



04

Supplementary
Information:
Mineral Resources
and Ore Reserves

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2 Ore Reserves by country (attributable)

as at 31 December 2004		Metric			Imperial		
		Tonnes million	Grade g/t	Contained	Tons million	Grade oz/t	Contained
				gold tonnes			gold million oz
South Africa	Proved	30.9	5.21	160.8	34.0	0.152	5.2
	Probable	256.8	4.11	1,056.7	283.1	0.120	34.0
	Total	287.7	4.23	1,217.5	317.1	0.123	39.1
Argentina	Proved	0.6	9.99	6.0	0.7	0.291	0.2
	Probable	6.2	6.87	42.9	6.9	0.200	1.4
	Total	6.9	7.15	49.0	7.6	0.209	1.6
Australia	Proved	45.8	1.21	55.6	50.5	0.035	1.8
	Probable	102.6	1.33	135.9	113.0	0.039	4.4
	Total	148.4	1.29	191.5	163.6	0.038	6.2
Brazil	Proved	3.3	6.58	21.4	3.6	0.192	0.7
	Probable	8.6	7.59	65.5	9.5	0.221	2.1
	Total	11.9	7.31	86.9	13.1	0.213	2.8
Ghana	Proved	45.0	2.09	94.3	49.6	0.061	3.0
	Probable	43.8	6.23	273.1	48.3	0.182	8.8
	Total	88.9	4.13	367.3	98.0	0.120	11.8
Guinea	Proved	21.6	0.77	16.6	23.9	0.022	0.5
	Probable	32.7	1.10	35.9	36.0	0.032	1.2
	Total	54.3	0.97	52.5	59.9	0.028	1.7
Mali	Proved	8.1	2.74	22.1	8.9	0.080	0.7
	Probable	15.0	3.31	49.7	16.6	0.097	1.6
	Total	23.1	3.11	71.8	25.5	0.091	2.3
Namibia	Proved	0.9	1.09	1.0	1.0	0.032	0.0
	Probable	6.9	2.06	14.2	7.6	0.060	0.5
	Total	7.9	1.94	15.3	8.7	0.057	0.5
Tanzania	Proved	24.4	3.01	73.7	26.9	0.088	2.4
	Probable	46.2	4.49	207.4	50.9	0.131	6.7
	Total	70.6	3.98	281.1	77.9	0.116	9.0
USA	Proved	47.9	1.07	51.2	52.8	0.031	1.6
	Probable	73.9	0.94	69.4	81.5	0.027	2.2
	Total	121.8	0.99	120.6	134.3	0.029	3.9
Total	Proved	228.6	2.20	502.7	252.0	0.064	16.2
	Probable	592.8	3.29	1,950.8	653.4	0.096	62.7
	Total	821.4	2.99	2,453.6	905.4	0.087	78.9

Mineral Resources⁽¹⁾ by country (attributable)

3

		Metric			Imperial		
		Tonnes	Grade	Contained	Tons	Grade	Contained
as at 31 December 2004		million	g/t	gold tonnes	million	oz/t	gold million oz
South Africa ⁽²⁾	Measured	90.3	5.13	463.1	99.5	0.150	14.9
	Indicated	423.9	6.51	2,758.5	467.3	0.190	88.7
	Inferred	135.3	3.08	417.1	149.1	0.090	13.4
	Total	649.5	5.60	3,638.7	716.0	0.163	117.0
Argentina	Measured	7.9	2.06	16.3	8.7	0.060	0.5
	Indicated	19.4	3.77	73.3	21.4	0.110	2.4
	Inferred	3.5	5.40	18.7	3.9	0.158	0.6
	Total	30.8	3.52	108.3	34.0	0.103	3.5
Australia	Measured	59.7	1.26	75.2	65.8	0.037	2.4
	Indicated	146.0	1.26	184.4	160.9	0.037	5.9
	Inferred	84.7	1.20	101.7	93.4	0.035	3.3
	Total	290.3	1.24	361.3	320.0	0.036	11.6
Brazil	Measured	8.1	6.73	54.6	8.9	0.196	1.8
	Indicated	15.2	7.80	118.4	16.8	0.228	3.8
	Inferred	23.0	7.22	165.9	25.4	0.211	5.3
	Total	46.3	7.32	338.9	51.0	0.214	10.9
Ghana	Measured	91.6	3.90	357.0	101.0	0.114	11.5
	Indicated	74.0	5.10	377.4	81.6	0.149	12.1
	Inferred	36.6	9.04	331.2	40.3	0.264	10.6
	Total	202.2	5.27	1,065.7	222.9	0.154	34.3
Guinea	Measured	32.6	0.78	25.4	35.9	0.023	0.8
	Indicated	74.4	1.00	74.6	82.0	0.029	2.4
	Inferred	25.7	1.18	30.4	28.3	0.034	1.0
	Total	132.7	0.98	130.4	146.3	0.029	4.2
Mali	Measured	16.5	2.10	34.6	18.2	0.061	1.1
	Indicated	23.9	2.74	65.4	26.3	0.080	2.1
	Inferred	36.6	2.12	77.4	40.3	0.062	2.5
	Total	76.9	2.31	177.4	84.8	0.067	5.7
Namibia	Measured	9.2	0.73	6.7	10.1	0.021	0.2
	Indicated	63.0	1.30	81.7	69.4	0.038	2.6
	Inferred	65.6	1.13	74.4	72.3	0.033	2.4
	Total	137.7	1.18	162.8	151.8	0.034	5.2
Tanzania	Measured	39.4	2.72	107.2	43.4	0.079	3.4
	Indicated	103.3	3.66	377.7	113.9	0.107	12.1
	Inferred	27.1	2.91	79.0	29.9	0.085	2.5
	Total	169.8	3.32	563.9	187.2	0.097	18.1
USA	Measured	80.6	1.00	80.6	88.8	0.029	2.6
	Indicated	122.8	0.96	117.3	135.4	0.028	3.8
	Inferred	45.3	0.91	41.1	49.9	0.027	1.3
	Total	248.7	0.96	239.0	274.1	0.028	7.7
Totals	Measured	435.9	2.80	1,220.7	480.5	0.082	39.2
	Indicated	1,065.8	3.97	4,228.7	1,174.8	0.116	136.0
	Inferred	483.2	2.77	1,336.9	532.6	0.081	43.0
	Total	1,984.9	3.42	6,786.4	2,188.0	0.100	218.2

⁽¹⁾ Inclusive of the Ore Reserve component.

⁽²⁾ It is anticipated that approximately 9% of the South Africa Region's Mineral Resource, when converted to Ore Reserve, will be taken up in stabilising pillars.

		Metric			Imperial		
		Tonnes	Grade	Contained	Tons	Grade	Contained
		million	g/t	gold	million	oz/t	gold
				tonnes			million oz
Argentina							
Cerro Vanguardia (92.5%)	Proved	0.6	9.99	6.0	0.7	0.291	0.2
	Probable	6.2	6.87	42.9	6.9	0.200	1.4
	Total	6.9	7.15	49.0	7.6	0.208	1.6
Australia							
Boddington ⁽²⁾ (33.33%)	Proved	41.5	0.94	39.0	45.7	0.027	1.3
	Probable	88.4	0.84	74.3	97.5	0.024	2.4
	Total	129.9	0.87	113.3	143.2	0.025	3.6
Sunrise Dam	Proved	4.3	3.83	16.6	4.8	0.112	0.5
	Probable	14.1	4.36	61.6	15.6	0.127	2.0
	Total	18.5	4.24	78.2	20.3	0.124	2.5
Brazil							
AngloGold Ashanti Mineração	Proved	1.9	6.92	12.9	2.1	0.202	0.4
	Probable	8.0	7.62	60.6	8.8	0.222	1.9
	Total	9.8	7.49	73.5	10.8	0.218	2.4
Serra Grande (50%)	Proved	1.4	6.13	8.5	1.5	0.179	0.3
	Probable	0.7	7.22	4.9	0.8	0.211	0.2
	Total	2.1	6.49	13.4	2.3	0.189	0.4
Ghana							
Bibiani	Proved	5.6	1.23	6.9	6.2	0.036	0.2
	Probable	2.2	3.43	7.5	2.4	0.100	0.2
	Total	7.8	1.84	14.4	8.6	0.054	0.5
Iduapriem (85%)	Proved	25.2	1.81	45.5	27.8	0.053	1.5
	Probable	5.4	1.85	9.9	5.9	0.054	0.3
	Total	30.5	1.81	55.4	33.7	0.053	1.8
Obuasi	Proved	14.2	2.95	41.9	15.7	0.086	1.3
	Probable	36.3	7.05	255.6	40.0	0.206	8.2
	Total	50.5	5.89	297.5	55.7	0.172	9.6

		Metric			Imperial			
		Tonnes million	Grade g/t	Contained	Tons million	Grade oz/t	Contained	
				gold tonnes			gold million oz	
Guinea								
Sigiri (85%)	Proved	21.6	0.77	16.6	23.9	0.022	0.5	
	Probable	32.7	1.10	35.9	36.0	0.032	1.2	
	Total	54.3	0.97	52.5	59.9	0.028	1.7	
Mali								
Morila (40%)	Proved	4.8	3.39	16.1	5.3	0.099	0.5	
	Probable	5.5	2.87	15.9	6.1	0.084	0.5	
	Total	10.3	3.11	32.0	11.4	0.091	1.0	
Sadiola (38%)	Proved	2.5	1.80	4.5	2.7	0.052	0.1	
	Probable	7.2	3.37	24.2	7.9	0.098	0.8	
	Total	9.7	2.96	28.7	10.7	0.086	0.9	
Yatela (40%)	Proved	0.8	1.86	1.5	0.9	0.054	0.0	
	Probable	2.3	4.18	9.6	2.5	0.122	0.3	
	Total	3.1	3.58	11.1	3.4	0.104	0.4	
Namibia								
Navachab	Proved	0.9	1.09	1.0	1.0	0.032	0.0	
	Probable	6.9	2.06	14.2	7.6	0.060	0.5	
	Total	7.9	1.94	15.3	8.7	0.057	0.5	
Tanzania								
Geita	Proved	24.4	3.01	73.7	26.9	0.088	2.4	
	Probable	46.2	4.49	207.4	50.9	0.131	6.7	
	Total	70.6	3.98	281.1	77.9	0.116	9.0	
USA								
Cripple Creek & Victor	Proved	47.9	1.07	51.2	52.8	0.031	1.6	
	Probable	73.9	0.94	69.4	81.5	0.027	2.2	
	Total	121.8	0.99	120.6	134.3	0.029	3.9	
		Proved	228.6	2.20	502.7	252.0	0.064	16.2
		Probable	592.8	3.29	1950.8	653.4	0.096	62.7
Total Ore Reserves attributable to AngloGold Ashanti		Total	821.4	2.99	2453.6	905.4	0.087	78.9

NB: Rounding of figures may result in computational discrepancies.

⁽¹⁾ The southerly down-dip extension of Mponeng, Elandsrand (Harmony) and Driefontein (Gold Fields Limited), with depths to reef exceeding 4,500m in the south.

⁽²⁾ The Ore Reserves associated with the Boddington Expansion have been based on the feasibility study completed in 2000 and assume a gold price of A\$425/oz.

Mineral Resources by operation (attributable)

as at 31 December 2004		Metric			Imperial		
Mine	Category	Tonnes million	Grade g/t	Contained	Tons million	Grade oz/t	Contained
				gold tonnes			gold million oz
South Africa							
Great Noligwa	Measured	9.5	17.80	169.6	10.5	0.519	5.5
	Indicated	17.2	14.70	252.3	18.9	0.429	8.1
	Inferred	3.4	11.72	39.7	3.7	0.342	1.3
	Total	30.1	15.35	461.7	33.2	0.448	14.8
Kopanang	Measured	2.7	16.95	46.3	3.0	0.494	1.5
	Indicated	19.9	17.26	343.5	21.9	0.503	11.0
	Inferred	1.7	18.30	30.3	1.8	0.534	1.0
	Total	24.3	17.30	420.1	26.8	0.504	13.5
Moab Khotsong	Measured	0.1	12.52	1.6	0.1	0.365	0.1
	Indicated	18.4	22.75	417.6	20.2	0.664	13.4
	Inferred	6.3	18.63	117.1	6.9	0.543	3.8
	Total	24.8	21.65	536.3	27.3	0.631	17.2
Tau Lekoa	Measured	6.7	6.01	40.3	7.4	0.175	1.3
	Indicated	46.1	5.23	240.8	50.8	0.152	7.7
	Inferred	9.6	7.21	69.5	10.6	0.210	2.2
	Total	62.4	5.62	350.7	68.8	0.164	11.3
Vaal River Surface (VRGO)	Measured	0.0	0.00	0.0	0.0	0.000	0.0
	Indicated	231	0.36	82.9	254.6	0.010	2.7
	Inferred	101.3	0.66	66.4	111.6	0.019	2.1
	Total	332.2	0.45	149.3	366.2	0.013	4.8
ERGO	Measured	60.7	0.41	24.8	66.9	0.012	0.8
	Indicated	0.0	0.00	0.0	0.0	0.000	0.0
	Inferred	0.0	0.00	0.0	0.0	0.000	0.0
	Total	60.7	0.41	24.8	66.9	0.012	0.8
Mponeng	Measured	7.1	14.99	105.8	7.8	0.437	3.4
	Indicated	58.6	13.85	811.5	64.6	0.404	26.1
	Inferred	0.0	0.00	0.0	0.0	0.000	0.0
	Total	65.6	13.97	917.2	72.3	0.408	29.5
Savuka	Measured	1.5	14.02	20.5	1.6	0.409	0.7
	Indicated	18	12.98	233.5	19.8	0.379	7.5
	Inferred	0.0	0.00	0.0	0.0	0.000	0.0
	Total	19.5	13.06	254.0	21.5	0.381	8.2
TauTona	Measured	2.0	27.04	54.3	2.2	0.789	1.7
	Indicated	14.6	25.70	376.2	16.1	0.750	12.1
	Inferred	3.1	13.63	41.7	3.4	0.398	1.3
	Total	19.7	23.96	472.1	21.7	0.699	15.2

Mine	Category	Metric			Imperial		
		Tonnes million	Grade g/t	Contained gold tonnes	Tons million	Grade oz/t	Contained gold million oz
Western Ultra Deep Levels ⁽¹⁾	Measured	0.0	0.00	0.0	0.0	0.000	0.0
	Indicated	0.0	0.00	0.0	0.0	0.000	0.0
	Inferred	3.0	15.66	47.7	3.4	0.457	1.5
	Total	3.0	15.66	47.7	3.3	0.457	1.5
West Wits Surface	Measured	0.0	0.00	0.0	0.0	0.000	0.0
	Indicated	0.3	0.52	0.1	0.3	0.015	0.0
	Inferred	6.9	0.68	4.7	7.6	0.020	0.2
	Total	7.2	0.68	4.9	7.9	0.020	0.2
Argentina							
Cerro Vanguardia (92.5%)	Measured	0.6	12.57	7.0	0.6	0.367	0.2
	Indicated	8.6	7.45	64.0	9.5	0.217	2.1
	Inferred	1.8	9.27	16.9	2.0	0.270	0.5
	Total	11.0	8.01	87.9	12.1	0.234	2.8
Cerro Vanguardia (92.5%) Heap Leach Material	Measured	7.3	1.27	9.3	8.1	0.037	0.3
	Indicated	10.8	0.85	9.3	12.0	0.025	0.3
	Inferred	1.6	1.10	1.8	1.8	0.032	0.1
	Total	19.8	1.03	20.4	21.8	0.030	0.7
Australia							
Boddington ⁽²⁾ (33.33%)	Measured	43.0	0.93	40.10	47.4	0.027	1.3
	Indicated	123.0	0.83	102.30	135.6	0.024	3.3
	Inferred	76.2	0.81	61.4	84.0	0.023	2.0
	Total	242.2	0.84	203.8	267.0	0.025	6.6
Sunrise Dam	Measured	16.7	2.10	35.1	18.4	0.061	1.1
	Indicated	22.9	3.58	82.1	25.3	0.104	2.6
	Inferred	8.5	4.77	40.4	9.3	0.139	1.3
	Total	48.1	3.28	157.5	53.0	0.096	5.1
Brazil							
AngloGold Ashanti Mineração	Measured	6.5	6.70	43.4	7.1	0.195	1.4
	Indicated	14.3	7.82	112.1	15.8	0.228	3.6
	Inferred	21.4	7.28	155.4	23.5	0.212	5.0
	Total	42.2	7.37	310.9	46.5	0.215	10.0
Serra Grande (50%)	Measured	1.6	6.84	11.2	1.8	0.200	0.4
	Indicated	0.8	7.47	6.3	0.9	0.218	0.2
	Inferred	1.6	6.49	10.5	1.8	0.189	0.3
	Total	4.1	6.83	28.0	4.5	0.199	0.9

Mine	Category	Metric			Imperial		
		Tonnes million	Grade g/t	Contained gold tonnes	Tons million	Grade oz/t	Contained gold million oz
Ghana							
Bibiani	Measured	5.8	1.22	7.1	6.4	0.036	0.2
	Indicated	18.5	1.26	23.3	20.4	0.037	0.8
	Inferred	3.1	6.10	18.9	3.4	0.178	0.6
	Total	27.4	1.80	49.3	30.2	0.052	1.6
Iduapriem (85%)	Measured	41.2	1.64	67.7	45.4	0.048	2.2
	Indicated	16.8	1.61	27.0	18.5	0.047	0.9
	Inferred	8.2	1.43	11.7	9.0	0.042	0.4
	Total	66.1	1.61	106.4	72.9	0.047	3.4
Obuasi	Measured	44.6	6.34	282.3	49.1	0.185	9.1
	Indicated	38.7	8.46	327.1	42.6	0.247	10.5
	Inferred	25.4	11.85	300.7	28.0	0.346	9.7
	Total	108.6	8.38	910.0	119.7	0.244	29.3
Guinea							
Siguiri (85%)	Measured	32.6	0.78	25.4	35.9	0.023	0.8
	Indicated	74.4	1.00	74.6	82.0	0.029	2.4
	Inferred	25.7	1.18	30.4	28.3	0.035	1.0
	Total	132.7	0.98	130.4	146.3	0.029	4.2
Mali							
Morila (40%)	Measured	6.9	2.95	20.4	7.6	0.086	0.7
	Indicated	4.8	3.56	17.0	5.3	0.104	0.5
	Inferred	1.8	3.79	6.8	2.0	0.110	0.2
	Total	13.5	3.28	44.2	14.9	0.096	1.4
Sadiola (38%)	Measured	6.9	1.51	10.4	7.6	0.044	0.3
	Indicated	14.8	2.45	36.2	16.3	0.071	1.2
	Inferred	33.4	2.00	66.7	36.8	0.058	2.1
	Total	55.1	2.06	113.4	60.7	0.060	3.6
Yatela (40%)	Measured	2.6	1.44	3.8	2.9	0.042	0.1
	Indicated	4.3	2.83	12.2	4.7	0.083	0.4
	Inferred	1.4	2.82	3.9	1.5	0.082	0.1
	Total	8.3	2.39	19.8	9.1	0.070	0.6
Namibia							
Navachab	Measured	9.2	0.73	6.7	10.1	0.021	0.2
	Indicated	63.0	1.30	81.7	69.4	0.038	2.6
	Inferred	65.6	1.13	74.4	72.3	0.033	2.4
	Total	137.7	1.18	162.8	151.8	0.034	5.2

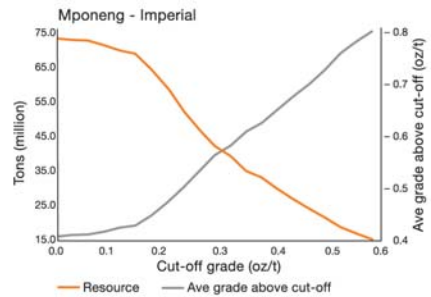
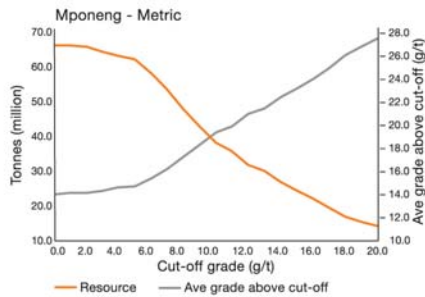
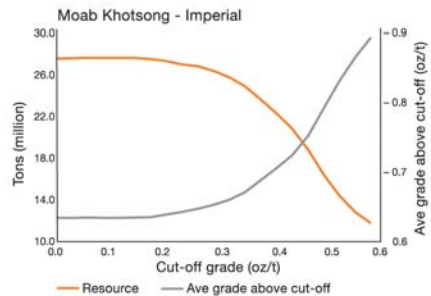
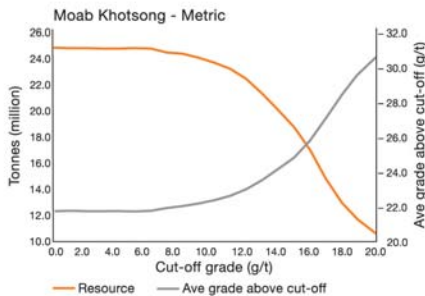
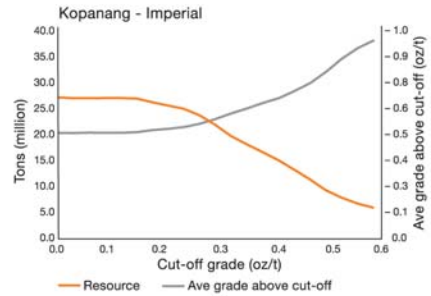
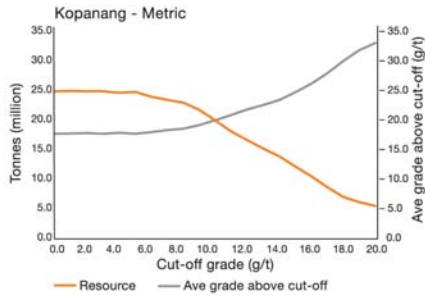
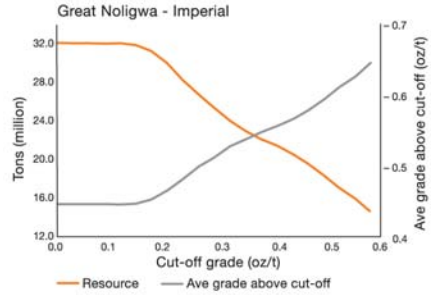
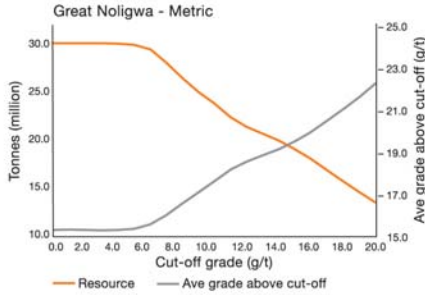
Mine	Category	Metric			Imperial		
		Tonnes million	Grade g/t	Contained gold tonnes	Tons million	Grade oz/t	Contained gold million oz
Tanzania							
Geita	Measured	39.4	2.72	107.2	43.4	0.079	3.4
	Indicated	103.3	3.66	377.7	113.8	0.107	12.1
	Inferred	27.1	2.91	79.0	29.9	0.085	2.5
	Total	169.8	3.32	563.9	187.2	0.097	18.1
USA							
Cripple Creek & Victor	Measured	80.6	1.00	80.6	88.9	0.029	2.6
	Indicated	122.8	0.96	117.3	135.3	0.028	3.8
	Inferred	45.3	0.91	41.1	49.9	0.026	1.3
	Total	248.7	0.96	239.0	274.2	0.028	7.7
	Measured	435.9	2.80	1220.7	480.4	0.082	39.2
	Indicated	1065.8	3.97	4228.7	1174.9	0.116	136.0
Total Mineral Resources	Inferred	483.2	2.8	1336.9	532.7	0.081	43.0
attributable to AngloGold Ashanti	Total	1984.9	3.4	6786.4	2188.0	0.100	218.2

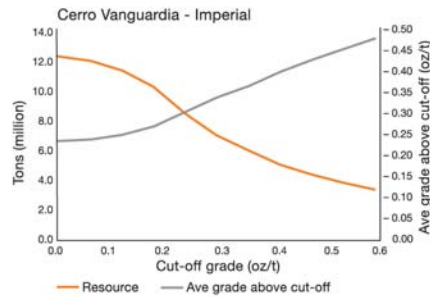
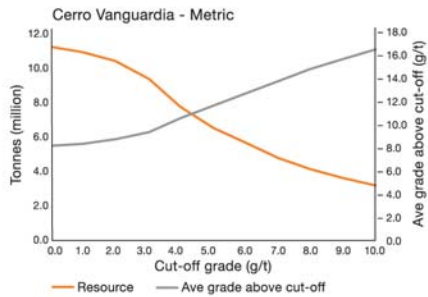
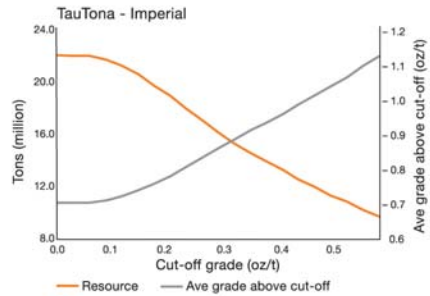
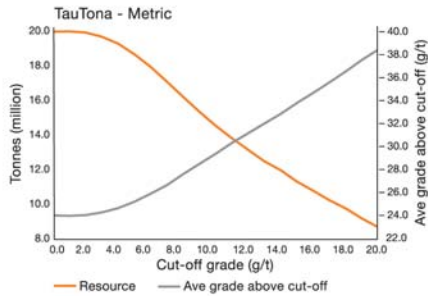
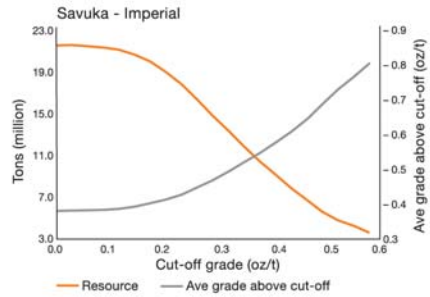
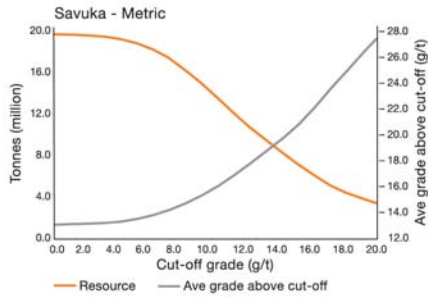
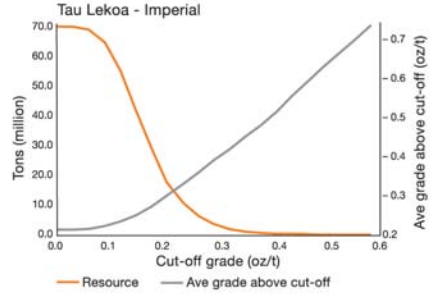
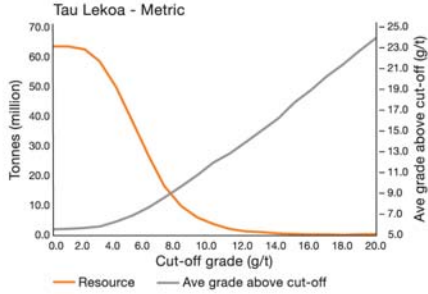
NB: Rounding of figures may result in computational discrepancies.

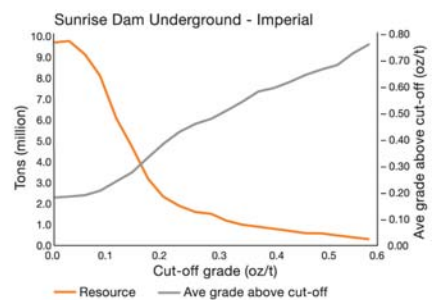
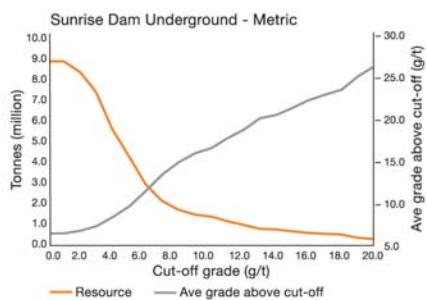
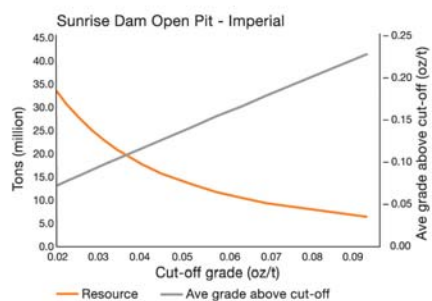
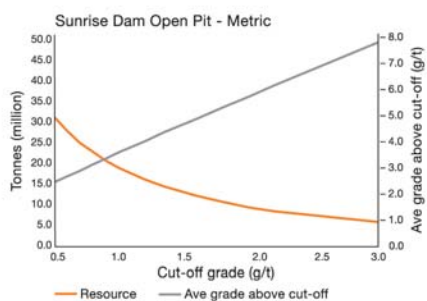
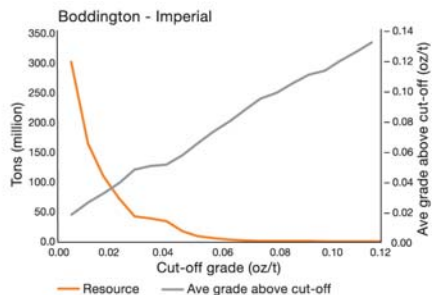
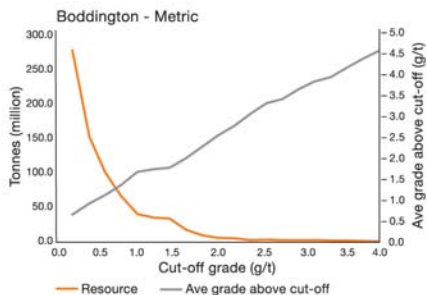
⁽¹⁾ The southerly down-dip extension of Mponeng, Elandsrand (Harmony) and Driefontein (Gold Fields Limited), with depths to reef exceeding 4,500m in the south.

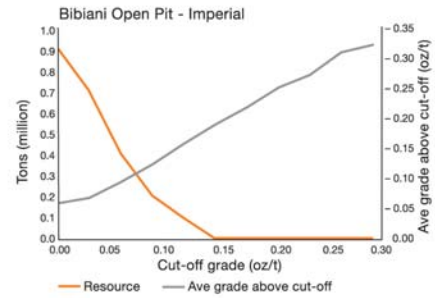
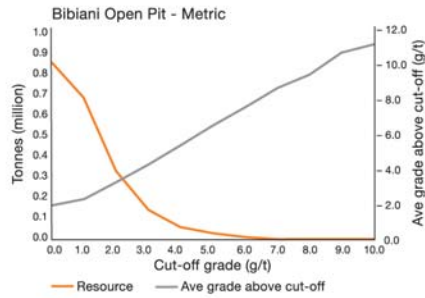
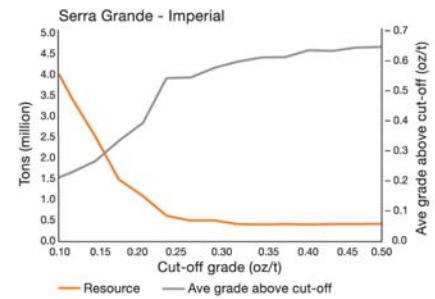
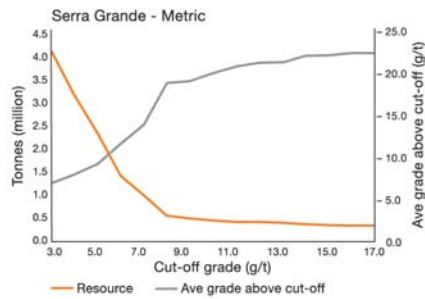
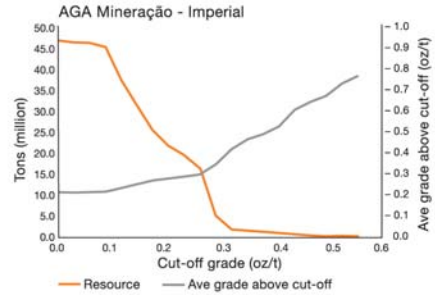
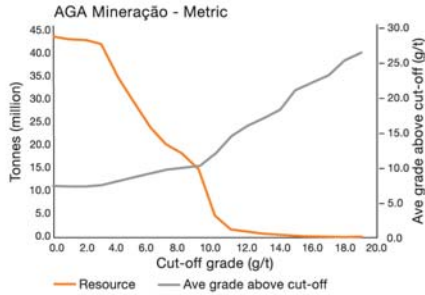
⁽²⁾ The Ore Reserves associated with the Boddington Expansion have been based on the feasibility study completed in 2000 and assume a gold price of A\$425/oz.

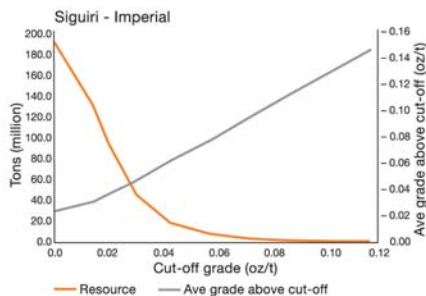
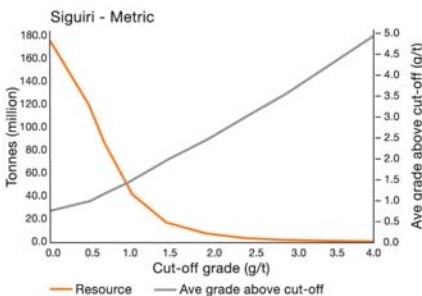
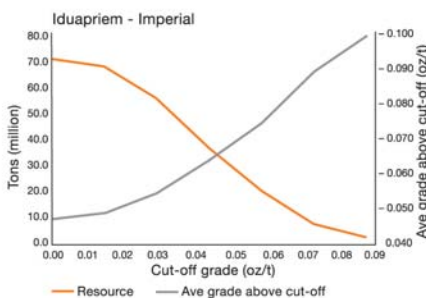
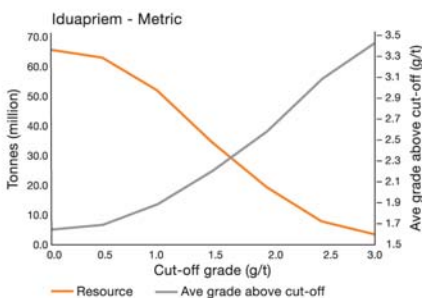
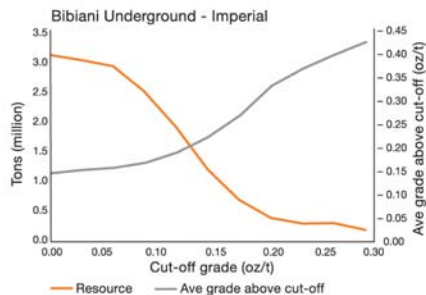
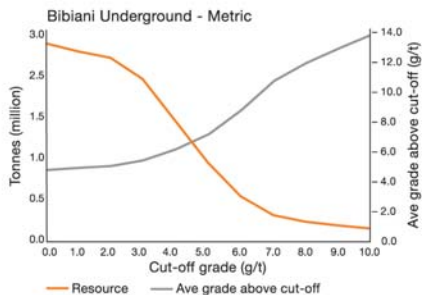
Grade tonnage curves of the Mineral Resource

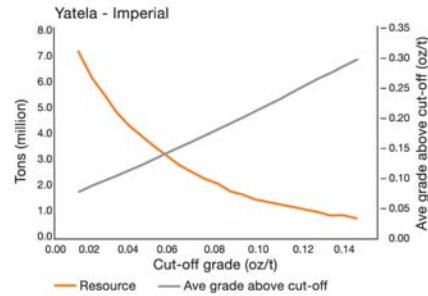
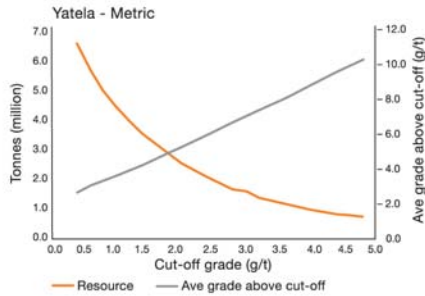
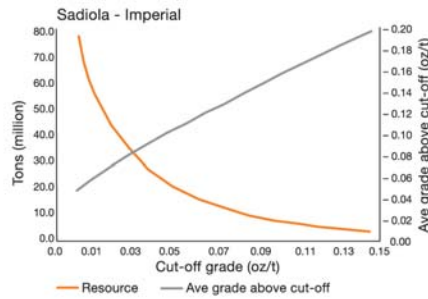
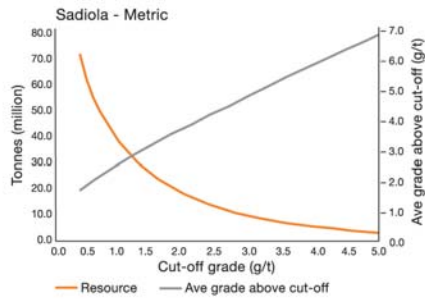
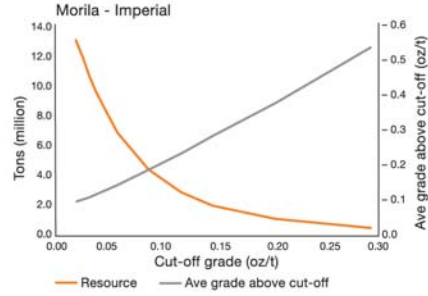
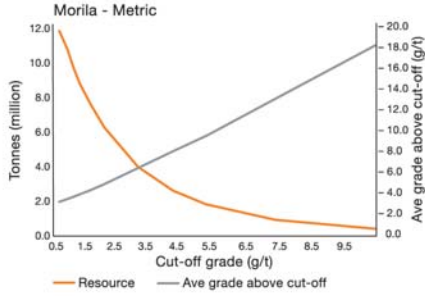


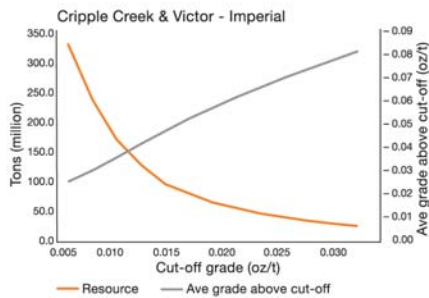
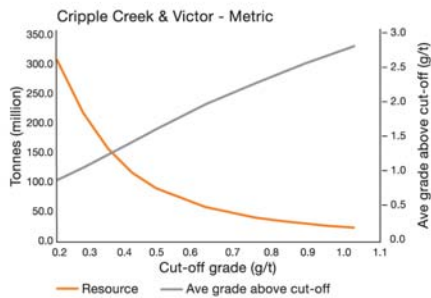
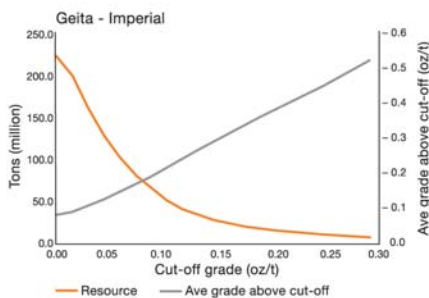
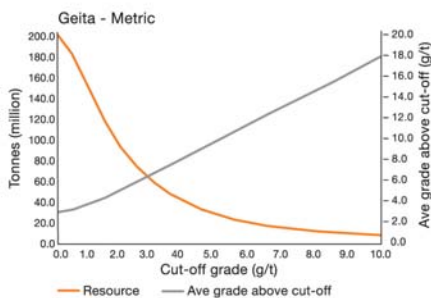
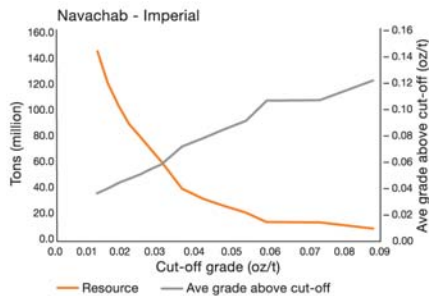
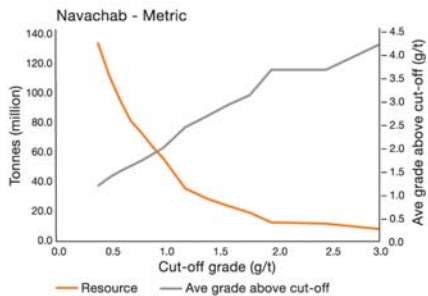












18 | Year-on-year Mineral Resource and Ore Reserve comparison by operation (attributable)

Operation	Category	2003	Merger ⁽¹⁾	Au Content (Attributable) (Million ounces)			2004	Net diff	%
				Depletion ⁽²⁾	Model Change ⁽³⁾	Scope Change ⁽⁴⁾			
South Africa									
Goedgenoeg	Resource	2.5		0.0	0.0	-2.5	0.0	-2.5	-100%
	Reserve	0.0		0.0	0.0	0.0	0.0	0.0	0%
Great Noligwa	Resource	17.1		-1.2	-0.4	-0.8	14.8	-2.3	-13%
	Reserve	5.6		-0.8	0.6	0.2	5.5	0.0	-1%
Kopanang	Resource	14.3		-0.7	-1.5	1.4	13.5	-0.8	-6%
	Reserve	5.3		-0.5	0.4	0.8	6.0	0.7	12%
Moab Khotsonq	Resource	13.8		0.0	1.2	2.3	17.2	3.5	25%
	Reserve	8.4		0.0	0.6	0.0	9.0	0.6	7%
Tau Lekoa	Resource	12.0		-0.4	-0.3	-0.1	11.3	-0.7	-6%
	Reserve	3.8		-0.3	0.0	-0.6	2.9	-0.9	-24%
Vaal River Surface (VRGO)	Resource	5.4		-0.1	0.2	-0.7	4.8	-0.6	-12%
	Reserve	2.9		-0.1	0.0	0.1	2.9	0.0	0%
ERGO	Resource	0.7		-0.4	0.3	0.2	0.8	0.1	12%
	Reserve	0.4		-0.4	0.0	0.1	0.1	-0.3	-85%
Mponeng	Resource	25.7		-0.5	6.1	-1.9	29.5	3.8	15%
	Reserve	7.4		-0.4	-0.1	-0.1	6.7	-0.7	-9%
Savuka	Resource	8.6		-0.2	0.1	-0.3	8.2	-0.4	-5%
	Reserve	0.3		-0.2	0.0	0.2	0.4	0.1	24%
TauTona	Resource	16.4		-0.7	0.2	-0.7	15.2	-1.2	-8%
	Reserve	6.5		-0.6	-0.1	-0.3	5.6	-0.9	-14%
Western Ultra Deep Levels	Resource	39.4		0.0	-0.8	-37.0	1.5	-37.8	-96%
	Reserve	0.0		0.0	0.0	0.0	0.0	0.0	0%
West Wits Surface	Resource	1.6		0.0	-0.1	-1.4	0.2	-1.4	-90%
	Reserve	0.0		0.0	0.0	0.0	0.0	0.0	0%
South Africa totals	Resource	157.5		-4.2	5.0	-41.4	117.0	-40.5	-26%
	Reserve	40.7		-3.4	1.4	0.4	39.1	-1.6	-4%
Argentina									
Cerro Vanguardia	Resource	3.4		-0.1	0.2	0.0	3.5	0.1	2%
	Reserve	1.8		-0.2	-0.1	0.1	1.6	-0.2	-10%
Argentina totals	Resource	3.4		-0.1	0.2	0.0	3.5	0.1	2%
	Reserve	1.8		-0.2	-0.1	0.1	1.6	-0.2	-10%
Australia									
Boddington	Resource	6.6		-	-	-	6.6	0.0	0%
	Reserve	3.6		-	-	-	3.6	0.0	0%
Coyote	Resource	0.3		-	-	-0.3	0.0	-0.3	-100%
	Reserve	0.0		-	-	0.0	0.0	0.0	0%
Sunrise Dam	Resource	5.5		-0.5	0.1	0.0	5.1	-0.4	-8%
	Reserve	3.1		-0.5	0.0	0.0	2.5	-0.6	-18%
Tanami	Resource	0.2		-	-	-0.2	0.0	-0.2	-100%
	Reserve	0.0		0.0	-	-	0.0	0.0	0%
Union Reefs	Resource	0.1		-	-	-0.1	0.0	-0.1	-100%
	Reserve	0.0		0.0	-	-	0.0	0.0	0%
Australia totals	Resource	12.6		-0.5	0.1	-0.6	11.6	-1.0	-8%
	Reserve	6.7		-0.5	0.0	0.0	6.2	-0.6	-8%

Comments

Scoping studies showed the Mineral Resource to be uneconomic using current financial assumptions.

Reductions are due to the removal of uneconomic pillars and a decline in Vaal Reef values (cmg/t).
The increase (after depletion) is due to the inclusion of some old pillars, resulting in the Life-of-mine being extended.

Reductions are due to a significant decrease in estimated value for the C Reef, structural losses and the removal of Inferred fault blocks from the Mineral Resource. A significant addition was the inclusion of Edom, where a New Order Right to Mine was obtained.
The Ore Reserve increased as a result of the inclusion of Edom (0.758 Moz).

The scope change was due to Moab Extension now being included as part of Moab Khotsong Mine.
Moab Phase 1 showed an increase in both area and values.

The Mineral Resource was reduced due to an increased cut-off grade.
Removal of the Above 800 Project and other areas that fell below Business Plan cut-off grade.

Reductions are due to increased Mineral Resource cut-offs.
The new philosophy is to deplete all payable surface resources, whereas previously operations discontinued when the main business unit closed.

Increases in Mineral Resource are due to increased grades and improved operating circumstances.
Closure mode.

Increases are due to both improved values (cmg/t) and transfers from WUDL.
Delayed VCR Below 120 Project resulted in a shorter life and lower values.

A reduction due to the removal of pillars was offset by transfers from TauTona.
Ground transferred from TauTona resulted in the Life-of-mine being extended by two years.

The reduction in the Mineral Resource is due to transfers to Savuka and the removal of old pillars.
Reductions are due to transfers to Savuka (0.107 Moz) and a reduced MCF.

Reductions are due to transfers to Mponeng and the results of economic scoping studies.

Reductions are due to increased Mineral Resource cut-offs.

This includes the Mineral Resources from the heap leaching material.
Depletion exceeds additions from exploration

Figures based on 2000 feasibility study.
Figures based on 2000 feasibility study.

Sold January 2004.
Sold January 2004.

Reduction is a net result of open pit depletion and additions to the underground Mineral Resource.
Depletion.

Sold October 2004 (transfer finalisation in progress).
Sold October 2004 (transfer finalisation in progress).

Sold September 2004.
Sold September 2004.

Year-on-year Mineral Resource and Ore Reserve comparison by operation (attributable)

Operation	Category	2003	Merger ⁽¹⁾	Au Content (Attributable) (Million ounces)			2004	Net diff	%
				Depletion ⁽²⁾	Model Change ⁽³⁾	Scope Change ⁽⁴⁾			
Brazil									
AGA Mineração	Resource	9.2		-0.3	1.0	0.0	10.0	0.8	8%
	Reserve	1.7		-0.3	0.9	0.0	2.4	0.6	35%
Serra Grande	Resource	0.9		-0.1	0.0	0.0	0.9	0.0	-5%
	Reserve	0.5		-0.1	0.1	0.0	0.4	0.0	-9%
Brazil totals	Resource	10.2		-0.4	1.1	0.0	10.9	0.7	7%
	Reserve	2.2		-0.4	0.9	0.0	2.8	0.6	26%
Ghana									
Bibiani ⁽¹⁾	Resource		1.7	-0.1	0.0	0.0	1.6	-0.1	-7%
	Reserve		0.6	-0.1	0.0	0.0	0.5	-0.1	-16%
Iduapriem ⁽¹⁾	Resource		4.7	-0.1	0.0	-1.1	3.4	-1.3	-27%
	Reserve		2.5	-0.1	0.0	-0.6	1.8	-0.7	-30%
Obuasi ⁽¹⁾	Resource		32.5	-0.4	-2.9	0.0	29.3	-3.2	-10%
	Reserve		11.1	-0.3	-0.2	-1.0	9.6	-1.6	-14%
Ghana totals	Resource		38.9	-0.6	-2.9	-1.1	34.3	-4.6	-12%
	Reserve		14.2	-0.6	-0.2	-1.6	11.8	-2.4	-17%
Guinea									
Sigiri ⁽¹⁾	Resource		3.6	-0.1	0.5	0.2	4.2	0.6	16%
	Reserve		1.6	-0.1	0.1	0.1	1.7	0.1	8%
Guinea totals	Resource		3.6	-0.1	0.5	0.2	4.2	0.6	16%
	Reserve		1.6	-0.1	0.1	0.1	1.7	0.1	8%
Mali									
Morila	Resource	1.5		-0.3	0.3	-0.1	1.4	-0.1	-7%
	Reserve	1.2		-0.2	0.2	-0.2	1.0	-0.2	-17%
Sadiola	Resource	4.3		-0.2	0.0	-0.5	3.6	-0.7	-15%
	Reserve	1.0		-0.2	0.0	0.1	0.9	-0.1	-11%
Yatela	Resource	0.6		-0.1	0.1	0.0	0.6	0.0	2%
	Reserve	0.4		-0.1	0.0	0.0	0.4	-0.1	-20%
Mali totals	Resource	6.4		-0.6	0.4	-0.6	5.7	-0.7	-12%
	Reserve	2.7		-0.6	0.2	0.0	2.3	-0.4	-15%
Namibia									
Navachab	Resource	4.7		-0.1	0.3	0.3	5.2	0.6	13%
	Reserve	0.6		-0.1	-0.1	0.0	0.5	-0.2	-24%
Namibia totals	Resource	4.7		-0.1	0.3	0.3	5.2	0.6	13%
	Reserve	0.6		-0.1	-0.1	0.0	0.5	-0.2	-24%
Tanzania									
Geita ⁽¹⁾	Resource	9.3	9.2	-0.7	0.4	0.0	18.1	-0.3	-2%
	Reserve	4.3	4.2	-0.6	0.6	0.5	9.0	0.5	6%
Tanzania totals	Resource	9.3	9.2	-0.7	0.4	0.0	18.1	-0.3	-2%
	Reserve	4.3	4.2	-0.6	0.6	0.5	9.0	0.5	6%

Comments

Additions from Corrego do Sítio.
Additions from Cuiabá due to conversion of the Mineral Resource to Ore Reserve between 8 and 15 Levels.

Depletion of surface Ore Reserves.

Change in model parameters.
Removal of A Zone due to economics.

Continuity discount was applied to Obuasi Deeps. Block 8 reduction was due to additional drilling information.
Model change was due to infill drilling that indicated reduced grades in Block 8L. Scope change was based on re-assessment of minor and remnant ore blocks and the removal of Anyankyriem surface Ore Reserves.

9 million tons of low grade (0.4g/t – 0.7g/t) stockpiles have now been included in the Mineral Resource.
Addition of Kami North and Eureka North pits; inclusion of low grade stockpiles.

Additions are due to exploration of the Morila Shear Zone extension and Domba.
Changes due to the inclusion of marginal ore stockpiles were offset by increased operating costs and depletion.

Reductions are due to a revised scoping study on the Deep Sulphides.
Revised pit designs for FE3 and FE4 partially offset depletion.

Advance grade control drilling of the main pit and exploration of KW18 resulted in minor increases.

Increases are due to exploration of the footwall mineralisation and Anomaly 16 as well as revisions to the pit optimisation parameters.
Updated Mineral Resource model.

Additions are also due to exploration information from Geita Hill and Nyankanga West.
Extensions to Geita Hill, Lone Cone and Nyankanga orebodies; additional Nyankanga cutback below diversion channel.

Operation	Category	Au Content (Attributable) (Million ounces)					2004	Net diff	%
		2003	Merger ⁽¹⁾	Depletion ⁽²⁾	Model Change ⁽³⁾	Scope Change ⁽⁴⁾			
USA									
Cripple Creek & Victor	Resource	8.5		-0.5	0.1	-0.5	7.7	-0.9	-10%
	Reserve	4.0		-0.5	0.3	0.1	3.9	-0.1	-3%
USA totals	Resource	8.5		-0.5	0.1	-0.5	7.7	-0.9	-10%
	Reserve	4.0		-0.5	0.3	0.1	3.9	-0.1	-3%
Zimbabwe									
Freda-Rebecca	Resource		1.3	0.0	0.0	-1.2	0.0	-1.3	-100%
	Reserve		0.3	0.0	0.0	-0.3	0.0	-0.3	-100%
Zimbabwe totals	Resource		1.3	0.0	0.0	-1.2	0.0	-1.3	-100%
	Reserve		0.3	0.0	0.0	-0.3	0.0	-0.3	-100%
AngloGold Ashanti	Resource	212.7	52.9	-7.9	5.2	-44.8	218.2	-47.4	-22%
Grand totals⁽⁶⁾	Reserve	63.1	20.3	-7.0	3.1	-0.6	78.9	-4.5	-7%
AngloGold and Ashanti	Resource	266.2		-8.4	5.2	-44.8	218.2	-48.0	-18%
Grand totals⁽⁶⁾	Reserve	83.9		-7.6	3.1	-0.6	78.9	-5.1	-6%
Ashanti only	Resource	53.5		-1.7	-2.2	-2.1	47.5	-6.0	-11%
Grand totals	Reserve	20.7		-1.6	0.2	-1.3	18.0	-2.7	-13%
AngloGold only	Resource	212.7		-6.8	7.5	-42.7	170.7	-42.0	-20%
Grand totals	Reserve	63.1		-6.0	2.9	0.9	60.9	-2.2	-4%

Note: Trans Siberia Gold data pending Resource review and feasibility study.

NB: Rounding of figures may result in computational discrepancies.

⁽¹⁾ **Merger:** the figures listed for these operations take cognisance of the merger between AngloGold Ltd. and Ashanti Goldfields Co. Ltd.

⁽²⁾ **Depletion:** reduction in the Ore Reserves based on ore delivered to the plant and corresponding reduction in the Mineral Resource.

⁽³⁾ **Model Change:** difference between the 2003 and 2004 Ore Reserves, based on the beginning of the year and the end of year Mineral Resource models. In both cases the end of year mine design and mining faces are applied.

⁽⁴⁾ **Scope Change:** difference resulting from change in cut-off grade, mine call factor, new project studies and any other factors influencing the Ore Reserve and Mineral Resource estimation.

⁽⁵⁾ This total compares the 2003 AngloGold figures (pre-merger) with the 2004 AngloGold Ashanti figures (post-merger).

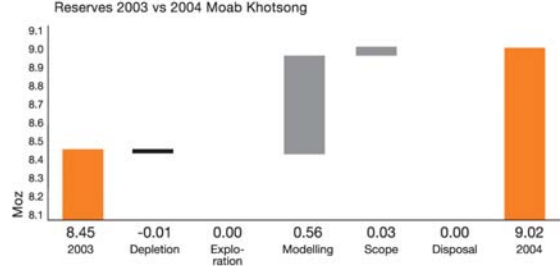
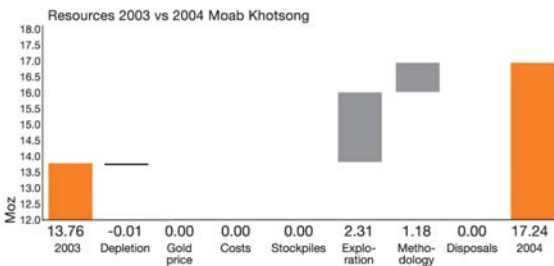
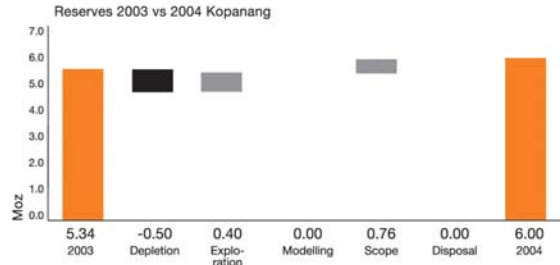
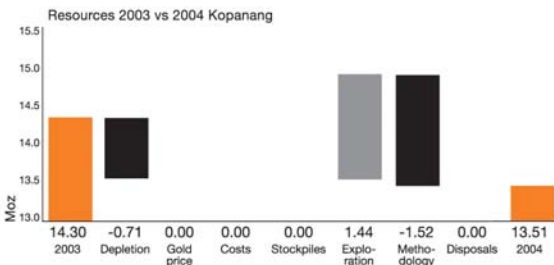
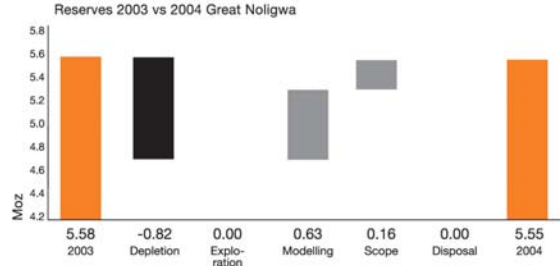
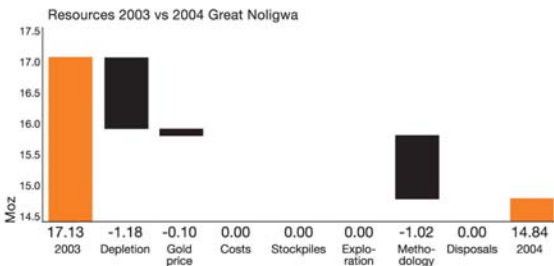
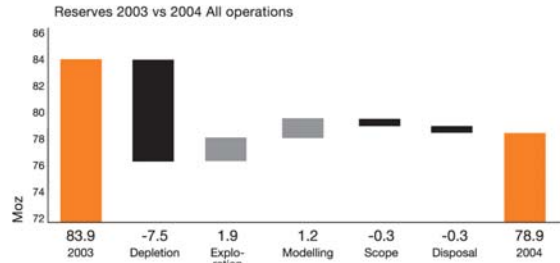
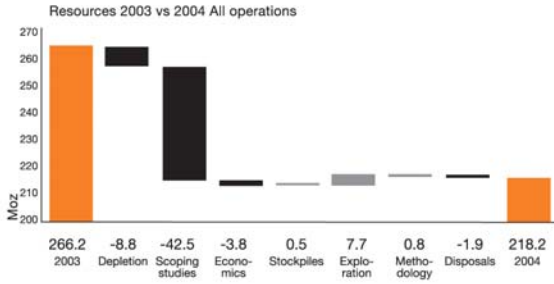
⁽⁶⁾ This total compares the combined 2003 AngloGold and Ashanti figures (pre-merger) with the 2004 AngloGold Ashanti figures (post-merger).

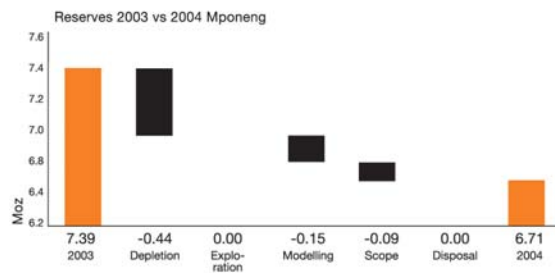
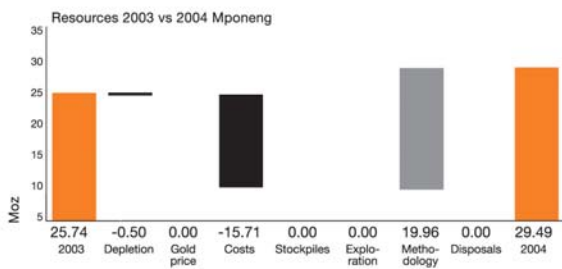
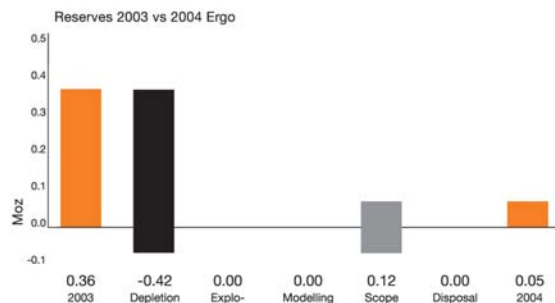
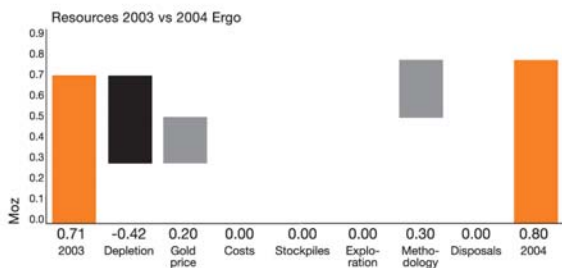
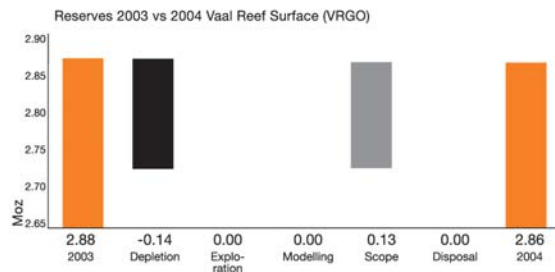
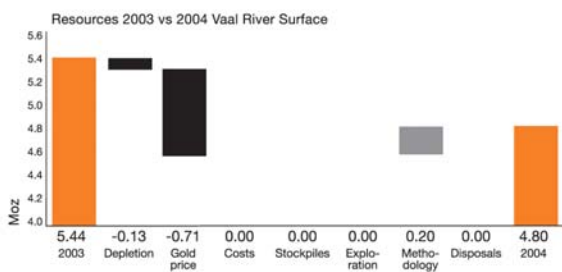
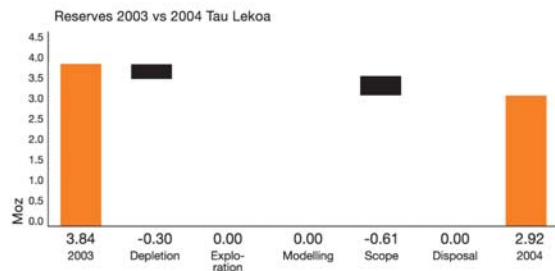
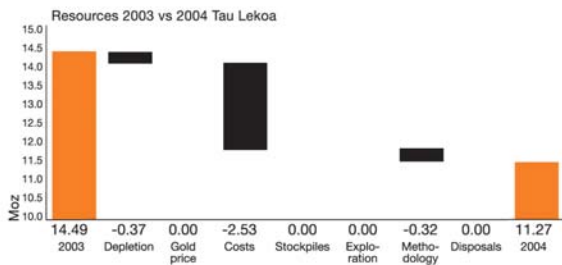
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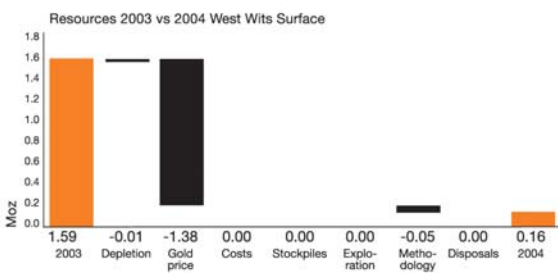
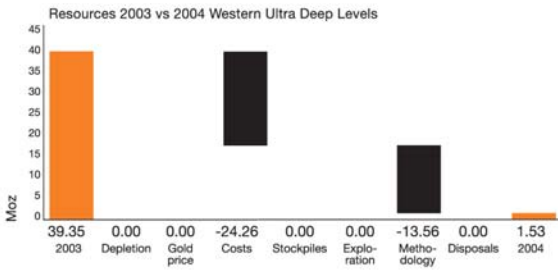
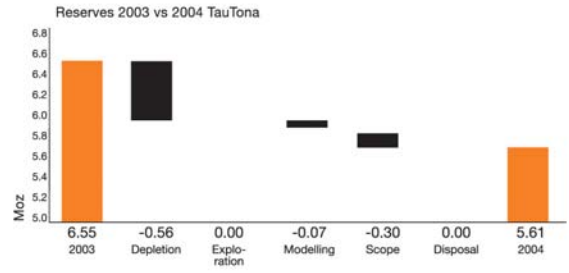
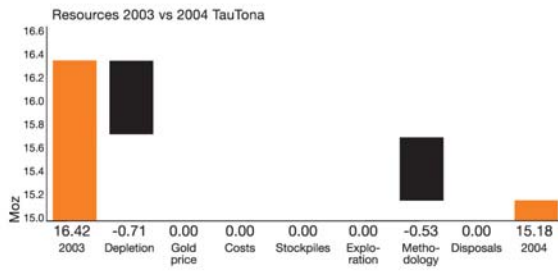
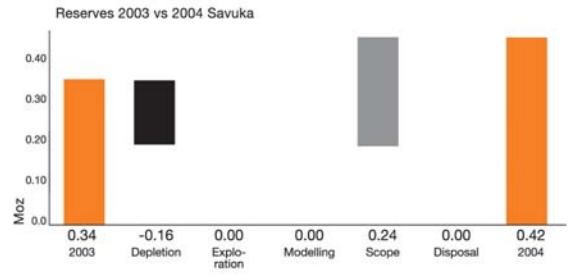
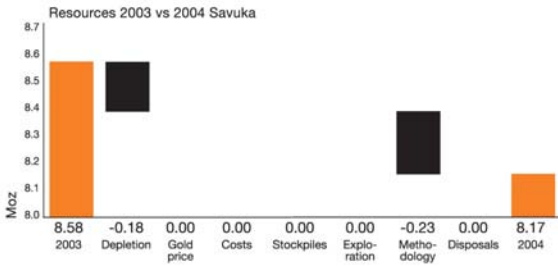
Recovery model revision had a negative impact on the Mineral Resource.
Depletion was partially offset by the additions of Wild Horse Extension. Changes to recovery methodology offset high operating costs.

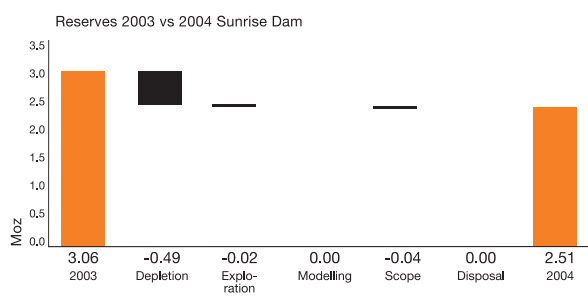
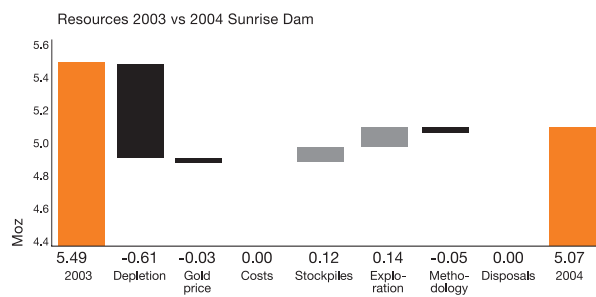
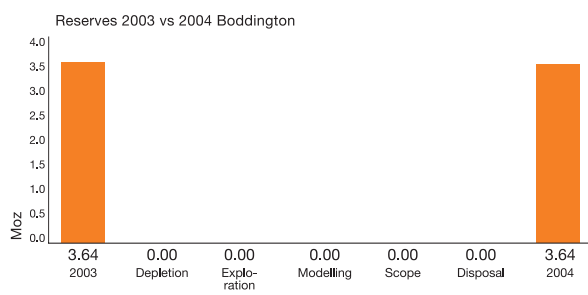
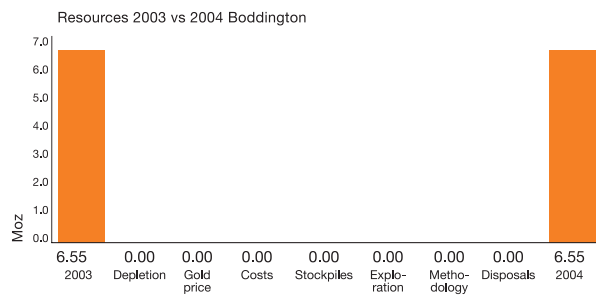
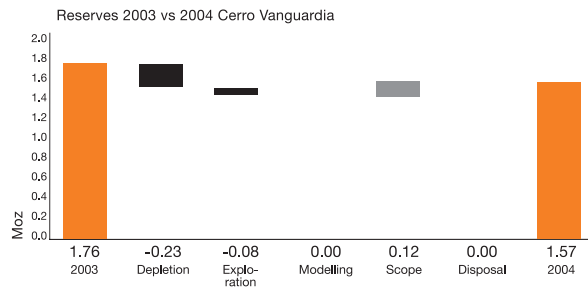
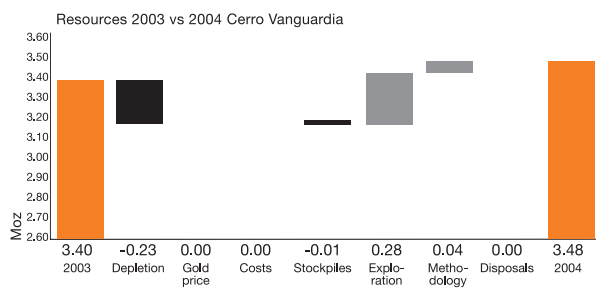
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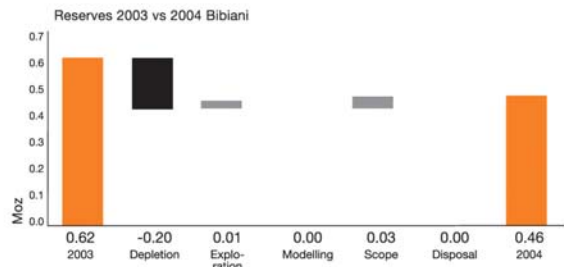
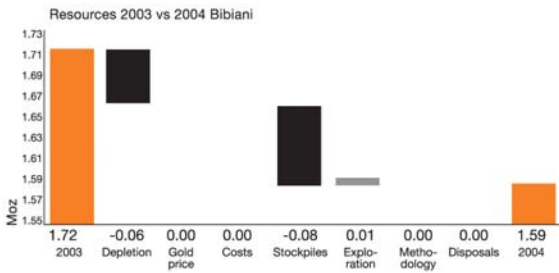
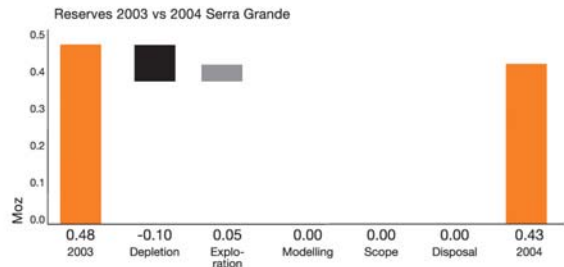
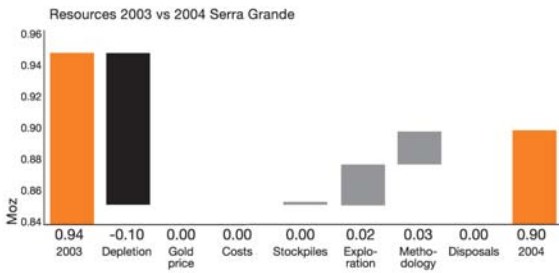
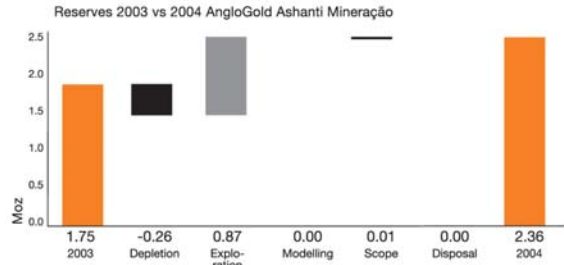
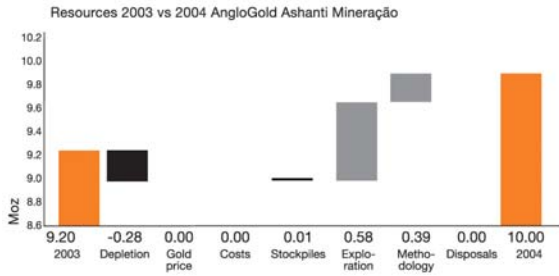
24 | Year-on-year Mineral Resource and Ore Reserve changes

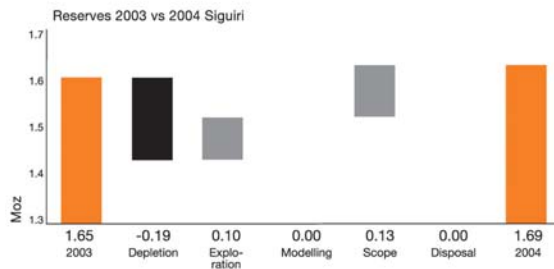
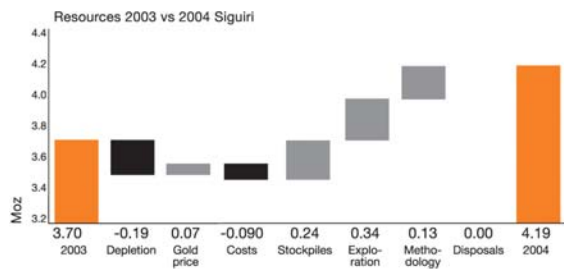
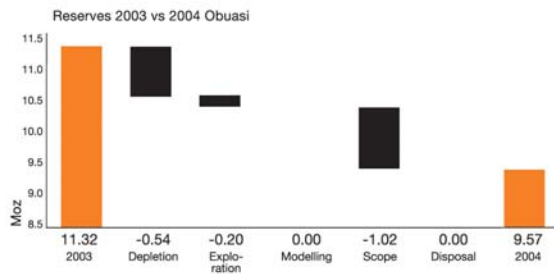
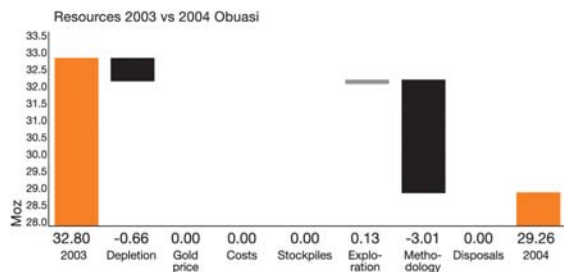
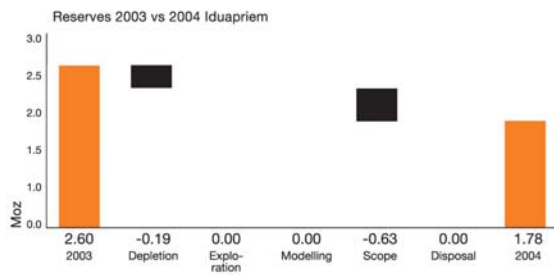
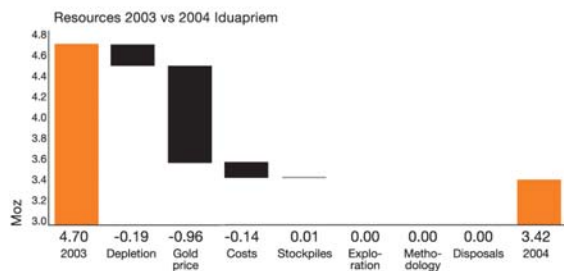


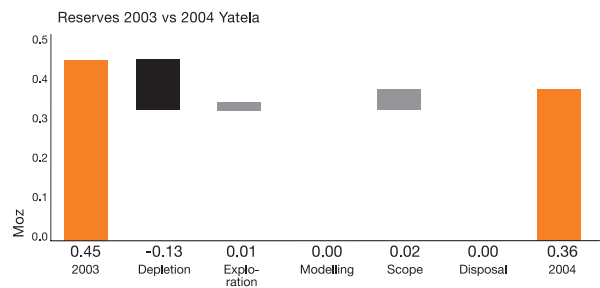
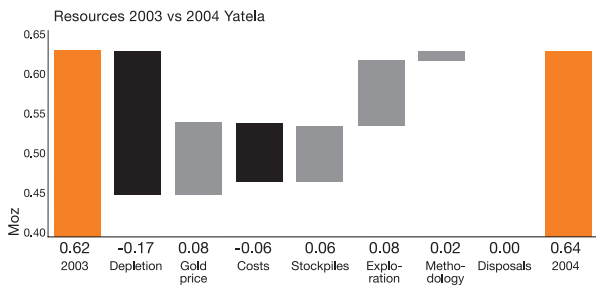
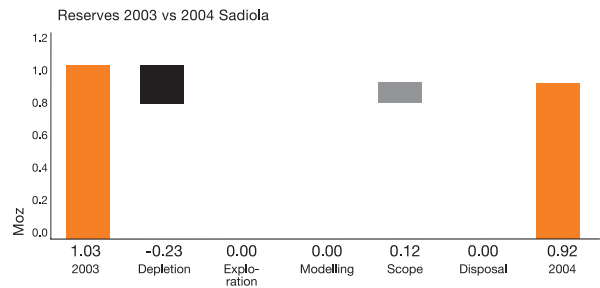
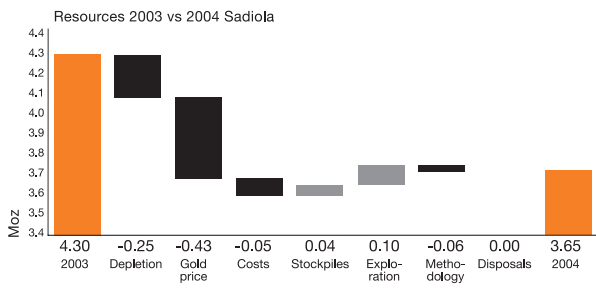
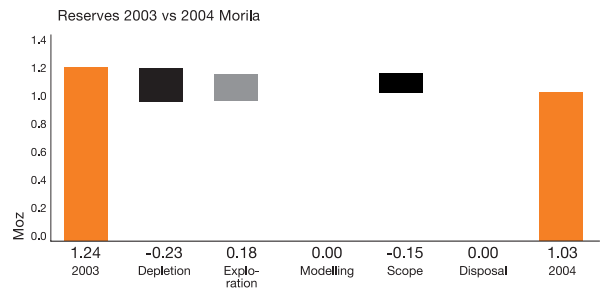
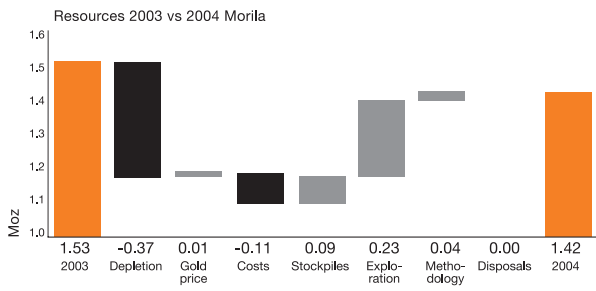


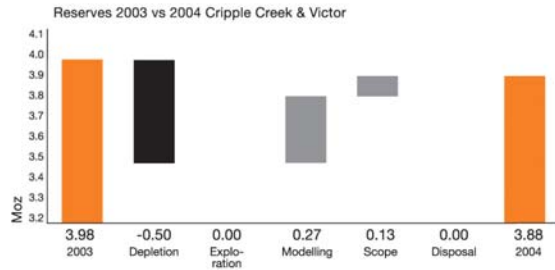
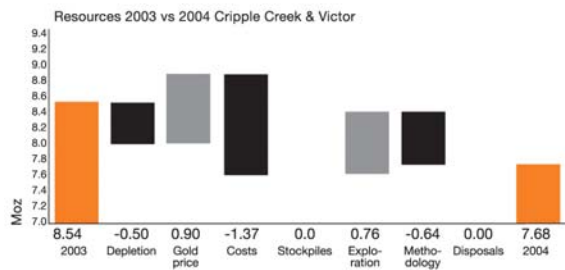
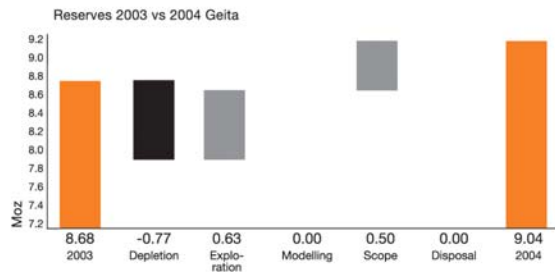
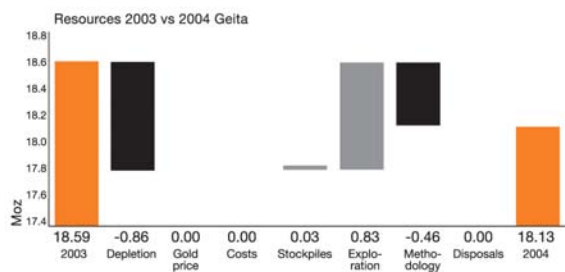
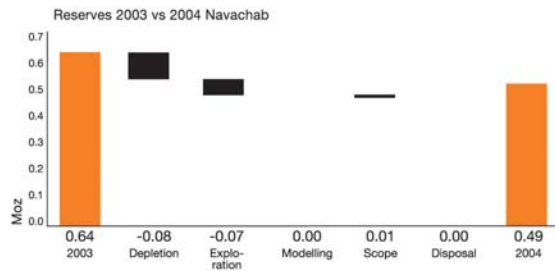
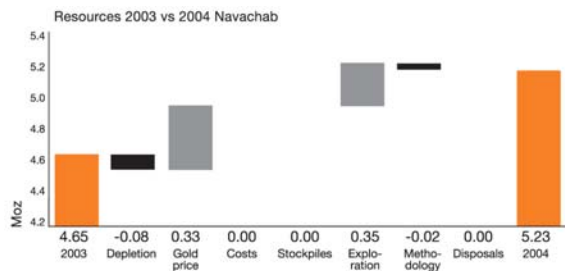












32 | Modifying factors

(as at 31 December 2004)	Gold Price used	Exchange rate	Cut-off ⁽¹⁾ grade	Cut-off value	Stoping Width	Dilution (2) *
Mine	USD\$/oz	per USD \$	g/t Au	cmg/t Au	cm	%
South Africa						
Great Nologwa	375	ZAR 7.86 = \$1	4.18	650	155.5	36%
Kopanang	375	ZAR 7.86 = \$1	8.82	900	102.0	64%
Moab Khotsoang	375	ZAR 7.86 = \$1	3.73	500	134.1	35%
Tau Lekoa	375	ZAR 7.86 = \$1	5.32	828	155.5	23%
Mponeng	375	ZAR 7.86 = \$1	5.34	700	131.0	39%
VRGO – Dumps	375	ZAR 7.86 = \$1	0.48		n/a	n/a
VRGO – Tailings	375	ZAR 7.86 = \$1	0.38		n/a	n/a
Ergo	375	ZAR 7.86 = \$1	n/a		n/a	n/a
Savuka	375	ZAR 7.86 = \$1	7.47	800	107.1	53%
TauTona	375	ZAR 7.86 = \$1	6.19	600	95.0	118%
Western Ultra Deep Levels	–	–	–	–	–	–
West Wits Surface	–	–	–	–	–	–
Argentina						
Cerro Vanguardia	375	na	2.3			30%
Australia						
Boddington	234	A\$1.82 = \$1	0.4			na
Sunrise Dam – Pit	375	A\$1.43 = \$1	1.2			na
Sunrise Dam – Underground	375	A\$1.43 = \$1	3.0			30-48%
Brazil						
AGA Mineracao – Cuiaba	375	na	2.26-2.89			na
AGA Mineracao – Corrego do Sitio	375	na	1.83			20%
Serra Grande	375	na	1.9 – 3.0			5%
Ghana						
Bibiani – Pits	375	na	0.7			na
Bibiani – Underground	375	na	3.5			15%
Bibiani – Tailings	375	na	na			na
Iduapriem	375	na	0.87			8%
Obuasi – Surface	375	na	1.2-2.1			10%
Obuasi – Underground	375	na	5.86-10.27			27%
Obuasi – Tailings	375	na	1.22			na
Guinea						
Siguiri	375	na	0.40-0.57			na
Mali						
Morila	375	na	1.4			10%
Sadiola	375	na	1.29-2.05			na
Yatela	375	na	1.3-1.4			na
Namibia						
Navachab	375	n/a	0.89-2.74			9%
Tanzania						
Geita	375	na	0.89-2.74			9%
USA						
Cripple Creek & Victor	375	na	0.3			na

Notes:

⁽¹⁾Where a range of cut off grades is shown this indicates variable ore types.

⁽²⁾Where no dilution factor is indicated the dilution is inherent in the resource model estimate.

⁽³⁾Where a range of plant recoveries is shown this indicates variable ore types.

*Dilution: The difference between the tonnage broken in stopes and the tonnage milled from underground sources. For example, if every 100 tonnes broken in stopes the tonnes milled amounts to 132 tonnes, 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.

Mine Call Factor ** (MCF)	Metallurgical (3) Recovery Factor %	Ore Loss %	Comments
72%	97.2%		
70%	97.9%		
82%	97.8%		
87%	96.7%		
96%	98.5%		
n/a	74.3%		
n/a	74.3%		
n/a	55.5%		
89%	97.6%		
85%	97.8%		
-	-		No reserves.
-	-		No reserves.
96%	95.2%	na	Dilution is the average for all veins; cut-off includes Ag credit.
100%	83% – 92%	na	Cut-off grade includes Cu credits.
100%	82%	na	Cut-off varies with ore type.
100%	82% – 90%	2%	Dilution varies according to vein mined.
95%	92.9%	5%	Cut-off grade with and without Capex.
100%	87%	na	30cm stoping width either side of orebody.
95%	92.9% – 96.1%	na	Cut-offs and recoveries for different orebodies.
100%	85% – 95%	na	Recovery varies by ore type.
95%	86%	10%	Minimum stoping width is 500cm.
na	60%	na	
100%	94.5%	na	
80%	75% – 85%	5%	Recovery and cut-offs depend on pit and ore types.
90%	84%	10%	Cut-off grades refer to paylimits; dilution at 2g/t.
100%	25%	na	
96%	77% – 93%	10%	Recovery is for Heap Leach and CIP; ore loss is for low grade stockpiles.
100%	91%	5%	
100%	76% – 95%	na	Recoveries and cut-offs based on oxides and sulphide.
100%	75% – 85%	na	Recoveries and cut-offs based on oxides and sulphide.
95%	81% – 95%		Recovery and cut-off vary with hardness.
95%	47% – 95%	na	Recovery and cut-off vary by pit and ore type; MCF for underground voids.
100%	61%	na	Cut-off grade based on 0.007 recoverable ounces per short ton.

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

Mine/project name	Category	Spacing m (-x-)	Diamond	Type of drilling		Other
				RC	Blasthole	
South Africa						
South African Mines	Measured	5 x 5				
	Indicated	> 40 x 40	x	x		
	Inferred	>800 x 800	x	x		
	Grade/Ore Control	5 x 5				x
Argentina						
Cerro Vanguardia	Measured	12.5 x 5	x	x		Top Hammer
	Indicated	25 x 10	x	x		Top Hammer
	Inferred	50 x 15	x	x		Top Hammer
	Grade/Ore Control	10 x 5		x		Top Hammer
Australia						
Boddington	Measured	25 x 25	x	x		
	Indicated	50 x 50	x	x		
	Inferred	100 x 200	x	x		
	Grade/Ore Control					
Sunrise Dam	Measured	25 x 25	x	x		
	Indicated	40 x 40	x	x		
	Inferred	50 x 100	x	x		
	Grade/Ore Control	7 x 5		x		(x)
Brazil						
AGA Mineracao (Corrego do Sitio)	Measured	25 x 25	x	x		
	Indicated	50 x 50	x	x		
	Inferred	150 x 150	x	x		
	Grade/Ore Control	5 x 5	x	x		x
AGA Mineracao (Cuiaba)	Measured	5 x 5 and 20 x 60	x			
	Indicated	20 x 60	x			
	Inferred	80 x 500	x			
	Grade/Ore Control	5 x 5	x			x
AGA Mineracao (Engenho D'Agua)	Measured	20 x 20	x	x		
	Indicated	40 x 40	x	x		
	Inferred	100 x 100	x	x		
	Grade/Ore Control	2.5 x 2.5				x
Serra Grande	Measured	30 x 15	x			
	Indicated					
	Inferred					
	Grade/Ore Control					
Ghana						
Bibiani	Measured	30 x 30	x		x	
	Indicated	60 x 60	x	x		
	Inferred	120 x 120	x	x		
	Grade/Ore Control	10 x 10, 4 x 4		x		x
Iduapriem	Measured	50 x 50	x	x		
	Indicated	50 x 75	x	x		
	Inferred	100 x 100	x	x		
	Grade/Ore Control	10 x 10		x		
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		x
Obuasi – Underground	Measured	20 x 20	x	x		
	Indicated	60 x 60	x	x		
	Inferred	120 x 120	x	x		
	Grade/Ore Control					

Comments

Based on optimised kriging to a minimum regression slope of 0.6.
 Based on a >20% estimated error.
 Based on a >80% estimated error.
 Chipped channel samples.

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

Not applicable.

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

(Blastholes were historically used for grade control in Sunrise Pit by Placer.)

Diamond drill and RC holes.

RC holes and channel samples.

Diamond drillholes and channel samples.

Diamond drillholes and channel samples.

Channel sampling.

10m x 10m grade control RC drilling and 4m x 4m for blastholes.

50m x 100m in some areas.

RC drilling only. Occasionally 20m x 10m spacing.

10m x 10m grade control RC drilling.

Mine/project name	Category	Spacing m (-x-)	Diamond	Type of drilling		Other
				RC	Blasthole	
Guinea						
Siguiri	Measured	25 x 25	x	x		AC
	Indicated	25 x 25	x	x		AC
	Inferred	50 x 50		x		
	Grade/Ore Control	5 x 8		x		
Mali						
Morila – Main Pit	Measured	20 x 20	x	x		
	Indicated	40 x 40	x	x		
	Inferred	80 x 80	x	x		
	Grade/Ore Control	10 x 10		x	x	
Morila – Domba	Measured					
	Indicated					
	Inferred	50 x 50	x	x		
	Grade/Ore Control					
Sadiola – North Pit	Measured					
	Indicated	25m x 25m		x		
	Inferred	>25m x 25m		x		
	Grade/Ore Control	5m x 10m		x		
Sadiola – South Pit	Measured	25m x 25m				
	Indicated	25m x 50m	x	x		
	Inferred	>25m x 50m		x		
	Grade/Ore Control	5m x 10m		x		
Sadiola – Deep Sulphides	Measured					
	Indicated					
	Inferred	50m x 50m	x	x		
	Grade/Ore Control	5m x 10m		x		
Sadiola – Sekokoto	Measured					
	Indicated					
	Inferred	25 x 50m		x		
	Grade/Ore Control					
Sadiola – Tambabli South	Measured					
	Indicated					
	Inferred	25m x 50m		x		
	Grade/Ore Control					
Sadiola – FE2	Measured					
	Indicated					
	Inferred	25m x 50m		x		
	Grade/Ore Control					
Sadiola – FE3	Measured	5m x 10m		x		
	Indicated	25m x 25m		x		
	Inferred					
	Grade/Ore Control	5m x 10m		x		
Sadiola – FE4	Measured					
	Indicated	25m x 25m		x		
	Inferred	25m x 50m		x		
	Grade/Ore Control	5m x 10m		x		
Yatela Mine	Measured	25m x 25m				
	Indicated	35m x 45m				
	Inferred	> 35m x 45m				
	Grade/Ore Control	10m x 5m				

Comments

Air-core drilling.
Also includes 25m x 50m spacing.

Blastholes were only used when there was insufficient RC drill coverage.

Diamond drilling was used for stratigraphy purposes.

In places drill spacing was increased to 50m x 50m.

In places drill spacing was increased to 50m x 50m.

Mine/project name	Category	Spacing m (-x-)	Diamond	Type of drilling		
				RC	Blasthole	Other
Yatela – Alamoutala	Measured	10m x 10m		x		
	Indicated	25m x 25m		x		
	Inferred	>25m x 25m		x		
	Grade/Ore Control	5m x 10m		x		
Namibia						
Navachab – Main Pit	Measured	20 x 20		x		x
	Indicated	30 x 30	x	x		
	Inferred	50 x 50	x	x		
	Grade/Ore Control	10 x 5		x		
Navachab – Grid A	Measured	12.5 x 12.5		x		x
	Indicated	25 x 25	x	x		
	Inferred	50 x 50	x	x		
	Grade/Ore Control	3.2 x 3.7				x
Navachab – Anomaly 16	Measured					
	Indicated					
	Inferred	150 x 50	x	x		x
	Grade/Ore Control					
Tanzania						
Geita	Measured	20 x 20	x	x		
	Indicated	40 x 40	x	x		
	Inferred	80 x 80	x	x		
	Grade/Ore Control	10 x 5		x		
USA						
CC&Victor	Measured	30.5 x 30.5	x	x		
	Indicated	30.5 x 30.5	x	x		
	Inferred	30.5 x 30.5		x		
	Grade/Ore Control	5.5 x 6				x

40 | Ore Reserves by project (attributable)

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
South Africa				
Kopanang – Base VR	Proved	2,837,532	7.25	20,579,648
	Probable	19,059,322	7.36	140,191,285
	Total	21,896,854	7.34	160,770,933
Kopanang – C Reef	Proved	45,630	8.13	370,917
	Probable	262,005	7.00	1,834,429
	Total	307,635	7.17	2,205,346
Kopanang – Edom	Proved	3,843	7.28	27,991
	Probable	3,627,836	6.49	23,528,413
	Total	3,631,679	6.49	23,556,404
Moab Khotsong – Upper Mine	Proved	87,425	6.80	594,728
	Probable	9,621,753	15.95	153,502,321
	Total	9,709,178	15.87	154,097,049
Moab Khotsong – Lower Mine	Proved	–	–	–
	Probable	8,044,522	12.69	102,108,201
	Total	8,044,522	12.69	102,108,201
Moab Khotsong – Extension	Proved	–	–	–
	Probable	2,160,215	11.33	24,469,323
	Total	2,160,215	11.33	24,469,323
Mponeng – Base VCR	Proved	1,099,789	8.96	9,851,902
	Probable	1,052,278	6.65	6,993,841
	Total	2,152,067	7.83	16,845,743
Mponeng – VCR 109 to120 Level	Proved	1,456,774	9.32	13,570,622
	Probable	14,580,247	9.11	132,757,246
	Total	16,037,021	9.12	146,327,868
Mponeng – VCR 120 to125 Level	Proved	–	–	–
	Probable	5,019,021	9.09	45,625,944
	Total	5,019,021	9.09	45,625,944
Savuka – Base CLR	Proved	57,000	6.94	395,600
	Probable	1,096,075	8.13	8,913,666
	Total	1,153,075	8.07	9,309,266
Savuka – Base VCR	Proved	36,296	5.97	216,589
	Probable	582,893	5.89	3,432,153
	Total	619,189	5.89	3,648,742
TauTona – Base CLR	Proved	782,173	10.98	8,586,206
	Probable	7,262,971	11.16	81,081,137
	Total	8,045,144	11.15	89,667,343

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
TauTona – CLR Shaft Pillar	Proved	147,036	18.95	2,785,798
	Probable	669,833	18.95	12,690,866
	Total	816,869	18.95	15,476,664
TauTona – Area 1C11	Proved	24,344	10.00	243,465
	Probable	1,358,824	10.00	13,589,745
	Total	1,383,168	10.00	13,833,210
TauTona – Below 120 Project	Proved	24,592	10.61	260,811
	Probable	4,366,908	10.61	46,312,693
	Total	4,391,500	10.61	46,573,504
TauTona – VCR Shaft Pillar	Proved	11,455	8.71	99,777
	Probable	654,520	8.71	5,701,209
	Total	665,975	8.71	5,800,986
TauTona – VCR Area A	Proved	–	–	–
	Probable	616,113	5.17	3,183,176
	Total	616,113	5.17	3,183,176

Australia

Sunrise Dam – Open Pit (incl. Stockpiles)	Proved	4,304,943	3.83	16,480,212
	Probable	12,938,076	4.02	52,011,330
	Total	17,243,019	3.97	68,491,542
Sunrise Dam – Underground (incl. Stockpiles)	Proved	29,906	4.00	119,624
	Probable	1,182,000	8.12	9,595,119
	Total	1,211,906	8.02	9,714,743

Brazil

AGA Brazil – Corrego do Sitio	Proved	571,791	6.14	3,510,797
	Probable	89,860	6.81	611,947
	Total	661,651	6.23	4,122,743
AGA Brazil – Cuiaba'	Proved	1,295,194	7.26	9,408,996
	Probable	7,862,638	7.63	59,985,332
	Total	9,157,832	7.58	69,394,328

Ghana

Bibiani – Open Pit	Proved	1,251,443	1.77	2,216,213
	Probable	550,510	2.32	1,279,085
	Total	1,801,953	1.94	3,495,297
Bibiani – Underground	Proved	–	–	–
	Probable	1,278,364	4.62	5,903,674
	Total	1,278,364	4.62	5,903,674

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
Bibiani – Tailings	Proved	4,387,000	1.07	4,694,090
	Probable	364,000	0.94	342,160
	Total	4,751,000	1.06	5,036,250
Obuasi – Open Pit	Proved	318,516	4.02	1,279,361
	Probable	–	–	–
	Total	318,516	4.02	1,279,361
Obuasi – Underground	Proved	2,333,348	7.90	18,429,143
	Probable	32,819,999	7.59	249,169,973
	Total	35,153,347	7.61	267,599,115
Obuasi – Tailings	Proved	11,561,000	1.90	22,148,792
	Probable	3,458,000	1.90	6,469,525
	Total	15,019,000	1.91	28,618,317
Mali				
Sadiola – Main Pit	Proved	–	–	–
	Probable	5,873,271	3.35	19,683,401
	Total	5,873,271	3.35	19,683,401
Sadiola – FE3 Pit	Proved	–	–	–
	Probable	319,103	3.20	1,020,148
	Total	319,103	3.20	1,020,148
Sadiola – FE4 Pit	Proved	–	–	–
	Probable	991,231	3.51	3,478,368
	Total	991,231	3.51	3,478,368
Sadiola – Stockpiles	Proved	2,492,629	1.80	4,483,091
	Probable	–	–	–
	Total	2,492,629	1.80	4,483,091
Yatela – Main Pit	Proved	–	–	–
	Probable	2,211,798	4.24	9,385,361
	Total	2,211,798	4.24	9,385,361
Yatela – Alamoutala Pit	Proved	–	–	–
	Probable	92,945	2.64	245,304
	Total	92,945	2.64	245,304
Yatela – Stockpiles	Proved	800,056	1.86	1,484,651
	Probable	–	–	–
	Total	800,056	1.86	1,484,651

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
Tanzania				
Geita – Nyankanga Pit	Proved	4,379,811	4.23	18,526,601
	Probable	28,668,603	5.11	146,496,561
	Total	33,048,414	4.99	165,023,162
Geita – Kukuluma Pit	Proved	1,449,493	3.84	5,566,053
	Probable	188,658	4.10	773,498
	Total	1,638,151	3.87	6,339,551
Geita – Lone Cone Pits	Proved	560,834	3.09	1,732,977
	Probable	865,871	3.12	2,701,518
	Total	1,426,705	3.11	4,434,495
Geita – Geita Hill Pits	Proved	14,350,049	2.61	37,461,381
	Probable	7,423,304	3.62	26,872,360
	Total	21,773,353	2.95	64,333,741
Geita – Matandani Pit	Proved	2,463,272	3.60	8,867,779
	Probable	9,122	2.01	18,335
	Total	2,472,394	3.59	8,886,114
Geita – Area 3 West Pit	Proved	–	–	–
	Probable	241,406	2.95	712,148
	Total	241,406	2.95	712,148
Geita – Chipaka Pit	Proved	–	–	–
	Probable	1,557,035	2.36	3,674,603
	Total	1,557,035	2.36	3,674,603
Geita – Star and Comet Pits	Proved	–	–	–
	Probable	3,004,540	4.92	14,782,337
	Total	3,004,540	4.92	14,782,337
Geita – Roberts Pit	Proved	–	–	–
	Probable	3,170,266	2.69	8,528,016
	Total	3,170,266	2.69	8,528,016
Geita – Ridge 8 Pit	Proved	–	–	–
	Probable	1,052,523	2.69	2,831,287
	Total	1,052,523	2.69	2,831,287

44 | Mineral Resources by project (attributable)

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
South Africa				
Kopanang – Edom	Measured	4,801	15.98	76,740
	Indicated	2,385,933	16.51	39,383,412
	Inferred	416,146	21.78	9,065,716
	Total	2,806,880	17.29	48,525,868
Moab Khotsong – Upper Mine	Measured	131,433	12.52	1,645,553
	Indicated	6,039,102	30.35	183,294,015
	Inferred	650,331	29.68	19,302,586
	Total	6,820,866	29.94	204,242,154
Moab Khotsong – Lower Mine	Measured	–	–	–
	Indicated	6,897,258	20.44	140,954,396
	Inferred	1,054,477	21.53	22,705,141
	Total	7,951,735	20.58	163,659,537
Moab Khotsong – Extension	Measured	–	–	–
	Indicated	5,418,097	17.22	93,307,880
	Inferred	4,580,575	16.39	75,070,229
	Total	9,998,672	16.84	168,378,109
Tau Lekoa – Lease	Measured	6,298,246	6.03	38,001,638
	Indicated	14,014,550	6.25	87,652,963
	Inferred	9,645,224	7.21	69,548,966
	Total	29,958,020	6.52	195,203,567
Tau Lekoa – Weltevreden Lease	Measured	407,703	5.57	2,270,226
	Indicated	32,060,568	4.78	153,178,876
	Inferred	–	–	–
	Total	32,468,271	4.79	155,449,102
Mponeng – VCR 109 to 120 Level	Measured	664,563	21.38	14,205,192
	Indicated	9,332,443	16.54	154,393,096
	Inferred	–	–	–
	Total	9,997,006	16.86	168,598,288
Mponeng – VCR 120 to 125 Level	Measured	–	–	–
	Indicated	7,118,498	18.68	132,975,965
	Inferred	–	–	–
	Total	7,118,498	18.68	132,975,965
Mponeng – VCR Outside Project Areas	Measured	6,389,775	14.33	91,551,417
	Indicated	20,397,121	10.28	209,721,111
	Inferred	–	–	–
	Total	26,786,896	11.25	301,272,528
Mponeng – CLR	Measured	–	–	–
	Indicated	21,734,146	14.46	314,361,606
	Inferred	–	–	–
	Total	21,734,146	14.46	314,361,606
Savuka – VCR	Measured	656,877	11.34	7,447,019
	Indicated	3,357,349	11.27	37,822,302
	Inferred	–	–	–
	Total	4,014,226	11.28	45,269,321
Savuka – CLR	Measured	803,411	16.22	13,027,805
	Indicated	14,637,851	13.37	195,717,846
	Inferred	–	–	–
	Total	15,441,262	13.52	208,745,651

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
South Africa (continued)				
TauTona – VCR Area A	Measured	–	–	–
	Indicated	526,559	7.84	4,126,119
	Inferred	–	–	–
	Total	526,559	7.84	4,126,119
TauTona – VCR Shaft Pillar	Measured	37,943	13.56	514,569
	Indicated	2,103,876	14.49	30,491,170
	Inferred	–	–	–
	Total	2,141,819	14.48	31,005,739
TauTona – VCR Residual	Measured	480,976	11.00	5,288,372
	Indicated	1,137,239	15.00	17,055,218
	Inferred	–	–	–
	Total	1,618,215	13.81	22,343,590
TauTona – Area 1C11	Measured	11,896	34.08	405,414
	Indicated	753,990	26.69	20,125,075
	Inferred	–	–	–
	Total	765,886	26.81	20,530,489
TauTona – CLR Shaft Pillar	Measured	338,437	39.86	13,489,203
	Indicated	1,521,474	40.77	62,028,815
	Inferred	–	–	–
	Total	1,859,911	40.60	75,518,018
TauTona – CLR Below 120 Level	Measured	22,639	20.57	465,622
	Indicated	3,519,338	27.29	96,042,256
	Inferred	–	–	–
	Total	3,541,977	27.25	96,507,878
TauTona – CLR Residual	Measured	1,114,551	30.59	34,093,011
	Indicated	5,076,282	28.83	146,355,087
	Inferred	3,056,071	13.63	41,659,386
	Total	9,246,904	23.96	222,107,484
Argentina				
Cerro Vanguardia – Open Pit	Measured	555,817	12.57	6,986,916
	Indicated	8,598,809	7.45	64,019,336
	Inferred	1,824,165	9.27	16,904,864
	Total	10,978,791	8.01	87,911,117
Cerro Vanguardia – Heap Leach	Measured	7,336,952	1.27	9,304,704
	Indicated	10,844,529	0.85	9,256,491
	Inferred	1,639,617	1.10	1,797,276
	Total	19,821,098	1.03	20,358,471
Australia				
Sunrise Dam – Open Pit	Measured	3,995,735	3.08	12,304,758
	Indicated	18,191,587	3.15	57,362,933
	Inferred	282,426	3.30	932,974
	Total	22,469,748	3.14	70,600,665
Sunrise Dam – Underground	Measured	–	–	–
	Indicated	1,807,407	9.90	17,893,329
	Inferred	5,526,510	6.35	35,093,339
	Total	7,333,917	7.22	52,986,668

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
Australia (continued)				
Sunrise Dam – North Wall Cutback	Measured	3,355,318	3.19	10,689,717
	Indicated	1,903,043	2.58	4,906,437
	Inferred	9,474	2.34	22,197
	Total	5,267,834	2.96	15,618,351
Sunrise Dam – Stockpiles	Measured	9,317,591	1.30	12,086,018
	Indicated	–	–	–
	Inferred	–	–	–
	Total	9,317,591	1.30	12,086,018
Sunrise Dam – Golden Delicious	Measured	–	–	–
	Indicated	1,038,000	1.84	1,909,920
	Inferred	2,643,000	1.64	4,334,520
	Total	3,681,000	1.70	6,244,440
Brazil				
AGA Mineração – Corrego do Sittio	Measured	1,313,861	7.88	10,357,926
	Indicated	846,523	8.21	6,946,060
	Inferred	1,833,549	9.43	17,289,773
	Total	3,993,933	8.66	34,593,760
AGA Mineração – Cuiaba	Measured	2,237,889	7.46	16,699,869
	Indicated	9,348,173	8.58	80,204,449
	Inferred	13,258,809	7.63	101,217,735
	Total	24,844,870	7.97	198,122,053
AGA Mineração – Engenho D'Agua	Measured	–	–	–
	Indicated	468,288	4.13	1,935,922
	Inferred	1,223,978	4.34	5,312,065
	Total	1,692,266	4.28	7,247,986
AGA Mineração – Lamego	Measured	1,487,000	5.84	8,684,010
	Indicated	2,043,000	6.72	13,730,350
	Inferred	2,309,000	6.33	14,612,520
	Total	5,839,000	6.34	37,026,880
AGA Mineração – MMV Other Resources	Measured	1,433,533	5.32	7,620,528
	Indicated	1,641,541	5.68	9,316,721
	Inferred	2,738,016	6.21	16,990,381
	Total	5,813,090	5.84	33,927,630
Ghana				
Bibiani – Surface	Measured	1,451,417	1.68	2,438,381
	Indicated	852,161	2.50	2,130,403
	Inferred	–	–	–
	Total	2,303,578	1.98	4,568,784
Bibiani – Underground	Measured	–	–	–
	Indicated	2,297,006	5.41	12,426,802
	Inferred	3,100,000	6.10	18,910,000
	Total	5,397,006	5.81	31,336,802
Bibiani – Tailings	Measured	4,379,368	1.07	4,685,924
	Indicated	15,364,000	0.57	8,757,480
	Inferred	–	–	–
	Total	19,743,368	0.68	13,443,404

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
Ghana (continued)				
Obuasi – Surface	Measured	13,611,900	2.97	40,374,804
	Indicated	–	–	–
	Inferred	–	–	–
	Total	13,611,900	2.97	40,374,804
Obuasi – Underground	Measured	19,380,000	11.34	219,730,254
	Indicated	35,219,000	9.10	320,612,834
	Inferred	25,371,000	11.85	300,666,480
	Total	79,970,000	10.52	841,009,568
Obuasi – Tailings	Measured	11,561,000	1.92	22,148,446
	Indicated	3,458,000	1.87	6,469,424
	Inferred	–	–	–
	Total	15,019,000	1.91	28,617,870
Mali				
Morila – Total (excluding Domba)	Measured	6,928,491	2.95	20,415,098
	Indicated	4,782,655	3.56	17,034,478
	Inferred	1,440,151	4.08	5,877,903
	Total	13,151,296	3.29	43,327,479
Morila – Domba	Measured	–	–	–
	Indicated	–	–	–
	Inferred	349,830	2.57	900,316
	Total	349,830	2.57	900,316
Sadiola – FE2	Measured	–	–	–
	Indicated	–	–	–
	Inferred	1,124,458	1.41	1,585,084
	Total	1,124,458	1.41	1,585,084
Sadiola – FE3	Measured	44,738	0.75	33,447
	Indicated	707,104	2.12	1,497,894
	Inferred	354,876	2.05	727,259
	Total	1,106,718	2.04	2,258,599
Sadiola – FE4	Measured	–	–	–
	Indicated	1,800,043	2.62	4,722,769
	Inferred	819,097	2.16	1,766,805
	Total	2,619,140	2.48	6,489,574
Sadiola – FN3	Measured	–	–	–
	Indicated	–	–	–
	Inferred	534,377	1.09	582,904
	Total	534,377	1.09	582,904
Sadiola – Main Pit Oxides	Measured	6,396,825	1.42	9,112,987
	Indicated	8,832,076	2.47	21,778,681
	Inferred	377,955	1.74	655,780
	Total	15,606,857	2.02	31,547,447

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
Mali (continued)				
Sadiola – Deep Sulphides	Measured	475,761	2.70	1,283,597
	Indicated	3,444,945	2.39	8,226,999
	Inferred	27,130,855	2.11	57,341,424
	Total	31,051,561	2.15	66,852,020
Sadiola – Sekokoto	Measured	–	–	–
	Indicated	–	–	–
	Inferred	746,605	1.43	1,064,035
	Total	746,605	1.43	1,064,035
Sadiola – Tambali South	Measured	–	–	–
	Indicated	–	–	–
	Inferred	2,307,996	1.30	2,996,014
	Total	2,307,996	1.30	2,996,014
Yatela – Mine	Measured	2,296,306	1.42	3,268,294
	Indicated	3,831,934	2.96	11,328,115
	Inferred	929,807	3.16	2,934,104
	Total	7,058,047	2.48	17,530,513
Yatela – Alamoutala	Measured	319,861	1.54	493,865
	Indicated	463,159	1.78	826,630
	Inferred	147,187	1.94	285,317
	Total	930,206	1.73	1,605,812
Yatela – KW18	Measured	–	–	–
	Indicated	–	–	–
	Inferred	301,289	2.21	664,413
	Total	301,289	2.21	664,413
Namibia				
Navachab – Main Pit	Measured	1,344,163	1.26	1,689,394
	Indicated	62,895,765	1.30	81,599,451
	Inferred	59,044,850	1.13	66,761,071
	Total	123,284,778	1.22	150,049,916
Navachab – Anomaly 16	Measured	–	–	–
	Indicated	–	–	–
	Inferred	5,362,992	1.03	5,538,561
	Total	5,362,992	1.03	5,538,561
Navachab – Grid A	Measured	–	–	–
	Indicated	82,234	1.45	118,857
	Inferred	1,158,563	1.78	2,062,197
	Total	1,240,797	1.76	2,181,054
Navachab – Stockpiles	Measured	7,826,444	0.64	4,992,567
	Indicated	–	–	–
	Inferred	–	–	–
	Total	7,826,444	0.64	4,992,567

Mine/project name	Category	Tonnes	Grade g/t	Contained gold grams
Tanzania				
Geita – Area 3 West	Measured	–	–	–
	Indicated	2,973,900	1.94	5,769,366
	Inferred	1,232,500	2.29	2,822,425
	Total	4,206,400	2.05	8,591,791
Geita – Chipaka	Measured	–	–	–
	Indicated	5,527,800	1.88	10,392,264
	Inferred	–	–	–
	Total	5,527,800	1.88	10,392,264
Geita – Geita Hill	Measured	18,289,000	2.59	47,295,354
	Indicated	27,413,100	2.95	80,902,382
	Inferred	10,189,300	3.31	33,724,855
	Total	55,891,400	2.90	161,922,591
Geita – Kukuluma	Measured	2,641,000	3.13	8,276,487
	Indicated	1,146,700	3.11	3,565,674
	Inferred	93,100	3.04	283,024
	Total	3,880,800	3.12	12,125,185
Geita – Lone Cone	Measured	1,016,600	3.21	3,258,928
	Indicated	1,922,500	2.59	4,983,503
	Inferred	790,400	1.91	1,513,235
	Total	3,729,500	2.62	9,755,665
Geita – Matandani	Measured	9,610,400	2.61	25,083,144
	Indicated	2,650,000	2.52	6,678,000
	Inferred	2,370,700	3.27	7,752,189
	Total	14,631,100	2.70	39,513,333
Geita – Nyankanga Surface	Measured	4,845,500	4.17	20,205,735
	Indicated	37,654,400	4.77	179,611,488
	Inferred	4,041,600	1.65	6,668,640
	Total	46,541,600	4.44	206,485,863
Geita – Nyankanga Underground	Measured	–	–	–
	Indicated	3,019,300	8.07	24,365,751
	Inferred	480,500	8.71	4,185,155
	Total	3,499,700	8.16	28,550,906
Geita – Ridge 8	Measured	–	–	–
	Indicated	6,009,500	2.93	17,607,835
	Inferred	6,285,700	2.72	17,097,104
	Total	12,295,200	2.82	34,704,939
Geita – Roberts	Measured	–	–	–
	Indicated	9,932,700	2.09	20,759,343
	Inferred	–	–	–
	Total	9,932,700	2.09	20,759,343
Geita – Star and Comet	Measured	–	–	–
	Indicated	5,030,900	4.59	23,091,831
	Inferred	1,622,100	3.03	4,914,963
	Total	6,653,000	4.21	28,006,794
Geita – Stockpiles	Measured	2,992,439	1.02	3,061,203
	Indicated	–	–	–
	Inferred	–	–	–
	Total	2,992,439	1.02	3,061,203

50 | Development sampling results – South Africa region

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

Mine	Advanced metres	Sampled metres	Average Channel width cm	Average gold grade g/t	Average gold value cm.g/t
Great Noligwa mine Vaal Reef	15,750.9	2,192	106.9	23.13	2,473
Kopanang mine Vaal Reef	26,419.1	3,404	12.5	212.80	2,660
Moab Khotsong mine Vaal Reef	12,756.2	192	103.7	21.67	2,247
Tau Lekoa mine Ventersdorp Contact Reef	17,506.4	3,278	91.6	9.02	826
Mponeng Mine Ventersdorp Contact Reef	18,978.0	3,390	93.5	27.78	2,597
Savuka mine Carbon Leader Reef	2,896.9	620	28.5	76.95	2,193
TauTona mine Carbon Leader Reef	17,863.3	300	16.6	103.13	1,712

Average uranium grade kg/t	Average uranium value cm.kg/t	Advanced feet	Sampled feet	Average Channel width inches	Average gold grade oz/t	Average gold value ft.oz/t	Average uranium grade lb/t	Average uranium value ft.lb/t
1.13	120.54	51,676	7,192	42.09	0.67	2.35	2.26	7.93
4.72	58.98	86,677	11,168	4.92	6.21	2.55	9.44	3.87
0.52	54.19	41,851	630	40.83	0.63	2.14	1.04	3.54
0.09	8.59	57,436	10,755	36.06	0.26	0.78	0.18	0.54
-	-	62,264	11,122	36.81	0.81	2.48	-	-
0.04	1.06	9,504	2,034	11.22	2.24	2.09	0.08	0.07
-	-	58,607	984	6.54	3.01	1.64	-	-

Competent Persons or “recognised mining professionals”, designated in terms of the JORC Code and responsible for the generation of the Mineral Resources and Ore Reserves on the various mines and ventures, are listed below:

South Africa

Great Noligwa

Mineral Resources

- **A N Johnson** – HND (Mine Surveying), HND (Mineral Resource Management), MSCC, GDE (Mineral Economics), PLATO⁽²⁾, 10 years experience. 3,4,5,6,7
- **H A Kruger** – HND (Mine Surveying), MSCC, GDE (Mineral Economics), PLATO, 27 years experience. 7
- **F J G Putter** – BSc Hons (Geology), BCom, Pr.Sci.Nat., 23 years experience. 1,2,3,4,5

Ore Reserves

- **P Enslin** – HND (Mineral Resource Management), MSCC, PLATO, 23 years experience.
- **H A Kruger** – HND (Mine Surveying), MSCC, GDE (Mineral Economics), PLATO, 27 years experience.

Kopanang

Mineral Resources

- **A C De Wet** – HND (Mine Surveying), MEng, MSCC, 25 years experience. 7
- **A J Johnston** – BSc Hons (Geology), GDE (Mineral Economics), MSc (Mining Engineering), Pr.Sci.Nat., 16 years experience. 1,2,3,5,6
- **S Kelly** – HND (Mine Surveying), MSCC, GDE (Mineral Economics), PLATO, 21 years experience. 3,4,5,6,7

Ore Reserves

- **A C De Wet** – HND (Mine Surveying), MSCC, MEng, 25 years experience.
- **J Oberholzer** – HND (Mine Surveying), MSCC, 22 years experience.

Moab Khotsong

Mineral Resources

- **T Adam** – BSc Hons (Geology), GDE (Mineral Economics), 28 years experience. 1,2
- **A C Barnard** – HND (Mineral Resource Management), PLATO, 10 years experience. 3,4,5,6,7
- **J de Bruin** – ND (Geology), B Tech, GDE, 17 years experience. 1,2,3
- **J L Venter** – MSc (Geology), GDE (Mineral Economics), Pr.Sci.Nat., 24 years experience. 1,2,3
- **A B Liebenberg** – In House Dipl., 26 years experience. 1,2,3
- **J Wall** – HND (Mine Surveying), MSCC, PLATO, 26 years experience. 3,6,7

Ore Reserves

- **P H Venter** – HND (Mineral Resource Management), PLATO⁽²⁾ 23 years experience.

Tau Lekoa

Mineral Resources

- **W Britz** – BSc Hons (Geology), Pr.Sci.Nat.⁽¹⁾, 8 years experience. 1,2,3
- **R Downing** – BSc Hons (Geology), GDE (Mineral Economics), Pr.Sci.Nat.⁽¹⁾, 17 years experience. 7
- **H Husselman** – HND (Mineral Resource Management), MSCC, PLATO⁽²⁾, 15 years experience. 3,4,5,6
- **P H Venter** – HND (Mineral Resource Management), MSCC, PLATO⁽²⁾, 32 years experience. 7

Ore Reserves

- **R Downing** – BSc (Hons) (Geology), GDE (Mineral Economics), Pr.Sci.Nat.⁽¹⁾, 17 years experience.
- **J Wall** – HND (Mine Surveying), MSCC, PLATO, 26 years experience.

Vaal River Surface

Mineral Resources

- **V. Govindsammy** – BSc Hons (Statistics), HND (Economic Geology), GDE (Mineral Economics), Pr.Sci.Nat., 12 years experience. 5,6,7

Ore Reserves

- **J vZ Visser** – BSc (Mineral Resource Management), PLATO, 18 years experience.

Ergo

Mineral Resources

- **V. Govindsammy** – BSc Hons (Statistics), HND (Economic Geology), GDE (Mineral Economics), Pr.Sci.Nat., 12 years experience. 5,6,7

Ore Reserves

- **J vZ Visser** – BSc (Mineral Resource Management), PLATO, 18 years experience.

Mponeng

Mineral Resources

- **R Brokken** – HND (Mine Surveying), MSCC, GDE (Mineral Economics), PLATO, 23 years experience. 7
- **D J Kershaw** – BSc Hons (Mining Geology), Pr.Sci.Nat., 24 years experience. 1,2,3,5
- **R K Lavery** – BSc Eng (Mining Geology), GDE Mining, Pr.Sci.Nat., 23 years experience. 3,4,5,6,7

Ore Reserves

- **R Brokken** – HND (Mine Surveying), MSCC, GDE (Mineral Economics), PLATO, 23 years experience.
- **J Randell** – BScEng (Mining), 34 years experience.

Savuka

Mineral Resources

- **R Orton** – HND (Mineral Resource Management), MSCC, PLATO⁽²⁾, 20 years experience. 3,4,5,6
- **N Williams** – BSc Hons (Geology), Pr.Sci.Nat., 20 years experience. 1,2,3

Ore Reserves

- **W J Kinnear** – HND (Mineral Resource Management), MSCC, PLATO⁽²⁾, 15 years experience.

TauTona

Mineral Resources

- **M W Armstrong** – ND (Cartography) MSCC, PLATO, 20 years experience.
- **S M Kelly** – HND, MSCC, PLATO, 21 years experience. 3,4,5,6
- **P van Zyl** – BSc Hons, Pr.Sci.Nat.⁽¹⁾, 7 years experience. 1,2,3,6
- **H Eybers** – BSc Hons (Geology), GDE (Mineral Economics), Pr.Sci.Nat., 19 years experience.

Ore Reserves

- **M W Armstrong** – ND (Cartography), MSCC, PLATO, 20 years experience.
- **C Nel** – HND, MSCC, PLATO⁽²⁾, 27 years experience.

Western Ultra Deep Levels

Mineral Resources

- **R Brokken** – HND (Mine Surveying), MSCC, GDE (Mineral Economics), PLATO, 23 years experience. 7
- **D J Kershaw** – BSc Hons (Mining Geology), Pr.Sci.Nat., 24 years experience. 1,2,3,5
- **R K Lavery** – BSc Eng (Mining Geology), GDE Mining, Pr.Sci.Nat., 23 years experience. 3,4,5,6,7

Ore Reserves

- Not applicable

West Wits Surface

Mineral Resources

- **V. Govindsammy** – BSc Hons (Statistics), HND (Economic Geology), GDE (Mineral Economics), Pr.Sci.Nat., 12 years experience. 5,6,7

Ore Reserves

- **J vZ Visser** – BSc (Mineral Resource Management), PLATO, 18 years experience.

Argentina

Cerro Vanguardia

Mineral Resources

- **L H de Souza** – Geologist, CREA, 20 years experience. 2,3,4,5,6,7
- **L Henning** – Geologist, G.C.SA, 16 years experience. 7

- **E R López** – Geologist, Consejo Superior de Geología (Argentina), 10 years experience. 2,3,4,5,6,7
- **P L Noriega** – Geologist, SJBUNP, 5 years experience. 2,3,4,5
- **I Rivarola** – Geologist, UNLP, 3 years experience. 2,3,4,5
- **V Scavuzzo** – Geologist, Consejo Superior de Geología (Argentina), 6 years experience. 2,3,4,5,6
- **A H M Silva** – Geologist, CREA, 6 years experience. 2,3,4,5,6

Ore Reserves

- **L H de Souza** – Geologist, CREA, 20 years experience.
- **E R López** – Geologist, Consejo Superior de Geología (Argentina), 10 years experience.
- **A Medeiros** – Geologist, CREA, 6 years experience.
- **P L Noriega** – Geologist, SJBUNP, 5 years experience.
- **R A Petter** – Mining Engineer, CREA, 20 years experience.
- **L L Rivera** – Geologist, Consejo Superior de Geología, 11 years experience.
- **M Roldán** – Mining Engineer, SJNU, 7 years experience.
- **V Scavuzzo** – Geologist, Consejo Superior de Geología (Argentina), 6 years experience.

Australia

Boddington

Mineral Resources

- **K Gleeson** – BSc (Hons) (Geology), MAusIMM, 15 years experience. 1-7

Ore Reserves

- **S Williams** – B Min Tech (Hons), MAusIMM, 14 years experience.

Sunrise Dam

Mineral Resources

- **R Adams** – BSc (Geology), MAusIMM, 18 years experience. 2,4
- **J Biggam** – BSc Hons (Geology), MAusIMM, 11 years experience. 1,2,3,5,6
- **R Gaze** – BEng Hons (Mining), MSc, MAusIMM, 10 years experience. 4,6
- **D Gibbs** – BSc Hons (Geology), MAusIMM, 17 years experience. 7
- **M Erickson** – BSc Hons (Geology), MAusIMM, 19 years experience. 7
- **M Kent** – BSc Hons (Geology), MAusIMM, 8 years experience.
- **S Khosrowshahi** – PhD (Geology), MAusIMM, 22 years experience.

Ore Reserves

- **F Bethune** – Msc Eng (Mining), MAusIMM, 18 years experience.
- **P Christians** – BSc Eng (Mining), MSc, MAusIMM, 20 years experience.
- **E Hamman** – BSc Eng (Civil), SAMRE, 8 years experience.
- **S Jamieson** – BSc Eng (Mining), 10 years experience.
- **S Tombs** – BSc Eng (Mining), MAusIMM, 27 years experience.

Brazil

AGA Mineração

Mineral Resources

- **D A Costa** – Geologist, CREA, 3 years experience. 1,3,6
- **L H de Souza** – Geologist, CREA, 20 years experience. 2,3,4,5,6,7
- **P de Tarso Ferreira** – Geologist, CREA, 20 years experience, 2,3,4,5,6,7
- **C R P Ferreira jnr** – Geologist, CREA, 9 years experience. 1,2,3
- **C S S Ferreira** – Mining Engineer, CREA, 4 years experience. 4,5,6
- **J A Lopes** – Geologist, CREA, 6 years experience. 2,3,4,5,6
- **J M Lopez** – Engineering Geologist, CREA, 17 years experience. 1,2,3,4,5,6,7
- **A H M Silva** – Geologist, CREA, 6 years experience. 2,3,4,5,6
- **J W Soares** – Geologist, CREA, 16 years experience. 2,3,4,5,6
- **P M Sobrinho** – Mining Engineer, CREA, 24 years experience. 7
- **F W R Vieira** – Geologist, CREA, 20 years experience. 1,2,3

Ore Reserves

- **S R Bothelho** – Mining Engineer, CREA, 19 years experience.
- **L N Coelho** – Mining Engineer, CREA, 3 years experience.
- **L H de Souza** – Geologist, CREA, 20 years experience.
- **P de Tarso Ferreira** – Geologist, CREA, 20 years experience.
- **C Silva Ferreira** – Mining Engineer, CREA, 4 years experience.
- **J A Lopes** – Geologist, CREA, 6 years experience.
- **J M Lopez** – Engineering Geologist, CREA, 17 years experience.
- **R A Petter** – Mining Engineer, CREA, 20 years experience.
- **A H M Silva** – Geologist, CREA, 6 years experience.
- **J W Soares** – Geologist, CREA, 16 years experience.
- **P M Sobrinho** – Mining Engineer, CREA, 24 years experience.

Serra Grande

Mineral Resources

- **E M de Araújo** – Geologist/Geostatistician, CREA, 19 years experience. 1,2,3,4,5,6
- **L H de Souza** – Geologist, CREA, 20 years experience. 2,3,4,5,6
- **W N Yamaoka** – Geologist, CREA, 19 years experience. 1,6,7

Ore Reserves

- **E M de Araújo** – Geologist/Geostatistician, CREA, 19 years experience.
- **R Martins** – Geologist, CREA, 3 years experience.
- **C A Neves** – Mining Engineer, CREA, 7 years experience.
- **M G Simoni** – Mining Engineer, CREA, 7 years experience.
- **W N Yamaoka** – Geologist, CREA, 19 years experience.

Ghana

Bibiani

Mineral Resources

- **E O Acheampong** – MSc (Mineral Resources), MAusIMM, 15 years experience. 6,7
- **S Fianko** – BSc (Geological Engineering). 8 years experience, 1,2,3,4,5

Ore Reserves

- **E O Acheampong** – MSc (Mineral Resources), MAusIMM, 15 years experience.
- **S Aglago** – BSc (Mining Engineering), 5 years experience.
- **A A A Amoah** – MBA, Dip Min Eng, CIM, 19 years experience.
- **P Amponsah-Mensah** – MBA, Dip Min Eng.
- **D Conduah** – BSc (Geological Engineering), MSME, 10 years experience.
- **S K Ndede** – MSc (Mining Engineering), MAusIMM, MIMM, 16 years experience.
- **J P van der Vorst** – BSc (Chemical Engineering), 20 years experience.

Iduapriem

Mineral Resources

- **K Osei** – BSc (Geological Engineering), MAusIMM, 10 years experience. 1,6,7
- **N Berzinskaite** – BSc (Geophysics), 8 years experience. 2,3,4,5

Ore Reserves

- **B Ador** – BSc (Metallurgical Engineering), 3 years experience.
- **F Abdulai** – BSc (Geological Engineering), GIG, 5 years experience.
- **I Acheampong** – BSc (Mining Engineering), SME, 2 years experience.
- **S Baffoe** – MSc (Mining Engineering), SME, 5 years experience.
- **E B Boakye** – PhD (Applied Science), MAusIMM⁽⁴⁾, 21 years experience.
- **S Foli Mensah** – ICA (GH), 4 years experience.

Obuasi

Mineral Resources

- **J A Amanor** – MSc (Mining Geology), MAusIMM, 33 years experience. 7
- **C Asamoah-Owusu** – MSc (Mineral Exploration and Mining Geology), MAusIMM, 24 years experience.
- **D K Boakye** – MSc (Geostatistics), MAusIMM, 14 years experience.
- **N Quansah** – MSc (Mining Geology), 20 years experience.

Ore Reserves

- **F Decker** – MSc (Mining Engineering), Ghana Institution of Engineers, 14 years experience.

- **M P Kelly** – BSc Hons (Mining Engineering), MAusIMM, MIMM, 23 years experience.
- **F Owusu Mensah** – BSc Hons (Mining Engineering), Canadian Institution of Engineers, 17 years experience.

Guinea

Siguiri

Mineral Resources

- **A O Asante** – MSc (Mineral Exploration), MAusIMM, 17 years experience. 2,3,4,5,6,7
- **I Ouedraogo** – MSc (Applied Geology), 9 years experience. 1,3
- **M Traore** – BSc (Engineering Geology), 9 years experience. 1

Ore Reserves

- **M Alhassan** – MSc (Mining), 11 years experience.
- **K Balde** – MSc (Mining), 9 years experience.
- **M N Kaba** – DES (Mining), 6 years experience.
- **A Netherwood** – BMin Tech (Mining), MAusIMM, 15 years experience.

Mali

Morila

Mineral Resources

- **B Parsons** – MSc. (Geology), MAusIMM, 4 years experience. 2,4,5,6
- **C Poulin** – BSc Hons (Geology), 29 years experience. 7
- **A Sisokko** – BSc Hons (Geology), 12 years experience. 2,3
- **D Stephens** – BSc Hons (Geology), 12 years experience. 1,2
- **P Weedon** – BSc Hons (Geology), MAusIMM, 12 years experience. 1,2

Ore Reserves

- **R Sanhueza** – BSc (Mining Engineering), MAusIMM, 12 years experience.

Sadiola

Mineral Resources

- **S Bamforth** – BSc (Geology), MAusIMM, 9 years experience. 1,2,7
- **G De Hert** – MSc (Geology), 6 years experience. 1,2
- **B Mounkoro** – BSc (Engineering Geology), 8 years experience. 3,6
- **C Nicholls** – MSc (Mineral Resources), IMM (UK), 4 years experience. 4,5,6
- **S Robins** – BSc Hons (Geology), Pr.Sci.Nat., 8 years experience. 3,4,5,6,7
- **S Walton** – BSc Hons (Geology), MAusIMM, 12 years experience. 3,6

Ore Reserves

- **S Bamforth** – BSc (Geology), MAusIMM, 9 years experience.
- **P A Berten** – CA, 28 years experience.

- **J D Kirsten** – BEng (Mining), SAIMM, 18 years experience.
- **T J Mulpeter** – BEng Hons (Mining), MIChemE, 13 years experience.
- **S Robins** – BSc Hons (Geology), Pr.Sci.Nat., 8 years experience.
- **R vd Westhuizen** – MSc (Mining), Pr.Sci.Nat., 8 years experience.

Yatela

Mineral Resources

- **S Bamforth** – BSc (Geology), MAusIMM, 9 years experience. 1,2,7
- **B Mounkoro** – BSc (Engineering Geology), 8 years experience. 3,6
- **C Nicholls** – MSc (Mineral Resources), IMM (UK), 4 years experience. 4,5,6
- **R D Nicholls** – BSc Hons, 6 years experience. 1,2
- **S Robins** – BSc Hons (Geology), Pr.Sci.Nat., 8 years experience. 3,4,5,6,7
- **S Walton** – BSc Hons (Geology), MAusIMM, 12 years experience. 3,6

Ore Reserves

- **M Thiel** – BSc (Mining Engineering), AIME, MAusIMM, 27 years experience.
- **S Bamforth** – BSc (Geology), MAusIMM, 9 years experience
- **P A Berten** – CA, 28 years experience.
- **C J Cronjé** – HND (Metallurgy), MMMA, 11 years experience.
- **G M Davies** – Graduate Dipl (Mining), MAusIMM, 8 years experience.
- **S Robins** – BSc Hons (Geology), Pr.Sci.Nat., 8 years experience.
- **R vd Westhuizen** – MSc (Mining), Pr.Sci.Nat., 8 years experience.

Namibia

Navachab

Mineral Resources

- **F P Badenhorst** – MSc (Geology), Pr.Sci.Nat., 14 years experience. 7
- **T D Gell** – BSc Hons (Geology), MAusIMM, 13 years experience. 4,5,6
- **K Hartmann** – MSc (Geology), 14 years experience. 1,2,3
- **R Peattie** – BSc Hons (Geology), Pr.Sci.Nat., MAusIMM, 8 years experience. 4,5,6
- **H Roesener** – BSc. Hons (Geology), 6 years experience. 1,2,3

Ore Reserves

- **T E F Botha** – HND (Mine Surveying), PLATO, 27 years experience.
- **G W Holl** – HND (Metallurgy), SAIMM, 34 years experience.
- **R Schommarz** – BSc Hons (Geology), MAusIMM⁽⁴⁾, 14 years experience.
- **D J Smith** – Acc Dipl., CFA. SA, 14 years experience.
- **E J Smuts** – BEng (Mining), MAusIMM, 12 years experience.

Tanzania

Geita

Mineral Resources

- **R Adofo** – MSc (Mineral Exploration), MAusIMM, 10 years experience. 1,2,3,4,5,6,7
- **J Gaunt** – PhD (Geology), MAusIMM, 10 years experience, 3,4,5,6

Ore Reserves

- **G A Ayisi** – BSc (Mining Engineering), SME, 16 years experience.
- **M Knauth** – MSc (Mineral Economics), MAusIMM, 12 years experience.
- **A Mwaipopo** – MSc (Mining Engineering), MAusIMM, 8 years experience.
- **M Saarelainen** – BEng (Mining), MAusIMM, 5 years experience.
- **C Wilson** – BEng (Mining).

USA

Cripple Creek and Victor

Mineral Resources

- **L Billingsley** – BA (Geology), 16 years experience. 4,5,7
- **M Jahraus** – BSc (Metallurgical Engineering), SME, 16 years experience. 3,4
- **A Keith** – BA (Geology), S.C., USA RPG, 23 years experience. 5,6,7
- **R Largent** – BSc (Mining Engineering), MBA, SME, 21 years experience. 7
- **L Newcomer** – BSc (Metallurgy), 27 years experience. 7
- **G Seibel** – MSc (Economic Geology), SME, 23 years experience.
- **D Vardiman** – BSc (Engineering Geology), 29 years experience. 1,2,3,6,7
- **D Wilson** – BSc (Mining Engineering), 8 years experience. 5

Ore Reserves

- **L Billingsley** – BA (Geology), 16 years experience.
- **M Jahraus** – BSc (Metallurgical Engineering), SME, 16 years experience.
- **A Keith** – BA (Geology), S.C., USA RPG, 23 years experience.
- **R Largent** – BSc (Mining Engineering), MBA, SME, 21 years experience.
- **L Newcomer** – BSc (Metallurgy), 27 years experience.
- **G Seibel** – MSc (Economic Geology), SME, 23 years experience.
- **D Vardiman** – BSc (Engineering Geology), 29 years experience.
- **D Wilson** – BSc (Mining Engineering), 8 years experience.

⁽¹⁾ Pr.Sci.Nat. application being processed

⁽²⁾ PLATO application being processed

⁽³⁾ ECSA application being processed

⁽⁴⁾ AusIMM application being processed

Code for Mineral Resources:

- 1 Exploration Drilling
- 2 Geological Model
- 3 Quality Control
- 4 Estimation
- 5 Classification
- 6 Reporting
- 7 Management of Process



04

Supplementary
Information:
Mineral Resources
and Ore Reserves