 years

Location

Mponeng is situated on the West Wits Line, close to the town of Carletonville in the province of Gauteng. The mine is about 65km south-west of Johannesburg and forms part of AngloGold Ashanti's West Wits operations. Mining at Mponeng is conducted at an average depth of between 2,800 to 3,400m below surface. The mine operates two vertical hoisting shafts, a sub-shaft and two service shafts. The Mponeng lease area is constrained to the north by the TauTona and Savuka mines and to the south only by the depth of the orebody, which is open-ended. In 2008, permission was granted to explore the Western Ultra Deep Levels (WUDLS) portion to the south of the mine, thereby increasing the size of the lease area and the potential Mineral Resource.

Geology

The VCR is the only reef currently being mined at Mponeng. The VCR consists of a quartz pebble conglomerate (up to 3m thick) capping the uppermost angular unconformity of the Witwatersrand Supergroup. The VCR is overlain by the Ventersdorp Lavas which dramatically halted further reef development at that time. The footwall stratigraphy partially controls the reef facies type and consists of a series of argillaceous to siliceous protoquartzites, shales and siltstones from the Central Rand Group of the Witwatersrand Supergroup. The erosional nature of the deposition of the VCR means that the VCR is lain down on these different Witwatersrand footwalls. The age of these footwall formations increase from west to east.

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South Africa

Mponeng

Long vertical boreholes (LVBs) drilled from underground to intersect the CLR at depth

116 level

development

VCR reef

blocks

CLR blocks

LVB holes

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Mponeng
South Africa
Mponeng
Most of the VCR mined at Mponeng lies on footwall strata of the Kimberley Formation, which is a relatively argillaceous protoquartzite.
The VCR is dominated by a series of channel terraces at different elevations, separated by slopes where the reef widths are lower
and the angular unconformity between the footwall is larger than on reef terrace planes. More durable quartzites of the Elsburg
Formation lie to the west, while the eastern side of the mine is dominated by shales and siltstones of the Booysens Formation.
The hardness of the footwall units is thought to have influenced the development of the terraces.
An additional gold-bearing reef that occurs at Mponeng is the CLR. This reef has been mined at the adjacent Savuka and TauTona
mines, and Mponeng is planning to mine the CLR in the future. The CLR at Mponeng consists of – on average – a 20cm thick, tabular,
auriferous quartz pebble conglomerate formed near the base of the Central Rand Group. The CLR is approximately 900m deeper
than the VCR. Major exploration drilling started in early 2008 in order to improve resource confidence and confirm the geological
structures that occur at the deep levels at which mining would extract the CLR. Of the three economic units that exist within the CLR,
the Mponeng CLR target area is dominated by the centrally located Unit 3 with a smaller portion of Unit 2 towards the east. Unit 2
is a complex channel deposit, and Unit 3 is the oldest of the CLR channel deposits sitting at the base of the package.

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Both the VCR and the CLR orebodies are subjected to faulting and are intruded by a series of igneous dykes and sills of various ages
that cross-cut the reefs. There is an inherent risk in mining through these faults and intrusives and a key function of the geoscience
department is to identify these geological features ahead of the working face. The correct mining approach can then be applied in
order to minimise risk.

Exploration

Both the VCR and CLR at Mponeng can be accessed down to 120 level (3,645m below datum), but there is currently no infrastructure
in place that can service stoping operations below 120 level. The high-grade CLR below 120 level has remained inaccessible and
therefore represents an enormous opportunity of additional ounces for Mponeng.

During 2010 a series of sub-vertical exploration holes were drilled from underground to intersect the CLR at depth. These sub-vertical
holes were drilled to improve the confidence in the CLR orebody. The average length of each hole was 900m with the longest hole drilled
in 2010 reaching 1,090m. The information that was gained from these drill-holes has confirmed the geological structure at depth and
generated more confidence in the current mineralisation and estimation models.

The extension of Mponeng, by generating access to the CLR, will provide the mine with a strong base from which several regional benefits
can be realised, as well as enabling other smaller projects to be brought in to match the extended life of the asset and the West Wits
operations as a whole. The approval of the CLR project will compliment further exploration and development of the WUDLS Mineral
Resource and also has the potential to bring additional Mineral Resources from Savuka to book.

The CLR in the deeper portion of the orebody (below 126 level) and the VCR in the north of the mine lease are also potentially
mineable areas.

Projects

A fundamental geological research project has been initiated in order to develop a better understanding of the CLR deposition and
mineralisation. This study is critical in optimising the exploration planning and resource estimation that would underpin any future mine
expansion.

3D seismic cubes displaying the VCR and CLR horizons

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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Mponeng
South Africa
Mponeng
Mineral Resource
as at 31 December 2010
Tonnes
Grade
Contained gold
Mponeng
Category
million
g/t
Tonnes
Moz
TauTona VCR shaft pillar
Measured
0.29
17.12
4.94
0.16
Indicated 1.13
19.47
22.04
0.71
Inferred –
–
–
–
Total
1.42 18.99
26.98
0.87
VCR above 109 Level
Measured
8.28
10.73
88.89
2.86
Indicated 6.96
6.31
43.96
1.41
Inferred –
–
–
–
Total
15.25 8.71

132.85 4.27
VCR 109 to 120 level
Measured
3.35
21.47
72.01
2.32
Indicated 7.34
12.40
91.05
2.93
Inferred –
–
–
–
Total 10.70
15.25
163.06
5.24
VCR below 120 level
Measured
0.34
22.51
7.59
0.24
Indicated 8.68
15.38
133.48
4.29
Inferred –
–
–
–
Total 9.02
15.64
141.07
4.54
Mponeng WUDLS
Measured
–
–
–
–
Indicated 2.44
13.17
32.15
1.03
Inferred 11.52
14.68
169.20
5.44

Total 13.96
14.42
201.35
6.47
VCR Block 1
Measured
–
18.40
0.08
–
Indicated 3.06
3.91
11.95
0.38
Inferred –
–
–
–
Total 3.06
3.93
12.02
0.39
VCR Block 3
Measured
0.01
7.02
0.10
–
Indicated 7.84
6.70
52.51
1.69
Inferred –
–
–
–
Total
7.85 6.70
52.61 1.69
VCR Block 5
Measured
0.01
1.75
0.03
–
Indicated 6.04
7.16
43.25
1.39
Inferred –
–

–
–
Total 6.05
7.15
43.27
1.39

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41
Mineral Resource continued
as at 31 December 2010
Tonnes
Grade
Contained gold
Mponeng
Category
million
g/t
Tonnes
Moz
VCR outside project areas
Measured
0.09
5.49
0.48
0.02
Indicated 7.61
3.42
26.04
0.84
Inferred –
–
–
–
Total 7.70
3.45
26.53
0.85
TauTona CLR shaft pillar
Measured
0.30
42.28
12.76
0.41
Indicated 1.29
45.19
58.23
1.87
Inferred –
–
–
–
Total 1.59
44.64
70.99
2.28
CL below 120 level
Measured

0.01
23.70
0.35
0.01
Indicated 34.31
14.66
502.87
16.17
Inferred 11.41
14.66
167.18
5.37
Total 45.73
14.66
670.40
21.55
Mponeng
Total
122.32
12.60
1,541.14
49.55

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

Type of drilling
Mine/ Spacing
Blast-
Project
Category
m (- x -)
Diamond
RC
hole Other
Comments
Mponeng
Measured
5 x 5
–
–
–
Chip sampling
Indicated
1,000 x 1,000
–
–
–
LIB and UG borehole drilling
Inferred
–
–
–
–

–
Grade control –
–
–
–
–
See Measured category

Exclusive Mineral Resource

It is customary with the current mine design to leave 35% to 50% of the Exclusive Mineral Resource as safety and remnant pillars
ahead of current mining. These pillars and remnants are designed to provide additional stability to the mining faces during operations.

A portion of the TauTona shaft pillar and tail gold will be mined by Mponeng on both the VCR and CLR.

Exclusive Mineral Resource

as at 31 December 2010

Mponeng Category	Tonnes million	Grade g/t	Contained gold Tonnes	Contained gold Moz
Measured	8.52	17.26	147.04	4.73
Indicated	36.88	12.15	448.18	14.41
Inferred	7.87	19.78	155.70	5.01
Mponeng Total	53.27	14.10	750.91	24.14

South Africa
Mponeng
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AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Mponeng
Mineral Resource below infrastructure
as at 31 December 2010
Tonnes
Grade
Contained gold
Mponeng
Category
million
g/t
Tonnes
Moz
Measured
0.35
22.56
7.94
0.26
Indicated
47.42
14.67
695.75
22.37
Inferred
22.93
14.67
336.38
10.81
Mponeng
Total
70.71
14.71
1,040.06
33.44
Ore Reserve
as at 31 December 2010
Tonnes
Grade
Contained gold
Mponeng
Category
million
g/t
Tonnes
Moz
VCR above 109 level
Proved

1.80
5.63
10.14
0.33
Probable 1.42
5.21
7.37
0.24
Total 3.22
5.44
17.51
0.56
VCR 109 to 120 level
Proved
2.05
9.98
20.44
0.66
Probable 6.22
8.09
50.29
1.62
Total 8.27
8.56
70.72
2.27
VCR below 120 level
Proved
0.31
8.85
2.70
0.09
Probable 8.07
8.91
71.92
2.31
Total 8.38
8.90
74.61
2.40
TauTona CLR eastern block
Proved
–
–
–
–
Probable 1.66
9.12
15.11
0.49
Total 1.66

9.12
15.11
0.49
CL below 120 level
Proved
–
–
–
–
Probable 22.52
11.30
254.51
8.18
Total 22.52
11.30
254.51
8.18
Mponeng
Total
44.04
9.82
432.46
13.90
Mponeng:
Mineral Resource reconciliation
2009 vs 2010
Ounces (millions)
49.8
49.6
49.4
49.2
49.0
48.8
48.6
48.4
48.2
48.0
47.8
Change
49.83
2009
-0.70
Depletion
0.20
Gold
price
-1.44
Explo-
ration
0.00
Metho-

dology
49.55
2010
0.00
Cost
1.65
Other
Mponeng:
Ore Reserve reconciliation
2009 vs 2010
Ounces (millions)
14.5
14.0
13.5
13.0
12.5
12.0
Change
12.72
2009
-0.54
Depletion
0.06
Model
change
0.00
New
ounces
from
projects
2.00
Scope
change
13.90
2010
0.00
Change in
Economics
-0.34
Other

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43
Inferred Mineral Resource in business plan
No planning or scheduling took place in areas classified as Inferred Mineral Resource during the planning process.
Ore Reserve below infrastructure
as at 31 December 2010
Tonnes
Grade
Contained gold
Mponeng
Category
million
g/t
Tonnes
Moz
Proved
0.31
8.85
2.70
0.09
Probable
30.59
10.67
326.43
10.49
Mponeng
Total
30.90
10.65
329.13
10.58
Ore Reserve modifying factors
as at 31 December 2010
Ex-
Cut-off
Cut-off
Stoping
Gold
change
value
value
width
Dilution
Mponeng
price
rate
g/t Au
cmg/t Au
(cm)
(%)
MCF%

MetRF%
CL below 120 level
850
8.71
–
750
109.9
2
81.00
98.20
TauTona CLR eastern block
850
8.71
–
750
95.0
106
81.00
97.38
VCR 109 to 120 level
850
8.71
–
750
145.0
42
83.04
97.95
VCR above 109 level
850
8.71
–
750
145.0
41
82.67
97.96
VCR below 120 level
850
8.71
–
750
145.0
37
84.47
97.98
Mponeng
– underground (metric)
Tonnes above
cut-off (millions)
0

20
Average grade
above cut-off (g/t)
140
120
100
80
60
40
20
0
28
26
24
22
20
18
16
14
12
Cut-off grade (g/t)
Tonnes above cut-off
Ave grade above cut-off
5
15
10

Competent persons

Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
Gareth Flitton
GSSA
9647581
8 years
Ore Reserve
Piet Enslin
PLATO
PMS0183
26 years

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44
AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Savuka
South Africa
Savuka
Location
Savuka mine is located about 18km south of the town of Carletonville and forms part of AngloGold Ashanti's West Wits operations.
The mine exploits the CLR at depths varying from 2,600 to 3,500m below surface, as well as the VCR. The VCR, which is about
700m above the CLR, has largely been mined out and mining operations in the VCR section are currently confined to extracting
remnant pillars that are above the current cut-off.
Savuka has converted from a longwall configuration to a sequential grid mine and most of the mine's current production is derived
from the CLR. The Ore Reserve at the mine is largely exhausted and mining operations at Savuka are planned to cease in 2011.
Any remaining Ore Reserve at the mine will be extracted through Mponeng.
Geology
The CLR is a thin, tabular, auriferous quartz pebble conglomerate formed near the base of the Central Rand Group. The CLR is on
average 20cm thick and has been divided into three stratigraphic units. Economically the most important is Unit 1 which is present
as a sheet-like deposit over the whole mine. Unit 2 is a complex channel deposit that is presently only being mined in the south and
west areas of Savuka. The reef may be over 2m thick where Unit 2 is developed. Unit 3 is preserved below Unit 1 in the southern
parts of Savuka and is the oldest of the three CLR stratigraphic units.
Isometric view of Savuka shaft systems and 100 level, showing the different Intrusives that occur in the area

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45

The VCR comprises a quartz pebble conglomerate (up to 5m thick) capping the topmost angular unconformity of the Witwatersrand
Supergroup. The topography of the VCR depositional area is uneven and consists of a series of slopes and horizontal terraces at
different elevations.

The reefs at Savuka are cross-cut by faults and intrusive dykes that displace the reef horizons. The faulting, in conjunction with the
numerous intrusives that also intersect the orebody at various levels, is responsible for most of the risk inherent with deep-level gold
mining, since seismicity is associated with these features.

Mineral Resource

as at 31 December 2010

	Tonnes	Grade	Contained gold
Savuka			
Category	million	g/t	Tonnes	Moz
Ventersdorp Contact Reef				
Measured	0.16	12.87	2.02	0.06
Indicated	0.34	13.53	4.64	0.15
Inferred	–	8.55	0.01	–
Total	0.50	13.32	6.67	0.21
Carbon Leader Reef				
Measured	0.78	17.53	13.69	0.44
Indicated	3.79	20.00	75.74	2.43
Inferred	–	–		

–
–
Total 4.57
19.58
89.43
2.88
Savuka
Total 5.07
18.96
96.10
3.09

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

Type of drilling
Mine/ Spacing
Blast-
Project
Category
m (- x -)
Diamond
RC
hole Other
Comments
Savuka
Measured
5 x 5
–
–
–
Chip sampling
Indicated
200 x 200
–
–
–
–
GBH drilling
Inferred
1,000 x 1,000
–
–
–
Surface boreholes
Grade control –
–
–
–
–
See Measured category

Exclusive Mineral Resource

As Savuka is going into closure mode, almost all of the published Mineral Resource is classified as Exclusive Mineral Resource. Only

0.6% of the published Mineral Resource is not part of the Exclusive Mineral Resource.

Exclusive Mineral Resource

as at 31 December 2010

Tonnes	Grade	Contained gold	Savuka	Category	million	g/t	Tonnes	Moz
Measured		0.93						
16.73		15.63						
0.50								
Indicated		4.11						
19.45	79.85		2.57					
Inferred		–						
8.55								
0.01								
–								
Savuka								
Total		5.04						
18.94								
95.49								
3.07								

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46
AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – Savuka
South Africa
Savuka
Ore Reserve
as at 31 December 2010
Tonnes
Grade
Contained gold
Savuka
Category
million
g/t
Tonnes
Moz
Ventersdorp Contact Reef
Proved
0.04
3.95
0.14
0.00
Probable 0.18
4.95
0.88
0.03
Total 0.21
4.78
1.02
0.03
Carbon Leader Reef
Proved
0.05
5.88
0.28
0.01
Probable 3.09
6.28
19.41
0.62
Total 3.14
6.27
19.69
0.63
Savuka
Total 3.35
6.18
20.71
0.67
Inferred Mineral Resource in business plan

No planning or scheduling took place in areas classified as Inferred Mineral Resource during the planning process.

Ore Reserve modifying factors

as at 31 December 2010

Ex-Cut-off	Cut-off	Stoping	Gold	change	value	value	width	Dilution	Savuka	price	rate	g/t Au	cmg/t Au	(cm)	(%)	MCF%	MetRF%	Carbon Leader Reef	850	8.71	7.96	900	113.0	75	63	97	Ventersdorp Contact Reef	850	8.71	7.96	900	113.0	63	63	97

Savuka:

Mineral Resource reconciliation

2009 vs 2010

Ounces (millions)

3.8

3.7

3.6

3.5

3.4

3.3

3.2

3.1

3.0
Change
3.84
2009
-0.04
Depletion
0.00
Gold
price
-0.25
Explo-
ration
-0.13
Metho-
dology
3.09
2010
-0.00
Cost
-0.33
Other
Savuka:
Ore Reserve reconciliation
2009 vs 2010
Ounces (millions)
0.7
0.6
0.5
Change
0.69
2009
-0.02
Depletion
0.00
Model
change
0.00
New
ounces
from
projects
0.00
Scope
change
0.67
2010
0.00
Change in
Economics
0.00
Other

P
47
Savuka
– underground (metric)
Tonnes above
cut-off (millions)
0
20
Average grade
above cut-off (g/t)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
29
28
27
26
25
24
23
22
21
20
19
18
Cut-off grade (g/t)
Tonnes above cut-off
Ave grade above cut-off
10
15
5
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
Katarien Deysel
SACNASP
400093/05

9 years
Ore Reserve
Joey Modise
PLATO
MS0113
23 years

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48
AngloGold Ashanti Mineral Resource and Ore Reserve Report 2010
South Africa – TauTona
South Africa
TauTona
Location
TauTona lies on the West Wits Line, just south of Carletonville in the North West Province, about 70km south-west of Johannesburg.
Mining at TauTona takes place at depths ranging from 2,000 to 3,640m. The mine has a three-shaft system and is in the process of
converting from longwall mining to scattered grid mining.
Geology
The CLR is a thin, on average 20cm thick, tabular, auriferous quartz pebble conglomerate that is located near the base of the Central
Rand Group. The CLR has been divided into three facies units. Economically the most important is Unit 1, which is present as a
sheet-like deposit over the whole mine, although reef development and grades tend to drop off very rapidly where Unit 1 overlies
Unit 2. Unit 2 is a complex channel deposit that is only present along the eastern-most limit of current mining at TauTona. The Unit 2
CLR may be over 2m thick. Unit 3 is preserved below Unit 1 in the southern parts of TauTona and is the oldest of the CLR conglomerates.
0
3km
Areas of facies dominance
No. 1 CLR
Overlap of No. 1 CLR over No. 2 CL facies
No. 2 CL facies
No. 3 CL facies
CL erosion channels
Shafts
Suboutcrops
Suboutcrop of NL vs No.1 CL
uncomformity
Suboutcrop of F/W Spc Mkr vs
No.1 CL uncomformity
Suboutcrop No.2 CL vs No.1
CL uncomformity
Legend
Driefontein
Blyvooruitzicht
Doornfontein
Deelkraal
Elandsrand
Western Ultra
Deep Levels
TauTona
Savuka
Mponeng
5E

9W
3
1A Subvertical
CL eliminated by
Master Bedding Fault
Doornfontein
erosion channel
Western Driefontein
erosion channel
2
1
N

P
49

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

Exploration

Two development projects will be undertaken at TauTona during 2011 and include the CLR area to the east of the Bank Dyke, and the area south of the Pretorius Fault Zone. The projects will increase the structural confidence and update the facies model within these areas. The exploration project consists of the initial drilling of four LIBs from two different localities on 107 and 112 level respectively. Each LIB hole will also be complemented by the drilling of at least two deflections. Drilling is scheduled to start in January 2011 and a total of 3,900m is expected to have been drilled by November 2011.

Projects

An internal geological project has been launched to investigate the lateral movement of the Pretorius Fault Zone and the possible implications thereof.

Mineral Resource

as at 31 December 2010

Tonnes	Grade	Contained gold
TauTona		
Category	million	g/t	Tonnes	Moz
VCR shaft pillar				
Measured	0.16	18.53	2.94	0.09
Indicated	0.16	20.52	3.35	0.11
Inferred	–	–	–	–
Total	0.32	19.54	6.29	0.20

EOB between 100 & 112 levels

Measured
0.14
28.38
3.98
0.13
Indicated 2.90
20.18
58.54
1.88
Inferred –
–
–
–
Total 3.04
20.55
62.52
2.01
CLR – 1C11
Measured
0.08
24.25
1.89
0.06
Indicated 0.43
27.11
11.71
0.38
Inferred –
–
–
–
Total 0.51
26.67
13.59
0.44
CLR base
Measured
0.36
25.11
9.11
0.29
Indicated 2.35
25.63
60.36
1.94
Inferred –
–
–
–
Total 2.72
25.56

69.46
2.23
TauTona
Total 6.59
23.04
151.87
4.88

South Africa
TauTona
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South Africa – TauTona
TauTona:
Mineral Resource reconciliation
2009 vs 2010
Ounces (millions)
6.2
6.0
5.8
5.6
5.4
5.2
5.0
4.8
Change
6.20
2009
-0.30
Depletion
0.00
Gold
price
0.10
Explo-
ration
-0.16
Metho-
dology
4.88
2010
-0.10
Cost
-0.85
Other
TauTona:
Ore Reserve reconciliation
2009 vs 2010
Ounces (millions)
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0

Change
2.73
2009
-0.33
Depletion
-0.16
Model
change
0.00
New
ounces
from
projects
0.03
Scope
change
2.06
2010
0.00
Change in
Economics
-0.22
Other

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

Type of drilling Mine/ Project	Spacing Category	Blast-hole m (- x -)	Diamond	RC	Other	Comments
TauTona	Measured	5 x 5	–	–	–	
Chip sampling	Indicated	200 x 200	–	–	–	
GBH drilling	Inferred	1,000 x 1,000	–	–		

–
Surface boreholes
Grade control –
–
–
–
–
See Measured category

Exclusive Mineral Resource

The Exclusive Mineral Resource is dependent on mining strategy, but approximately 2.37Moz or 95% of the Exclusive Mineral
Resource is expected to be taken up in safety, boundary and remnant pillars ahead of current mining.

Exclusive Mineral Resource

as at 31 December 2010

Category	Tonnes million	Grade g/t	Contained gold Tonnes	Contained gold Moz	TauTona Tonnes	TauTona Moz
Measured	0.50	24.49	12.16	0.39		
Indicated	2.74	23.91	65.44	2.10		
Inferred	–	–	–	–		
Total	3.23	24.00	77.61	2.50		

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Ore Reserve
as at 31 December 2010
Tonnes
Grade
Contained gold
TauTona
Category
million
g/t
Tonnes
Moz
VCR shaft pillar
Proved
0.17
7.76
1.35
0.04
Probable 0.31
7.68
2.38
0.08
Total 0.48
7.71
3.73
0.12
EOB between 100 &112 levels
Proved
0.17
7.79
1.32
0.04
Probable 2.64
9.43
24.93
0.80
Total 2.81
9.34
26.25
0.84
CLR – 1C11
Proved
0.03
9.21
0.32
0.01
Probable 0.58
9.62
5.61
0.18

Total 0.62
9.60
5.93
0.19
CLR base
Proved
0.31
7.52
2.31
0.07
Probable 2.82
9.12
25.73
0.83
Total 3.13
8.96
28.04
0.90
TauTona
Total 7.04
9.08
63.95
2.06

Inferred Mineral Resource in business plan

No planning or scheduling took place in areas classified as Inferred Mineral Resource during the planning process.

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South Africa – TauTona
South Africa
TauTona
TauTona
– underground (metric)
Tonnes above
cut-off (millions)
0
Average grade
above cut-off (g/t)
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
30
29
28
27
26
25
24
23
22
Cut-off grade (g/t)
Tonnes above cut-off
Ave grade above cut-off
20
15
10
5
Competent persons
Professional
Registration
Relevant
Category
Name
organisation
number
experience
Mineral Resource
Katarien Deysel
SACNASP
400093/05

9 years
Ore Reserve
Joey Modise
PLATO
MS0113
23 years

Ore Reserve modifying factors

as at 31 December 2010

Ex-Cut-off value	Cut-off value	Stoping width	Gold change	Dilution	TauTona price	rate
g/t Au	cmg/t Au	(cm)	(%)	MCF%	MetRF%	
CLR – 1C11						
850	8.71	10.60	1,200	113.0	56	81.82	97.23
CLR base						
850	8.71	10.60				