Mineral Resource and Mineral Reserve Report **2013**

PAN AFRICAN RESOURCES PLC

The African Focused Precious Metals Producer

Highlights

PROFITABLE

High Grade Margin

GOLD	PGM 4E
>5 g/t	>0.75 g/t

Barberton Mines = 9.64 g/t
Evander Mines = 5.05 g/t
Phoenix Platinum = 0.75 g/t

(g/t - recovered grade)

SUSTAINABLE

Mineral Resource

GOLD	PGM 4E
+ 496%	+ 39%

Gold Mineral Resource
= 32,18 Moz
PGM 4E Mineral Resource
= 0,68 Moz

Brownfield Projects – Poplar, Evander South

GROWTH

Mineral Reserve

GOLD	PGM 4E
+693%	+ 39%

Gold Mineral Reserve
= 8,04 Moz
PGM 4E Mineral Reserve
= 0,25 Moz

Organic projects – ETRP, Rolspruit

Barberton Mines gold production capacity = 115 koz/annum
Evander Mines gold production capacity = 100 koz/annum
Phoenix Platinum PGM 6E production capacity = 12 koz/annum

STAKEHOLDER

Socio-Economic

GOLD	PGM 4E
>14 years	>20 years

Barberton Mines LOM = 17 yrs
Evander Mines LOM =14 yrs
Phoenix Platinum LOM > 20 yrs

No strikes and stoppages by organised labour. No impact on grade tonnage production profile

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Cover photo source: Evander 8 Shaft

Scope of report

Pan African Resources PLC's mineral resources and mineral reserves conform to the standards described by the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code, 2007 edition).

The mineral resources are inclusive of the mineral reserve component, unless otherwise stated. Information is presented either by operations, mine or project. The tables and graphs used to illustrate developments across the operations of Pan African Resources during 2012–2013 include mineral resource and mineral reserve tables by operations, mine and project; development sampling results; details of significant drill hole assays; mineral resource tables; mineral reserve tables; year-on-year reconciliation of the Group's mineral resource and mineral reserve; mineral reserve modifying factors; grade tonnage information on the mineral resource; and a list of appointed competent persons.

Topics for brief discussion include regional geology, mineral resource estimation, mineral reserve estimation, location, geology, exploration and projects.

This Mineral Resource and Mineral Reserve Report 2013 is a key component of the Pan African Resources PLC suite of 2013 annual reports, produced to record the company's performance regarding its finances, operations and sustainability activities for the 12 months ended 30 June 2013. Other major documents in this suite of reports are the Annual Integrated Report 2013, the Annual Financial Statements 2013 and the GRI – Global Reporting Initiative, all of which are available on the corporate website, www.panafricanresources.com.

Note: Rounding of numbers in this document may result in minor computational discrepancies. All grade tonnage graphs in this document are for mineral resources.

Reporting code

Pan African Resources uses the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code), which sets out the internationally recognised procedures and standards for reporting mineral resources and mineral reserves in South Africa. This code was developed by the South African Institute of Mining and Metallurgy and is the recommended guideline for reserve and resource reporting for companies listed on the JSE Limited. In reporting resources and reserves, distinct cognisance has also been taken to comply with AIM Rules for Mining and Oil and Gas Companies of the London Stock Exchange.

Definitions as per the SAMREC Code

The definitions of mineral resource and mineral reserve, as contained in the 2007 edition of the SAMREC Code, are as follows:

A **'Mineral Resource'** is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, or estimated from specific geological evidence, sampling and knowledge interpreted from an appropriately constrained and portrayed geological model. Mineral Resources are subdivided, and must so be reported, in order of increasing confidence in respect of geo-scientific evidence, into Inferred, Indicated or Measured categories.

An **'Inferred Mineral Resource'** is that part of a Mineral Resource for which volume or tonnage, grade and mineral content can be estimated with only a low level of confidence. It is inferred from geological evidence and sampling and assumed but not verified geologically or through analysis of grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited in scope or of uncertain quality and reliability.

An **'Indicated Mineral Resource'** is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on information from exploration, sampling and testing of material gathered from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological or grade continuity but are spaced closely enough for continuity to be assumed.

A **'Measured Mineral Resource'** is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable information from exploration, sampling and testing of material from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

A **'Mineral Reserve'** is the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project and a Life of Mine Plan for an operation must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed.

A **'Probable Mineral Reserve'** is the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It is estimated with a lower level of confidence than a Proved Mineral Reserve. It includes diluting and contaminating materials and allows

for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life of Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

A **'Proved Mineral Reserve'** is the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life of Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

Pan African Resources reporting in compliance with SAMREC

To meet the requirements of the SAMREC Code that the material reported as a mineral resource should have "reasonable and realistic prospects for eventual economic extraction", Pan African Resources has determined an appropriate cut-off grade, which has been applied to the quantified mineralised body according to a process incorporating a long-term view on future economic modifying factors. In applying this process, Pan African Resources uses a gold price of ZAR550 000/kg to derive a cut-off grade to determine the mineral resources at each of its underground operations. Mineral resources have been estimated on the basis of geo-scientific knowledge and confidence, together with the consideration of modifying factors.

Each mine's mineral resources are categorised, blocked out and ascribed an estimated value. Barberton Mines employs a weighted arithmetic mean and an inverse distance estimation technique, while Evander Mines uses a kriging estimation method to create an estimated grade model. To define the portion of a measured and indicated mineral resource that can be converted to a proved and probable mineral reserve, Pan African Resources applies the concept of a cut-off grade. At our underground mines, this is done by defining the optimal cut-off as the lowest grade at which an orebody can be mined such that the total profits, under a specified set of mining parameters, are maximised. The mineral resource optimiser tool that was developed in-house was applied to the mineral resource inventory. Functionally, it is based on the concept of cut-off grade calculation in order to guide the mine planning process.

The Mineral Resource is converted to Mineral Reserve, using the modifying factors listed below. Cut-off grades are determined using the optimiser programme.

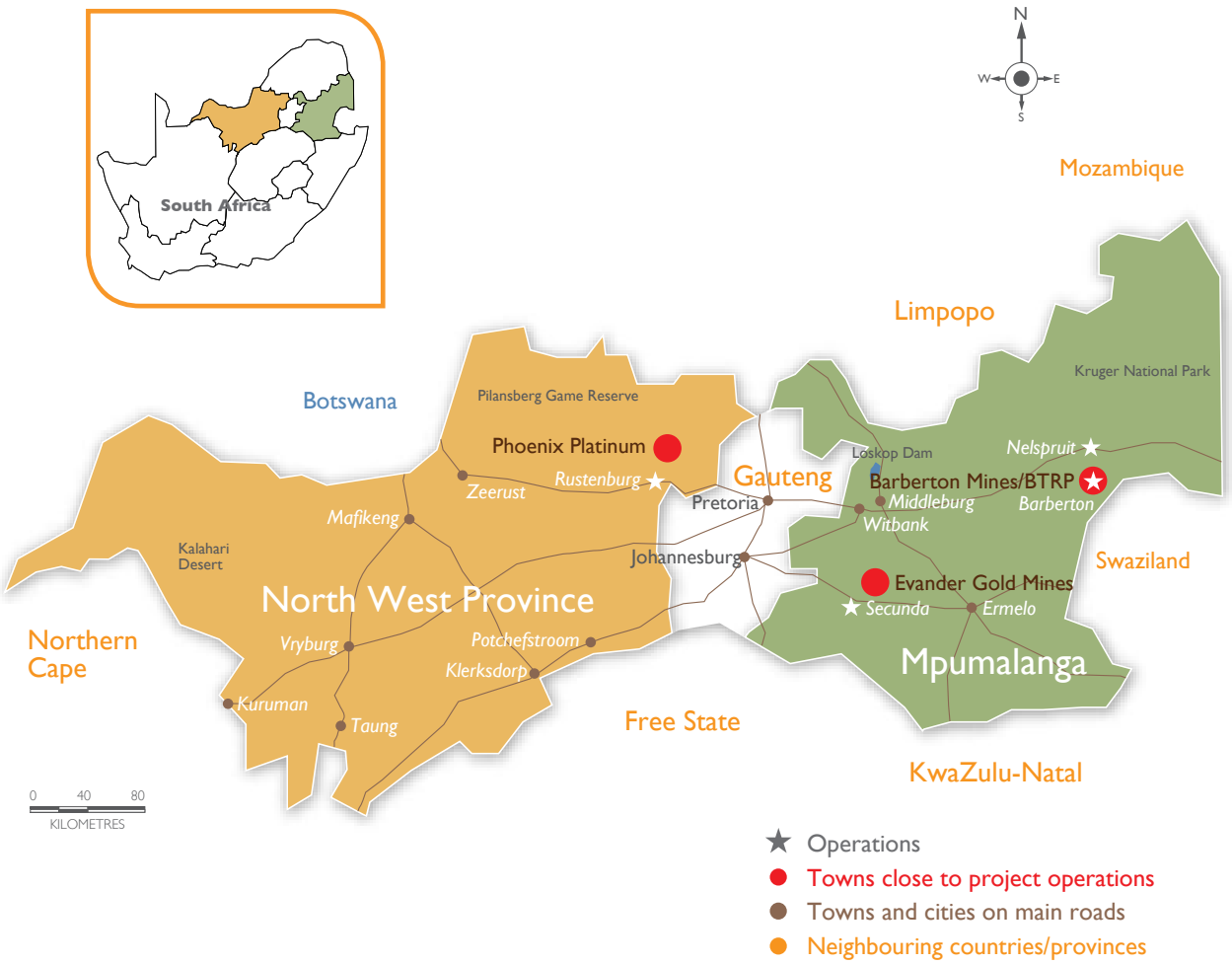
- the database inventory of all mineral resource blocks
- an assumed gold price – ZAR490 000/kg
- planned production rates for each mine
- mine call factor (MCF)
- plant recovery
- planned cash operating costs and other efficiency factors, which are calculated using historical achievements as a baseline.

The mineral reserves represent that portion of the measured and indicated resources above cut-off in the life-of-mine (LoM) plan, and have been estimated after consideration of the factors affecting extraction – including mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. A range of disciplines – including geology, surveying, planning, mining engineering, rock engineering, metallurgy, financial management, human resources management and environmental management – has been involved at each mine in the LoM planning process and the conversion of resources into reserves.

In this report, the modifying factors related to the ore flow that are used to convert the mineral resources to mineral reserves through the LoM planning process are stated for each shaft. For these factors, historical information was used.

Phoenix Platinum and Barberton Tailing Retreatment Plant (BTRP) are optimised on a 100% extraction plan on their mineral reserves. No selectivity was applied on tonnages, and thus no cut-off grades were determined. An income valuation approach was determined for both projects to assess their financial viability. Modifying factors for these projects are detailed in this report.

The African Focused Precious Metals Producer



Operations

1. Barberton Mines
   a. Fairview Mine
   b. Sheba Mine
   c. Consort Mine
   d. BTRP

2. Evander Mines
   a. Evander 8 Shaft
   b. Evander 7 Shaft
   c. Evander surface

3. Phoenix Platinum
   a. Buffelsfontein
   b. Elandskraal
   c. Kroondal

Group mineral resource and reserve strategy

Pan African Resources PLC intends to realise its vision through the strategic acquisition and development of precious metal assets close to or in production, that:

a. are profitable – significant grade margin and a low cash cost profile
b. are sustainable – a significant production life
c. show growth – a significant economic value added
d. benefit stakeholders – a significant socio-economic win.

Pan African Resources' mineral resource management (MRM) philosophy is that a detailed understanding of the mineral asset undoubtedly contributes to its optimal extraction. From this standpoint, it is clear that the 'orebody dictates' through its various characteristics and, when aligned effectively to the business model, can yield significant returns.

Profitable – Pan African Resources' mineral assets are located in geological terrains that are described as world-class quality mineral assets with high grade and significant tonnage profiles. Barberton Mines is located in the Barberton Greenstone Belt (BGB), a unique ancient geological setting that hosts economic shear gold that is among the most consistent high-grade gold deposits globally (9.64 g/t recovered grade – 2013). The Phoenix Platinum operations re-treat tailings from ore derived from the famous Bushveld Igneous Complex, the largest mineral resource of PGMs in the world. Evander Mine is located in the Witwatersrand Basin, which is regarded as the world's most renowned gold province worldwide. Evander is one of the substantial, remaining mineral resources that is untapped in the basin (31.61 Moz mineral resource and 8.01 Moz mineral reserve – 2013).

Within the accepted MRM framework of survey, geology, resource estimation and mine planning, functions on the operations are focused towards maximising and optimising the value of the residing mineral assets. The key operational focus is to integrate all intellectual capital and technical data to enhance the mineral resource confidence in relation to volume and grade. Efficient and effective LoM plans are designed to execute mining methods that are safe and low cost. The low cost base allows the orebody to be extracted at optimal cut-off grades to yield the desired financial margins.

Sustainable – MRM at Barberton, Evander and Phoenix has the strategic role of applying best practices in identifying, optimising and realising the value of the mineral asset through converting it from an initial inferred resource at the exploration phase through to a proved reserve at the production stage, and ultimately to a saleable product. The diligent application of this methodology allows for greenfield, brownfield, near mine and organic growth projects to be realised and economic value added to deliver a sustainable business model (see Figure 1).

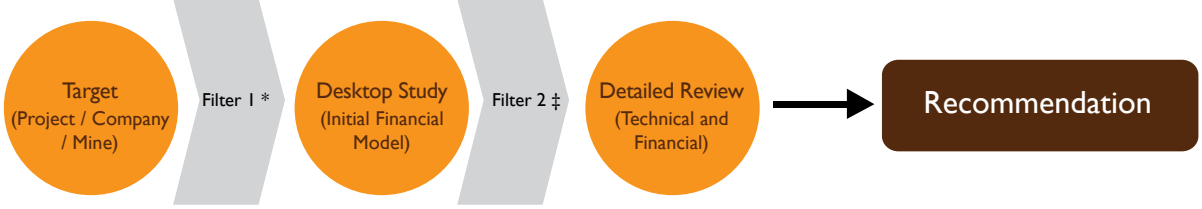
Growth – Pan African Resources strives to create value by growing its major asset – the mineral resource and mineral reserve of the company. This drive is based on an active acquisition strategy, a well-defined exploration programme, innovation in both geological/resource modelling, optimal mine planning and continual optimisation of the asset portfolio.

The acquisition of Evander Mines has propelled Pan African Resources into a mid-tier status. The Group has increased its mineral asset significantly, as outlined in this report. The mineral assets of Evander Mines comprise an operating mine and a set of organic and brownfield projects – ETRP, Evander 7 Shaft No. 3 Decline, Rolspruit, Evander South, Poplar and Libra – that are at an advanced confidence and economic value (see Figure 2). This enables Pan African Resources to grow organically and sustainably, benefiting all stakeholders.

The successful commissioning of the BTRP in June 2013 is a testament to the leadership at Pan African Resources in creating value of its mineral asset. This organic growth project will add approximately 20 000 oz/annum to the bottom line.

Stakeholders – Pan African Resources is pleased to note that there were no production stoppages due to labour issues. This had a positive impact on realising the targeted grade tonnage profiles for each of the operations, resulting in excellent ounces being produced.

The Group is committed to complying with the MPRDA and achieving the objectives of the Mining Charter. In this regard, it continues to engage with stakeholders, both within and outside the Group.



* Filter 1: Type/size/grade of onebody; economic/political risk; infrastructure/services
‡ Filter 2: NPV; IRR; other financial parameters

Figure 1: MRM value chain process

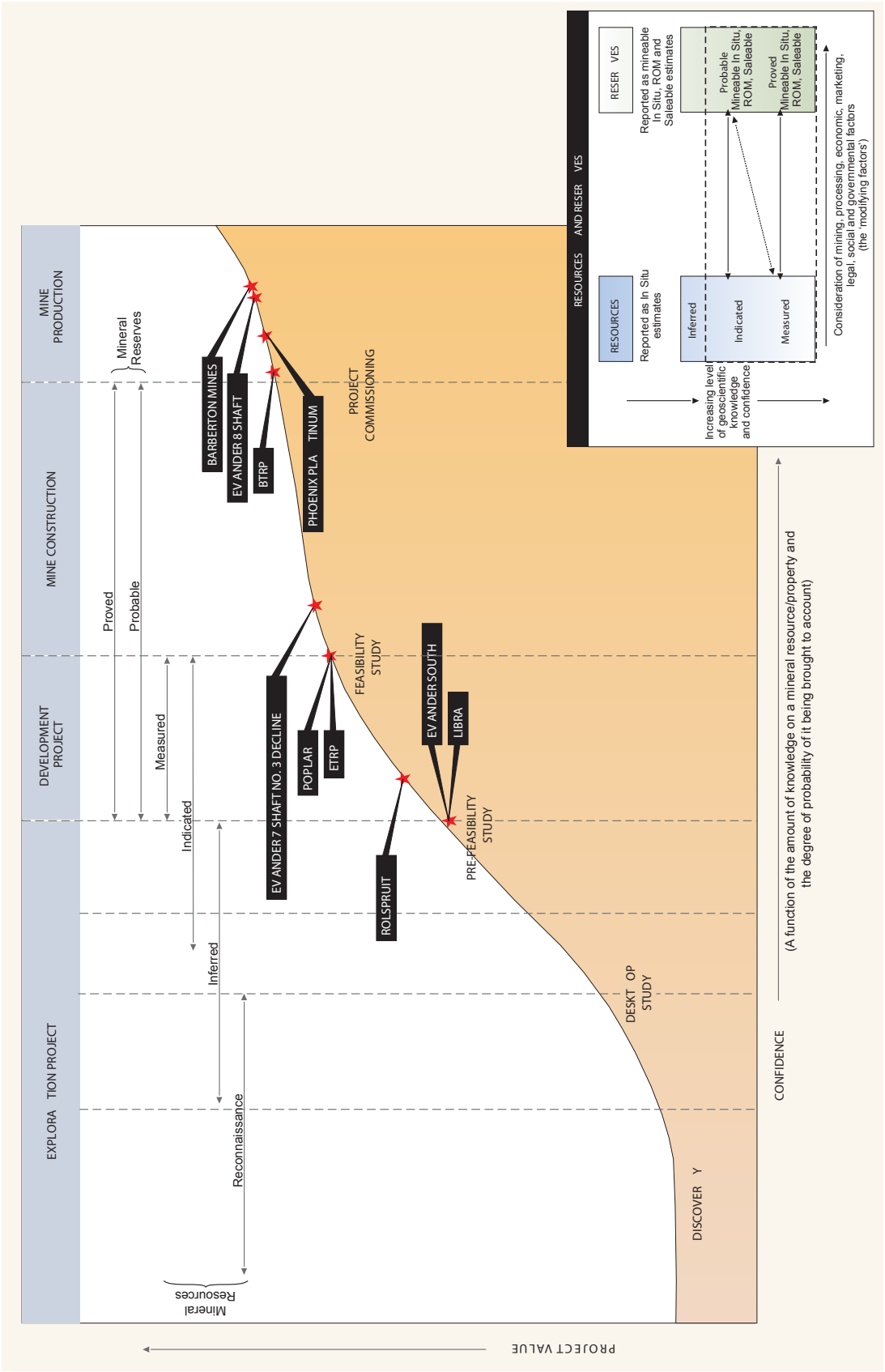


Figure 2: Project life cycle of mineral assets at Pan African Resources

Group mineral resource – Gold

The total mineral resource for the Group increased from 5.89 million ounces (Moz) in June 2012 to 35.13 Moz in June 2013 – a gross annual increase of 29.24 Moz and a 496% increase. Of this, 3.52 Moz can be attributed to Barberton Mines and a significant 31.61 Moz can be attributed to the acquisition of the Evander Mines.

As at 30 June 2013 Pan African Resources	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	 Moz
Mineral resource	Measured	6.78	10.58	68.27	2.19
	Indicated	273.39	2.38	655.10	21.06
	Inferred	56.94	6.04	369.36	11.88
Pan African Resources	Total	337.11	3.10	1 092.73	35.13

Barberton Mines' mineral resources had a positive variance of 574 164 oz contained gold. This was a result of adding new resources from an aggressive exploration strategy at each of the operating mines and the inclusion of Segalla and Camelot slimes dams into the mineral resource.

Group mineral reserve – Gold

Pan African Resources' mineral reserve increased from 1.16 Moz in June 2012 to 9.20 Moz in June 2013 – a gross annual increase of 8.04 Moz, and a 693% increase. Of this, 1.18 Moz can be attributed to Barberton Mines, while the acquisition of Evander Mines contributed 8.02 Moz.

As at 30 June 2013 Pan African Resources	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	 Moz
Mineral reserve	Proved	4.42	6.98	29.03	0.93
	Probable	75.39	3.23	256.95	8.27
Pan African Resources	Total	79.81	3.43	285.98	9.20

Barberton Mines had a positive variance of 18 547 oz. Mining depletion accounted for 87 128 oz.

Group mineral resource – PGM 4E

The Group's total mineral resource PGM 4E increased from 0.49 Moz in June 2012 to 0.68 Moz in June 2013 – a gross annual increase of 0.19 Moz, and a 39% increase. Of this, 0.16 Moz can be attributed to IFM reserves (2012).

As at 30 June 2013 Pan African Resources	Category	Tonnes (million)	Grade (g/t)	PGM 4E Tonnes	 Moz
Mineral resource	Measured	2.00	2.68	5.23	0.17
	Indicated	3.40	3.57	12.22	0.39
	Inferred	1.10	3.37	3.85	0.12
Pan African Resources	Total	6.50	3.27	21.30	0.68

Group mineral reserve – PGM 4E

Pan African Resources mineral reserve PGM 4E increased from 0.18 Moz in June 2012 to 0.25 Moz in June 2013 – a gross annual increase of 0.07 Moz, and a 39% increase. This significant increase can be attributed to the IFM proven and probable reserves for Lesedi Mine (2012).

As at 30 June 2013 Pan African Resources	Category	Tonnes (million)	Grade (g/t)	PGM 4E Tonnes	 Moz
Mineral reserve	Proved	1.96	1.21	2.36	0.07
	Probable	3.42	1.61	5.50	0.18
Pan African Resources	Total	5.38	1.46	7.86	0.25

Group organic growth

Extensive exploration drilling was conducted during the year, focusing on defining the geometries of the various orebodies on each mine. This geo-scientific knowledge assisted in increasing the confidence of the mineral resource, and thus supported the LoM plans and the company's business plan. A well-designed mine plan for accessing and developing the orebody – outlined in the tables below – resulted in significant gold attributed ounces to the mineral resource for the year.

Exploring the orebody – exploration drilling

Operation	Total metres	No. of boreholes	Average channel width (cm)	No. of intersections above cut-off	Average grade (g/t)	Total expenditure (Rm)
Barberton Mines	16 937	191	110	95	19.58	5.87
Evander Mines	1 803	22	63	4	32.62	1.65
Phoenix Platinum	–	–	–	–	–	–

Accessing the orebody – on-reef development

Operation	Total on-reef development (m)	Average grade (g/t)
Barberton Mines	2 128.5	6.92
Evander Mines	1 333	56.44
Phoenix Platinum	–	–

Developing the orebody – capital ore reserve projects: Barberton Mines

Project	Y/E 30 June 2013 (m)	Y/E 30 June 2012 (m)	Y/E 30 June 2011 (m)	Potential resource target (oz)
Sheba – pillar development	317			2 006
Sheba – Edwin Bray to Thomas and Joe's Luck area	102	303	491	17 000
Fairview – 11 Level Royal Reef	0.1			14 821
Fairview – 1# ore reserve opening	179			1 600
Fairview – 3 Shaft deepening	228	109	149	278 000
Fairview – 62 Level	601			
Consort – 40 Level	252.2	267	34	10 000
Consort – 50 Level Decline west	150	197	123	26 000
Consort – MMR pillar development	129.4			(new target area)

Capital ore reserve projects: Evander Mines

Project	Y/E 30 June 2013 (m)	Y/E 30 June 2012 (m)	Y/E 30 June 2011 (m)	Potential resource target (oz)
2 Decline 24–25 Level	554	778	201	1 200 000
25 A block ventilation	124	0	0	

Mineral resource table: Barberton Mines

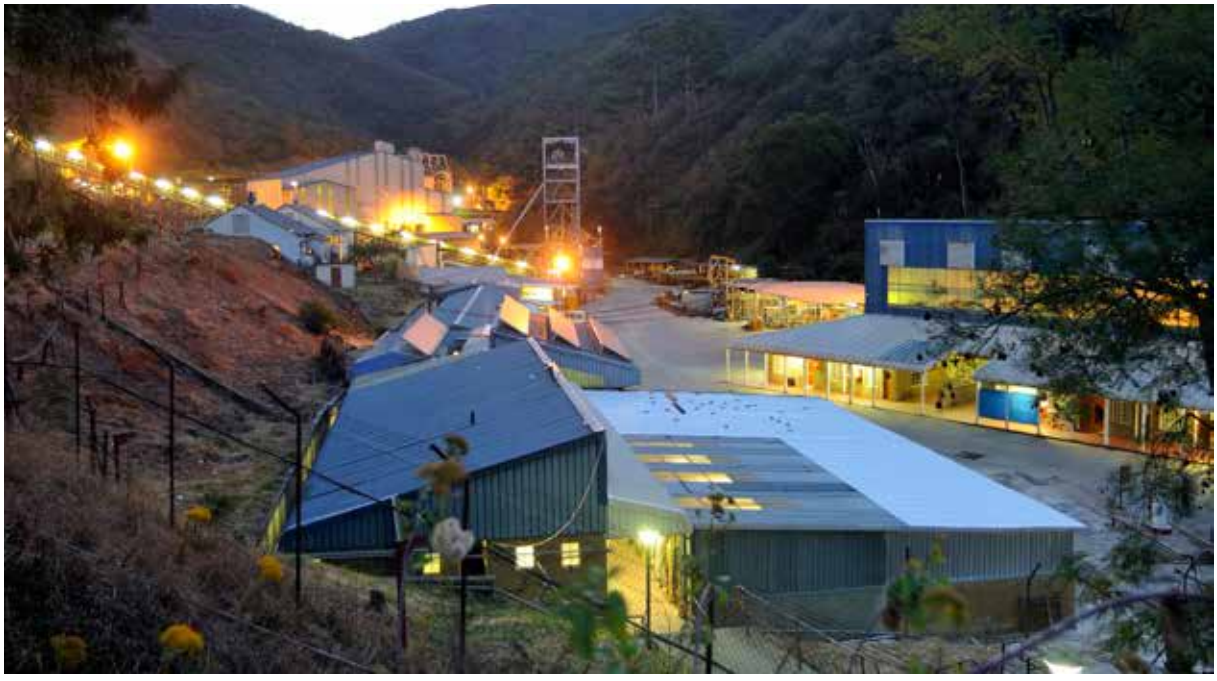
Operations	Category	Mineral resource 30 June 2013 tonnes	g/t	kg	oz
Sheba	Measured	1 001 200	7.52	7 530	242 083
	Indicated	1 575 200	5.31	8 360	268 791
	Inferred	1 850 000	4.70	8 703	279 796
	Total	**4 426 300**	**5.56**	**24 593**	**790 671**
Consort	Measured	385 900	8.67	3 347	107 593
	Indicated	184 800	11.58	2 139	68 766
	Inferred	279 100	8.99	2 508	80 629
	Total	**849 800**	**9.41**	**7 993**	**256 988**
Fairview	Measured	1 813 000	7.76	14 076	452 559
	Indicated	896 100	18.70	16 755	538 693
	Inferred	956 400	19.65	18 798	604 353
	Total	**3 665 600**	**13.54**	**49 629**	**1 595 605**
Total mines	Measured	3 200 200	7.80	24 952	802 235
	Indicated	2 656 100	10.26	27 254	876 251
	Inferred	3 085 500	9.73	30 008	964 779
	Total	**8 941 700**	**9.19**	**82 215**	**2 643 264**
Slimes dumps	Measured	–	–	–	–
	Indicated	7 283 200	1.54	11 227	360 946
	Inferred	11 138 600	1.20	13 392	430 548
	Total	**18 421 800**	**1.27**	**24 619**	**791 548**
Surface ore	**Total**	**192 300**	**1.79**	**344**	**11 057**
Outside sections	Measured	–	–	–	–
	Indicated	214 300	6.19	1 327	42 664
	Inferred	183 100	5.69	1 042	33 511
	Total	**397 400**	**5.96**	**2 369**	**76 176**
Total Barberton Mines	Measured	3 200 200	7.80	24 952	802 235
	Indicated	10 345 900	3.88	40 152	1 290 917
	Inferred	14 407 200	3.08	44 442	1 428 838
	Total	**27 953 300**	**3.92**	**109 546**	**3 521 990**

Mineral reserve table: Barberton Mines

Operations	Category	Mineral reserve 30 June 2013 tonnes	g/t	kg	oz
Sheba	Proved	529 500	6.52	3 450	110 934
	Probable	1 562 700	4.27	6 676	214 626
	Total	**2 092 200**	**4.84**	**10 126**	**325 560**
Consort	Proved	89 700	7.83	702	22 562
	Probable	149 000	7.71	1 149	36 943
	Total	**238 600**	**7.76**	**1 851**	**59 505**
Fairview	Proved	1 132 900	6.29	7 126	229 115
	Probable	917 400	14.50	13 302	427 664
	Total	**2 050 200**	**9.96**	**20 428**	**656 779**
Total mines	Proved	1 752 100	6.44	11 278	362 612
	Probable	2 629 100	8.04	21 127	679 233
	Total	**4 381 000**	**7.40**	**32 405**	**1 041 845**
Slimes dumps	Probable	7 283 000	0.56	4 066	130 714
Surface ore	Probable	153 800	1.16	179	5 752
Total Barberton Mines	Proved	1 752 000	6.44	11 278	362 612
	Probable	10 066 100	2.52	25 371	815 699
	Total	**11 818 200**	**3.10**	**36 650**	**1 178 311**

As at 30 June 2013, Barberton Mines reported a mineral reserve of 1 178 311 oz and mineral resource of 3 521 990 oz contained gold. The measured and indicated mineral resources are inclusive of those resources modified to produce the mineral reserves. Reserves are reported as mill-delivered tonnes at the grade recovered, having duly considered all modifying factors.

Frans Chadwick, the chief surveyor at Barberton Mines, signs off mineral resources for Barberton Mines. He is a member of the South African Council for Professional and Technical Surveyors (PLATO) (PMS0033). Mr Chadwick is based at Fairview Mine, GMO Building, Barberton, 1300.



Mineral resource table: Evander Mines

Operations	Category	Mineral resource 30 June 2013 tonnes	g/t	kg	oz
Evander 8 Shaft	Measured	2 565 437	14.06	36 083	1 160 000
	Indicated	2 687 695	15.56	41 808	1 344 000
	Inferred	11 386 966	10.23	116 489	3 745 000
	Total	**16 640 099**	**11.68**	**194 380**	**6 249 000**
Evander surface sources	Measured	290 160	0.94	274	9 000
	Indicated	46 186	0.76	35	1 000
	Inferred	161 880	0.93	150	5 000
	Total	**498 226**	**0.92**	**459**	**15 000**
Evander 7 Shaft (vamping)	Measured	67 550	3.29	222	7 000
	Indicated	–	–	–	–
	Inferred	–	–	–	–
	Total	**67 550**	**3.29**	**222**	**7 000**
Evander 7 Shaft No. 3 Decline	Measured	653 447	10.30	6 733	216 000
	Indicated	567 640	9.15	5 195	167 000
	Inferred	5 540 222	10.78	59 736	1 921 000
	Total	**6 761 309**	**10.60**	**71 664**	**2 304 000**
Libra (ETRP incl.)	Measured	–	–	–	–
	Indicated	202 909 694	0.29	59 004	1 897 000
	Inferred	–	–	–	–
	Total	**202 909 694**	**0.29**	**59 004**	**1 897 000**
Rolspruit	Measured	–	–	–	–
	Indicated	24 533 910	10.89	267 227	8 592 000
	Inferred	937 985	9.17	8 599	276 000
	Total	**25 471 895**	**10.83**	**275 826**	**8 868 000**
Poplar	Measured	–	–	–	–
	Indicated	18 739 880	7.16	134 214	4 315 000
	Inferred	9 776 663	6.22	60 773	1 954 000
	Total	**28 516 543**	**6.84**	**194 987**	**6 269 000**
Evander South	Measured	–	–	–	–
	Indicated	13 557 535	7.93	107 466	3 455 000
	Inferred	14 728 265	5.37	79 157	2 545 000
	Total	**28 285 799**	**6.60**	**186 623**	**6 000 000**
Total Evander Mines	Measured	3 576 294	12.11	43 312	1 392 000
	Indicated	263 042 540	2.34	614 949	19 771 000
	Inferred	42 531 982	7.64	324 905	10 446 000
	Total	**309 151 115**	**3.18**	**983 167**	**31 609 000**

Mineral reserve table: Evander Mines

Operations	Category	Mineral reserve 30 June 2013 tonnes	g/t	kg	oz
Evander 8 Shaft	Proved	2 347 199	7.37	17 300	556 000
	Probable	2 345 485	7.61	17 860	574 000
	Total	**4 692 685**	**7.49**	**35 161**	**1 130 000**
Evander surface sources	Proved	256 000	1.02	261	8 000
	Probable	–	–	–	–
	Total	**256 000**	**1.02**	**261**	**8 000**
Evander 7 Shaft (vamping)	Proved	67 550	2.80	189	6 000
	Probable	–	–	–	–
	Total	**67 550**	**2.80**	**189**	**6 000**
Libra (ETRP incl.)	Proved	–	–	–	–
	Probable	39 615 959	0.32	12 713	409 000
	Total	**39 615 959**	**0.32**	**12 713**	**409 000**
Rolspruit	Proved	–	–	–	–
	Probable	23 362 565	8.60	201 006	6 462 000
	Total	**23 362 595**	**8.60**	**201 006**	**6 462 000**
Total Evander Mines	Proved	2 670 749	6.65	17 750	570 000
	Probable	65 324 009	3.55	231 580	7 445 000
	Total	**67 994 759**	**3.67**	**249 330**	**8 015 000**

As at 30 June 2013, Evander Mines reported a mineral reserve of 8 015 000 oz and mineral resource of 31 609 000 oz contained gold. The measured and indicated mineral resources are inclusive of those resources modified to produce the mineral reserves. Reserves are reported as mill-delivered tonnes at the head grade, having duly considered all modifying factors.

The competent person for Evander Mines, Mr Barry Naicker, the Group mineral resource manager, signs off the mineral resources for Evander Mines. He is a member of the South African Council for Scientific Professions (400234/10). Mr Naicker has a Master's degree in mineral resource management from Witwatersrand University and a Bachelor of Science (Honours) in economic geology. Mr Naicker has 12 years of experience in economic geology and mineral resource management.

Mr Naicker is based at First Floor, The Firs, cnr Cradock Avenue and Biermann Avenue, Rosebank, 2196, Gauteng.

Group mineral inventory reconciliation (gold) – year on year

Resource table (Au)	Resource @ June 2012				Resource @ June 2013				+/– variance				% variance year on year			
	Mt	g/t	t Au	Moz	Mt	g/t	t Au	Moz	Mt	g/t	t Au	Moz	Mt	g/t	t Au	Moz
Measured	14,76	3,13	46,17	1,48	6.78	10.58	68.27	2.19	-7,98	-2,77	22,1	0,71	-54,1	-88,5	47,9%	48,0%
Indicated	23,02	2,68	61,72	1,98	273.39	2.38	655.10	21.06	250,37	2,37	593,38	19,08	1087,6	88,4	961,4%	963,6%
Inferred	29,91	2,51	75,01	2,42	56.94	6.04	369.36	11.88	27,03	10,89	294,35	9,46	90,4	433,9	392,4%	390,9%
Total	**67,7**	**2,7**	**182,9**	**5,89**	**337.11**	**3.10**	**1 092.73**	**35.13**	**269,41**	**3,38**	**909,83**	**29,24**	**397,9**	**125,1**	**497,4%**	**496,4%**

Reserve table (Au)	Reserve @ June 2012				Reserve @ June 2013				+/– variance				% variance year on year			
	Mt	g/t	t Au	Moz	Mt	g/t	t Au	Moz	Mt	g/t	t Au	Moz	Mt	g/t	t Au	Moz
Proved	1.57	7.49	11.73	0.38	4.42	6.98	29.03	0.93	2.85	6.07	17.30	0.55	181.50	81.00	147.50	144.70
Probable	9.77	2.49	24.34	0.78	75.39	3.23	256.95	8.27	65.62	3.54	232.61	7.49	671.60	142.40	955.70	960.30
Total	**11.34**	**3.18**	**36.07**	**1.16**	**79.81**	**3.43**	**285.98**	**9.20**	**68.47**	**3.65**	**249.91**	**8.04**	**603.80**	**114.80**	**692.80**	**693.10**

*Manica Mineral Resource and Reserve was not included in the Mineral Resource and Mineral Reserve 2013 report.

Mineral resource table: Phoenix Platinum

Operations	Category	Mineral resource – 30 June 2013 tonnes	g/t	kg	oz
Buffelsfontein tailings dams	Measured	494 000	3.66	1 808	58 130
	Indicated	–	–	–	–
	Inferred	274 000	2.72	745	23 961
	Total	**768 000**	**3.38**	**2 553**	**82 091**
Buffelsfontein current arisings	Measured	–	–	–	–
	Indicated	3 230 000	3.66	11 822	380 079
	Inferred	826 000	3.66	3 023	97 197
	Total	**4 056 000**	**3.66**	**14 845**	**477 276**
Total Buffelsfontein	Measured	494 000	3.66	1 808	58 130
	Indicated	3 230 000	3.66	11 822	380 079
	Inferred	1 100 000	3.43	3 768	121 158
	Total	**4 824 000**	**3.61**	**17 398**	**559 367**
Elandskraal	Measured	1 149 000	2.45	2 815	90 506
	Indicated	145 000	2.04	295	9 510
	Inferred	42 000	2.00	84	2 701
	Total	**1 336 000**	**2.39**	**3 194**	**102 717**
Kroondal	Measured	316 000	2.00	632	20 319
	Indicated	50 000	2.00	100	3 215
	Inferred	–	–	–	–
	Total	**366 000**	**2.00**	**732**	**23 534**
Total Phoenix Platinum	Measured	1 959 000	2.68	5 255	168 952
	Indicated	3 425 000	3.57	12 218	392 817
	Inferred	1 142 000	3.37	3 852	123 844
	Total	**6 526 000**	**3.27**	**21 325**	**685 614**

Mineral reserve table: Phoenix Platinum

Operations	Category	Mineral reserve – 30 June 2013 tonnes	g/t	kg	oz
Buffelsfontein tailings dams	Proved	494 000	1.65	814	26 158
	Probable	–	–	–	–
	Total	**494 000**	**1.65**	**814**	**26 158**
Buffelsfontein current arisings	Proved	–	–	–	–
	Probable	3 230 000	1.65	5 320	171 036
	Total	**3 230 000**	**1.65**	**5 320**	**171 036**
Total Buffelsfontein	Proved	494 000	1.65	814	26 158
	Probable	3 230 000	1.65	5 320	171 036
	Total	**3 724 000**	**1.65**	**6 133**	**197 194**
Elandskraal	Proved	1 149 000	1.10	1 267	40 728
	Probable	145 000	0.92	133	4 280
	Total	**1 294 000**	**1.08**	**1 400**	**45 007**
Kroondal	Proved	316 000	0.90	284	9 144
	Probable	50 000	0.90	45	1 447
	Total	**366 000**	**0.90**	**329**	**10 590**
Total Phoenix Platinum	Proved	1 959 000	1.21	2 365	76 030
	Probable	3 425 000	1.61	5 498	176 762
	Total	**5 384 000**	**1.46**	**7 863**	**252 792**

The competent person for Phoenix Platinum, Mr Barry Naicker, the Group mineral resource manager, signs off the mineral resources for Phoenix Platinum. He is a member of the South African Council for Scientific Professions (400234/10). Mr Naicker has a Master's degree in mineral resource management from Witwatersrand University and a Bachelor of Science (Honours) in economic geology. Mr Naicker has 12 years of experience in economic geology and mineral resource management.

Mr Naicker is based at First Floor, The Firs, cnr Cradock Avenue and Biermann Avenue, Rosebank, 2196, Gauteng.

Group mineral inventory reconciliation (PGM 4E) – year on year

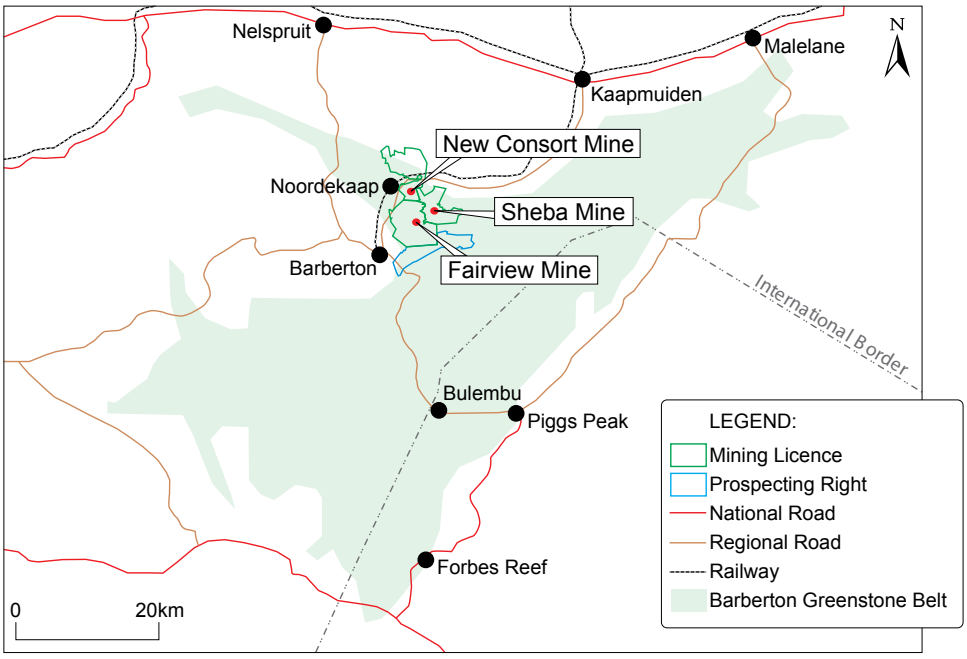
Resource table (PGM 4E)	Resource @ June 2012				Resource @ June 2013				+/– variance				% variance year on year			
	Mt	g/t	t PGM	Moz	Mt	g/t	t PGM	Moz	Mt	g/t	t PGM	Moz	Mt	g/t	t PGM	Moz
Measured	3.22	3.09	9.98	0.32	2.00	2.68	5.23	0.17	-1.22	3.89	-4.75	-0.15	-37.90	126.00	-47.60	-46.90
Indicated	0.83	3.25	2.68	0.09	3.40	3.57	12.22	0.39	2.57	3.71	9.54	0.30	309.60	114.20	356.00	333.30
Inferred	0.80	3.33	2.67	0.09	1.10	3.37	3.85	0.12	0.30	3.93	1.18	0.03	37.50	118.10	44.20	33.30
Total	**4.85**	**3.16**	**15.33**	**0.49**	**6.50**	**3.27**	**21.30**	**0.68**	**1.65**	**3.62**	**5.97**	**0.19**	**34.00**	**114.50**	**38.90**	**38.80**

Reserve table (PGM 4E)	Reserve @ June 2012				Reserve @ June 2013				+/– variance				% variance year on year			
	Mt	g/t	t PGM	Moz	Mt	g/t	t PGM	Moz	Mt	g/t	t PGM	Moz	Mt	g/t	t PGM	Moz
Proved	3.22	1.39	4.49	0.14	1.96	1.21	2.36	0.07	-1.26	1.69	-2.13	-0.07	-39.10	121.60	-47.40	-50.00
Probable	0.83	1.46	1.21	0.04	3.42	1.61	5.50	0.18	2.59	1.66	4.29	0.14	312.00	113.50	354.50	350.00
Total	**4.05**	**1.41**	**5.70**	**0.18**	**5.38**	**1.46**	**7.86**	**0.25**	**1.33**	**1.62**	**2.16**	**0.07**	**32.80**	**115.20**	**37.90**	**38.90**

Barberton Mines

Location

Barberton Mines is situated in the Magisterial District of Barberton, Mpumalanga, Republic of South Africa, some 370 km east of Johannesburg and 47 km south-east of Nelspruit. The geographic location of Barberton Mines is set in the map below. Barberton Mines comprises Fairview Mine, Sheba Mine, Consort Mine and BTRP.



Regional geological setting

The mineralisation at Barberton Mines is classified as Achaean epigenetic hydrothermal lode gold deposits within a granite greenstone terrain. The distribution and localisation of these orebodies in the BGB can be largely attributed to the combined influence of thermal metamorphism and structural deformation. The BGB has produced approximately 11 Moz of gold since the first discovery in the early 1880s. Barberton Mines has produced more than 75% of the total production from the BGB.

Genesis of the ore in Barberton

Metamorphic devolatisation of the mafic and ultra-mafic Onverwacht lava at the transition from greenschist to amphibolite facies triggers the process by which fluid is released. These low-salinity fluids, which transport gold as a reduced sulphur complex containing H_2O, CO_2 and H_2S, are released, form mineral crystal structures and can transport gold in solution to favourable depositional sites. It is calculated that a lava volume of 10 cubic kilometres is sufficient to have produced all the known gold mineralisation in the BGB. The Onverwacht Group consists of approximately 4 800 cubic kilometres of potential parent material lava. The stability fields of most of the common sulphides in the Barberton Mines ore (pyrite, arsenopyrite and pyrrhotite) indicate that the cold complex in the transport fluid is Au(HS)2.

To facilitate metal deposition from the hydrothermal fluid, the pressure, temperature or chemical conditions need to change. Most greenstone gold deposits form as a result of the mineralised fluid coming into contact with an iron-bearing host rock. The Barberton Mines host lithologies are not high in iron content, so the ore deposition occurred due to a drop in fluid pressure. Pressure shadows, which form during dilating, faulting and folding, create low-pressure zones, effectively sucking the fluids into these spaces and releasing pressure. When pressure is released, H_2S (the ligand that makes gold soluble) is driven off, resulting in gold precipitation.

The Barberton ores are thus mineralised shears with gold occluded in sulphide minerals. The sulphides often occur as massive assemblages in the shear structure. Lower ore grade disseminations of sulphide minerals in the wall rock form as a result of the alteration process during fluid flow. A late stage of gold mineralisation occurred when quartz veins formed in brittle fractures. These quartz veins often contain free gold in visible clusters.

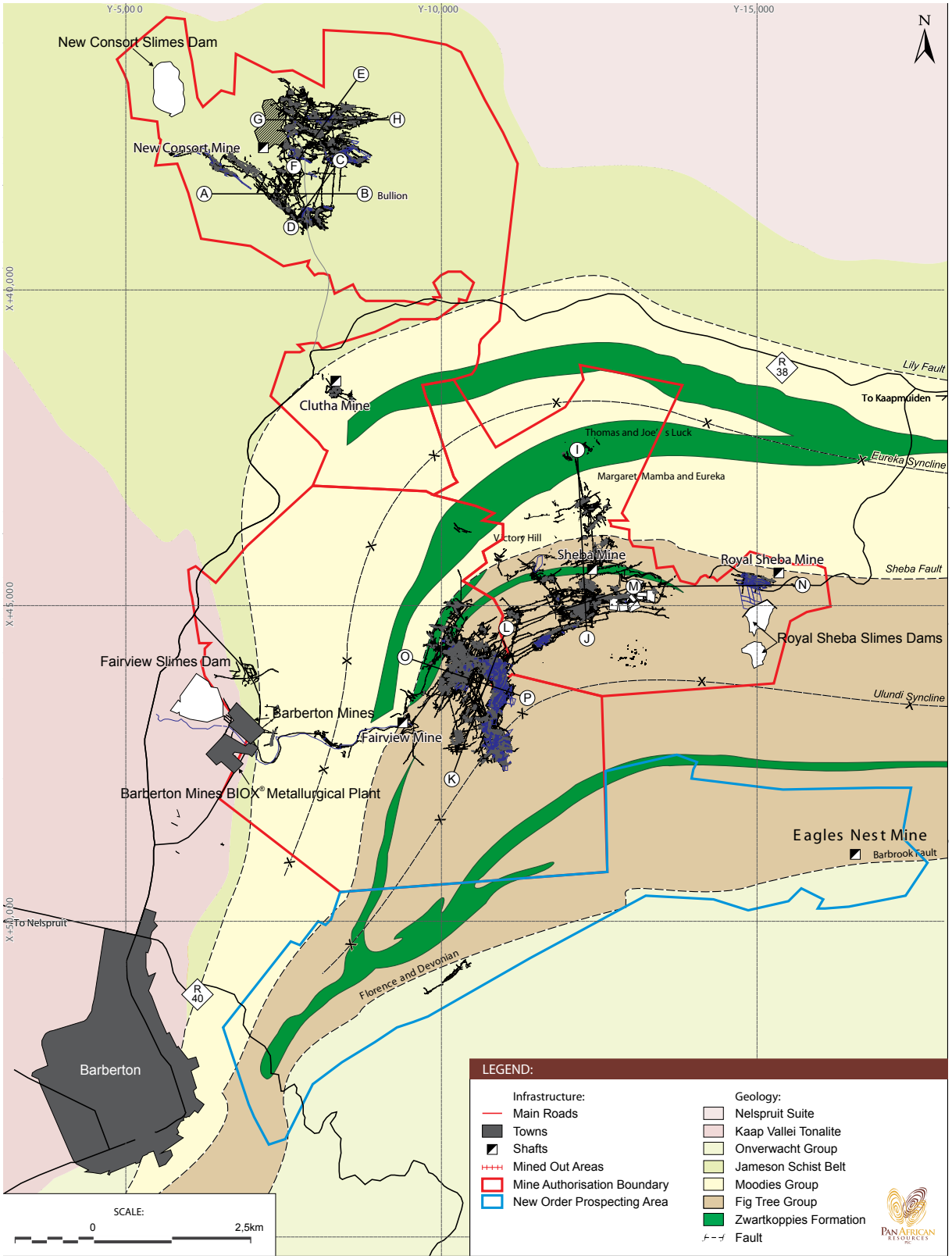


Figure 3: Geological setting (sections are illustrated on the map along the mines to depict the mineralised geological structures)

Geological/resource estimation methodology

The resource was classified according to guidelines compliant with the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC code, 2007).

Geological modelling

The grade and the structure in the ore shoots are highly erratic in nature, and most of the data for evaluating resource blocks is derived from development adjacent to the mining blocks and from the position of the present mining areas. The continuity of grade values within the ore shoots is derived primarily from short-range statistical projections, based on experience that has been gained from historic mining of the orebody and from the study of its tectonic structure.

The tectonic structure and orebody geometry has been modelled using the Lynx orebody modelling system. This system allows the three-dimensional structure of the mineralised volume to be viewed graphically. This is used as a tool for visualising grade continuity and is an aid for mine planning.

Resource estimation

For both diamond-cored drill hole and underground sampling, a minimum sampling width of 150 cm is used in the case of mechanical mining, and 100 cm for conventional scraper-type stoping. Where the reef width is less than this value, hanging wall and footwall samples are included.

Measured reserve blocks are generally 20 m on strike and 10 m in the dip direction. Where blocks are defined adjacent to a development end only, the grade and true width of the reef in the block are estimated by calculating the arithmetic mean or 'stretch average' of the samples along the development end. If the sample spacing is at the standard 3 m, the block value is derived by calculating the average value of the samples. If the sample interval is variable, the block is assigned the length-weighted arithmetic mean of the strip averages. If the resource block is surrounded by sampling, either by previous stope sampling or development sampling, the block is assigned values based on the mean of the surrounding sample stretches. In each case, one mean value is determined for each channel sampling section first and the means are then averaged.

Exploration drill hole values are weighted by the inverse of the distance from the sampling to the centre of indicated and inferred blocks.

Where an individual sample value is greater than 100 g/t, the grade is capped at 100 g/t. It has been found historically that if sample values over 100 g/t are capped, these abnormally high sample grade values will not lead to over-valuation of the mean value of the stretch samples, which are used to assign values to nearby resource blocks.

Mining rights

The mineral rights pertaining to Barberton Mines were issued by the Department of Mineral Resources in terms of Item 7 of Schedule II of the Minerals and Petroleum Resources Development Act, 2002 (No. 28 of 2002) (MPRDA).

Mineral rights to Barberton Mines comprise of three separate mining rights for the three different mining operations. All three operations' old order rights were converted to the sole and exclusive right to mine on 28 April 2011. The description of the mining area of all these mines is situated in the Mpumalanga Magisterial District of Barberton and the commodity is gold. All three of these mining rights will continue to be in force for a period of 10 years, ending on 27 April 2021.

Mine name	Mining licence	Mining area	Area (ha)	Expiry date
Consort Mine	MP 30/5/1/2/2/190 MR	Portions of the farms Dublin 302JU, Tinto 300JU, Segalla 306JU, Whitwick 301JU and Barberton Nature Reserve 964JU	2 520.81	27 April 2021
Fairview Mine	MP 30/5/1/2/2/191 MR	Portions of the farms Sheba 940JU, Worral 352JU, Hayward 310JU, Bramber East 314JU and Bickenhall 346JU	3 033.86	27 April 2021
Sheba Mine	MP 30/5/1/2/2/189 MR	Portions of the farms Camelot 320JU, Sheba 940JU and Sheba Siding 939JU	1 705.06	27 April 2021

Mining Method: Barberton Mines has continued with the application of semi-mechaised cut and fill mining method.

Fairview Mine

Geology

The Fairview Mine area straddles the contact between the Moodies Group to the north (Eureka Syncline) and the Fig Tree Group greywacke and shale to the south (Ulundi Syncline) (see Figure 4). The contact is marked by the presence of the Sheba Fault. The two synclines are re-folded, back-to-back isoclines that dip steeply to the south. Tight isoclinal, thrust fault-related anticlines of Onverwacht Group schist (Zwartkoppie Formation) occur within the greywacke.

The Fairview Mine orebody is an epigenetic hydrothermal lode gold deposit. Three distinct types of mineralisation occur in the mine:

- Refractory sulphidic ore, which constitutes the bulk of the ore, is hosted in the greywacke and shale sequence of the Fig Tree Group. The mineralisation is found in close association with an anastamosing shear system that often parallels the stratigraphy. Auriferous pyrite and arsenopyrite mineralisation is confined to ribbon-like shoots within the shear system and as disseminations. The shears are often defined by quartz-carbonate veining, and the host rock can be sericitised and carbonated on either side of the shear.
- A coarse clastic unit of the Fig Tree Group hosts a series of hangingwall bodies. The unit consists of thick-bedded to massive greywacke, grading into arenite with interbedded granule stone layers. Two quartz-porphyry dykes and two dolerite dykes intrude the host rock sediments. Although the mineralised factures persist for up to 500 m long, payable gold values are confined to several discrete ribbon-like payshoots. Blue-black quartz veins and quartz-carbonate veins and stock-work are recognised in the hangingwall area. The contacts and texture of the veins suggest a dilation fracture fill origin, rather than replacement origin. Refractory gold-quartz-carbonate-sulphide ore occurs as disseminated to massive pyrite and arsenopyrite mineralisation. The age relationship between the gold mineralisation and the quartz-porphyry dykes suggest that the Hope Reef is marginally older and the Le Roux Reef is marginally younger than the quartz-porphyry dykes. The quartz-porphyry dyke that intrudes into the Hope Reef mineralisation has been dated at 3 050 million years.
- Quartz veins, containing free milling gold, occur in the Moodies Group in the footwall of the Sheba Fault. The blue-gray quartz veins fill near-vertical cross-cutting fractures in the siliceous, brittle quartzite units. Gold mineralisation generally occurs within the vein, but may penetrate the adjacent host rock. Only minor pyrite and arsenopyrite is associated with this ore type.

The deepest intersection on a Fairview orebody is at a depth of 1 600 m below the adit elevation. The orebody is open at depth.

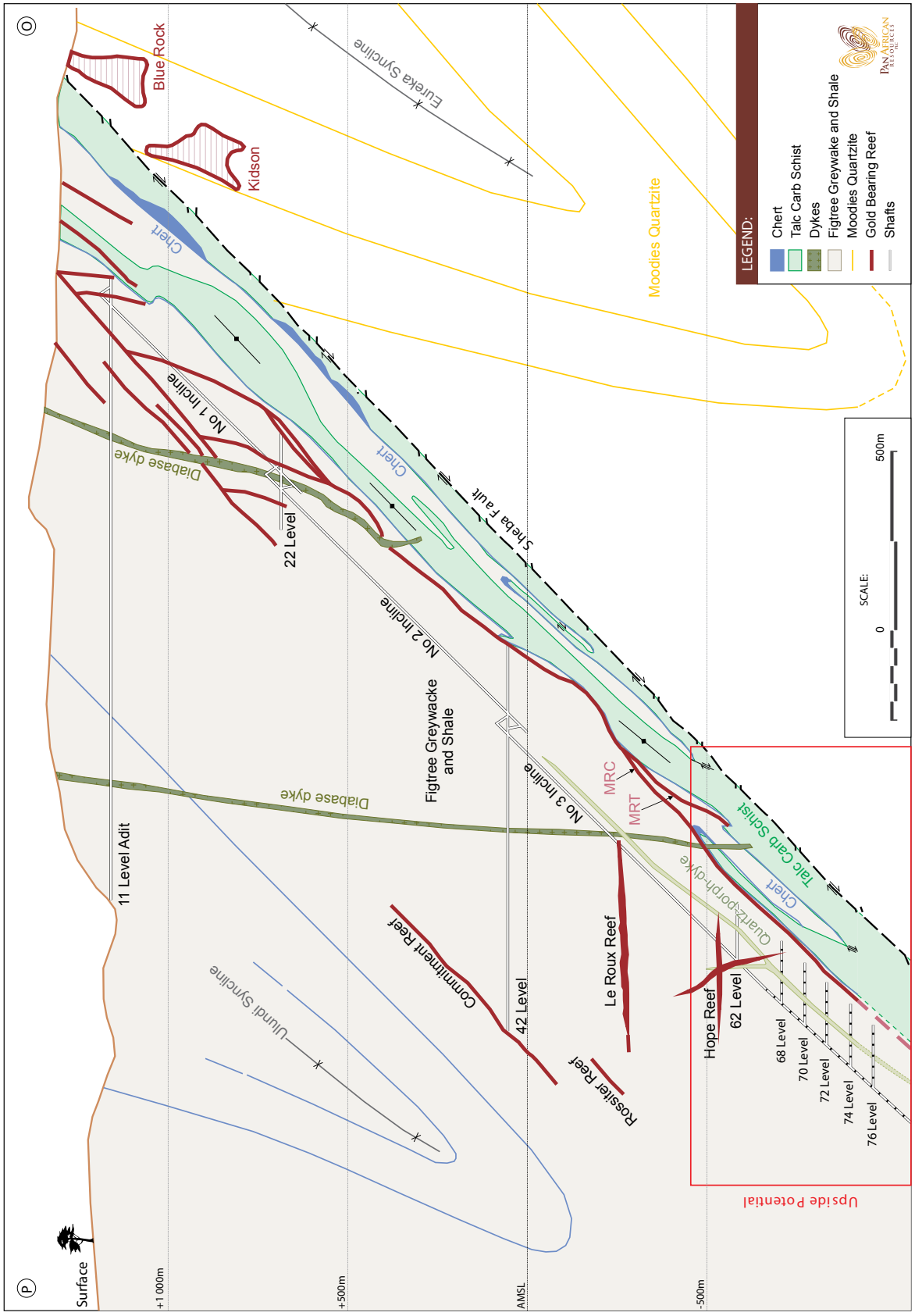


Figure 4: Geology at Fairview

Mineral resource

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Measured	1.81	7.76	14.08	0.45
	Indicated	0.90	18.70	16.75	0.54
	Inferred	0.96	19.65	18.80	0.60
Fairview Mine	Total	3.67	13.54	49.63	1.59

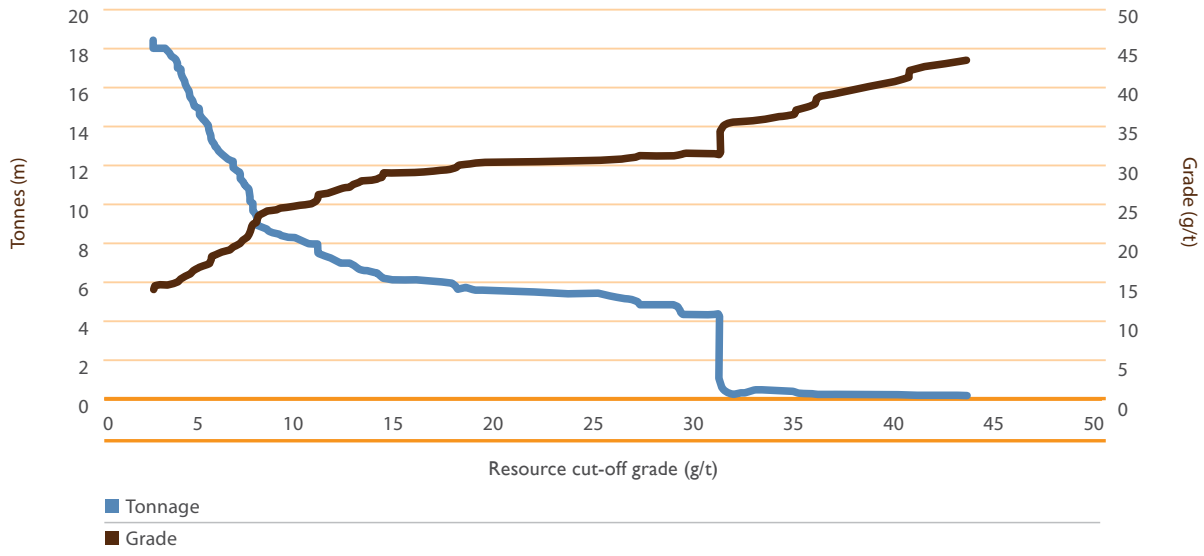
Mineral reserve modifying factors

As at 30 June 2013	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
Fairview Mine	490 000	3.02	302	100	4	97.5	90.7

Mineral reserve

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Proved	1.13	6.29	7.13	0.23
	Probable	0.92	14.50	13.30	0.43
Fairview Mine	Total	2.05	9.96	20.43	0.66

Fairview Mine Grade-Tonnage Curve (Measured/Indicated Resources)



Sheba Mine

Geology

The Sheba section area straddles the contact between the Moodies Group to the north (Eureka Syncline) and the Fig Tree Group greywacke and shale to the south (Ulundi Syncline). The contact is marked by the presence of the Sheba Fault. The two synclines are re-folded, back-to-back isoclines that dip steeply to the south. Tight isoclinal, thrust fault-related anticlines of Onverwacht Group schist (Zwartkoppie Formation) occur within the greywacke.

The Sheba orebody is an epigenetic hydrothermal lode gold deposit. Three distinct types of mineralisation occur in the mine:

- Refractory sulphidic ore (MRC Section), which constitutes the bulk of the ore, is hosted in the greywacke and shale sequence of the Fig Tree Group. The mineralisation is found in close association with a shear system in the immediate hangingwall of greenschist anticlines of the Zwartkoppie Formation. Auriferous pyrite and arsenopyrite mineralisation occurs as massive replacement veins within the shear system and as disseminations.
- In the Zwartkoppie Section, visible gold and disseminated pyrite in the greenschist is the prominent mineralisation, in association with shear and fracture hosted smoky and white quartz veins.
- The Royal Sheba mineralisation occurs within the Sheba Fault mylonite and shear zone in the footwall of a banded chert-carbonate shale unit of the Fig Tree Group.

The deepest orebody intersection on Sheba is 1 200 m below shaft collar elevation. The orebody is open at depth.

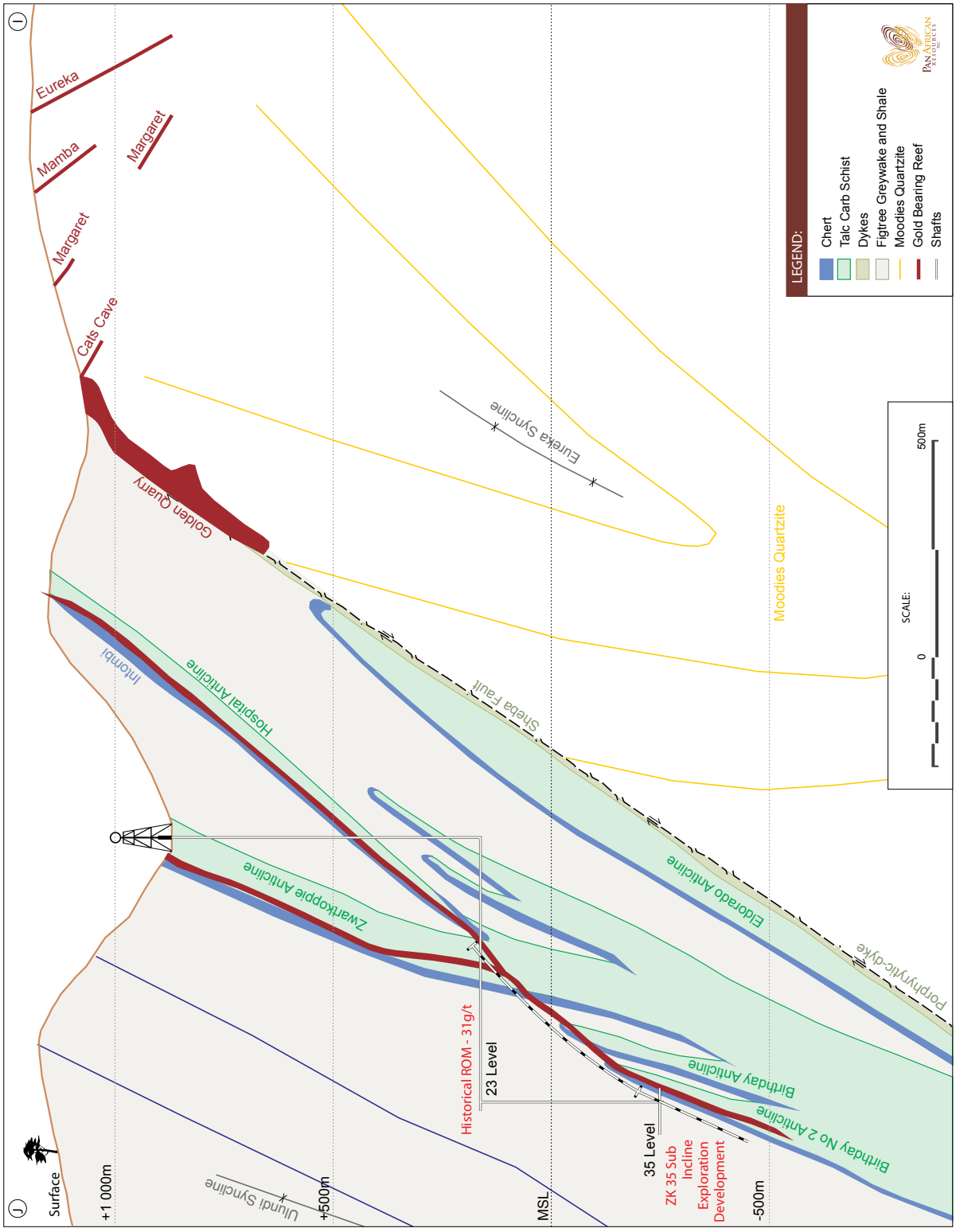


Figure 5: Geology at Sheba Mine

Mineral resource

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Measured	1.00	7.52	7.53	0.24
	Indicated	1.58	5.31	8.36	0.27
	Inferred	1.85	4.70	8.70	0.28
Sheba Mine	Total	4.43	5.56	24.59	0.79

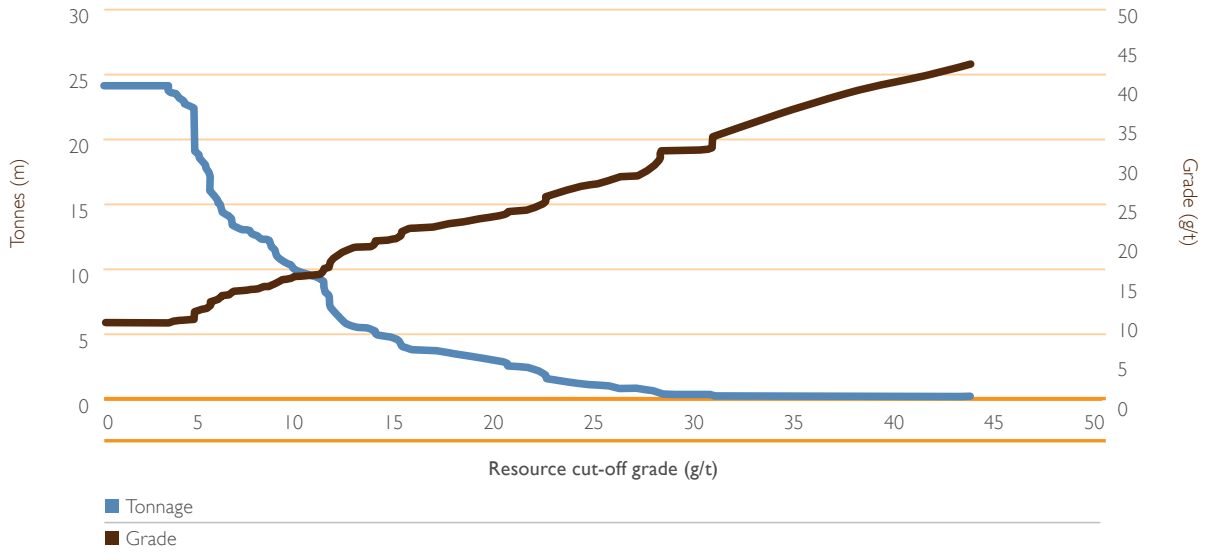
Mineral reserve modifying factors

As at 30 June 2013	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
Sheba Mine	490 000	2.89	289	100	6	100	91.36

Mineral reserve

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Proved	0.53	6.52	0.34	0.11
	Probable	1.56	4.27	0.67	0.21
Sheba Mine	Total	2.09	4.84	1.01	0.32

Sheba Mine Grade-Tonnage Curve (Measured/Indicated Resources)



Consort Mine

Geology

The New Consort area can be divided into two distinctive synclinal structures, termed the Three Shaft syncline and the Top Section syncline. The Shires structure, which is a prominent north-south striking shear zone dividing these two synclines, is intruded by a pegmatite.

The New Consort orebody is an epigenetic hydrothermal lode gold deposit. Gold mineralisation at the New Consort section is associated with the contact between the underlying schist of the Onverwacht Group and the overlying metapelite of the Fig Tree Group. This contact is marked by the presence of the Consort 'bar', a highly siliceous banded chert. The Consort bar is thought to be a silicified mylonite occupying the contact. A series of north-dipping tabular pegmatites, termed the MR pegmatites, displace the south-dipping Consort contact and the mineralised shoots. Some scheelite mineralisation has been recorded, associated with the pegmatites. A lenticular body of fine-grained siliceous amphibolite, termed the 'footwall lens', occurs on the northern limb of the Top Section syncline and is host to the mineralisation in the PC and MMR shoots. Mineralisation consists of arsenopyrite and visible gold associated with fractures in the footwall lens. The Consort bar is host to mineralisation in the 7 Shaft, 3 Shaft and Ivaura areas.

The deepest intersection of a New Consort orebody is 1 450 m below adit elevation. The orebody is open at depth.

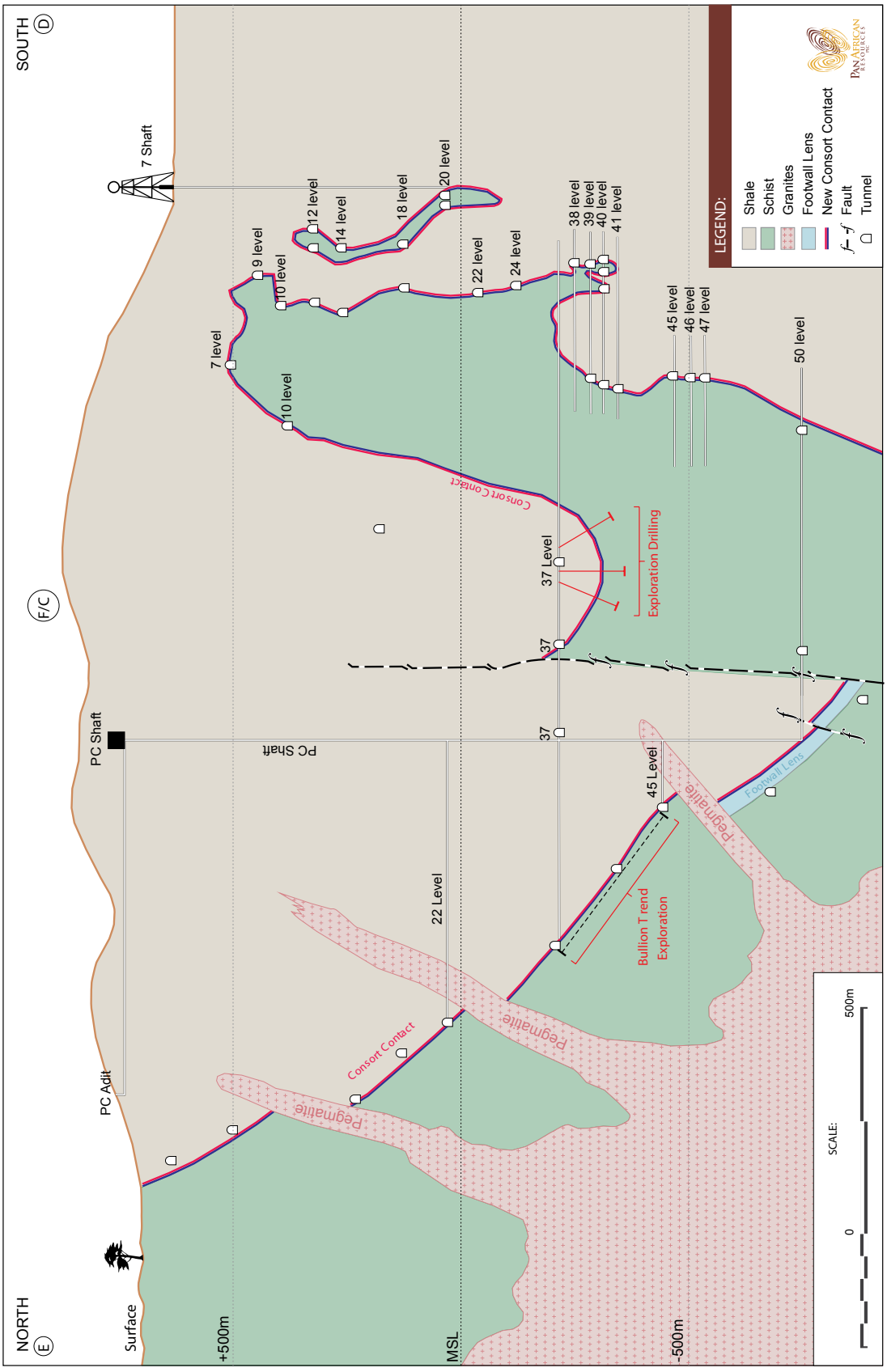


Figure 6: Geology at Consort Mine

Mineral resource

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Measured	0.39	8.67	3.34	0.11
	Indicated	0.18	11.58	2.14	0.07
	Inferred	0.28	8.99	2.51	0.08
Consort Mine	Total	0.85	9.41	7.99	0.26

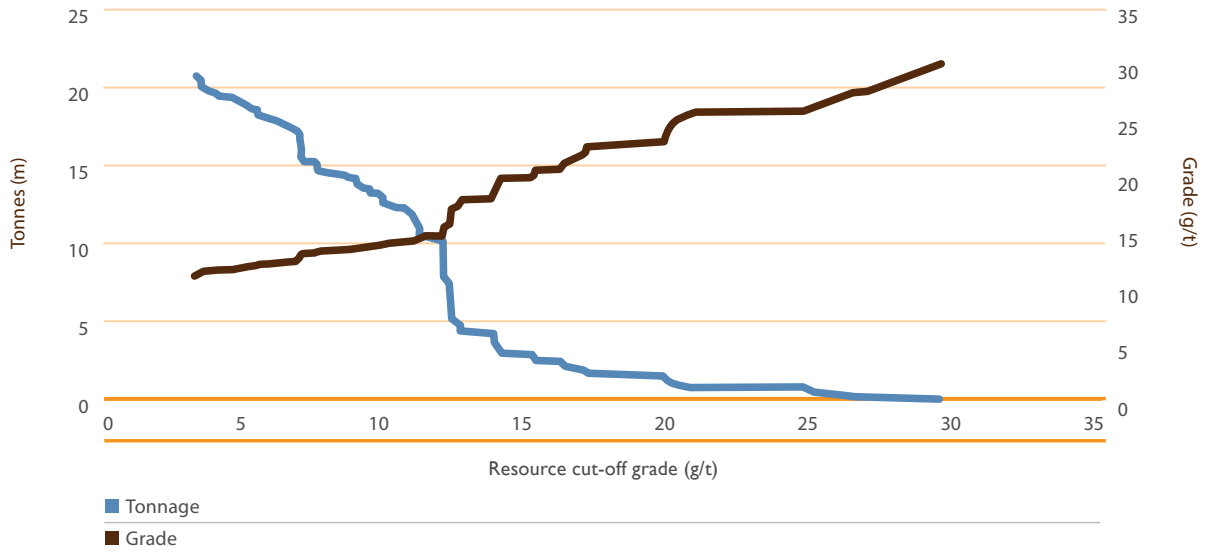
Mineral reserve modifying factors

As at 30 June 2013	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
Consort Mine	490 000	3.64	364	100	4	95	88.96

Mineral reserve

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
		0.09	7.83	0.70	0.02
	Probable	0.15	7.71	1.15	0.04
Consort Mine	Total	0.24	7.76	1.85	0.06

Consort Mine Grade-Tonnage Curve (Measured/Indicated Resources)



Barberton Tailings Retreatment Project

The final stage in the Barberton Tailings Retreatment Project (BTRP) was completed during June 2013. The first gold pour on 27 June 2013 was a triumph for the management team of Barberton Mines for bringing this value-adding mineral asset to fruition. The management team is proud to announce that the project was in time and within budget, testifying the excellent leadership in the project execution. The BTRP will contribute an additional 20 000 oz of gold sold to the bottom line of Barberton Mines. The project is planned to operate for a LoM of six to seven years. An additional inferred mineral resource has been identified, which will possibly extend the LoM to 12 years.

Mineral resource

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Measured	–	–	–	–
	Indicated	7.28	1.56	11.23	0.36
	Inferred	9.72	1.20	11.58	0.36
BTRP	Total	17.00	1.34	22.81	0.72

Additional inferred resources include the Camelot dump – 3.04 million tonnes – and the Segalla dump – 6.67 million tonnes.

Mineral reserve modifying factors

As at 30 June 2013	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
BTRP	490 000	–	–	–	–	–	36

Mineral reserve

As at 30 June 2013	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Proved	–	–	–	–
	Probable	7.28	0.56	4.07	0.13
BTRP	Total	7.28	0.56	4.07	0.13

The table below forms the keynotes to the sources of material that constitute the above mineral reserve.

Slimes dump	Tonnes	Grade (g/t)	Au content (kg)	Ounces (oz)
Fairview Bramber low grade	2 369 655	0.50	1 180	37 934
Fairview Bramber high grade	758 496	1.59	1 206	38 770
Fairview Harper South	1 082 970	0.66	709	22 808
Fairview Harper North	2 693 250	0.24	656	21 093
Calcine Northern Segalla	378 861	0.83	314	10 109
Total	**7 283 232**	**0.56**	**4 065**	**130 714**

Advanced infill drilling and metallurgical testwork was concluded during the year on the Calcine Northern Segalla slimes. The Calcine Northern Segalla tonnage increased by 30% from 290 000 tonnes (2012) to 378 861 tonnes, with an attribute of 10 109 oz at a recoverable grade of 0.83 g/t, as shown in the table above.

Reconciliation of mineral resources and mineral reserves

Mineral resource reconciliation: 2012 to 2013	Gold (kg)	Gold (Koz)
Balance as at March 2012	91 688	2 947.8
Mined during 2012/13	(2 710)	(87.1)
Addition	20 568	661.3
Balance as at end June 2013	109 546	3 522.0
Variance	17 858	574.2

Mineral reserve reconciliation: 2012 to 2013	Gold (kg)	Gold (Koz)
Balance as at March 2012	36 073	1 159.7
Mined during 2012/13	(2 633)	(84.6)
Addition	3 210	103.20
Balance as at June 2013	36 650	1 178
Variance	577	18.55

During the 2013 financial year, the following significant changes to resources occurred:

- The Camelot Tailings dam was included as an inferred resource (slimes dumps). The Camelot dam contains 3 045 000 tonnes at 1.03 g/t.
- The Segalla Tailings dam was included as an inferred resource (slimes dumps). The Segalla dam contains 6 673 000 tonnes at 1.26 g/t.
- Reinterpretation of the Western Cross section at Sheba added 225 450 tonnes at 4.1 g/t to the indicated resource.
- Extension of the Fairview Royal Reef on development exposures and borehole intersections into Sheba ground added 35 510 tonnes at 8.5 g/t and 42 500 tonnes at 6.0 g/t to indicated and inferred resources respectively.
- The Commitment Reef at Fairview added 14 220 tonnes at 16.9 g/t to indicated and 76 860 tonnes at 7.3 g/t to inferred resources.
- Also at Fairview, the Rossiter Reef added 60 650 tonnes at 29.7 g/t to indicated and 49 470 tonnes at 28.4 g/t to inferred resources.

As a result of the changed detailed above, the Barberton Mines mineral resource inventory posted the following changes for 2013:

- Barberton Mines mineral reserve increased by 18 547 oz contained gold.
- increased Barberton Mines mineral resource by 574 164 oz contained gold.
- decreased Barberton Mines measured mineral resource by 39 898 oz contained gold.
- increased Barberton Mines indicated mineral resource by 43 490 oz contained gold.
- increased Barberton Mines inferred mineral resource by 570 571 oz contained gold.

Barberton Mines mineral resource and reserve reconciliation: 2012 to 2013

As at 30 June 2013, Barberton Mines reported a mineral reserve of 1 178 311 oz and mineral resource of 3 521 990 oz contained gold. The measured and indicated mineral resources are inclusive of those resources modified to produce the mineral reserves. Reserves are reported as mill-delivered tonnes at the grade recovered, having duly considered all modifying factors.

Summary comment on mineral resource movement

Year on year, Barberton Mines' mineral resources had a positive variance of 574 164 oz contained gold. This was a result of the addition of new resources from an aggressive exploration strategy at each of the operating mines and the inclusion of the Segalla and Camelot slimes dams.

As indicated in the table above, Barberton Mines' ore resource as at 30 June 2013 reflected a year-on-year depletion by mining of 87 128 oz.

Summary comment on mineral reserve movement

The report date for reserves and resources was moved from end March to end June, to bring it in line with Evander Mine's reporting cycle.

There was a year-on-year positive variance of 18 547 oz with respect to the mineral reserves.

During the past year, Barberton Mines collared 191 underground boreholes during the year and drilled 16 937 m of core. A total of 173 significant intersections were returned, of which 95 were above the pay limit and a further 78 marginal grade intersections. The average value of all 95 economic intersections comes to 19.58 g/t over a width of 110 cm.

The following are the most significant results obtained during the year:

Operation	Bh No.	cm	g/t	Description
Sheba	EBR 19	72	162.50	Thomas Reef
Sheba	36 ZK MF 06	89	192.61	ZK Below 35 level
Sheba	36 ZK MF 06	105	40.45	ZK Below 35 level
Sheba	36 ZK MF 07	85	38.09	ZK Below 35 level
Sheba	36 ZK MF 08	85	173.53	ZK Below 35 level
Sheba	36 ZK MF 08	51	71.10	ZK Below 35 level
New Consort	40L6	91	36.70	Footwall lense mineralisation
New Consort	3#7–25	261	60.80	3 Shaft ore shoot
New Consort	3#7–25	261	30.92	3 Shaft ore shoot
New Consort	3#7–27	188	48.05	3 Shaft ore shoot
New Consort	3#7–29	94	50.30	3 Shaft ore shoot
New Consort	23W4–6	188	17.38	MMR mineralisation

Total mineral resource and mineral reserve for Barberton Mines

Mineral resource

As at 30 June 2013 Barberton Mines	Category	Tonnes (million)	Grade (g/t)	Contained Gold Tonnes	Contained Gold Moz
	Measured	3.20	7.80	24.96	0.80
	Indicated	10.34	3.90	40.15	1.29
	Inferred	14.41	3.10	44.44	1.43
Total Barberton Mines	Total	27.95	3.90	109.55	3.52

Mineral reserve modifying factors

As at 30 June 2013	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
	490 000	5.60	–	100	5	95	90

Mineral reserve

As at 30 June 2013 Barberton Mines	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Proved	1.75	6.44	11.28	0.36
	Probable	10.07	2.52	25.37	0.82
Total Barberton Mines	Total	11.82	3.10	36.65	1.18

Frans Chadwick, the chief surveyor at Barberton Mines, signs off mineral resources for Barberton Mines. He is a member of the South African Council for Professional and Technical Surveyors (PLATO) (PMS0033). Mr Chadwick is based at Fairview Mine, GMO Building, Barberton, 1300.

Mr Chadwick has confirmed in writing that the information disclosed is compliant with section 12 of the JSE Listings Requirements and Table 1 of the SAMREC Code, 2009, and that it may be published in the form and context in which it is intended.

Evander Mines

Introduction

Evander Mines is located approximately 120 km east-south-east from Johannesburg in Mpumalanga. It is close to Secunda, which hosts the Sasol II Plant, which exploits several coal seams in the area. Exploration in this area started in 1903 with the advent of diamond drilling and progressed, intermittently, through various major exploration phases, up to the incorporation of the first mine (Winkelhaak Mine) in 1955. Since then, three other mines were brought into production – namely Leslie Mine, Braken Mine and Kinross Mine.

Evander Mine's mineral assets comprise a set of mineral resources that are from early prefeasibility studies to a production mine. The current revenue streams for Evander Mines are generated from the Evander 8 Shaft and surface sources. The principal economical horizon mined at Evander Mines is the Kimberley Reef, which was deposit in the Witwatersrand sedimentary basin, ca 2 300 million years ago.

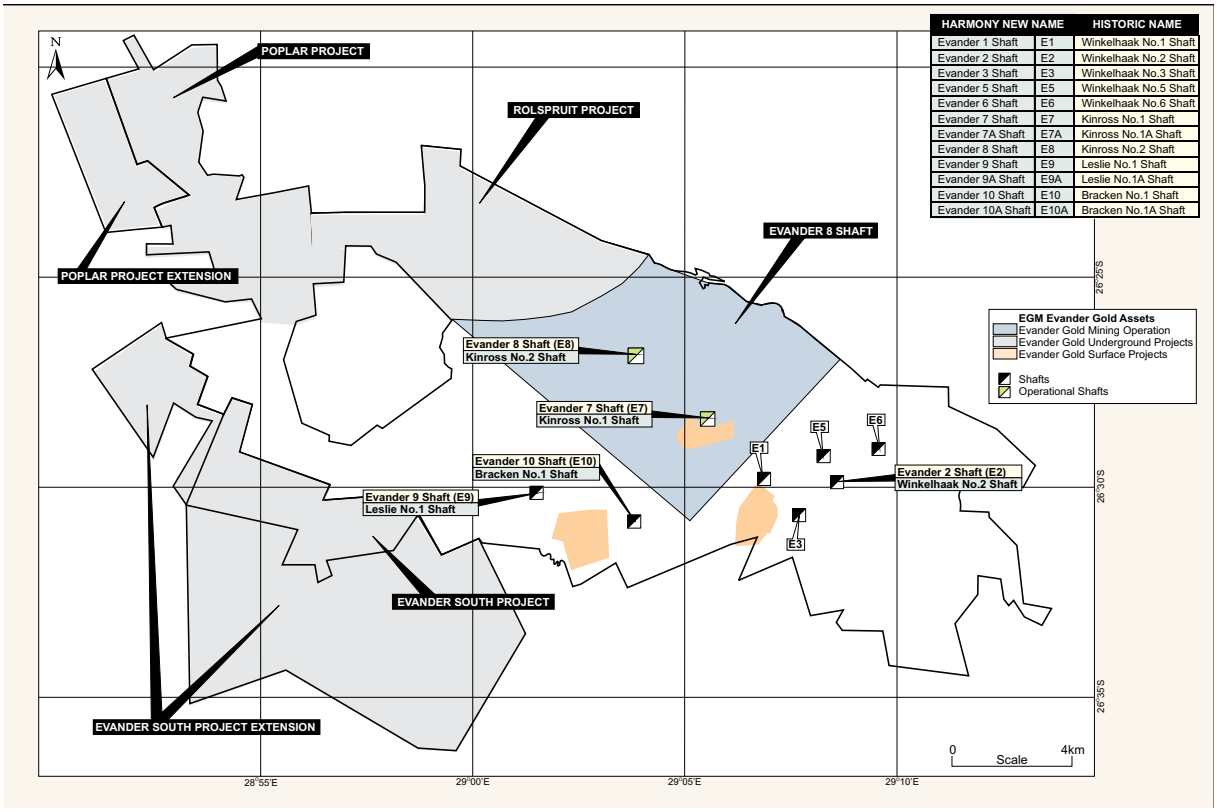


Figure 7: Current and historic nomenclature for the Evander gold mining operation

Evander 8 Shaft

The Evander 8 Shaft is situated about 5 km north-west of the town of Evander. It covers an area of 44 km^2. It sits between Rolspruit to the north-west and 7 Shaft to the south-east. Mining occurs in the No. 2 Decline area on the western side, at a depth of 2 100 m to 2 300 m below surface.

Geology

Evander 8 Shaft is situated in the distal part of the Evander Basin. The Kimberley Reef is the only economical horizon that is mined. The Kimberley Reef is situated stratigraphically in the lower part of the Turffontein Subgroup, which is in the upper portion of the Central Rand Group. The Kimberley Reef presents the distal facies of a fluvial placer that was deposited by a system of braided-streams. Evander 8 Shaft is currently mining the western high-grade area of the Kinross Payshoot, a payshoot that extents for over 17 km from the south-east to the north-west of the basin (see Figure 8).

The reef is an oligomictic, pebbly conglomerate and comprises a composite sequence of channel-sediments that define longitudinal gravel bars and sand bars with pebbly veneers. The reef in the No. 2 Decline area strikes in an east-west direction and dips to the north at about 10 degrees. The area is also divided by two major normal faults, striking in an east-north-east to west-south-west direction. The reef thickness varies from a waste on contact (WOC) up to a 50 cm well-developed oligomictic conglomerate. Average reef thickness is about 35 cm. High gold values in the Kimberley Reef are mostly located at the base of the unit, and are associated with the presence of carbon and some visible gold on the footwall contact.

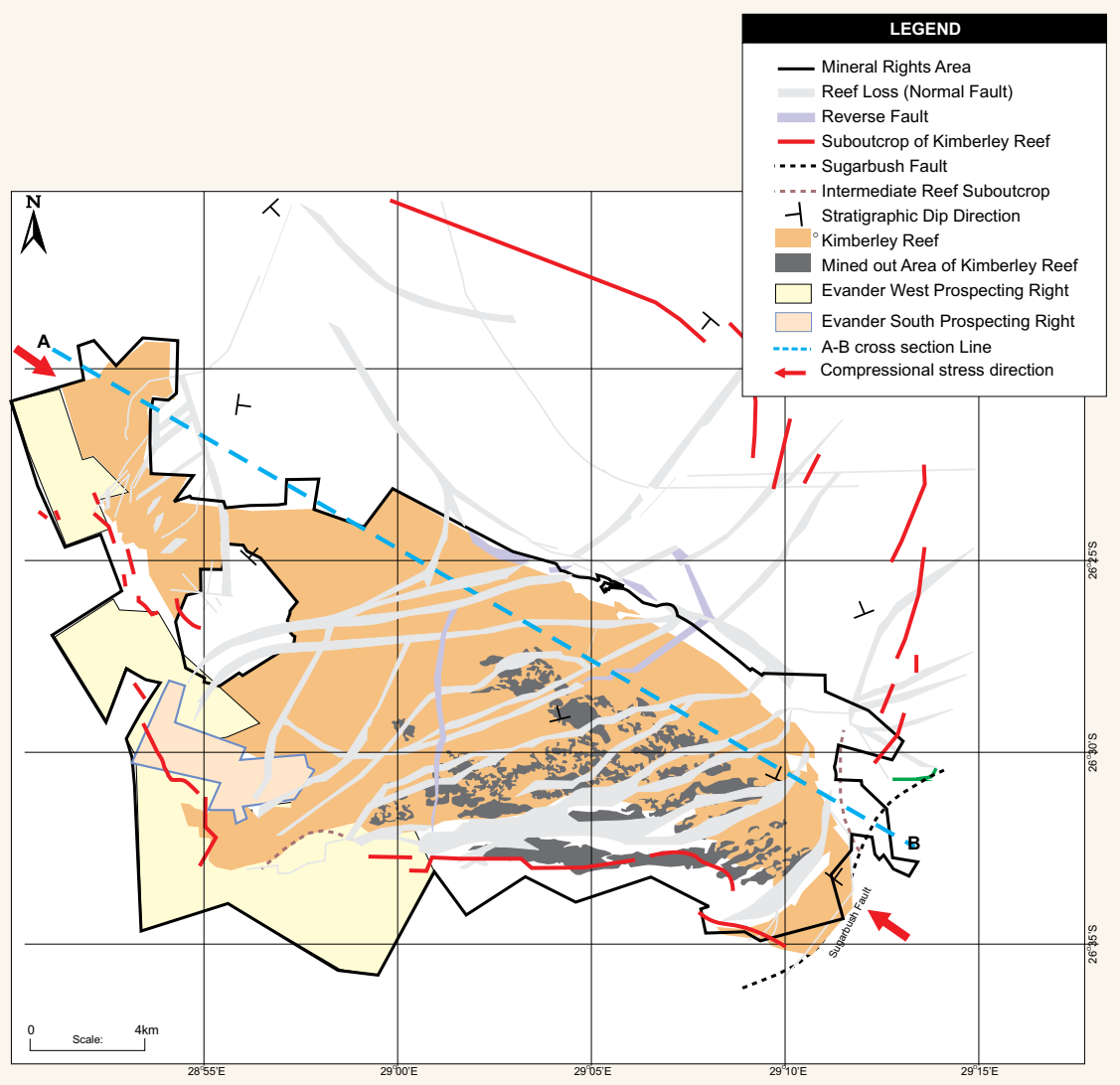


Figure 8: The structural geology of the Evander basin

Mineral resource estimation

The estimation method used for generating local grade estimates on Evander 8 Shaft is ordinary kriging (OK). The orientations and ranges of each geozone's semi-variogram are used to determine the kriging search parameters, and the estimation parameters are also optimised. Estimates are kriged into 30 m x 30 m blocks for the measured resources, 60 m x 60 m blocks for indicated resources and 120 m x 120 m blocks for inferred resources. The measured and indicated resource models are then tested on cmgt kriging efficiency (KEFF) and slope of regression (SR) and are merged together with the inferred model to produce a combined kriged block model.

Underground exploration/development result

All underground borehole intersections are included in the estimation model. All new underground sampling from stoping and development is added to update the estimation model.

Development results (metric) June 2012–April 2013					
	Reef (metres)	Sampled (metres)	Channel width (cm)	Channel value (g/t)	Gold (cmg/t)
Evander 8 Shaft	1 333	1 332	31.02	56.44	1 751
All reefs	1 333	1 332	31.02	56.44	1 751

Mining Rights

The mineral rights pertaining to Evander Mines were issued by the Department of Mineral Resources in terms of Item 7 of Schedule II of the Minerals and Petroleum Resources Development Act, 2002 (No 28 of 2002) ("MPRDA") and were registered on 15 October 2010.

Mining License	Type of licence	Licence no.	Area (ha)	Expiry date	Status
Evander South	Prospecting	MP 30/5/1/2/2/248 PR	2,551	17th Oct 2008	Renewal application lodged.
Evander South Extension	Prospecting	MP 30/5/1/2/2/4272 PR	11,189	19th Oct 2016	Approved, recently executed.
E8	Mining	MP 30/5/1/2/2/126 MR	36,898	28th Apr 2038	Conversion application approved and in effect.

Mining Method: Evander 8 Shaft mining method is footwall development to reef horizon and then developing on reef horizon (raise). The mining follows an upside down Christmas tree sequence to extract the reef horizon. Old areas of the mine are also cleaned up by means of vamping activities.

Mineral resource

As at 30 June 2013 Evander 8 Shaft	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
Kimberley Reef	Measured	2.57	14.06	36.08	1.16
	Indicated	2.69	15.56	41.81	1.34
	Inferred	11.39	10.23	116.49	3.75
Evander 8 Shaft	Total	16.64	11.68	194.38	6.25

Modifying factors

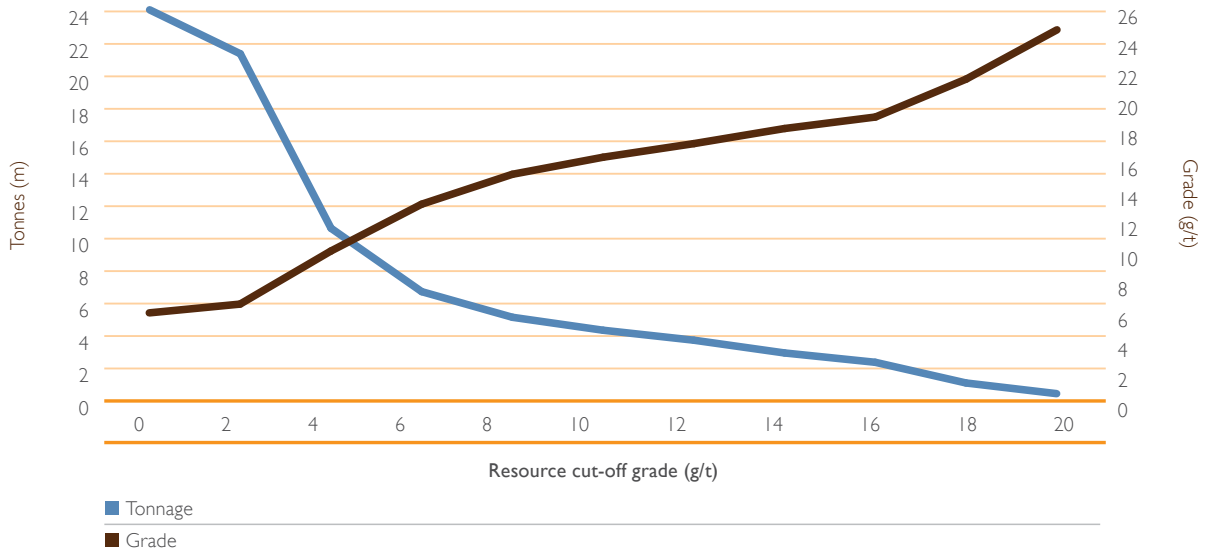
Evander 8 Shaft	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
Kimberley Reef	490 000	7.42	936	126	17.1	73.5	96.4

Mineral reserve

Evander 8 Shaft	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
Kimberley Reef	Proved	2.35	7.37	17.30	0.556
	Probable	2.35	7.61	17.86	0.574
Evander 8 Shaft	Total	4.69	7.49	35.16	1.13

LoM plan (grade tonnage curves)

Evander 8 Shaft: Grade Tonnage Curve (Measured/Indicated Resources)



Surface sources

Surface resources are a cleaning-up operation of old waste rock dumps, footprints of old metallurgical plants and other material containing gold.

Material of about two years has been identified and has been sampled, to sustain production of about 20 000 t per month.

Mineral resource

As at 30 June 2013 Surface sources	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
Surface material	Measured	0.29	0.94	0.27	0.009
	Indicated	0.05	0.76	0.04	0.001
	Inferred	0.16	0.93	0.15	0.005
Surface sources	Total	0.50	0.92	0.46	0.015

Modifying factors

Surface sources	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
Kimberley Reef						100	80

Mineral reserve

As at 30 June 2013 Surface sources	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
Surface material	Proved	0.26	1.02	0.26	0.008
	Probable	–	–	–	–
Surface sources	Total	0.26	1.02	0.26	0.008

Evander 7 Shaft

The Evander 7 Shaft is located south-east of 8 Shaft (approximately 3 km apart) and hoists 8 Shaft's ore to surface. Due to the increased gold price over the last few years, an opportunity arose to investigate the viability to reclaim ore via vamping operations at 7 Shaft. Other organic growth projects include the 2010 payshoot at the No. 3 Decline at 7 Shaft.

Mineral resource

As at 30 June 2013 Evander 7 Shaft vamping	Category	Tonnes million	Grade g/t	Contained gold Tonnes	 Moz
Kimberley Reef	Measured	0.07	3.29	0.22	0.007
	Indicated	–	–	–	–
	Inferred	–	–	–	–
Evander 7 Shaft vamping	Total	0.07	3.29	0.22	0.007

Modifying factors

Evander 7 Shaft vamping	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
Kimberley Reef						85	96.4

Mineral reserve

As at 30 June 2013 Evander 7 Shaft vamping	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	 Moz
Kimberley Reef	Proved	0.07	2.80	0.19	0.006
	Probable		–	–	–
Evander 7 Shaft vamping	Total	0.07	2.80	0.19	0.006

Evander Projects

The Evander gold assets also consist of exploration projects that are at varying stages of exploration and development. The individual projects and level of study are summarised below and illustrated in map below.

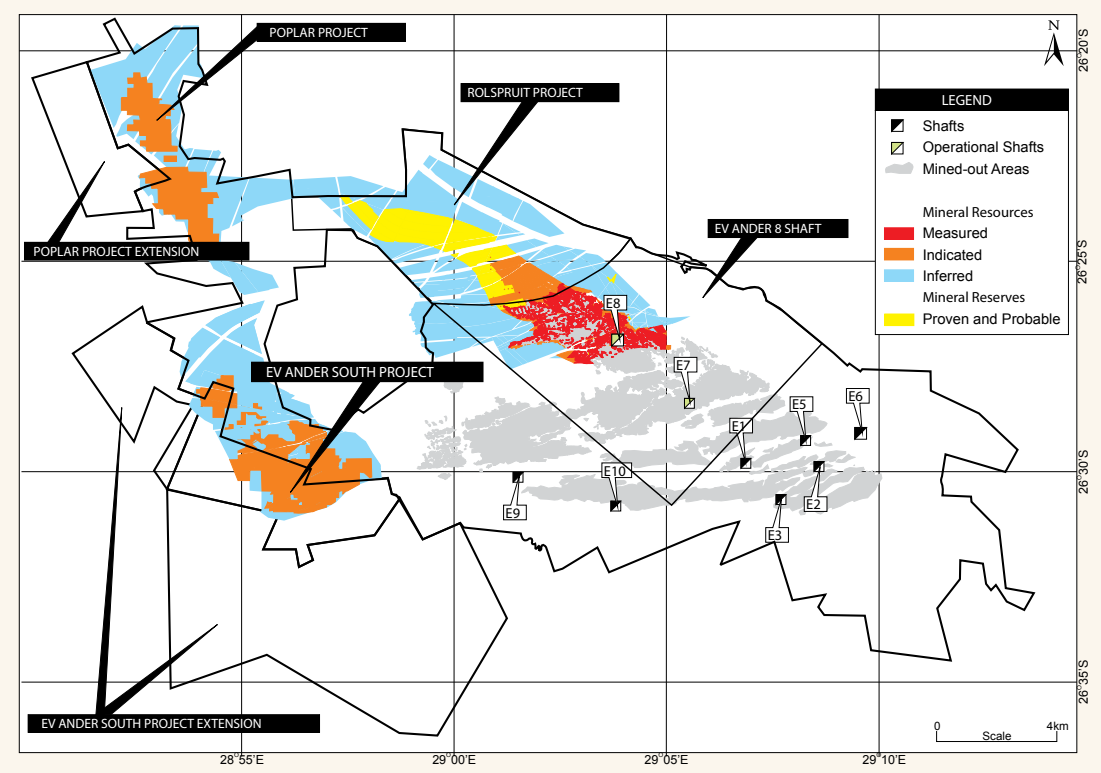


Figure 9: Evander projects

Projects

1. The Rolspruit Project is at preliminary feasibility study (PFS) stage with a PFS by Turgis Consulting completed in October 2011 and updated in April 2012. Probable mineral reserves of 6.46 Moz contained gold have been estimated and declared for the Rolspruit Project.
2. The Poplar Project has a definitive feasibility study (DFS) completed in 2003, which was updated in 2006. Subsequent exploration drilling was undertaken to define the mineral resource, which is 6.27 Moz, of which 4.32 Moz is an indicated resource.
3. The Evander South Project is at PFS level. The 2010 PFS undertaken by SRK indicated 6.01 Moz mineral resources, of which 3.46 Moz is an indicated mineral resource.
4. Evander Gold Surface Projects, namely:
   a. the Libra Project, which is at PFS level, with estimated indicated mineral resources of 1.90 Moz contained gold
   b. the Mini-Libra Project, which is at DFS level, and probable reserves of 0.41 Moz have been estimated.

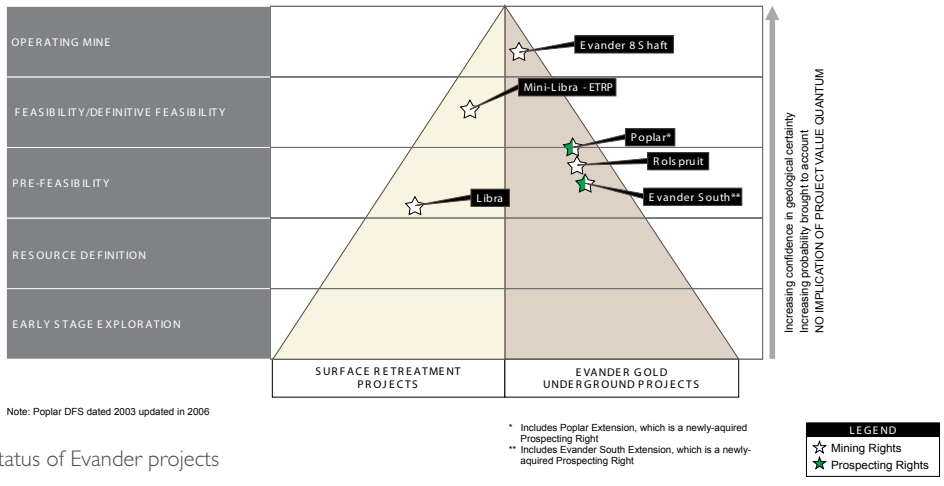


Figure 10: Status of Evander projects

Rolspruit

Background

The Rolspruit Project is an exploration project and the orebody is a down-dip extension of the Kinross Payshoot, currently being exploited at Evander 8 Shaft. The project is located immediately adjacent to Evander 8 Shaft as shown in Figure 9. Exploration on the Rolspruit Project commenced in 1955, and by 1988 a total of 53 boreholes had been completed by various companies, with accompanying reef deflections.

Geology

The Rolspruit Project is the down-dip extension of the Kinross Payshoot and is in the most distal part of the Evander Basin. The reef has an average dip of between 9 and 22 degrees to the north. The Kimberley Reef varies in thickness from 10 cm to about 60 cm. The conglomerate is made up of rounded, quartz clasts supported by a quartz matrix. Mineralisation is similar to that of Evander 8 Shaft in the No. 2 Decline area. The nature and amount of pyrite mineralisation are relative good indicators of gold grade values. Buckshot pyrite and flyspeck carbon are indicators of high gold values.

Mineral resource

The mineral resource estimation was performed by ExploreMine Consultants (Pty) Ltd in April 2011. An extensive channel sampling database for the adjoining Evander 8 Shaft area and the surface drilling data for Rolspruit formed the dataset for the resource estimation.

Macro ordinary kriging was applied to indicated resources. Sichel's-T estimate techniques were used to classify the inferred mineral resource. The indicated mineral resource estimation was defined on the Evander 8 Shaft channel sampling dataset and subsequent geozones. The block size was estimated into 60 m x 60 m blocks.

As at 30 June 2013 Rolspruit	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
Kimberley Reef	Measured	–	–	–	–
	Indicated	24.53	10.89	267.22	8.59
	Inferred	0.94	9.17	8.59	0.28
Rolspruit	Total	25.47	10.83	275.81	8.87

Modifying factors

As at 30 June 2013 Rolspruit	Gold price (R/kg)	Cut-off value (g/t Au)	Cut-off value (cmg/t)	Stoping width (cm)	Dilution (%)	MCF (%)	PRF (%)
Kimberley Reef	490 000	4.32	475	110	16.5	85	96.4

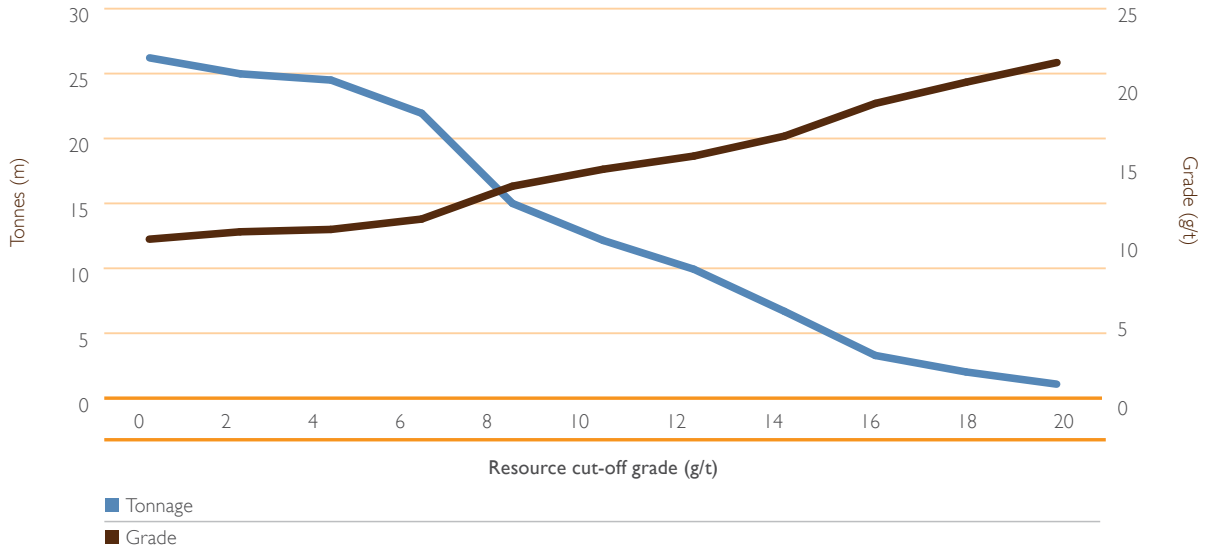
Mineral reserve

Mineral reserves declared are based on the PFS conducted by Turgis dated October 2011 (updated in April 2012).

As at 30 June 2013 Rolspruit	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
Kimberley Reef	Proved	–	–	–	–
	Probable	23.36	8.6	201.00	6.46
Rolspruit	Total	23.36	8.6	201.00	6.46

LoM plan (grade tonnage curves)

Grade Tonnage Curve for Rolspruit (Indicated Resource)



Poplar

Background

The Poplar Project is situated in the north-western limb of the Evander Basin, west of the town of Leandra. Exploration on the Poplar Project commenced in the mid-1950s and has been the subject of several studies. A total of 104 boreholes were drilled in the project area, which includes 146 deflections. A total of 46 boreholes were drilled by Harmony from 2007 to 2010.

Geology

The Kimberley Reef occurs at a depth below surface of between 500 m in the west and 1 200 m in the east. The reef strikes north-south and dips 9 degrees to 24 degrees to the east. The Kimberley Reef comprises a sequence of fluvial, channel sediments that were deposited in a braided stream environment. Deposition of the reef was influenced by the footwall lithologies. The Kimberley Reef horizon has a channel width of approximately 30 cm. Generally thin reef hosting high gold grades. The reef has north-east–south-west trending payshoots, which is evident in other parts of the Evander Basin.

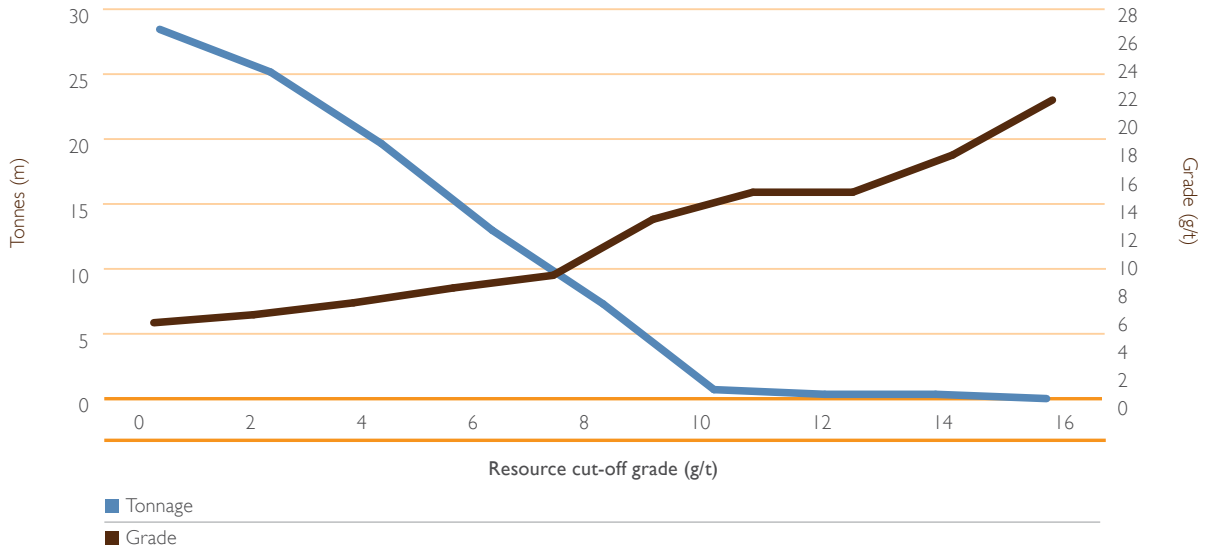
A series of seven major, sub-parallel and fairly evenly spaced faults traverse the property. These are all orientated in a roughly north-northeast–south-southwest direction. Throws of these faults vary between 50 m and 400 m.

Mineral resource

As at 30 June 2013 Poplar	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	 Moz
Kimberley Reef	Measured	–	–	–	–
	Indicated	18.74	7.16	134.21	4.32
	Inferred	9.78	6.22	60.77	1.95
Poplar	Total	28.52	6.84	194.98	6.27

LoM plan (grade tonnage curves)

Grade tonnage curve for Poplar (Indicated Resource)



Evander South

Background

The Evander South Project is in the south-western limb of the Evander Basin. It is located directly west of Evander 9 Shaft and is south of the Poplar Project. A total of 116 boreholes were drilled in the project area, and 475 deflections. A total of 43 boreholes were drilled by Harmony during 2008 and 2009.

Geology

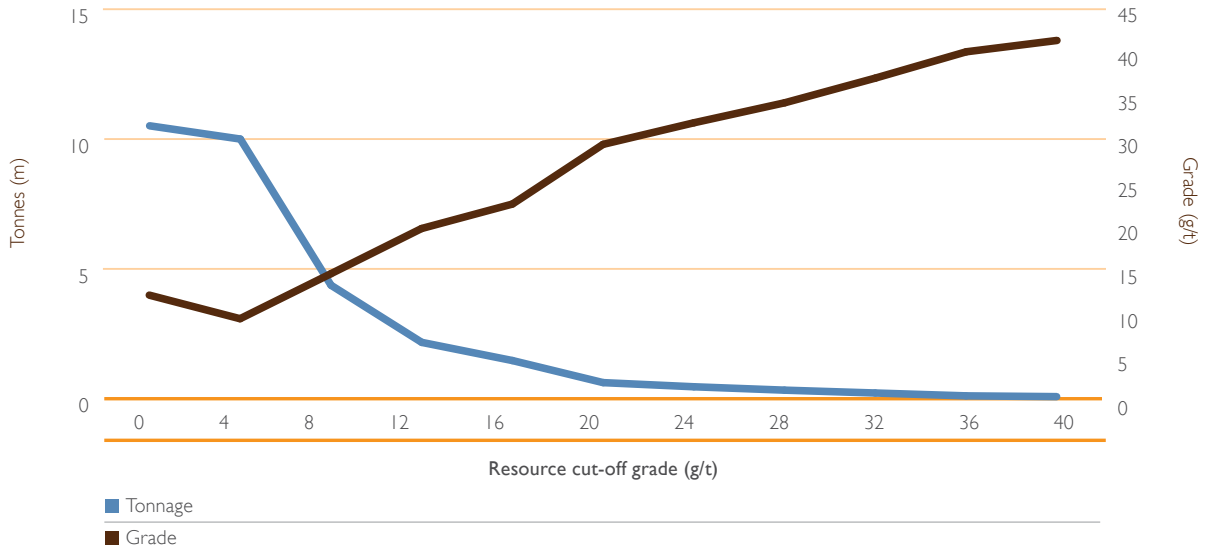
The Kimberley Reef occurs at a depth of between 300 m in the west and 1 200 m in the east below surface. The reef strikes north-south and dips six degrees to 19 degrees. The Kimberley Reef comprises a sequence of fluvial channel sediments that were deposited in a braided stream environment. Deposition of the reef was influenced by the footwall lithologies. The high-grade Kimberley Reef is associated with carbon and is a narrow, small pebble, clast-supported and well-packed oligiomictic conglomerate. Carbon was present in several of the borehole Kimberley Reef intercepts drilled in the project area.

Mineral resource

As at 30 June 2013 Poplar	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	 Moz
Kimberley Reef	Measured	–	–	–	–
	Indicated	13.56	7.93	107.47	3.46
	Inferred	14.73	5.37	79.16	2.55
Total Evander South	Total	28.29	6.60	186.63	6.01

LoM plan (grade tonnage curves)

Grade tonnage curve for Evander South (Indicated Resource)



Libra

Background

Libra is a surface dump retreatment project that exploits tailings dams which were generated from historical mining activities at the Kinross, Winkelhaak and Leslie mines. The tailings dams in Evander were drilled and sampled. A total of 158 holes were drilled on a 200 m x 200 m grid. Samples were composited at intervals of 1.5 m and subjected to metallurgical test-work.

Mineral resource

As at 30 June 2013 Libra	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	 Moz
	Measured	–	–	–	–
	Indicated	202.91	0.29	59.00	1.90
	Inferred	–	–	–	–
Libra	Total	202.91	0.29	59.00	1.90

Mineral reserve

A feasibility study was undertaken to re-treat only the Kinross Dam resource, ETRP. Modifying factors were applied to convert the mineral resource to a probable reserve. The milling capacity at the Kinross Plant contributed to a favourable economic modifying factor, resulting in favourable processing and capital costs, thus allowing the conversion to be stated.

As at 30 June 2013 ETRP (Kinross dams)	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	 Moz
	Proved	–	–	–	–
	Probable	39.62	0.32	12.71	0.409
ETRP (Kinross dams)	Total	39.62	0.32	12.71	0.409

Evander 7 Shaft No. 3 Decline – 2010 Payshoot

Background

The No. 3 Decline – 2010 Payshoot area is situated north-east of Evander 7 Shaft. It is at a depth of between 1 600 m and 2 450 m below surface. The No. 3 Decline was extensively mined in the past up to 20 Level (1 900 m below surface). The area is accessible by a decline system from 15 Level down to 21 Level. The 2010 Payshoot runs parallel to the Kinross Payshoot, east of the No. 3 Decline. Surface boreholes in this area indicate possible payable reef.

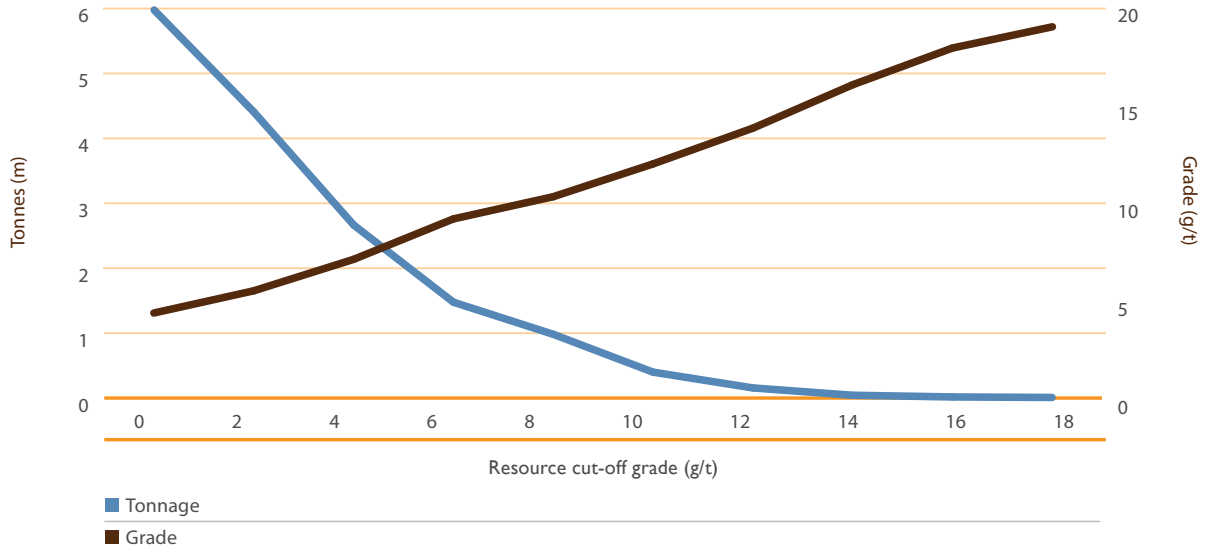
Geology

The Kimberley Reef strikes in an east-west direction and dips at 28 degrees to the north. The Foot Wall Sill Break is an intrusive (sill) that is a reverse fault, which displaces the reef horizon by 90 m. The Kimberley Reef at Evander 7 Shaft is a well-developed oligomictic conglomerate up to one metre thick, averaging about 37 cm. The Kimberley Reef in this area is very similar to that of 8 Shaft. High gold values in the Kimberley Reef are mostly located at the base of the unit and are associated with the presence of carbon and some visible gold on the footwall contact.

Mineral resource

As at 30 June 2013 7 Shaft No. 3 Decline & 2010 Payshoot	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
Kimberley Reef	Measured	0.65	10.30	6.73	0.21
	Indicated	0.57	9.15	5.20	0.17
	Inferred	5.54	10.78	59.74	1.92
7 Shaft No. 3 Decline & 2010 Payshoot	Total	6.76	10.60	71.67	2.30

No. 3 Decline - 2010 Payshoot: grade tonnage curve (Measured/Indicated Resource)



Total mineral resource and mineral reserve for Evander Mines

Evander Mines – total mineral resource

As at 30 June 2013 Evander Mines	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Measured	3.58	12.11	43.31	1.39
	Indicated	263.04	2.34	614.95	19.77
	Inferred	42.53	7.64	324.91	10.45
Total Evander Mines	Total	309.15	3.18	983.17	31.61

Evander Mines – total mineral reserve

As at 30 June 2013 Evander Mines	Category	Tonnes (million)	Grade (g/t)	Contained gold Tonnes	Contained gold Moz
	Proved	2.67	6.65	17.75	0.57
	Probable	65.32	3.55	231.58	7.44
Total Evander Mines	Total	67.99	3.67	249.33	8.02

Phoenix Platinum

History of Phoenix Platinum

The concept of recovering the PGM 6Es from tailings was pioneered by Phoenix Platinum through an antecedent company GB Mining (Pty) Limited which, together with Aquarius Platinum Limited, built the RK1 floatation plant in the Kroondal area.

Pan African Resources acquired 100% of Phoenix Platinum from Metorex Limited (Metorex) on 21 May 2009. Phoenix Platinum recovers PGM 6E from old tailings and current arisings through mineral rights agreements from the IFM Lesedi Mine dams and current arisings, the Elandskraal dumps and pits, and the Kroondal dump. These tailings are covered through various agreements with Phoenix Platinum to be the feed source for a 240 ktpa chrome tailings retreatment plant (CTRP).

Buffelsfontein (IFM Lesedi Mine dams and current arisings)

IFM operates a chromite ore beneficiation plant that feeds a number of chromite furnaces on its property to produce ferrochrome. The chromite ore beneficiation plant rejects gangue minerals in the form of tailings (current arisings) to the tailings dams. The bulk mass of the tailings is made up of pyroxenites, some unrecovered chromite and PGM 6E minerals associated with pyroxenites. Historically, IFM mined mainly the MG1 seam, with lesser amounts of MG2 included. The PGM 6Es mineral rights in the IFM tailings dams, and current arisings situated on the farm Buffelsfontein, were acquired in 2008.

The IFM tailings dams were constructed in 2006 and, to date, have been used for the deposition of tailings material from the IFM chrome beneficiation plant. There are four tailings dams on IFM's Lesedi Mine, which are currently being retreated on a rotational plan.

Elandskraal

The tailings in the pits was created by historic mining of the MG1 and MG2 orebodies by Samancor and Hernic mining operations. In 2003, Minco purchased the operations from Hernic and started chromite reclamation from the dumps. Phoenix Platinum has an agreement with Minco to process the Elandskraal dumps and pits.

Kroondal

Metorex acquired the Kroondal resource from the joint venture between GB Mining and Exploration SA (Pty) Limited and Aquarius Platinum SA (Pty) Limited in 2008. This dump was generated by tailings from the mining of the LG6 chromitite layer of the Bushveld Igneous Complex at the Xstrata Kroondal operations.

The Elandskraal and Buffelsfontein mineral resources are situated 5 km east of Mooinooi, north of the N4 highway that connects Pretoria and Rustenburg in North West. The sites are accessed via the old Rustenburg/Pretoria road, which runs parallel to the N4 highway. The Kroondal mineral resource is 7 km east of Rustenburg on the old Rustenburg/Pretoria Road.

Regional geology

The Buffelsfontein, Elandskraal and Kroondal mineral resources originate from the mining of the Bushveld Igneous Complex. The chromitite layers in the western limb of the Bushveld Igneous Complex are confined to the critical zone of the layered complex and are grouped from the bottom upwards, into lower, middle and upper groups.

The middle group consists of four chromitite seams of which the sixth seam – numbered from bottom (MG1) to top (MG4) – is being mined. The mining that took place at Elandskraal and is still taking place at Buffelsfontein (IFM Lesedi Mine) are the MG1 and MG2 seams. The MG1 seam sits in the Lower Critical Zone of the Bushveld Igneous Complex, whereas MG2 is in the Upper Critical Zone of the Bushveld Igneous Complex. Both MG1 and MG2 dip at approximately 12 degrees to the north.

Deposit types

Mineralisation at Phoenix Platinum is classified as tailings dumps. The tailings from the various chromite mines are deposited onto a dump, which is then re-treated by Phoenix Platinum to recover the PGM's 6E.

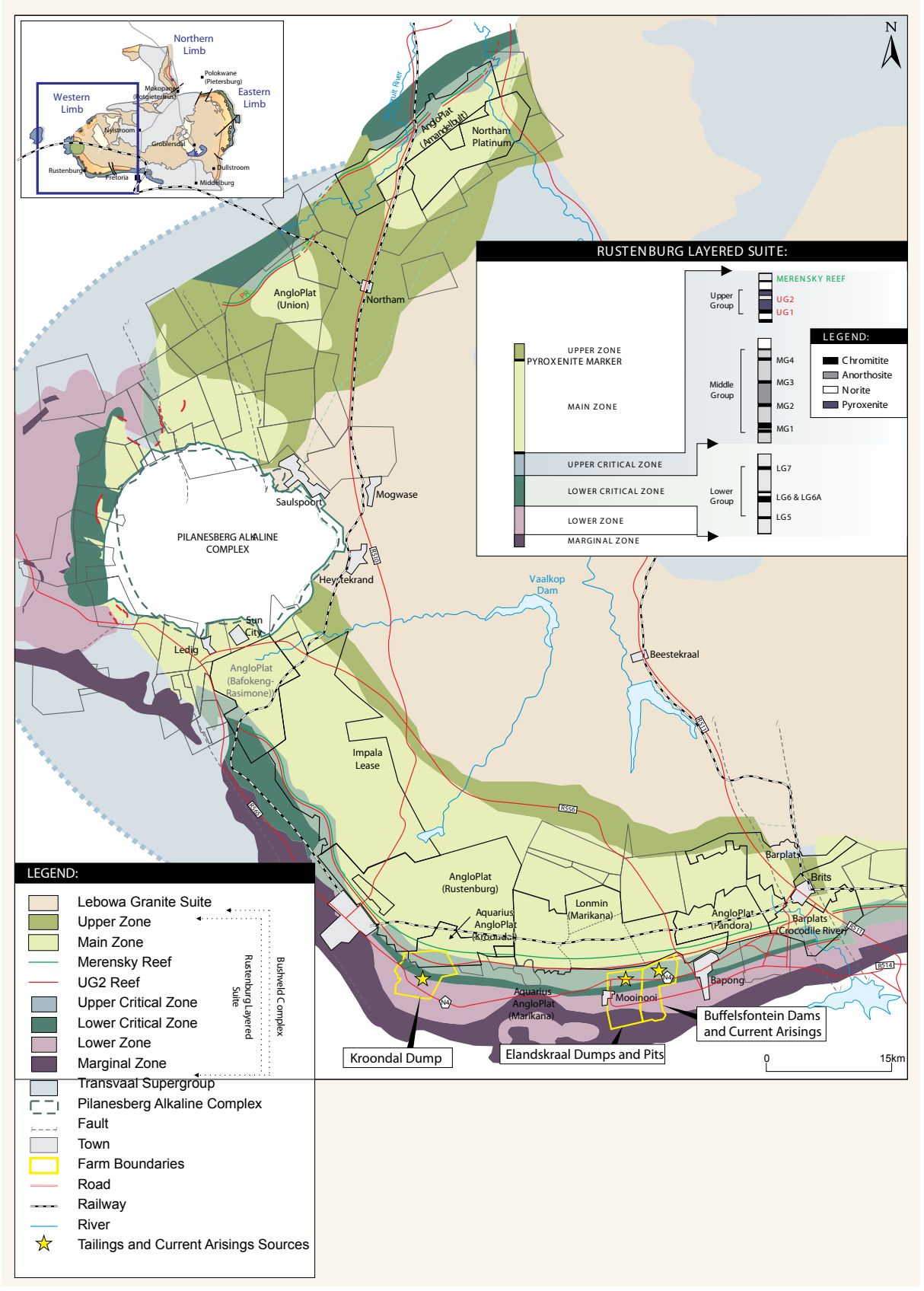


Figure 11: Geology of Western Limb – Bushveld Igneous Complex

Mineral resource estimation methodology

Buffelsfontein

Quantities

Dumps: The Buffelsfontein dumps were surveyed to obtain the in situ volumes. The tailings dams occupied 321 067.5 m^3. A bulk density of 1.54 t/m^3 was determined in a laboratory from dump samples, and this was used in the tonnage calculation for declaration of the resource. Tailings from the CTRP were added as an inferred resource; this was calculated using plant flow meters, densitometers and daily assays.

Current arisings: Current arisings tonnages were determined using a 15% extraction of the mineral reserves of Lesedi Mine. The inferred resource was determined using a 15% extraction of the inferred resource for Lesedi Mine.

Grade

Resource determination was done by drilling the resource dams on a grid pattern of 8 m x 8 m where possible. A composite sample of the drill hole was created and then analysed for the PGM 4E content at a minerals analysis laboratory. An inverse distance estimation technique was used to derive the mineral resource grade.

Elandskraal

Quantities

Resource volumes were determined by drilling the resource dumps, dams and pits on a grid pattern where possible. The grids at Elandskraal were less straight than at Buffelsfontein, due to the roughness of the terrain that made up the resource.

Information from this drilling process was modelled three-dimensionally by mineral resource specialists to obtain accurate resource tonnage determinations, which would form part of a SAMREC-compliant resource.

Grade

The information from the sampling process was analysed and the average grade for the dam and pits was determined, using and inverse distance estimation technique.

Kroondal

As at June 2013, the Kroondal resource was split into three areas:

- The Camelot Tailings dam was included as an inferred resource (slimes dumps). The Camelot dam contains 3 045 000 tonnes at 1.03 g/t.
- farm Kroondal 304JQ dump
- Wonderkop non-processed dumps
- Wonderkop processed dump.

Quantities

A volumetric survey was conducted on farm Kroondal 304JQ and on the Wonderkop non-processed dumps. Due to vegetation on Wonderkop processed dump, a volumetric survey in 2013 was not undertaken, and the resource was thus reclassified as an indicated resource. A bulk density of 2.04 t/m was used.

Grade

The area consists of the LG6 tailings dump at the dormant Kroondal Mine. A detailed competent persons report was completed in 2003 by Craton Resources CC, and the grade determined was 2 g/t PGE 6E.

Operations

Buffelsfontein

Location

Buffelsfontein dumps and current arisings are located on the farm Buffelsfontein 465JQ, portion 11 constituted by portions 20, 21, 22, 23 and 24, and portion 12. The satellite image below depicts the dumps and the decline shaft used to extract the current arisings.

Figure 12: Buffelsfontein

Mineral resource

As at 30 June 2013 Buffelsfontein	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	PGM 4E oz
Buffelsfontein tailings dams	Measured	494	3.66	1 808	58 130
	Indicated	–	–	–	–
	Inferred	274	2.72	745	23 961
Buffelsfontein current arisings	Measured	–	–	–	–
	Indicated	3 230	3.66	11 822	380 079
	Inferred	826	3.66	3 023	97 197
Buffelsfontein	Total	4 824	3.61	17 398	559 367

Modifying factors

A 45% recovery was used to convert mineral resource to mineral reserve.

Mineral reserve

As at 30 June 2013 Buffelsfontein	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	PGM 4E oz
Buffelsfontein tailings dams	Proved	494	1.65	814	26 158
	Probable	–	–	–	–
Buffelsfontein current arisings	Proved	–	–	–	–
	Probable	3 230	1.65	5 320	171 036
Buffelsfontein	Total	3 724	1.65	6 133	197 194

Mineral resource and reserve reconciliation

The mineral resources at Buffelsfontein increased from 364 000 oz PGMs to 559 367 oz PGMs. This significant increase can be attributed to the mineral resource from the IFM Lesedi Mine (current arisings).

The mineral reserve also increased from 130 186 oz PGMs to 197 194 oz PGMs. This significant increase can be attributed to the mineral reserve from the IFM Lesedi Mine (current arisings).

Elandskraal

Location

Elandskraal dumps, dams and pits are located on the farm Buffelsfontein 465JQ, portion 155, as shown below.

Figure 13: Elandskraal

Mineral resource

As at 30 June 2013 Elandskraal	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	PGM 4E oz
Mineral resource	Measured	1 149	2.45	2 815.05	90 506
	Indicated	145	2.04	295.80	9 510
	Inferred	42	2.00	84.00	2 701
Elandskraal	Total	1 336	2.39	3 194.85	102 717

Modifying factors

A 45% recovery was used to convert mineral resource to mineral reserve.

Mineral reserve

As at 30 June 2013 Elandskraal	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	PGM 4E oz
Mineral reserve	Proved	1 149	1.10	1 267	40 728
	Probable	145	0.92	133	4 280
Elandskraal		1 294	1.08	1 400	45 007

Mineral resource reconciliation

No metal movements occurred in the reporting year.

Kroondal

Location

The Kroondal resource is located in two areas – the farm Kroondal 304GQ and the Xstrata Wonderkop plant in Marikana.

Mineral resource

As at 30 June 2013 Kroondal	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	 oz
Mineral resource	Measured	316	2.00	632	20 319
	Indicated	50	2.00	100	3 215
	Inferred				
Kroondal	Total	366	2.00	732	23 534

Modifying factors

A 45% recovery was used to convert mineral resource to mineral reserve.

Mineral reserve

As at 30 June 2013 Kroondal	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	 oz
Mineral reserve	Proved	316	0.90	284	9 144
	Probable	50	0.90	45	1 447
Kroondal		366	0.90	329	10 590

Mineral resource reconciliation

Detailed surveyed tonnage measurements were undertaken to quantify the resource at the Kroondal dumps. The resource was thus classified into measured and indicated categories. Accordingly, the mineral resource decreased by 3 466 oz PGMs and the mineral reserve increased by 1 590 oz PGMs.

Total mineral resource and mineral reserve – Phoenix Platinum

Total mineral resource – PGM 4E

As at 30 June 2013 Phoenix Platinum	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	PGM 4E oz
Total mineral resource	Measured	1 959	2.68	5 255	168 952
	Indicated	3 425	3.57	12 218	392 817
	Inferred	1 142	3.37	3 852	123 844
Total Phoenix Platinum	Total	6 526	3.27	21 325	685 614

Total mineral reserve – PGM 4E

As at 30 June 2013 Phoenix Platinum	Category	Tonnes (kt)	Grade (g/t)	PGM 4E kg	PGM 4E oz
	Proved	1 959	1.21	2 365	76 030
	Probable	3 425	1.61	5 498	176 762
Total Phoenix Platinum	Total	5 384	1.46	7 863	252 792

As at 30 June 2013, Phoenix Platinum reported a mineral reserve of 252 792 oz PGMs and mineral resource of 685 614 oz PGMs. The measured and indicated mineral resources are inclusive of those resources modified to produce the mineral reserves.

Year on year – mineral inventory reconciliation (PGM 4E)

Resource table (PGM 4E)	Resource @ June 2012				Resource @ June 2013				+/– variance				% variance year on year			
	Mt	g/t	tonnes	Moz	Mt	g/t	tonnes	Moz	Mt	g/t	tonnes	Moz	Mt	g/t	tonnes	Moz
Measured	3.22	3.09	9.98	0.32	2.00	2.62	5.23	0.17	(1.22)	3.89	-4.75	(0.15)	(37.90)	126.00	(47.60)	(46.90)
Indicated	0.83	3.25	2.68	0.09	3.40	3.59	12.22	0.39	2.57	3.71	9.54	0.30	309.60	114.20	356.00	333.30
Inferred	0.80	3.33	2.67	0.09	1.10	3.50	3.85	0.12	0.30	3.93	1.18	0.03	37.50	118.10	44.20	33.30
Total	4.85	3.16	15.33	0.49	6.50	3.28	21.30	0.68	1.65	3.62	5.97	0.19	34.00	114.50	38.90	38.80

Reserve table (PGM 4E)	Reserve @ June 2012				Reserve @ June 2013				+/– variance				% variance year on year			
	Mt	g/t	tonnes	Moz	Mt	g/t	tonnes	Moz	Mt	g/t	tonnes	Moz	Mt	g/t	tonnes	Moz
Proved	3.22	1.39	4.49	0.14	1.96	1.21	2.36	0.07	(1.26)	1.69	(2.13)	(0.07)	(39.10)	121.60	(47.40)	(50.00)
Probable	0.83	1.46	1.21	0.04	3.42	1.61	5.50	0.18	2.59	1.66	4.29	0.14	312.00	113.50	354.50	350.00
Total	4.05	1.41	5.70	0.18	5.38	1.46	7.86	0.25	1.33	1.62	2.16	0.07	32.80	115.20	37.90	38.90

Glossary

Term	Definition
Adit	A mining tunnel that is mined from the side of a mountain or mining pit.
Capital expenditure (capex)	Expenditure on tangible assets – includes ongoing and project capital. In particular, capex includes spending on ongoing development, abnormal expenditure, shaft projects and major projects, and covers both sustaining and growing operations.
Cash Cost	Cash costs include direct operating costs for all mining and processing sites, but are exclusive of royalties, production taxes, depreciation and rehabilitation, as well as corporate administration, capital and exploration costs.
Chrome Tailings	Discards from a chrome washing plant be it historical (tailings dams) or new (current arisings).
Chrome Tailings Retreatment Programme	This a flotation plant constructed to recover PGM's from chrome tailings.
Contained gold	The total gold content (tons multiplied by grade) of the material being described.
Cut-off grade	Minimum grade at which a unit of ore will be mined to achieve the desired economic outcome
Current Arisings	The live tailings discarded by the chrome operators' washing plant and fed directly to a CTRP.
Decline	Underground evacuation at an inclined angle – normally a shaft.
Depletion	Decrease in quantity of ore in a deposit or property due to extraction or production.
Development	Process of accessing an orebody through shafts or tunnelling in underground mining.
Development Capital	Capital Expenditure incurred in development of the workings areas and creation of additional Mineral Resources to support the mining operations.
Gold produced	Refined gold derived from the mining process, measured in ounces or kilograms in saleable form.
Grade	Quantity of gold contained in a unit weight of gold-bearing material, generally expressed in ounces per short ton of ore (oz/t), or grams per metric tonne (g/t).
Greenstone Belt	Geological zone of variably metamorphosed matic to ultramatic volcanic sequences with associated sedimentary rocks that occur within Archaean and Proterozoic cratons between granite and gneiss.
In situ	Original or unbroken condition of the reef before mining.
Indicated Resource	A mineral resource reported as an in situ mineralisation estimate – intermediate level of geoscientific knowledge and confidence.
Inferred Resource	A mineral resource reported as an *in situ* mineralisation estimate – low level of geoscientific knowledge and confidence.
Measured Resource	A mineral resource reported as an *in situ* mineralisation estimate – high level of geoscientific knowledge and confidence.
Milling	A process of reducing broken ore to a size at which concentrating can be undertaken.
Metallurgical recovery factor	A measure of the efficiency in extracting gold from the ore deposit.
JORC	Australian code for reporting exploration results, mineral resources and mineral reserves
JSE	JSE Limited
Mine call factor	The ratio, expressed as a percentage, of the total quantity of recovered and unrecovered mineral product after processing with the amount estimated in the ore based on sampling
Probable Reserve	A mineral reserve reported as a mineable production estimate – lower level of geoscientific knowledge and confidence.
Outside Section	Sections that are not part of the current operating mines, but are part of the contained mineral rights area.
Pay limit	The grade of a unit of ore at which revenue from the recovered mineral content of the ore is equal to the total cash cost, including ore reserve development and stay-in-business capital. This grade is expre•••••
Proved Reserve	A mineral reserve reported as a mineable production estimate – higher level of geoscientific knowledge and confidence.
Recovered grade	The recovered mineral content per unit of ore treated.
Reef	A gold-bearing sedimentary horizon, normally a conglomerate band that may contain economic levels of gold
Reserve Base	A mineral reserve reported as a mineable production estimate – the probable and proved reserve.

Term	Definition
SAMREC	South African code for reporting exploration results mineral resources and mineral reserves
Tailings	Finely ground rock of low residual value from which valuable minerals have been extracted. Discarded tailings stored in dam facilities
Tonne (t) Metric = 1 000 kilograms	
Ton	Imperial = 2 000 pounds (1 016kg). Referred to as a short ton.
Underground mining	Mining activities occurring below the earth's surface.
Vamping tons	Reef tons emanating from cleaning out of old underground working places.

Abbreviations

Barberton Mines	Barberton Mines (Pty) Ltd.
BFS	Bankable Feasibility Study.
BIOX®	Biological Oxidation.
CIL	Carbon-in-leach.
CTRP	Chromite Tailings Retreatment Plant.
DMR	Department of Mineral Resources: South African Governmental department (previously DME)
Evander Mines	Evander Gold Mines (Pty) Ltd.
EE	Employment Equity.
LOM	Life of Mine.
MPRDA	The South African Mineral and Petroleum Resources Development Act, 28 of 2002.
MRM	Mineral Resource Management.
Pan African or the Company	Pan African Resources PLC.
PFS	Pre-feasibility Study.
PGM	Platinum Group Minerals/Metals.
PGM 4E	Platinum Group Minerals/Metals only including the four Elements- Platinum, Palladium, Rhodium and Gold.
Phoenix Platinum	Phoenix Platinum Mining (Pty) Ltd – The Chromite Tailings Retreatment Plant in the North-West province, South Africa.
RC	Reverse Circulation: drilling method.
SAMREC	The South African Resource Committee.
The SAMREC Code	The South African code for the reporting of exploration results, mineral resources and mineral reserves.
Shanduka	Shanduka Gold (Pty) Ltd, a 100% subsidiary of Shanduka Resources (Pty) Ltd.

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