



MINERAL RESOURCES AND MINERAL RESERVES REPORT for the year ended 30 June 2021

PROFITABLE / SUSTAINABLE / STAKEHOLDERS / GROWTH

CONTENTS

MINERAL RESOURCES AND MINERAL RESERVES

Aim of this report
Headline numbers – Group overview
Pan African's operational footprint
2021 in review
Looking towards 2022
Corporate governance reporting code
Competent person
Assessment and reporting in compliance with the SAMREC Code
Assurance of Mineral Resources and Mineral Reserves
The Mineral Resources management cycle
The mine planning cycle
Group Mineral Resources tabulation
Group Mineral Reserves tabulation
Exploration and reserve delineation drilling
Organic growth
Risks to the Mineral Resources and Mineral Reserves

BARBERTON REGION

Fairview Mine
Sheba Mine
New Consort Mine
Barberton Tailings Retreatment Plant
Barberton Mines' projects
Royal Sheba project
Project Dibanisa
Barberton Mines' Mineral Resources and Mineral Reserves reconciliation

EVANDER REGION

Corporate information

Evander Mines' 8 Shaft	60
Elikhulu	65
Evander Mines' projects	68
Evander Mines' 7 Shaft – Egoli project	69
Rolspruit project	72
Poplar project	75
Evander South project	76
Evander Mines' Mineral Resources	
and Mineral Reserves reconciliation	78
Glossary	81

REPORTING SUITE



1 2

4

5

6

7

7

8 9

10

11

13

14

15 16 17

18

26

31

36 42

46

46

49

50

52

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Our integrated annual report. A limited number of hard copies are available on request from the company secretary, whose details appear on the last page of this report.

It is also available on our website at:

https://www.panafricanresources.com/investors/financial-reports/



Our environmental, social and governance report, which contains additional non-financial disclosures referencing the Global Reporting Initiative Standards.

It is available on our website at:

https://www.panafricanresources.com/investors/gri-and-sustainability/



This, our Mineral Resources and Mineral Reserves report, which provides technical information in line with the SAMREC Code.

It is available on our website at:

https://www.panafricanresources.com/operations-at-a-glance-2/mineral-resource-mineral-reserve-2/

PANAFRICAN

Our governance report, which contains more information about our governance structures and execution, including a comprehensive King IV[™] corporate governance compliance report.

It is available on our website at:

Matthe https://www.panafricanresources.com/about/corporate-governance/

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES

supplement to the integrated annual report for the year ended 30 June 2021



The Group strategic plan leads to a considered evaluation of all the operations and projects within the Group's portfolio. During this process, all orebodies are measured against the strategic plan and developed, where possible and required, to deliver into the plan.

AIM OF THIS REPORT

The Pan African Resources (Pan African) Mineral Resources and Mineral Reserves report 2021 conforms to the standards determined by the South African Code for Reporting of Mineral Resources and Mineral Reserves (SAMREC Code, 2016 edition) and reports the Group's position on Mineral Resources and Mineral Resources and Mineral

This report accompanies Pan African's integrated annual report, including the annual financial statements for the year ended 30 June 2021 and must be read in conjunction with the entire reporting suite of documents. The entire suite of documents is available on our website at:

The Mineral Resources component is reported inclusive of Mineral Reserves, unless otherwise stated. Information in this report is presented by operation, mine or project on an attributable basis.

Rounding of numbers in this document may result in minor computational discrepancies.

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

HEADLINE NUMBERS – GROUP OVERVIEW

The Mineral Resources and Mineral Reserves for the Group are reported according to the guidelines of the SAMREC Code. Mineral Resources and Mineral Reserves exclude any exploration target and represent the attributable constituent for Pan African. All Mineral Resources include that portion of the Mineral Resources that was converted to Mineral Reserves by applying modifying factors and a mine plan to the Mineral Reserve blocks.

Pan African's attributable gold Mineral Resources and Mineral Reserves at 30 June 2021 are tabled below. Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for beneficiation and treatment.

	Mineral Resources			Mineral F	Reserves
Category	At 30 June 2021	At 30 June 2020	Category	At 30 June 2021	At 30 June 2020
Total	39.2Moz Au	37.6Moz Au	Total	10.8Moz Au	10.9Moz Au
Inferred	15.2Moz Au	13.5Moz Au			
Indicated	20.6Moz Au	20.8Moz Au	Probable	9.6Moz Au	9.3Moz Au
Measured	3.4Moz Au	3.3Moz Au	Proved	1.2Moz Au	1.5Moz Au

Any discrepancies in totals are due to rounding. All Mineral Resources and Mineral Reserves reported are within the Group's existing mining rights or prospecting rights.



Mineral Resources reconciliation

Mineral Reserves reconciliation







Pan African compared with other South African gold miners¹



¹ Bubble size reflects the ounce constituent of the Mineral Resources.

DRD Gold Limited's Mineral Resources as declared in the DRD Gold Limited 2020 annual integrated report.

Gold Fields' South Deep Mineral Resources as declared in the Gold Fields Mineral Resources and Mineral Reserves supplement to the integrated annual report 2020. Harmony Gold's Mineral Resources as declared in the Harmony Gold Mineral Resources and Mineral Reserves supplement to the integrated annual report 30 June 2020. Sibanye Stillwater's Mineral Resources as declared in the Sibanye Stillwater Mineral Resources and Mineral Reserves report 2020 for the gold operations only, and includes the DRD Gold Limited operations' Mineral Resources attributable to Sibanye Stillwater at 50%.

West Wits Mining Limited's Mineral Resources as declared in the West Wits Mining Limited investor presentation (18 November 2020).

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

PAN AFRICAN'S OPERATIONAL FOOTPRINT





2021 IN REVIEW

Some of the Group's achievements for the year ended 30 June 2021 are presented below.

LICENCE TO OPERATE

- Barberton Mines' mining rights renewal for a further period of 30 years was granted on 1 June 2021 by the Department of Mineral Resources and Energy (DMRE)
- Evander Mines' mining right is valid until 28 April 2038

- Exceeded the revised production guidance of 195,000oz for the year by producing 201,777oz
- Barberton Mines 84,826oz
- BTRP 18,239oz
- Evander Mines 47,253oz (including toll treatment)
- Elikhulu 51,459oz

- Steady-state production from Evander Mines' 8 Shaft pillar
- Execute into Evander Mines' 8 Shaft phase 1, 24 Level mining plan while optimising the study for the 25 Level to 26 Level mining phases
- Commence with phase 2 study to extend the mining operation to 25 Level and 26 Level using a proven on-reef mining layout, minimising waste and significantly reducing the time for orebody access development
- Explore the down-dip extension of the Golden Quarry orebody at Sheba Mine
- Develop additional target blocks at the New Consort Mine Prince Consort (PC) Shaft
- Completion of the feasibility study at Evander Mines' Egoli project

environmental, social and governance

- Managed the impact of COVID-19
- Commissioned the 15ha phase 1 Blueberries project in Barberton
- Handed over the operational Cathyville Clinic in BarbertonConstruction work commenced on the 9.975MW solar
- photovoltaic renewable energy plant at Evander MinesThe Group continues to invest in biodiversity conservation
- Continue to implement Social Labour Plan projects in our communities
- Feasibility study on a 10MW solar photovoltaic renewable energy plant at Barberton Mines is underway
- Systematically replace underground fleet with modernised
 equipment to reduce emissions and improve efficiencies
- Continue with independent audits on emissions compliance

MINERAL RESOURCES

- The Group's Mineral Resources base increased by 4.4% year-on-year
- Successful exploration drilling programme at New Consort Mine generated additional Mineral Resources and Mineral Reserves as reported in this document
- Continued positive gold market economics decreased the reported cut-off grades of the Group's operations and projects

A SAFETY

- The Group's lost-time injury frequency rate (LTIFR) improved from 1.70 to 1.41 per million man hours
- The Group's reportable injury frequency rate (RIFR) improved from 0.80 to 0.63 per million man hours
- Regrettably, one fatal accident was recorded during the year ended 30 June 2021, when an employee was fatally injured due to fall of ground at Barberton Mines' Fairview operation
- Evander Mines has shown an improvement on LTIFR of 2.64 (2020: 4.62) and an RIFR of 1.32 (2020: 3.08) per million man hours
- Barberton Mines' LTIFR improved to 1.07 (2020: 1.11) and the RIFR regressed to 0.43 (2020: 0.25) per million man hours
- Sheba Mine achieved eight years' fatality-free shifts
- New Consort Mine achieved 19 years' fatality-free shifts

FINANCIAL METRICS

- Capital allocation aligned with the Group's strategic plan
- Manage production cash cost to US\$1,035/oz
- Manage Group net senior debt down to US\$33.7 million

MINERAL RESERVES

- Advancement in the reserve delineation drilling
- Optimisation of mining methods and modifying factors
- Additional platforms in the high-grade Main Reef Complex (MRC) and Rossiter orebodies at Fairview Mine to increase mining flexibility
- Optimisation of the BTRP scheduling
- Mineral Reserves decreased by only 0.6% post mining depletion of 0.20Moz

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

LOOKING TOWARDS 2022

The following key Mineral Resources and Mineral Reserves focus areas support the Group's strategic plan and are designed to boost growth in production, extend the operational life-of-mine plans and increase free cash flows, while reducing operational costs.



EVANDER REGION

Sustain production from Evander Mines' 8 Shaft pillar

Develop Evander Mines' 8 Shaft 24 Level project

Advance the Egoli project in a phased manner

Explore and evaluate additional underground payshoots such as the 5 Decline payshoot

Advance Evander Mines' <u>8 Shaft 2</u>5 Level to 26 Level project

Update the structural model of the down-dip extension of the Kinross payshoot

Evaluate the access plan for the Rolspruit project

Extension of the enlarged Kinross tailings storage facility (TSF)

Update and optimisation of the Leslie/ Bracken tailings feed source mine design and scheduling

Early works on the Leslie/Bracken tailings feed source for Elikhulu



CORPORATE GOVERNANCE REPORTING CODE

Reporting code

The guiding principle in the Mineral Resources and Mineral Reserves report is to ensure integrity, transparency and materiality when informing all stakeholders on the status of the Group's mineral asset base.

Pan African is bound by the SAMREC Code, which sets out internationally recognised procedures and standards for the reporting of exploration results, Mineral Resources and Mineral Reserves. The SAMREC Code was developed by the South African Institute of Mining and Metallurgy as the recommended guideline for companies listed on the Johannesburg Stock Exchange (JSE). Furthermore, the Group also complies with section 12 of the JSE Listings Requirements and the Alternative Investment Market (AIM) Rules for mining, oil and gas companies of the London Stock Exchange (LSE) with regard to the reporting of Mineral Resources and Mineral Reserves. The relationship between Mineral Resources and Mineral Reserves, as defined by the SAMREC Code, is presented below.



COMPETENT PERSON

The competent person for Pan African, Hendrik Pretorius, the Group technical services manager signs off on the Mineral Resources and Mineral Reserves report for the Group.

Hendrik is a member of the South African Council for Natural Scientific Professions (SACNASP No. 400051/11 – Management Enterprise Building, Mark Shuttleworth Street, Innovation Hub, Pretoria, South Africa), as well as a member in good standing of the Geological Society of South Africa (GSSA No. 965978 – CSIR Mining Precinct, corner Rustenburg and Carlow Roads, Melville, South Africa). Hendrik has 18 years' experience in economic geology, mineral resource management and mining (surface mining and shallow to ultra-deep underground mining). He is based at The Firs Building, 2nd Floor, Office 204, corner Cradock and Biermann Avenues, Rosebank, Johannesburg, South Africa. He holds a BSc (Hons) degree in Geology from the University of Johannesburg as well as a Graduate Diploma in Mining Engineering from the University of the Witwatersrand. Hendrik has reviewed and approved the information contained in this document as it pertains to Mineral Resources and Mineral Reserves and has provided written confirmation to Pan African that the information is compliant with the SAMREC Code and, where applicable, the relevant requirements of section 12 of the JSE Listings Requirements and Table 1 of the SAMREC Code, and may be published in the form and context in which it appears.

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

Hendrik is supported by key personnel and task experts for each discipline. Key personnel and their relevant experience are listed in the table below.

Name	Designation	Operation	Professional registration and qualification	Relevant experience
Itumeleng Phoshoko	Mining engineer projects	Group	Association of Mine Managers of South Africa Witwatersrand University Mining Engineers Association BSc (Engineering) Mining Engineering GDE Mining Engineering Mine managers' certificate of competency: Underground metalliferous mines Blasting certificate Advanced Diploma in Organisational Leadership Master of Business Administration	>17 years
Thomas Cronjé	Technical services manager	Barberton Mines Proprietary Limited	GSSA No. 60262 SACNASP No. 4005055/08 National Higher Diploma (Economic Geology) Graduate Diploma Engineering (Mining Engineering)	>31 years
Walter Seymore	Ore reserve manager	Evander Gold Mining Proprietary Limited	National Diploma (Geotechnology)	>23 years

ASSESSMENT AND REPORTING IN COMPLIANCE WITH THE SAMREC CODE

In order to meet the requirements of the SAMREC Code, the material reported as Mineral Resources should have 'reasonable and realistic prospects for eventual economic extraction'.

Pan African has determined an appropriate cut-off grade, which has been applied to the quantified mineralised orebody. In determining the Mineral Resources and Mineral Reserves cut-off grades, Pan African uses the following metal price deck. Mineral Reserves represent the portion of the Measured and Indicated Mineral Resources above an economic cut-off grade within the life-of-mine plan. These Mineral Reserves have been estimated after considering all modifying factors affecting extraction. A range of disciplines is involved at each mine in the life-of-mine planning process, including geology, surveying, planning, mining design and engineering, rock engineering, metallurgy, financial management, human resources management and environmental management.

Criteria	Unit	2021	2020
- Mineral Resources gold price	US\$/oz	US\$1,866	US\$1,414
	ZAR/kg	ZAR900,000	ZAR750,000
Mineral Reserves gold price	US\$/oz	US\$1,659	US\$1,225
	ZAR/kg	ZAR800,000	ZAR650,000
Exchange rate	US\$/ZAR	ZAR15.00	ZAR16.50

ASSURANCE OF MINERAL RESOURCES AND MINERAL RESERVES

The Group follows a process of internal and external third-party reviews on taskspecific practices to add expert assurance regarding the Mineral Resources and Mineral Reserves estimates and compliance to the appropriate reporting codes.

This declaration is centred on information deemed important for the reporting of the Mineral Resources and Mineral Reserves base for Pan African. It further reveals a level of transparency, materiality and completeness in the reporting of the mineral assets within the Group. Pan African's Mineral Resources and Mineral Reserves estimates are continuously reviewed by an internal competent person team, managed by the corporate technical services team, with recurring audits and reviews by external and independent subject experts.

Pan African's Mineral Resources and Mineral Reserves assurance policy stipulates that each material operation and process, with regard to Mineral Resources and Mineral Reserves declaration, be reviewed annually by the internal competent person's team and at least three times in a six-year cycle by independent experts.



The following internal reviews were conducted by the internal competent person's team during the current financial year:

Monthly reconciliation and production reviews

Quarterly sampling, logging and mapping observations

Quarterly assay laboratory audits

Annual geological modelling assessments

Annual Mineral Resources estimation (MRE) technique evaluations and audits

Annual modifying factor review and sign-off

Annual mine design and scheduling analyses

Annual Mineral Reserves calculation review

The following independent external reviews were conducted during the current financial year:

VBKom independent audit of the Mineral Resources for Barberton Mines

VBKom independent audit of the Mineral Reserves for Barberton Mines

VBKom independent audit of the Mineral Resources for Evander Mines

VBKom independent audit of the Mineral Reserves for Evander Mines

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

THE MINERAL RESOURCES MANAGEMENT CYCLE

Pan African subjects each mining site or project to the full Mineral Resources management value chain depicted below.



In order to obtain investment or funding approval and for subsequent project implementation, a project evolves from initial identification and sample testing to commissioning through a series of study stages, commencing with exploratory work and terminating with feasibility studies. If a project is evaluated as feasible and meets the Group's internal return requirements, it is executed, subject to funding and other strategic considerations. Pan African distinguishes itself from its peers by having a clear focus on growth and mining resources that are profitable at lower gold prices, in order to deliver long-term economic benefit for all stakeholders.

The guiding principles in driving the Mineral Resources and Mineral Reserves strategy are focused on sustaining and, subsequently, growing current production levels, decreasing operational costs, growing cash flows and profitability along with a healthy return on investment for shareholders.



THE MINE PLANNING CYCLE

Pan African applies a mine planning cycle to ensure strategically aligned operations and projects that are fit for purpose. The Group has an exceptional asset base and attractive growth opportunities, both in established projects and advanced brownfield resource definition prospects that could be executed into. The Group's strategy is based on global best practice in mineral resource management.

01 Prioritise safety above all else Produce at a relatively low-cost base with high margins 02 Ensure growth in the Mineral Reserves base to sustain and grow profitable production 03 Increase earnings in a sustainable manner 04 Maximise the recovered grade 05 Utilise available opportunities and capacities 06 Apply the appropriate innovation and technology to improve operational efficiencies, reduce costs, realise overlooked potential and enhance decision-making 07 Ensure a robust regulatory and social licence to operate within all areas where we are active **8**0 Encourage an entrepreneurial culture within the Group that fosters consistent value creation for all stakeholders 09

The mine planning cycle is arranged and fixed around a Group strategic plan. This plan is developed by the Group's executive committee and operational committee and is presented to the board of directors for approval. The 2022 Group strategic plan is to:

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

- The Group strategic plan leads to a considered evaluation of all the operations and projects within the Group's portfolio. During this process, all orebodies are measured against the strategic plan and developed, where possible and required, to deliver into the plan.
- The optimisations applied enable the compilation of a report on the SAMREC-compliant Mineral Resources base from which a life-of-mine design can be obtained.
- The life-of-mine design identifies the manner in which the ore must be economically extracted to comply with the Group's strategic plan for the life of the operation or project.
- Business planning represents a rolling high-resolution three-year plan for each operation to guide short-term Mineral Reserves definition, exploration drilling and planning for production.
- A 12-month operational plan, including a high-resolution financial model and cash flow forecast, is derived from the business plan and represents a realistic forecast of the next year's production output for each operation. It is expected that operational changes will occur during the production year, although all efforts are made to plan and engineer around any foreseeable operational challenges.
- The combined operational, business and life-of-mine plan is based on the reported Mineral Reserves of each operation and/or project.



GROUP MINERAL RESOURCES TABULATION

The total Mineral Resources for the Group increased from 37.6Moz (332.3Mt at 3.52g/t) in June 2020 to 39.2Moz (341.3Mt at 3.58g/t) in June 2021 – a gross annual increase of 1.64Moz, or 4.4%.



	Mineral Resources							
		At 30 June 2021				At 30 Jun	e 2020	
		Contained gold			Containe	d gold		
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz
Measured	38.0	2.77	105.1	3.38	43.3	2.38	103.0	3.31
Indicated	219.9	2.92	641.5	20.62	216.6	2.99	647.4	20.81
Inferred	83.5	5.68	474.2	15.25	72.3	5.80	419.4	13.48
Total	341.3	3.58	1,220.7	39.25	332.3	3.52	1,169.8	37.61

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

Mineral Resources increased mainly due to changes in the cut-off grade applied at Evander Mines' 8 Shaft and the Rolspruit, Poplar and Evander South areas. Additional Mineral Resource blocks were also reported at Barberton Mines' New Consort operation. Changes in the cut-off grade are as a result of the higher gold price used in the cut-off grade estimations relative to the previous declarations (June 2021: ZAR900,000/kg Au – June 2020: ZAR750,000/kg Au).



Attributable Mineral Resources

GROUP MINERAL RESERVES TABULATION

Pan African's Mineral Reserves decreased marginally to 10.8Moz (210.4Mt at 1.60g/t) as at 30 June 2021 post mining depletion of 0.2Moz relative to 10.9Moz (208.2Mt at 1.62g/t) at 30 June 2020 – a gross annual decrease of 0.07Moz, or 0.6%. Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the relevant metallurgical plant for treatment and beneficiation.

	Mineral Reserves							
	At 30 June 2021				At 30 Jun	e 2020		
	Contained gold		Contained gold		d gold			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz
Proved	25.4	1.50	38.1	1.22	31.6	1.50	47.3	1.52
Probable	185.0	1.61	297.8	9.57	176.7	1.65	290.6	9.34
Total	210.4	1.60	335.9	10.80	208.2	1.62	338.0	10.87

Increases in the Mineral Reserves were observed for Barberton Mines' New Consort operation, Evander Mines' 8 Shaft operations and Elikhulu. Marginal decreases, mainly due to mining depletion, are evident at the BTRP, Fairview and Sheba operations at Barberton Mines.



Attributable Mineral Reserves

EXPLORATION AND RESERVE DELINEATION DRILLING

Pan African continuously defines and de-risks the Group's operational plan through ongoing reserve delineation drilling and other exploration techniques. Exploration drilling de-risks Inferred Mineral Resources, delineates exploration targets and enhances the operations' geological modelling and mining layouts.

		2021			2020	
Operation	Total metres	Number of boreholes	Total expenditure ZAR million	Total metres	Number of boreholes	Total expenditure ZAR million
Barberton Mines underground	9,022	134	7.0	8,710	124	9.5
Evander Mines	2,607	7	10.6	-	_	-
Elikhulu	2,357	137	6.6	-	_	_

Reserve delineation drilling enables the technical service departments to model orebodies at high resolution and to identify optimisation opportunities ahead of regular planning sessions. All underground reserve delineation drill holes, along with stope and development chip sampling are assayed for gold and utilised during the monthly estimation of the grade and metal content of a planned panel or stope. The data and information are also utilised to continuously evaluate the representivity of historical data in neighbouring panels and stopes. The business plan is also de-risked during this phase and any improvements to the operational plan are consequently done to ensure compliance with the Group's strategic plan.

PAN AFRICAN'S MINERAL RESOURCES AND MINERAL RESERVES continued

ORGANIC GROWTH

Pan African has an exceptional pipeline of attractive growth opportunities, both in established projects and brownfield resource definition prospects.

The operations' robust life-of-mine plans support the Group's strategic plan. Current exploration drilling, as well as initiatives to access and develop orebodies, were aggressively pursued at the Group's operations during the year. The strategy of converting Mineral Resources to Mineral Reserves was progressed by moving organic projects further up the mining value curve and closer towards the feasibility and production stages. These include Evander Mines' 8 Shaft 24 Level project, the Egoli project, New Consort Mine's PC Shaft remnant blocks and the Royal Sheba project. The schematic below illustrates the progress of near-mine growth projects that contributed ounces to the increased Mineral Resources for the year.





RISKS TO THE MINERAL RESOURCES AND MINERAL RESERVES

Mineral Resources and Mineral Reserves are estimates of the portion of the deposit owned by the Group that can be mined economically and safely.

There is an inherent geological and execution risk in the Mineral Resources and Mineral Reserves estimates. These estimates are functions of set criteria using geological, technical and economic parameters. Estimating the grade and/or quantity of the Mineral Resources is conducted by geologically analysing the volume, continuity and shape of the deposit. Data employed for these analyses includes geological mapping, core drilling, logging and sampling (current and historical). Due to the nature of the deposits, complex geological judgements and scientific calculations are applied to interpret the data and construct orebody models.

Economic and technical factors, such as inflationary cost increases and volatile global markets and commodity prices, impact the cut-off grade applied in estimating the economically extractable Mineral Resources and Mineral Reserves that are reported. In addition, newly available geological data from operations can result in additional changes to the Mineral Resources and Mineral Reserves reported. The Group's financial position and results can be materially impacted by these changes to the Mineral Resources and Mineral Reserves.

		🕒 Low 🔍 Mediu	ım 🖲 High
Type of risk	Risk	Mitigation action	Level of risk
Financial	Volatile commodity price and foreign currency exchange rates	A relatively conservative rand gold price was used to calculate the modifying factors in comparison to the prevailing rand gold prices	•
	Cost inflation	 Successfully concluded a three-year wage deal at Barberton Mines in 2021 Relatively low-cost and low-risk tailings operations in the form of the BTRP and Elikhulu assist the Group in reducing the all-in sustaining cost per kilogramme produced Tailings retreatment accounted for 35% of the Group's gold production for the year ended June 2021 	•
Legal	Mining right legal tenure	 Barberton Mines' application to renew its mining rights for its three operations for a further 30 years was granted by the DMRE on 1 June 2021 Evander Mines' mining right only expires on 28 April 2038 The DMRE acknowledged receipt of the section 102 application on 10 May 2021 to incorporate MP30/5/1/2/2/48 PR and MP30/5/1/2/2/4272 PR into Evander Mines' mining right MP30/5/1/2/2/126 MR. According to the Mineral and Petroleum Resources Development Act (MPRDA), all rights remain valid while being processed 	•
Operational	Modifying factors	 Modifying factors, as defined in the Mineral Reserves conversion, are based on actual modifying factors achieved over the preceding three years The Group's mining operations have consistently exploited the same orebodies with the current infrastructure, over a number of years 	•
	Limited mining flexibility	 At Barberton Mines: Development rates have increased by 9% year-on-year in the MRC high-grade 11-block, from 212m in the prior financial year to 231m in the current financial year A fourth, actively mined high-grade panel (258) in the MRC 11-block, was accessed in May 2021 The high-grade 259 Platform (down-dip of the 258 Platform) is planned to intersect mineralisation by May 2022 Development at New Consort's PC Shaft remnant block and down-dip extension of the Main Muiden Reef (MMR) from 14 Level to 15 Level as well as 38 Level to 40 Level is underway 	•
	Nature reserve	 Portions of Barberton Mines' mining rights overlap the boundaries of a proclaimed nature reserve, thereby impacting surface infrastructure, surface mining and environmental rehabilitation. The nature reserve was only recently proclaimed over the mining right which has been valid for over 100 years Continuous communication and collaboration with governmental departments and other stakeholders is undertaken to ensure sustainable mining operations over its valid mining right 	•

There are currently no material legal proceedings or material conditions that will impact the Mineral Resources and Mineral Reserves reported for 2021 or Pan African's ability to continue mining activities as per life-of-mine plans.

The Barberton goldfield has been in consistent and uninterrupted production since the 1880s. While these gold deposits were overshadowed by the later discovered Witwatersrand deposits, the Barberton goldfield remains a prolific gold-producing belt in South Africa.

BARBERTON REGION



Refractory gold ore deposits, estimated to make up approximately 22% of global gold Mineral Reserves, typically involve large upfront capital for the construction of the technologically advanced metallurgical plants required to improve gold recoveries. This capital is offset by the high-grade nature of these deposits that provide a quick return on capital.

Barberton Mines' Fairview metallurgical plant hosts a BIOX[®] circuit which is designed to process refractory-type ore. This invested capital combined with the high grades of the Barberton refractory orebodies enables Barberton Mines to remain a sustainable gold producer.

BARBERTON REGION

BACKGROUND

Gold was originally discovered in the Barberton area in 1883 where it is hosted within the sediments and metavolcanics of the Barberton Greenstone Belt (BGB). The discovery of gold in the Barberton region resulted in an influx of diggers, gold-seekers and financiers from the diamond fields of Kimberley and from elsewhere looking for new sources of wealth.

Barberton not only saw the first major gold mining in South Africa but also the first great gold share boom. By late 1885, over 100 different shares were quoted on the Barberton stock exchange. Despite all the exuberance, only a handful of mines went on to producing gold. Since the discovery of gold in the BGB, approximately 11Moz of gold are recorded to have been produced. The Fairview, New Consort and Sheba Mines that today make up Barberton Mines started operations more than 130 years ago, accounting for 75% of the total gold production from the BGB.

Originally, the New Consort area consisted of several small workings.

Over time, the workings were consolidated into what became known as New Consort Mine. In 1933, the company's name changed to Eastern Transvaal Consolidated Mines (ETC) and in 1948, ETC became a member of the Anglovaal Group. The Sheba Mine started operations with the discovery of Edwin Bray's Golden Quarry, the first 13,000t of ore yielding 50,000oz of gold (at 12g/t). Sheba Mine and its adjacent workings changed hands numerous times before being acquired by ETC in 1937. Mining at the Fairview Mine commenced in 1886 as a number of small operations from surface. These continued intermittently until 1955 when they were consolidated under Federale Mynbou. ETC acquired Fairview Mine in 1998. The ETC operations, comprising the Fairview, New Consort and Sheba operations, were sold to Metorex in June 2003. Pan African acquired the operations from Metorex in 2009. Barberton Mines has therefore been in operation for over 135 years, with current production practices now embedded.

Barberton Mines' mineral assets comprise Mineral Resources categories that range from early prefeasibility study stage to a bankable feasibility study at Royal Sheba, as well as the three operating underground mines.

LOCATION

Barberton Mines is situated in the Mpumalanga province, South Africa, some 370km east of Johannesburg and 47km south-east of Mbombela. Barberton Mines comprises Fairview Mine, Sheba Mine, New Consort Mine and the BTRP.



Location of Barberton Mines.

Fairview Mine produces approximately 45% of Barberton Mines' annual gold production, with New Consort Mine, Sheba Mine and the BTRP producing 16%, 21% and 18%, respectively. Operating three underground mines is advantageous in providing mining flexibility, selectivity and versatility in terms of resource allocation.

The availability of high-grade orebodies and lower-grade shallow resources from the mines provide options for planning in order to maintain the targeted grade/tonnage profile for annual gold production of approximately 100Koz. This also enables the optimal management of cash flows, operating costs and life of the operations at Barberton Mines from an early stage in the mine planning process. The operation has a proven track record of consistently delivering a solid performance, driven to a large extent by an embedded culture of safety and cost control.

The mining methods used at Barberton Mines' underground operations are semi-mechanised up-dip cut-and-fill and up-dip room and stick. An estimated 14% to 17% of gold is recovered by sweeping and vamping contractors focusing on worked-out areas and mining high-grade remnant ore pillars. Gold is extracted using the BIOX® gold extraction process, an environmentally friendly process which uses bacteria to release gold encapsulated in the sulphide ore.

OPERATIONAL OVERVIEW

	Fairview Mine	New Consort Mine	Sheba Mine	BTRP
Mining method	 Underground Cut-and-fill, breast, up-dip 	 Underground Cut-and-fill, breast, up-dip 	 Underground Cut-and-fill, breast, up- dip and long hole open stoping 	SurfaceHydraulic, load-and-haul
Infrastructure and mineral processing	An underground mining complex consisting of adits and subdecline shaft systems. Gold-rich orebodies are mined from near surface to approximately 1.7km below surface at the MRC 11-block orebody. Ore is transported through three decline shaft systems to 11 Level. From here, the ore is crushed and transported via an aerial bucket system to the Fairview metallurgical plant. The plant consists of a milling, gravity gold separation, flotation, BIOX® and carbon-in-pulp (CIP) circuit with a carbon regeneration section, elution (and electro-winning) circuit and smelt house. The Fairview plant capacity is 13.5ktpm	An underground mining complex consisting of adits and subvertical shaft systems. Ore is extracted mainly from the MMR, PC and 3 Shaft sections, located 200m to 1.5km below surface. The ore is transported through the shaft system to the New Consort metallurgical plant. Ore is crushed, milled, gravity gold concentrated and floated. The float concentrate is transported to the Fairview BIOX® section for further processing, while the tailings are subjected to the New Consort carbon-in-leach (CIL) circuit. The loaded carbon from the CIL section is transported to Fairview for elution (and electro-winning). The total capacity of the New Consort metallurgical plant is 8ktpm	An underground mining complex consisting of adits and subvertical shaft systems. Ore is mined from near surface from the MRC, Sheba West and Thomas orebodies to approximately 1.2km below surface in the Zwartkoppie (ZK) orebody. The ore is transported through the shaft system to the Sheba metallurgical plant. Here the ore is crushed and milled, gravity separated and floated. The gravity concentrate is smelted in the Fairview smelt house. Flotation concentrate is transported to the Fairview BIOX® section for further processing. The Sheba plant has a capacity of 11ktpm	A surface remining site with road access from all surface material sources to the plant. Ore is either pumped (hydraulic remining and Fairview plant tailings) or trucked (load-and-haul) to the BTRP plant. The ore is milled in a regrind mill and processed through a CIL, a carbon regeneration and elution (and electro-winning) section. BTRP also has its own smelt house. BTRP has a capacity of approximately 100ktpm
TSF	Tailings from the Fairview metallurgical plant are pumped to the BTRP circuit for further processing prior to deposition (see BTRP)	Tailings from the New Consort CIL circuit are deposited onto the nearby Segalla TSF. The Segalla TSF has sufficient capacity to cater for the currently defined Mineral Reserves at New Consort Mine	Tailings from the Sheba flotation circuit are deposited onto the nearby Camelot TSF. The Camelot TSF has sufficient capacity to contain the tailings from the modelled Mineral Reserves of Sheba Mine and Royal Sheba	Tailings are deposited onto the current Bramber TSF. Future deposition will be conducted on the Bramber extension constructed on the remined footprint of the historical Bramber TSF. The designed capacity of the TSF extension will cater for deposition of the current modelled life of the operation
Mineralisation style	Orogenic greenstone-hosted h Mineralisation is typically contr shear zones. The zones are we	Deposition material of historically treated metallurgical tailings from the Fairview, New Consort and Sheba Mines		

BARBERTON REGION continued

	Fairview Mine	New Consort Mine	Sheba Mine	BTRP			
Mineralisation characteristics	Mineralisation is typically conti range geological and grade co vein-hosted ore lode deposits mainly pyrite and arsenopyrite	nuous in the short- to medium-r ontinuity being experienced dow or as free-milling gold associate	The material is confined to the deposition site of historical tailings and extends approximately 1m beneath the historical footprint. The ore consists of oxidised tailings containing pyrite and arsenopyrite associated gold, which was not recovered in the initial treatment process				
Life-of-mine	20 years (2020: 20 years)	8 years (2020: 8 years)	8 years (2020: 9 years)	3 years (2020: 6 years)			
Exploration	Ongoing exploration programmer and to continuously upgrade N	Ongoing exploration programmes and reserve definition drilling are conducted to define the extent of the mineralisation and to continuously upgrade Mineral Resources to Mineral Reserves					
Climate	The climate in the Barberton region is subtropical, implying warm and temperate conditions in general. Rainfall is more frequent in summer months relative to in winter. The temperature averages 20°C and rainfall is approximately 861mm for a 12-month period. The driest month is June, with only 11mm of rain on average. The highest precipitation month is December, with an average rainfall of 141mm. The warmest month is January, with an average temperature of 23.3°C. The coldest month, June, has an average temperature of 15.2°C						

REGIONAL GEOLOGICAL SETTING

The mineralisation at Barberton Mines is classified as Archaean 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 11Moz of gold since the first discovery in the early 1880s. Barberton Mines has produced more than 75% of the total gold production from the BGB.

Geological setting of Barberton Mines' operations (section lines are illustrated on the map along the operations and depicted as sectional views under each operation's detailed discussion in this report).



22 PAN AFRICAN RESOURCES PLC MINERAL RESOURCES AND MINERAL RESERVES REPORT 2021

GENESIS OF THE ORE IN BARBERTON

Metamorphic devolatisation, possibly from 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 from the minerals' crystal structures and can transport gold in solution to favourable depositional sites. The stability fields of most of the common sulphides in Barberton Mines' ore (pyrite, arsenopyrite and pyrrhotite) indicate that the gold 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. Conversely, Barberton Mines' host lithologies are not high in iron content. Therefore, 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 drawing the fluids into these cavities and result in releasing pressure. Pressure fluctuations can further be caused by seismic activity, particularly during transpressional and orogenic events. When pressure is released, H₂S (the ligand that makes gold soluble) is driven off, resulting in gold precipitation.

MAH Altigani, RKW Merkle and RD Dixon, in their article, Geochemical identification of gold mineralisation in the Barberton Greenstone Belt, South Africa, dated 2015, conclude that the pervasive mineralising hydrothermal event post-dates the main tectonic metamorphic events. The hydrothermal fluids exploited weak zones in pre-existing faults and shear zones. The authors further conclude that the mineralising event occurred over an extended period of time and consisted of many individual pulses at varying depths.

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-grade ore, in the wall rock, form as a result of the alteration process during fluid flow and is associated with disseminated sulphide minerals. A late stage of gold mineralisation occurred in brittle fractures with the formation of quartz veins. These quartz veins often contain free gold in visible clusters.

GEOLOGICAL/RESOURCE ESTIMATION METHODOLOGY

The Mineral Resources and Mineral Reserves for the Barberton region are reported in compliance with the SAMREC Code.

Geological modelling

The grade and the structure in the BGB 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 and historical mining areas along with diamond drill hole information. The data is continuously evaluated for representivity and accuracy. During the year, no discrepancies in data accuracy were noted. The continuity of grade values within the ore shoots is derived primarily from short-range statistical projections, based on historical mining measurements of the orebody, the study of its tectonic structure and continuity modelling such as variography and trend analyses.

The tectonic structure and orebody geometry have been modelled using the Lynx orebody modelling system (StopeCAD) and Datamine Studio RM[®]. These systems allow for the threedimensional (3D) structure of the mineralised volume to be constructed, modified and viewed graphically. Additionally, these 3D models can be adjusted as new data becomes available. Furthermore, these systems are employed as a tool for visualising grade continuity and are an aid for mine planning.

Resource estimation

During grade control, both diamond-cored drill holes and underground channel/chip sampling are utilised. A minimum sampling width of 230cm is used in the case of mechanical mining and 100cm for conventional scraper-type stoping. Where the reef width is narrower, hanging wall and footwall samples are included. Exploration diamond drill holes and sampling are conducted over a sample width of 50cm within the mineralised or lithological contacts. Drilling is also conducted on the tailings material that is retreated at BTRP. In this case, the samples from either auger drilling, dual drilling or sonic drilling are sampled at 150cm intervals.

All the samples are transported from site to the nearby SGS Barberton assay laboratory (SGS Barberton). SGS Barberton is an independent South African National Accreditation System (SANAS)-accredited assay laboratory (T0565) and is certified to conduct the relevant gold analyses. The samples are accompanied by a representative from Barberton Mines (either a geologist or sampler) and a sample dispatch note. Sample preparation and assaying is conducted by SGS Barberton. Preparation of the samples includes the drying of the sample at 110°C, followed by crushing to 85% passing 2.36mm. Between 0.5kg and 0.75kg of crushed material is subsampled and pulverised using Rocklabs LM2 and RM2000 pulverisers to 85% passing 75µm. A 25g (grade control) or 50g (exploration) aliquot is mixed with a premix flux for fire assay purposes. Low-grade orebodies are analysed using atomic absorption while high-grade orebodies employ a parted gravimetric finish.

An in-house quality assurance and quality control (QA/QC) system is implemented at Barberton Mines, where each sample for grade control purposes is assayed in duplicate to ensure repeatability. Also, certified reference material is employed to indicate the accuracy of the assaying procedure. For exploration, up to 10% of the samples are reassayed for precision tests and are accompanied by certified reference material at a 10% frequency. A two-times standard deviation is employed as a failing criteria in the QA/QC system and triggers a reassaying procedure. All exploration samples retrieving grades in excess of 10g/t are immediately reassayed to validate the grades.

MRE at Fairview, Sheba and New Consort Mines uses an inverse distance weighted grade and orebody width estimate within a limited search ellipse defined for each orebody specifically. At Royal Sheba (located within the Sheba mining right), ordinary kriging MRE is conducted for the various resource classification criteria. The search ellipse employed during the kriging process is

BARBERTON REGION continued

in line with the orebody dimension and modelled variogram ranges. In all cases, historical data is employed during the MRE due to the rich history of mining and exploration in the area. All historical data is continuously evaluated relative to newly acquired data for representivity. During the reporting period, no inconsistencies were noted in the historical or new data.

Extreme high-grade samples are evaluated per orebody and capped to an acceptable maximum grade for each orebody, and operation specifically. These high grades are identified by sample statistics, histograms and capping curves. The capped high-grade samples are employed for the MRE of each orebody.

Mineral Resources classification

Blocks of Measured Resources are generally 20m on strike and 10m in the dip direction of actual mining. Where blocks are defined adjacent to a development end only, the grade and true width of the reef in the block is estimated by calculating the arithmetic mean or 'stretch average' of the samples along the development end. If the sample spacing is at the standard stope sampling grid of 3m, the block value is derived by calculating the inverse weighted estimated value of all available samples. During ordinary kriging MRE, a Measured Resource block is defined as a block estimated within the modelled variogram range with a slope of regression not less than 70%. This effectively reports a Measured Resource within 50m of sufficient representative sampling.

Blocks of Indicated Resources are defined where only diamond drill hole samples and information are available. Both the grades and orebody widths are either estimated by means of an inverse weighted estimate or ordinary kriging. The Indicated Resource extends up to the modelled variogram ranges of a sufficiently sampled area with a slope of regression not less than 50%. Grades and widths are mostly interpolated into the Indicated Resource blocks.

The Inferred Resource blocks are characterised by a regional grade and width obtained from arithmetic means, Sichel's t-estimates and ordinary kriging. Inferred Resource blocks are extrapolated to double the modelled variogram range or grade continuity for each orebody.

Mineral Reserves conversion

N	Vineral inventory of Barberton Mines at 30 June 2021										
	6	Mineral Resources 46.8Mt at 2.92g/t for 4.40Moz		Mineral Reserves 21.0Mt at 2.90g/t for 1.96Moz							
		Inferred 20.1Mt at 2.72g/t for 1.75Moz									
		Indicated I2.0Mt at 2.80g/t for 1.08Moz		Probable 12.7Mt at 2.85g/t for 1.16Moz							
		Measured 4		Proved 8.3Mt at 2.96g/t for 0.80Moz							

Indicated Mineral Resources are converted to Probable Mineral Reserves due to the lower confidence mainly in grade continuity relative to that of Measured Mineral Resources. In most instances, Measured Mineral Resources are converted to Proved Mineral Reserves. Certain Measured Mineral Resources are not immediately accessible for mining and require development or equipping. Under these circumstances, Measured Mineral Resources have been converted to Probable Mineral Reserves. Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the relevant metallurgical plant for treatment and beneficiation.



MINING RIGHTS

Barberton Mines is the holder of individual mining rights for gold for each of the three respective underground mining operations. The mining areas are situated in the Barberton region, located in the City of Mbombela local municipality, Mpumalanga province. On 28 April 2011, the DMRE converted the old order mining rights held by Barberton Mines for a period of 10 years in terms of Item 7 of Schedule II of the MPRDA.

Barberton Mines timeously submitted applications for the renewal of these mining rights, together with the relevant supporting documents to the DMRE in order to extend the operations' mining rights by a further 30 years. The DMRE granted the mining right renewal application on 1 June 2021, indicating that the mining rights would be valid until 31 May 2051. At the time of this report, the notarial execution of the mining rights renewal was still in process.

All Mineral Resources and Mineral Reserves reported on in this document are located within the existing mining rights of Barberton Mines.

Licence name	Project	Type of licence	Licence number	Area	Licence holder	Expiry date	Status
Barberton Mines Proprietary Limited	Sheba Mine (including Royal Sheba)	Mining	MP30/5/1/2/2/189 MR	1,705.0645ha	Barberton Mines Proprietary Limited	31 May 2051	Effective
Barberton Mines Proprietary Limited	New Consort Mine	Mining	MP30/5/1/2/2/190 MR	2,520.8191ha	Barberton Mines Proprietary Limited	31 May 2051	Effective
Barberton Mines Proprietary Limited	Fairview Mine	Mining	MP30/5/1/2/2/191 MR	3,033.8643ha	Barberton Mines Proprietary Limited	31 May 2051	Effective

Each Barberton Mines' operation has an approved environmental impact assessment (EIA), environmental management programme (EMPr) and water-use licence (WUL). Barberton Mines' undiscounted rehabilitation provision of US\$5.8 million is funded by means of a Cenviro insurance investment product, underwritten by Centriq Insurance Company Limited, with a current value of US\$4.3 million. These funds are invested in a portfolio comprising a combination of money market, capital market and equity instruments. The aim with this investment is to provide the Group with the necessary liquidity for rehabilitation activities and to preserve the real value of the rehabilitation capital. The audit and risk committee reviews the performance of this portfolio on a regular basis.



BARBERTON REGION continued

Fairview Mine

During the reporting period, Fairview Mine continued its focus on optimising the extraction and successfully increasing flexibility within the MRC and Rossiter Reefs. This was achieved by increasing development rates towards down-dip extensions of the orebodies and by increasing the reserve definition drilling rate. Broader-scale exploration drilling is focused on the Hope, MMR and Golden Quarry Reefs, with desktop studies being conducted on various known but unmined lower-grade blocks in all orebodies.

SURFACE RIGHTS

The majority of the surface rights that form part of the Fairview mining area are owned by local government (the Department of Public Works) and are under the management of the Mpumalanga Tourism and Parks Agency (MTPA). Fairview Mine has had an active lease agreement with the Department of Public Works since 2012. The agreement continues on a month-to-month basis and is revised in 12-monthly intervals. This lease agreement enables Fairview Mine to continue using the surface areas for its approved mine works programme.

The Fairview Mine also owns surface rights on the farms Fairview 342JU and Portion 1 Bramber South 348JU, which adjoin the Fairview mining right area. Certain mine infrastructure, offices and the operational Fairview tailings dam are located on this

property. The Fairview Mine properties extend over a surface area of 3,034ha, of which approximately 4% is currently disturbed by mining and mining-related activities.

GEOLOGY

The Fairview Mine area straddles the contact between the arenites of the Moodies Group to the north (Eureka Syncline) and the Fig Tree Group's greywacke and shale to the south (Ulundi Syncline). The contact is marked by the presence of the regionally identifiable Sheba Fault. The two synclines are refolded due to the immense force present during deformation, resulting in back-toback isoclines that dip steeply to the south. Tight isoclinal, thrust fault-related anticlines of Onverwacht Group schist (Zwartkoppie Formation) occur within the greywacke of the Fig Tree Group.

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

 Refractory sulphidic ore, which constitutes the bulk of the mined ore, is hosted in the greywacke and shale sequence of the Fig Tree Group. The mineralisation is found in close association with an anastomosing shear system that often parallels the stratigraphy and lithological contacts. Auriferous pyrite and arsenopyrite mineralisation are confined to ribbon-like shoots within the shear system and as disseminations in the wall rock.



Simplified geological section of Fairview Mine.

The shears are often defined by quartz-carbonate veining and the host rock can be sericitised and carbonatised on either side of the shear.

• A coarse clastic unit of the Fig Tree Group hosts a series of hanging wall bodies. This coarse clastic 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 fractures persist for up to 500m, payable gold values are confined to several discrete ribbon-like payshoots. Blue-black quartz veins, quartz-carbonate veins and stockworks are recognised in the hanging wall area. The contacts and texture of the veins suggest a dilation fracture fill origin, rather than replacement origin. Refractory gold-quartz-carbonatesulphide ore occurs as disseminated to massive pyrite and arsenopyrite mineralisation. The age relationship between the gold mineralisation and the quartz-porphyry dykes suggests that the Hope Reef is marginally older and the Le Roux Reef is marginally younger than the quartz-porphyry dykes. The quartzporphyry 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-grey 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 are associated with this ore type.

The deepest intersection on a Fairview orebody is at a depth of 1,660m below the adit elevation, approximately 200m below the current mining platforms. The orebody is open at depth.

OPERATIONAL PERFORMANCE

	Unit	30 June 2021	30 June 2020
Mining			
Total mined	t	110,987	108,044
Au mined grade	g/t	13.72	11.8
Processing			
Tonnes treated	t	110,987	108,045
Au head grade	g/t	13.72	11.8
Au sold	OZ	45,686	38,546
Plant recovery factor	%	93.32	94.30
Financial results			
Average Au price received	ZAR/kg	909,122	797,947
	US\$/oz	1,836	1,584
Capital expenditure	ZAR (million)	251.7	126.8
All-in costs	US\$/oz	1,408	1,136

		Mineral Resources									
		At 30 Jun	e 2021		At 30 June 2020						
		Contained gold				Contained gold					
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz			
Measured	1.99	9.11	18.13	0.58	1.64	9.63	15.81	0.51			
Indicated	1.04	9.49	9.88	0.32	1.06	11.59	12.30	0.40			
Measured and											
Indicated	3.03	9.24	28.01	0.90	2.70	10.40	28.11	0.90			
Inferred	1.89	14.48	27.35	0.88	1.89	17.63	33.37	1.07			
Total	4.92	11.25	55.35	1.78	4.60	13.38	61.48	1.98			

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the Canadian Institute of Mining's (CIM) National Instrument 43-101. Cut-off values are calculated at 1.94g/t for Fairview Mine and 1.60g/t for 11 Level, applying a gold price of ZAR900,000/Kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

BARBERTON REGION continued

MODIFYING FACTORS

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	MCF %	PRF %
Fairview Mine	800,000	7.27	727	100	5	99.63	92.72

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves										
	At 30 June 2021					At 30 Jun	e 2020				
	Contained gold				Containe	Contained gold					
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz			
Proved	1.00	8.88	8.86	0.28	1.37	7.50	10.31	0.33			
Probable	1.08	13.35	14.48	0.47	1.32	9.96	13.14	0.42			
Total	2.08	11.21	23.34	0.75	2.69	8.71	23.44	0.75			

Notes:

Instrument 43-101. Cut-off values are calculated at 7.27g/t for Fairview Mine and 5.16g/t for 11 Level, applying a gold price of ZAR800,000/kg (US\$1,659/cz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.





Fairview Mine

Grade/tonnage curve

Fairview Mine Mineral Reserves sensitivity







Life-of-mine planning

BARBERTON REGION continued

MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION



Factors that affected the

Depletion through mining activities

Geological boundary and structural updates

Mineral Resource block updates (tonnes and grade)

Cut-off grade decreased from 2.03g/t for the prior financial year to 1.94g/t for the current financial year



Factors that affected the Mineral Reserves reconciliation

Depletion through mining activities

Impact of updated geological structures and boundaries

Update of grades in Mineral Resource blocks

Mine call factor remained constant at approximately 99.6% as well as the plant recovery factor of 92.72%



Fairview Mine's underground development, stoping, infrastructure and Mineral Resources.



Sheba Mine

Sheba Mine continued to focus on extraction of the MRC and ZK orebodies during the year. Specific attention was given to the reserve definition drilling and development of the ZK orebodies' down-dip extension on 37 Level towards the Fairview Mine.

Additional platforms were developed on the free-milling Thomas orebody, which was brought into production during 2020 through long hole open stoping, a first at Barberton Mines. Work on Project Dibanisa, combining the Fairview and Sheba Mines' infrastructure to optimise costs and efficiency, has progressed well (refer to the Barberton Mines projects section in this report).

SURFACE RIGHTS

The majority of the area used for the development of Sheba Mine's surface infrastructure is located on state-owned land under the control of the Department of Public Works and is under the management of the MTPA. The adjacent land comprises primarily wilderness and grazing areas.

Sheba Mine's properties cover a surface area of some 1,705ha, of which approximately 14% is currently used for mining and mining-related activities. Sheba Mine has had an active lease agreement with the Department of Public Works since 2012, which allows the operation to continue using the surface areas for its approved mine works programme. The agreement continues on a month-to-month basis and is revised at 12-monthly intervals.

GEOLOGY

The Sheba section straddles the contact between the arenites of the Moodies Group to the north (Eureka Syncline) and the Fig Tree Group's greywacke and shale to the south (Ulundi Syncline) similar to the stratigraphic occurrence of the Fairview Mine. The contact is marked by the presence of the regionally identifiable Sheba Fault. The two synclines are refolded due to the immense force present during deformation, resulting in 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 Fig Tree Group's greywacke.

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

- Refractory sulphidic ore (MRC section), which constitutes the bulk of the mined 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 hanging wall 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 wall rock.
- The ZK section is characterised by the occurrence of visible gold and disseminated pyrite in the greenschist as the prominent mineralisation, in association with shear and fracture-hosted smoky and white quartz veins.
- The mineralisation of the Royal Sheba orebody is encapsulated in a shear envelope of the Sheba Fault, ranging in width from 5m to 25m. The gold mineralisation occurs predominantly in sulphide minerals and as native gold.

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



BARBERTON REGION continued



Simplified geological section of Sheba Mine.

OPERATIONAL PERFORMANCE

	Unit	30 June 2021	30 June 2020
Mining			
Total mined	t	118,439	130,944
Au mined grade	g/t	6.1	5.5
Processing			
Tonnes treated	t	118,439	130,944
Au head grade	g/t	6.1	5.5
Au sold	OZ	21,874	20,994
Plant recovery factor	%	94.39	91.09
Financial results			
Average Au price received	ZAR/kg	909,122	797,947
	US\$/oz	1,836	1,584
Capital expenditure	ZAR (million)	131.6	142.4
All-in costs	US\$/oz	1,923	1,693

MINERAL RESOURCES

The Mineral Resources reported exclude those of the Royal Sheba deposit.

		Mineral Resources										
		At 30 Jun	e 2021		At 30 June 2020							
		Contained gold				Contained gold						
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz				
Measured	0.61	8.97	5.43	0.17	0.64	9.05	5.81	0.19				
Indicated	0.27	5.71	1.55	0.05	0.30	6.47	1.92	0.06				
Measured and												
Indicated	0.88	7.96	6.98	0.22	0.94	8.24	7.72	0.25				
Inferred	0.50	7.88	3.97	0.13	0.53	7.86	4.16	0.13				
Total	1.38	7.93	10.95	0.35	1.47	8.10	11.88	0.38				

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 2.26g/t for Sheba Mine and 2.39g/t for the MRC and ZK sections, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MODIFYING FACTORS

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	MCF %	PRF %
Sheba Mine	800,000	5.38	538	100	5	89.63	92.55

MINERAL RESERVES

The Mineral Reserves reported exclude those of the Royal Sheba deposit. Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves								
	At 30 June 2021					At 30 Jun	e 2020		
	Contained gold					Containe			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Proved	0.49	6.26	3.09	0.10	0.65	6.01	3.92	0.13	
Probable	0.21	5.32	1.14	0.04	0.32	5.55	1.77	0.06	
Total	0.71	5.97	4.23	0.14	0.97	5.86	5.69	0.18	

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 5.38g/t for Sheba Mine and 6.00g/t for the MRC and ZK sections, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

BARBERTON REGION continued





Life-of-mine planning

Studies are being conducted to evaluate the possibility of feeding Royal Sheba ore into the Sheba plant from year nine onwards.




MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION

Factors that affected the Mineral Besources reconciliati

Depletion through mining activities

Geological boundary and structural updates

Mineral Resource block updates (tonnes and grade)

Cut-off grade remained constant at 2.26g/t for the current financial year, relative to 2.27g/t for the prior financial year



Factors that affected the Mineral Reserves reconciliation

Depletion through mining activities

Impact of updated geological structures and boundaries

Update of grades in Mineral Resource blocks

The mine call factor decreased from 97.62% in the prior financial year to 89.63% in the current financial year



Sheba Mine's underground development, stoping, infrastructure and Mineral Resources.



New Consort Mine

During the year, New Consort Mine developed towards the Consort Bar and MMR orebodies at 38 and 15 Levels, respectively. Specific focus and studies were centred on equipping the PC Shaft remnant blocks' and extracting high-grade ore between 42 and 41 Levels. Additionally, exploration drilling during the year focused on the MMR and PC horizons. High-resolution reserve definition drilling focused on the 15 Level MMR and deeper Consort Bar orebodies.

SURFACE RIGHTS

Most of the area employed for the development of the New Consort Mine surface infrastructure is state-owned land under the control of the Department of Public Works and under the management of the MTPA. The surrounding land comprises primarily wilderness and grazing areas. A private nature reserve is located to the west of the mining right area.

Barberton Mines owns Portion 1 of the farm Segalla 306JU on which the Segalla TSF is located. A substantial part of the facility, however, falls outside Portion 1 on state land, which is declared a conservation area and is controlled by the MTPA. The New Consort Mine properties cover a surface area of some 2,521ha, of which approximately 14% is currently used for mining and mining-related activities. New Consort Mine has had an active lease agreement with the Department of Public Works since 2012 for the land on which the surface infrastructure and the Segalla TSF are located. This lease agreement allows New Consort Mine to continue using the surface areas for its approved mine works programme.

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 separating these two synclines, is intruded by pegmatites.



Simplified geological section of New Consort Mine.

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 Muiden Reef 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 the New Consort orebody is 1,450m below adit elevation. The orebody is open at depth.

OPERATIONAL PERFORMANCE

	Unit	30 June 2021	30 June 2020
Mining			
Total mined	t	95,591	98,415
Au mined grade	g/t	5.9	3.1
Processing			
Tonnes treated	t	95,591	98,415
Au head grade	g/t	5.9	3.1
Au sold	OZ	17,266	8,617
Plant recovery factor	%	94.34	88.90
Financial results			
Average Au price received	ZAR/kg	909,122	797,947
	US\$/oz	1,836	1,584
Capital expenditure	ZAR (million)	24.6	22.1
All-in costs	US\$/oz	1,381	1,986



MINERAL RESOURCES

The Mineral Resources reported exclude those of the Royal Sheba deposit.

		Mineral Resources								
		At 30 Jun	ne 2021			At 30 Jun	e 2020			
		Containe	d gold			Contained gold				
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Measured	0.35	8.45	2.95	0.09	0.32	9.00	2.90	0.09		
Indicated	0.20	7.61	1.51	0.05	0.19	7.85	1.46	0.05		
Measured and										
Indicated	0.55	8.14	4.46	0.14	0.51	8.58	4.36	0.14		
Inferred	0.30	11.13	3.39	0.11	0.30	11.06	3.36	0.11		
Total	0.85	9.21	7.85	0.25	0.81	9.51	7.72	0.25		

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 3.18g/t for New Consort Mine, 3.25g/t for PC Shaft and 2.73g/t for MMR, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MODIFYING FACTORS

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	MCF %	PRF %
New Consort Mine	800,000	7.59	759	100	5	100	92.03

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves								
		At 30 Jun	e 2021		At 30 June 2020				
	Contained gold				Contained gold				
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Proved	0.34	5.56	1.90	0.06	0.18	6.70	1.23	0.04	
Probable	0.28	5.01	1.38	0.04	0.17	5.27	0.88	0.03	
Total	0.62	5.32	3.29	0.11	0.35	6.02	2.12	0.07	

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 7.59g/t for New Consort Mine, 8.05g/t for PC Shaft and 5.98g/t for MMR, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.







Life-of-mine planning

Studies are being conducted to evaluate the possibility of feeding Royal Sheba ore into the New Consort Mine's plant from year nine onwards.





BARBERTON REGION continued

MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION

Factors that affected the Mineral Resources reconciliation

Depletion through mining activities

Geological boundary and structural updates

Mineral Resource block updates (tonnes and grade)

Cut-off grade increased from 2.93g/t for the prior financial year to 3.18g/t for the current financial year



Factors that affected the Mineral Reserves reconciliation

Depletion through mining activities

Impact of updated geological structures and boundaries

Update of grades in Mineral Resource blocks

The mine call factor increased year-on-year from 91.3% to 100% while the plant recovery factor also increased from 91.4% to 92.03% for the current financial year



New Consort Mine, Clutha Mine's underground development, stoping and infrastructure and Mineral Resources.



New Consort Mine's underground development, stoping, infrastructure and Mineral Resources.

BARBERTON REGION continued

Barberton Tailings Retreatment Plant

Mining of the Harper North, Harper South, Segalla calcine material and Vantage dams is progressing as per the plan. It is envisaged that the Royal Sheba project will form part of the BTRP feed sources when the project is commissioned. By constructing a run-of-mine (RoM) crusher circuit, the BTRP plant will be able to treat approximately 35,000ktpm of RoM material from Royal Sheba, thereby extending the life of the operation and ensuring its sustained output in future.

SURFACE RIGHTS

The BTRP is located within the mining right of Fairview Mine. The Fairview Mine owns surface rights on the farm Fairview 342JU on which the BTRP is located.

GEOLOGY

The BTRP operation re-treats previously processed gold ore in the form of slime or tailings material. The slimes emanated mostly from historical mining and processing activities on the same orebodies that are currently being mined underground from the existing Barberton Mines operations. The feed sources to the BTRP include the Harper South and Harper North complexes, contributing approximately 60,000t per month to the BTRP. Furthermore, the Vantage TSF and Segalla calcine add an additional 18,000t per month. The remainder of the capacity is filled with residue material from the BIOX® plant at Fairview Mine as well as the historical Royal Sheba tailings at a rate of 17,000t per month. Feed material at the current processing rate is sustainable for the next three years. The total life of BTRP is modelled at three years excluding the possibility of processing Royal Sheba hard rock material.



Location of Barberton Mines' operations and TSFs illustrating the feed sources for BTRP.

OPERATIONAL PERFORMANCE

	Unit	30 June 2021	30 June 2020
Mining			
Total mined	t	946,293	958,106
Au mined grade	g/t	2.2	1.8
Processing			
Tonnes treated	t	946,293	958,106
Au head grade	g/t	2.2	1.8
Au sold	OZ	18,239	20,137
Plant recovery factor	%	27.54	37
Financial results			
Average Au price received	ZAR/kg	918,572	787,128
	US\$/oz	1,855	1,562
Capital expenditure	ZAR (million)	1.6	5.6
All-in costs	US\$/oz	946	807

MINERAL RESOURCES

		Mineral Resources								
		At 30 Jur	ne 2021			At 30 Jun	e 2020			
		Contained gold				Contained gold				
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Measured	6.72	1.57	10.55	0.34	7.31	1.65	12.06	0.39		
Indicated	4.24	1.37	5.78	0.19	4.36	1.42	6.20	0.20		
Measured and										
Indicated	10.96	1.49	16.34	0.53	11.67	1.56	18.26	0.59		
Inferred	11.13	0.94	10.43	0.34	9.29	0.89	8.23	0.26		
Total	22.08	1.21	26.77	0.86	20.96	1.26	26.49	0.85		

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 0.2g/t for the BTRP, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (1.4t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MODIFYING FACTORS

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	PRF %
BTRP	800,000	0.3	150	500	-	26.3

BARBERTON REGION continued

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

		Mineral Reserves								
		At 30 June 2021				At 30 June 2020				
		Containe	Contained gold			Contained gold				
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Proved	1.62	1.62	2.63	0.08	7.31	1.65	12.06	0.39		
Probable	4.95	1.60	7.94	0.26	1.73	1.93	3.33	0.11		
Total	6.57	1.61	10.56	0.34	9.04	1.70	15.39	0.49		

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 0.3g/t for the BTRP, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (1.4t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION



Factors that affected the Mineral Resources reconciliation

Depletion through mining activities

The cut-off grade remained constant year-on-year



Factors that affected the Mineral Reserves reconciliation

Depletion through mining activities

The plant recovery factor decreased to 26.3% from 37% for the prior financial year due to a higher than expected calcine content in the feed material









Life-of-mine planning

The remaining life for BTRP was reported as six years in the prior financial year. This life included lower tail end production over the final three years. For this current financial year, the life of BTRP was optimised to decrease the tail end of the production cycle and to ensure more robust production in the next financial year due to the lower recoveries experienced currently. Lower recovery feed sources for the BTRP is planned to be offset and supplemented by RoM material from the Royal Sheba project to ensure a sustainable long life of the BTRP operation according to a concept level study. The RoM circuit will enable the BTRP plant to treat up to 30ktpm of RoM material. Current indications are that RoM material can be fed into the plant from year three in the life-of-mine scheduling, thereby offsetting some tailings feed sources at that point.



Barberton Mines' projects

Barberton Mines' assets also include projects that are at varying stages of exploration and development. The individual projects and level of study are summarised and illustrated in the figure below.

Royal Sheba project

The Group initiated preliminary mining activities at Royal Sheba to further define the grades and recoveries expected from this large-scale orebody. The preliminary mining activities are designed to extract a 10,000t bulk sample from historically unmined areas located 26m below surface, between 6 Level and 7 Level. The design of the bulk sample is being conducted in a manner that will enable mining to continue on those levels and extract an additional 11,000t. The areas are accessed from the existing Royal Sheba adit, from where a slightly up-dipping (+1°) haulage is mined towards a location 70m in the footwall of the reef horizon and then accessing the position of the life-of-mine decline where the Group can continue mining towards the 23 Level access that is being advanced from Sheba Mine's ZK Shaft. The 23 Level haulage is approximately 250m from the mineralisation intersection.

GEOLOGY

The Royal Sheba project straddles the contact between the arenites of the Moodies Group to the north (Eureka Syncline) and the Fig Tree Group's greywacke and shale to the south (Ulundi Syncline), similar to the stratigraphic occurrence of the Sheba Mine. The contact is marked by the presence of the regionally identifiable Sheba Fault. The two synclines are refolded due to the immense force present during deformation, resulting in back-to-back isoclines that dip steeply to the south.



Simplified geological section of Sheba Mine and the Royal Sheba project.

The mineralisation of the Royal Sheba orebody is encapsulated in a shear envelope of the Sheba Fault, ranging in width from 5m to 25m. The gold mineralisation occurs predominantly in finely disseminated sulphide minerals (mainly pyrite) and native gold.

MINERAL RESOURCES

		Mineral Resources								
		At 30 Jun	e 2021		At 30 June 2020					
Category		Containe	d gold			Contained gold				
	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Measured	5.04	2.30	11.57	0.37	5.04	2.30	11.57	0.37		
Indicated	6.07	2.25	13.64	0.44	6.07	2.25	13.64	0.44		
Measured and										
Indicated	11.11	2.27	25.21	0.81	11.11	2.27	25.21	0.81		
Inferred	6.06	1.37	8.31	0.27	6.06	1.37	8.31	0.27		
Total	17.17	1.95	33.52	1.08	17.17	1.95	33.52	1.08		

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 0.8g/t for Royal Sheba, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MODIFYING FACTORS

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	MCF %	PRF %
Royal Sheba project	800,000	0.8	560	700	5	95	85

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves									
		At 30 Jun	at 30 June 2021			At 30 June 2020				
		Contained gold			Contained gold					
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Proved	4.89	1.69	8.26	0.27	5.23	1.72	8.98	0.29		
Probable	6.17	1.82	11.24	0.36	6.30	1.82	11.48	0.37		
Total	11.06	1.76	19.50	0.63	11.52	1.77	20.45	0.66		

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 0.8g/t for Royal Sheba, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (2.73t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

BARBERTON REGION continued



Royal Sheba project Mineral Reserves sensitivity



MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION



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Factors that affected the Mineral Reserves reconciliation

Long hole open stoping mining method adopted

Modifying factors remained constant year-on-year



Project Dibanisa



Simplified geological section of Fairview Mine and the Sheba Mine illustrating the ore flow optimisations and redundancies that will be achieved with Project Dibanisa.

Project Dibanisa aims to use the current Sheba Mine infrastructure, both on surface and underground, to effectively extract the Royal Sheba orebody from 23 Level (Sheba Mine ZK Shaft). This enables the concurrent mining of the Royal Sheba orebody from near-surface workings, as well as from 600m beneath surface, targeting the Measured and Indicated Mineral Resources.

The project involves connecting the Sheba and Fairview workings on 23 Level by establishing a series of ore passes from the Sheba Mine to the Fairview Mine. The combined production of Fairview Mine and Sheba Mine will be hoisted from the Fairview infrastructure (mainly from the 2 Decline and 1 Decline systems). The ore will then be processed at the Fairview plant. This enables the Fairview plant to effectively process the free gold reefs of Sheba Mine, and decrease the overall cost by reducing the transportation of concentrate from the Sheba plant to the Fairview BIOX® plant.

Following these modifications and enhancements to the underground and surface infrastructure, underground ore from Royal Sheba (23 Level Sheba Mine ZK Shaft) will be extracted through the Sheba Mine ZK Shaft and processed at the Sheba plant at a throughput of approximately 12,000t per month.

Near-surface workings at Royal Sheba will be used to fill the capacity at the New Consort metallurgical plant. The total project is estimated to be completed by June 2022. Additional processing capacity can be made available if the BTRP plant is converted to a hard rock RoM plant, enabling it to treat the higher-grade and higher-recovery material from Royal Sheba.

Project Dibanisa mitigates the need for the high capital expenditure requirements of commissioning a new plant and related infrastructure for the Royal Sheba deposit. Furthermore, this initiative reduces overall overhead costs for the operations by consolidating infrastructure. Currently, all rails and haulages on both Fairview and Sheba Mines' respective sections have been rehabilitated. Current work being conducted includes the extension of the 23 Level haulage from Sheba Mine through to 38 Level at Fairview Mine and the establishment of a series of three ore passes from the 23 Level Sheba haulage to the 38 Level Fairview haulage.

Barberton Mines' Mineral Resources and Mineral Reserves reconciliation

At 30 June 2021, Barberton Mines reported Mineral Resources of 4.40Moz (47Mt at 2.92g/t) and Mineral Reserves of 1.96Moz (21Mt at 2.90g/t) contained gold. The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Mineral Reserves. Mineral Reserves are reported as mill-delivered tonnes at the contained grade, having duly considered all modifying factors. Mineral Resources and Mineral Reserves reported are contained within the mining right boundaries of Barberton Mines. All mined-out areas have been depleted from the reported Mineral Resources and Mineral Reserves.

				Mineral R	esources			
		At 30 Jun	e 2021			At 30 Jun	e 2020	
		Containe	d gold			Containe	d gold	
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz
Measured	14.70	3.31	48.64	1.56	14.95	3.22	48.15	1.55
Indicated	12.03	2.80	33.69	1.08	12.19	3.02	36.84	1.18
Measured and								
Indicated	26.73	3.08	82.33	2.65	27.14	3.13	85.00	2.73
Inferred	20.07	2.72	54.49	1.75	18.26	3.20	58.47	1.88
Total	46.80	2.92	136.82	4.40	45.40	3.16	143.46	4.61

MINERAL RESOURCES COMPARISON

RECONCILIATION OF MINERAL RESOURCES

Barberton Mines' Mineral Resources decreased by 5% year-on-year, with a total decrease of 213Koz reported inclusive of 103Koz being depleted through mining activities. The underground portion of the Mineral Resources for the Barberton region decreased by 223Koz (6%) for the reporting period.

This change can be ascribed to the following factors:

- Re-evaluating Fairview Mine's remnant areas and the high-grade MRC 11-block platforms
- New sampling in areas at New Consort Mine and the PC Shaft remnant blocks adding additional flexibility at the operation
- Updating of Mineral Resource blocks through geological modelling processes at all the underground operations
- Changes in cut-off grades.



Mineral Resources reconciliation

		Mineral Reserves								
		At 30 Jun	e 2021			At 30 Jun	e 2020			
		Containe	d gold			Containe	d gold			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Proved	8.34	2.96	24.74	0.80	14.75	2.48	36.50	1.17		
Probable	12.69	2.85	36.18	1.16	9.83	3.11	30.60	0.98		
Total	21.04	2.90	60.92	1.96	24.57	2.73	67.10	2.16		

MINERAL RESERVES COMPARISON

RECONCILIATION OF MINERAL RESERVES

Barberton Mines' Mineral Reserves decreased by 3.5Mt at 1.75g/t (199Koz) contained gold.

The decrease, post depletion, can be attributed to the conversion of the Royal Sheba project and Sheba Mine Mineral Resources to Mineral Reserves by utilising updated metallurgical recoveries achieved during the current financial year. An increase in the Mineral Reserves post mining depletion has been noted at the Fairview and New Consort operations. The BTRP Mineral Reserves decreased by 2.5Mt at 1.9g/t (140Koz) mainly due to mining depletion and lower than expected recovered grades. Also, some of the previously reported Proved Mineral Reserves for the BTRP have been reclassified as Probable Reserves based on the estimated recovered grades and confidence. Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.



Mineral Reserves reconciliation

With approximately 35Moz of high-grade Mineral Resources, ranging from shallow to ultra-deep locations, the Evander Basin has the potential to remain a prolific gold producer for decades to come.

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EVANDER REGION



EVANDER REGION

BACKGROUND

Historically, exploration in the Evander region commenced in 1903 with the advent of diamond drilling and progressed, intermittently, through various major exploration phases that included extensive geophysical surveys and drilling that realised the economic potential of the Kimberley Reef on the southern edge of the main Witwatersrand basin.

The Evander goldfield is centred around Evander, a town founded in 1955 to serve the burgeoning mining community. The first gold to be produced came from the Winkelhaak Mine in December 1958 and over the next nine years, three other mines were brought into production namely Leslie Mine, Bracken Mine and Kinross Mine. Evander Mines (Leslie, Bracken, Kinross and Winkelhaak Mines) exploits the Kimberley Reef, where mining methods employed include underground conventional breast-type scraper mining and rail-bound equipment with some trackless mechanised development. More recently, Elikhulu was commissioned by the Group in August 2018.

Hydraulic mining of the Kinross tailings dam is utilised to pump material at a rate of 1.2Mt per month to Elikhulu. Elikhulu achieved its inaugural gold pour on 16 August 2018, within budget and ahead of schedule. The plant is fed by the historical Kinross, Leslie/Bracken and Winkelhaak TSFs where the gold is extracted at a CIL hybrid plant. The modern retreatment plant at Elikhulu has the capacity to produce up to 65,000oz of gold per year, with an expected remaining life-of-mine of 12 years.

Evander Mines' mineral assets comprise advanced projects containing SAMREC compliant Mineral Resources that range from early prefeasibility study stage (the Poplar, Evander South and Rolspruit projects) to a bankable feasibility study at the Egoli project in addition to the above-mentioned mining operations, including Elikhulu. The current revenue streams for Evander Mines are primarily generated from Evander Mines' 8 Shaft (8 Shaft) pillar mining and Elikhulu.

LOCATION

Evander Mines is situated in Evander, Mpumalanga province, approximately 120km eastsouth-east from Johannesburg near the town of Secunda.



Location of Evander Mines.

OPERATIONAL OVERVIEW

	8 Shaft	Elikhulu
Mining method	UndergroundConventional breast, scraper mining	Surface Hydraulic mining
Infrastructure and mineral processing	An underground complex consisting of vertical and decline shaft systems. Gold-bearing reef is mined from the 8 Shaft pillar, approximately 1.6km below surface and from 24 Level, some 2.4km below surface. Ore is transported through the decline shaft systems to 15 Level. From there, the ore is transported across to Evander Mines' 7 Shaft (7 Shaft), where it is hoisted and conveyed to the Kinross metallurgical plant. The plant consists of a milling, gravity gold separation and CIP circuit with a carbon regeneration section, elution (and electro-winning) circuit and smelt house. The Kinross plant capacity is currently 55ktpm, but can be upgraded to the original design capacity of approximately 240ktpm with the refurbishment of defunct mills	A surface remining site with road access from all surface material sources to the plant. Ore is pumped (hydraulic remining) to the Elikhulu plant in slurry form. The ore is subjected to pre-oxidation to enhance the metallurgical recovery, and processed through a CIL circuit, with a carbon regeneration and elution (and electro-winning) section. Elikhulu has its own smelt house. The design processing capacity at Elikhulu is approximately 1,200ktpm
TSF	Tailings from the Kinross metallurgical plant are pumped to the Elikhulu residue tank	Tailings from the Elikhulu residue tank are deposited onto the new regional Kinross extension TSF and the Winkelhaak TSF at a ratio of 1,000ktpm and 200ktpm, respectively. The designed capacity of the Kinross TSF extension will cater for deposition of the current modelled life of the operation
Mineralisation style	Palaeo-placer and braided stream-type sedimentary deposit scavenged gold from the hinterland and underlying deposits. Mineralisation is concentrated in robust conglomeratic and carbonaceous units	Deposition material of historically treated metallurgical tailings from the Winkelhaak, Leslie, Bracken and Kinross Mines
Mineralisation characteristics	Gold is associated with disseminated sulphides in the form of pyrite. High grades occur where the reef is characterised by carbon specks or bands	The material is confined to the deposition site of historical tailings and approximately 1m beneath the historical footprint. The ore consists of oxidised tailings containing pyrite associated gold which was not recovered in the initial treatment process
Life-of-mine	5 years (2020: 3 years)	12 years (2020: 12 years)
Exploration	Ongoing sampling programmes and reserve delineation continuity and to continuously upgrade Mineral Resource	drilling are conducted to define the mineralisation es to Mineral Reserves.
Climate	The Evander region is located in the Highveld climatic re cool, dry winters. Rain falls mostly as showers and thum annual rainfall is approximately 565mm. The most rainfa 110mm of rain. The driest months are June and July, wi midday temperatures range from 16.5°C in June to 25.7 when evening temperatures drop to 0.1°C on an average	gion of South Africa, with warm and wet summers and derstorms, mainly between October and March. Average Il is experienced in January, which receives on average th no rainfall expected on average. The average monthly "°C in January. The region is the coldest during June e night

EVANDER REGION continued

REGIONAL GEOLOGICAL SETTING OF EVANDER MINES

Evander Mines exploits the Kimberley Reef in the Evander Basin, the eastern-most extremity of the Witwatersrand Supergroup. The Kimberley Reef is mined throughout the major gold mining districts within the Witwatersrand Supergroup, including the East Rand, Central Rand, West Rand, Far West Rand and Free State goldfields. Deposition models for gold within the conglomeratic horizons follow a palaeo-placer-type sedimentological deposition along with winnowing, erosion and concentration of gold-bearing footwall lithologies. Various studies have highlighted the importance of hydrothermal activity for deposition, remobilisation and enrichment within certain packages of the Witwatersrand Supergroup.



Regional geological setting of Evander Mines.



SECTION ACROSS THE EVANDER BASIN

Generalised long-section through Evander Mines and its projects.

MINING RIGHTS

Evander Mines was the holder of an old order mining right for gold and associated minerals which was converted by the DMRE in terms of Item 7 of Schedule II of the MPRDA to a new order mining right (MP30/5/1/1/2/126 MR) on 29 April 2008, with the new order right valid until 28 April 2038. Evander Mines also holds the Evander West and Evander South prospecting rights. All Mineral Resources and Mineral Reserves reported in this document are located within the existing mining right and prospecting rights held by Evander Mines. The Evander South prospecting right (MP30/5/1/2/2/248 PR) contains Mineral Resources of 22.3Mt at 7.54g/t for 5.4Moz (11.7Mt at 8.83g/t for 3.3Moz are Indicated Mineral Resources and 10.6Mt at 6.12g/t for 2.1Moz are in the Inferred Mineral Resources category). The Evander South and Evander West prospecting rights are being consolidated into Evander Mines' mining right in terms of section 102 applications that were lodged at the DMRE in December 2017, with these applications still being processed.

Licence name	Project	Type of licence	Licence number	Area	Expiry date	Status
Evander Gold Mining Proprietary Limited	Evander South	Prospecting	MP30/5/1/2/2/248 PR	2,551ha	29 June 2019	Section 102 application to include prospecting right into Evander Mines' mining right is pending (lodged 8 December 2017). Acknowledgment of the application was received from the DMRE on 10 May 2021
Evander Gold Mining Proprietary Limited	Evander West	Prospecting	MP30/5/1/2/2/4272 PR	11,189ha	19 October 2016	Renewal application lodged (October 2016). Section 102 application to include prospecting right into Evander Mines' mining right is pending (lodged 8 December 2017). Acknowledgment of the application was received from the DMRE on 10 May 2021
Evander Gold Mining Proprietary Limited	Evander Gold Mining	Mining	MP30/5/1/2/2/126 MR	31,783ha	28 April 2038	Effective

EVANDER REGION continued

Evander Mines has an approved EIA, EMPr and WUL, which incorporates the Elikhulu operations.

Evander Mines has lodged an undiscounted rehabilitation provision of US\$16.3 million that is fully funded by means of a Cenviro insurance investment product underwritten by Centriq Insurance Company Limited, with a current value of US\$21.5 million. These funds are invested in a portfolio comprising a combination of money market, capital market and equity instruments. The aim of the investment is to provide the Group with the necessary liquidity for rehabilitation activities and to preserve the real value of the rehabilitation capital. A rehabilitation strategy and implementation plan was compiled and updated in 2017, to rehabilitate dormant and non-productive areas in terms of the Group's environmental, social and governance focus and concurrent rehabilitation strategy. The audit and risk committee reviews the performance of this portfolio on a regular basis.

SURFACE RIGHTS

Evander Mines' mining right extends over 31,783ha. Evander Mines also owns a surface area of 6,676ha, of which 2,230ha are utilised for mining and mining-related activities. The surface activities are limited to the three main shaft complexes: Kinross, Winkelhaak and Leslie/Bracken. There is also one TSF associated with each of the three complexes. No surface exploration activities were undertaken on the prospecting right areas during the period under review.

Historically, mining at Evander Mines involved underground operations from nine shafts at the Kinross, Winkelhaak and Leslie/Bracken sections. Water abstraction is via both the 7 and 8 Shafts in the Kinross section. Evander Mines currently mines the 8 Shaft pillar and reprocesses surface TSFs via Elikhulu.

GEOLOGICAL/RESOURCE ESTIMATION METHODOLOGY

The Mineral Resources and Mineral Reserves for the Evander region are reported in compliance with the SAMREC Code.

Geological modelling

The grade and structure of the Kimberley Reef are highly erratic in nature, and most of the data for evaluating the resource blocks is derived from underground development adjacent to the mining blocks, and from the position of the present mining areas along with diamond drill hole information. The continuity of grade values within the ore shoots is derived primarily from short-range statistical projections, historical mining data, actual measurements of the orebody and continuity modelling, including variography and trend analyses.

The tectonic structure and orebody geometry have been modelled using Datamine Studio RM[®]. This system allows for the 3D structure of the mineralised volume to be constructed, modified and viewed graphically. Additionally, the 3D models can be updated as new data becomes available. Importantly, this system is also utilised as a tool for visualising grade continuity and is a valuable aid for mine planning.

Drone surveys are conducted on a monthly basis over the tailings dams being remined, forming the basis of the geological and resource models for the Elikhulu operation.

Resource estimation

For grade control, diamond-cored drill hole sampling and underground stope and development sampling, a minimum sampling width of 20cm is adhered to. Exploration diamond drill hole sampling is conducted over a sample width of 50cm within the mineralised zone or lithological contacts. Auger drilling, dual drilling or sonic drilling is also conducted to sample the tailings material that is retreated at the Elikhulu operation. These are sampled at 150cm intervals.



All the samples are transported from site to the accredited SGS Barberton assay laboratory. SGS Barberton is a SANAS-accredited assay laboratory (T0565) and is certified to conduct the relevant gold analyses. The samples are collected by SGS Barberton at Evander Mines in the presence of a mine representative (sampler) and are accompanied by a sample dispatch note. Transportation of the samples is done in sealed containers by SGS Barberton employees to the assay laboratory. Sample preparation and assaying is conducted by SGS Barberton. Preparation of the samples includes the drying of the sample at 110°C, followed by crushing to 85% passing 2.36mm. Between 0.5kg and 0.75kg of crushed material is subsampled and pulverised using a Rocklabs LM2 or RM2000 pulveriser to 85% passing 75µm. A 25g (grade control) or 50g (exploration) aliquot is mixed with a premix flux for fire assay purposes. Low-grade orebodies are analysed using atomic absorption while high-grade orebodies employ a parted gravimetric finish.

An in-house QA/QC system is implemented at Evander Mines, where each sample for grade control purposes is assayed in duplicate to ensure repeatability. In addition, the use of certified reference material is employed to monitor the accuracy of the assaying procedure. For exploration, up to 10% of the samples are reassayed for precision tests and are accompanied by certified reference material at a 10% frequency. A two-times standard deviation is employed as a failing criteria in the QA/QC system and triggers a reassaying procedure. All exploration samples retrieving grades in excess of 10g/t are immediately reassayed to validate the grades.

Extreme high-grade samples are evaluated per geozone and capped to an acceptable maximum grade. These high grades are identified by sample statistics, histograms and capping curves. The capped high-grade samples are employed for the MRE of each geozone. The MRE method employed for generating local grade estimates at Evander Mines is ordinary kriging. The orientations and ranges of each geozone's semi-variogram are used to determine the kriging search parameters, and the estimation parameters are optimised for each search and each geozone. In all cases, historical data is employed during the MRE due to the rich history of mining and exploration in the area. All historical data is continuously evaluated relative to newly acquired data for representivity. During the reporting period, no inconsistencies were noted in the historical or new data.

Mineral Resources classification

Hard rock Kimberley Reef estimates are kriged into 30m by 30m blocks for the Measured Resources from point data within the modelled variogram ranges. Indicated Mineral Resources are macro-kriged into 60m by 60m parent cells, employing a regularised declustered grid of samples on the same basis. Estimation is conducted within the modelled variogram ranges per geozone. Inferred Mineral Resources are macro-kriged into a 120m by 120m parent cell within the identified geozones, based on the modelled variogram range from a regularised and declustered data set on the same grid size. The Measured and Indicated Resource models are then tested on gold content measured and centimetre grams per tonne (cmg/t) kriging efficiency and slope of regression, and merged together with the Inferred Mineral Resources model to produce a combined kriged block model.

The Mineral Resources for the tailings are estimated by a capped 3m composited drill hole data set. The MRE is conducted through ordinary kriging, employing anisotropic variography into a parent cell of 50m by 50m by 3m (X, Y, Z) dimensions. The MRE parameters such as the minimum and maximum number of samples, maximum samples per drill hole and scaling factors are assessed through a quantitative kriging neighbourhood analysis. Measured Mineral Resources for the tailings are classified if a block is estimated within the variogram range with a slope of regression of 80% or more. Indicated Mineral Resources for the tailings extend up to double the variogram range due to the nature of the deposit. All other estimates for the tailings are classified as Inferred Mineral Resources.



Mineral Reserves conversion

Indicated Mineral Resources are converted to Probable Mineral Reserves due to the lower confidence mainly in grade continuity relative to that of Measured Mineral Resources. In most instances, Measured Mineral Resources are converted to Proved Mineral Reserves. Certain Measured Mineral Resources are not immediately accessible for mining and require development or equipping. In these situations, Measured Mineral Resources have been converted to Probable Mineral Reserves. Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

Evander Mines' 8 Shaft

GEOLOGY

The Kimberley 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 area strikes in an east-west direction and dips to the north at about 10°. 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 up to a 50cm well-developed oligomictic conglomerate. Average reef thickness is 35cm within the 8 Shaft vicinity. 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.

LOCATION

8 Shaft is situated about 5km north-west of the town of Evander. The 8 Shaft boundary covers an area of 44km² and is located between the Rolspruit project to the north-west and 7 Shaft to the south-east. The 8 Shaft pillar mining however, only covers approximately 0.3km² of the total 8 Shaft area. During the reporting period, mining occurred in the 2 Decline area on the western side, at a depth of 2,300m to 2,500m below surface as well as at the 8 Shaft pillar at a depth of 1,600m below surface.

OPERATIONAL PERFORMANCE

	Unit	30 June 2021	30 June 2020
Mining			
Total mined	t	120,446	67,257
Au mined grade	g/t	9.7	10.1
Processing			
Tonnes treated	t	12,446	67,257
Au head grade	g/t	9.7	10.1
Au sold	OZ	36,602	15,077
Plant recovery factor	%	95.51	95
Financial results			
Average Au price received	ZAR/kg	896,612	776,637
	US\$/oz	1,811	1,542
Capital expenditure	ZAR (million)	185.0	297.5
All-in costs	US\$/oz	1,937	3,6451

Excluding toll treatment.

¹ Production cost capitalised until mid-May 2020.

MINERAL RESOURCES

		Mineral Resources								
		At 30 Jun	e 2021			At 30 Jun	e 2020			
		Containe	d gold			Containe	d gold			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Measured	3.77	12.44	46.95	1.51	3.48	12.54	43.67	1.40		
Indicated	1.22	10.78	13.15	0.42	2.99	11.99	35.83	1.15		
Measured and										
Indicated	4.99	12.03	60.09	1.93	6.47	12.29	79.50	2.56		
Inferred	21.74	9.31	202.32	6.51	16.13	9.80	158.08	5.08		
Total	26.73	9.82	262.41	8.44	22.60	10.51	237.58	7.64		

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 657cmg/t, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.71t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MODIFYING FACTORS

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	MCF %	PRF %
8 Shaft	800,000	7.87	944	120	14.6	85	95.3

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves									
		At 30 Jun	e 2021			At 30 Jun	e 2020			
		Containe	d gold			Contained gold				
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Proved	0.57	10.58	6.01	0.19	0.34	9.83	3.36	0.11		
Probable	-	-	-	-	-	-	_	-		
Total	0.57	10.58	6.01	0.19	0.34	9.83	3.36	0.11		

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 944cmg/t, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (2.71t/m⁹). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations. The Mineral Reserves are only reported within the 8 Shaft pillar area.



Evander Mines' 8 Shaft

EVANDER REGION continued



Evander Mines' 8 Shaft Mineral Reserves sensitivity

Life-of-mine planning

The current 8 Shaft pillar and 24 Level mining is planned to be depleted over five years.



MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION

Factors that affected the Mineral Resources reconciliation	Factors that affected the Mineral Reserves reconciliation
Depletion through mining activities	Depletion through mining activities
Geological boundary and structural updates	Impact of updated geological structures and boundaries
Mineral Resource block updates	Update of grades in Mineral Resource blocks and inclusion of the 8 Shaft 24 Level
Contractor mining model, utilising less infrastructure	Contractor mining model, utilising less infrastructure
Cut-off grade decreased due to lower mining costs and higher gold price	Modifying factors affected positively due to pillar mining and higher gold price

It is expected that Evander Mines' 8 Shaft 25 Level and 26 Level mining project's Mineral Resources would be converted to Mineral Reserves by the next financial year.





Evander Mine's underground development, stoping, infrastructure and Mineral Resources.

EVANDER REGION continued



Evander Mines' infrastructure, geological structure and mining extent defined by seismic surveys, drilling, mapping and survey pegs.

Elikhulu

Elikhulu and the related infrastructure at Evander Mines, owned and operated by Pan African, re-treats historical gold plant tailings at a rate of 1.2Mt per month.

Elikhulu is expected to yield approximately 60Koz of gold per annum for the next five years of production (while treating the Kinross and Leslie/Bracken TSFs). Thereafter, while processing the Winkelhaak TSF, production is expected to be approximately 50Koz per annum for the plant's remaining seven-year life. These production estimates exclude an Inferred Resource of 102Koz of gold delineated in the soil material beneath the existing tailings dumps.

GEOLOGY

The ore being treated at Elikhulu originated from the previously mined and metallurgically treated Kimberley Reef from the Winkelhaak, Leslie/Bracken and Kinross Mines as part of Evander Mines' operations. The tailings of the treated material were historically deposited onto three TSFs that will be reclaimed in the following order: Kinross, Leslie/Bracken and Winkelhaak. Post their processing, these TSFs will be consolidated into a modern, single, enlarged regional Kinross tailings extension facility, thus reducing Evander Mines' environmental footprint and associated environmental impact.

OPERATIONAL PERFORMANCE

	Unit	30 June 2021	30 June 2020
Mining			
Total mined	t	13,054,767	13,093,574
Au mined grade	g/t	0.3	0.3
Processing			
Tonnes treated	t	13,054,767	13,093,574
Au head grade	g/t	0.3	0.3
Au sold	OZ	51,459	59,616
Plant recovery factor	%	40.74	47
Financial results			
Average Au price received	ZAR/kg	896,569	788,510
	US\$/oz	1,811	1,565
Capital expenditure	ZAR (million)	64.2	8.6
All-in costs	US\$/oz	917	614

MINERAL RESOURCES

		Mineral Resources								
		At 30 Jur	ne 2021		At 30 June 2020					
		Containe	ed gold			Containe	d gold			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Measured	19.03	0.29	5.58	0.18	24.43	0.30	7.28	0.23		
Indicated	148.14	0.28	41.20	1.32	147.59	0.28	41.25	1.33		
Measured and										
Indicated	167.17	0.28	46.78	1.50	172.01	0.28	48.53	1.56		
Inferred	11.05	0.29	3.17	0.10	11.05	0.29	3.18	0.10		

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Paylimit values are calculated at 0.1g/t, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). The paylimit criteria are applied to the global grade of the whole TSF to be remined due to the low selectivity of the mining method. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources are reported as in situ tonnes (1.35t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cutoff grade calculations.

EVANDER REGION continued

MODIFYING FACTORS

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

At 30 June 2021	Gold price ZAR/kg	Paylimit value g/t Au	Mining loss %	Dilution %	PRF %
Elikhulu	800,000	0.2	(6)	0	45.88

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves								
		At 30 June 2021			At 30 June 2020				
		Containe	d gold			Containe			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Proved	16.01	0.29	4.70	0.15	16.05	0.30	4.84	0.16	
Probable	145.99	0.28	40.55	1.30	140.48	0.28	38.96	1.25	
Total	162.00	0.28	45.25	1.45	156.52	0.28	43.80	1.41	

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Paylimit values are calculated at 0.2g/t, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). The paylimit criteria are applied to the global grade of the whole TSF to be remined due to the low selectivity of the mining method. All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (1.35t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

Elikhulu



Elikhulu Mineral Reserves sensitivity



Life-of-mine planning

Current schedules indicate a 12-year life of the Elikhulu operation at current throughput.



MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION



Factors that affected the Mineral Resources reconciliation

Depletion through remining activities

TSF boundary updates for Winkelhaak

Mineral Resource block updates on the Kinross dam

Cut-off grade impacted due to higher gold price

Factors that affected the Mineral Reserves reconciliation					
Depletion through remining activities					
Impact of updated TSF limits for Winkelhaak					
Update of grades in Mineral Resource blocks					
Modifying factors employed as per actual results since the commissioning of Elikhulu					

Evander Mines' projects

Evander Mines' assets also include projects that are at varying stages of exploration and development. The individual projects and level of study are summarised and illustrated in the map below.



Location of Evander Mines' growth projects.

The Group remains focused on creating shareholder value through unlocking the potential of its organic growth and brownfield exploration projects.

Evander Mines' 7 Shaft – Egoli project

Evander Mines' 7 Shaft is located approximately 3km south-east of 8 Shaft. The Egoli project orebody is approximately 2.5km west of the 7 Shaft infrastructure and some 2,000m to 2,500m underground. The 7 Shaft is currently operational and is utilised by Evander Mines for hoisting RoM material from the 8 Shaft pillar to the Kinross metallurgical plant. The Egoli project infrastructure requirements are less onerous when compared with the 8 Shaft remnant workings, which are approximately 13km in tramming distance from 7 Shaft, which result in significant mining losses in addition to time-consuming logistical processes.

During the year, the Egoli project was subject to rigorous internal and independent reviews. A final feasibility study and early works programme was completed by DRA Global in February 2021. This feasibility study identifies the Egoli project as a stand-alone operation, post the depletion of the current 8 Shaft pillar and 24 Level extraction, Egoli will use existing mining and metallurgical infrastructure with on-reef development conducted by a hybrid mining method, where stoping will be conducted on a conventional basis with hand-held equipment, and development by trackless machinery.

The Egoli project will be accessed directly from 7 Shaft (twin shaft system) with one decline (3 Decline). Blasted ore generated in the stopes will be cleared into the advance strike gullies by means of a scraper and winch combination. The strike gully winches will scrape ore into the centre gully from where it will again be scraped down-dip into the receiving bay. A belt loading winch will then scrape the ore onto static grizzlies constructed over strike conveyors, which in turn will transport the broken rock to dip conveyors located in the decline cluster. The 3 Decline conveyor system will tip broken rock into the main decline ore passes located between 14 and 15 Levels. The broken rock will be drawn on 15 Level and trammed by rail to the 7 Shaft complex for hoisting to surface and processing at the Kinross metallurgical plant.

Being a brownfield project with limited development risk, the feasibility studies anticipate that approximately 560m of underground development will be required from the breakaway position of the current 3 Decline to intersect the Egoli project orebody.

The Egoli project has all the required permitting in place through Evander Mines' mining right that is valid until 2038, as well as the applicable WUL and approved environmental management plans. The substantial existing infrastructure which is currently operational comprises a twin vertical shaft system (7 Shaft) to a depth of 1,960m, hoisting infrastructure and processing facilities at the Kinross metallurgical plant. In addition, the necessary surface and engineering infrastructure such as offices, change house, lamp room, workshop, electricity supply, metallurgical plant and TSFs are already in place, and only require refurbishment and upgrading where applicable.

The feasibility study concluded that the Egoli project is a highly attractive project with excellent returns in the current economic environment, with possible upside to the life-of-mine and annual gold production for the Group following the successful conversion of Inferred Mineral Resources to Indicated Mineral Resources, and subsequently to Mineral Reserves as underground development progresses. The initial life-of-mine is planned for nine years with average recoverable gold production of approximately 72,000cz per annum at an average head grade of 6.61g/t, based on current Indicated and Measured Resources only. The mine design and schedule is planned to produce 45,000t per month of RoM to the Kinross metallurgical plant. With the upgrading of the currently defined Inferred Mineral Resources to an Indicated category, the life-of-mine could be extended beyond 14 years.

The Egoli project can increase Evander Mines' underground gold production profile materially, at a relatively low capital cost and significant cost and time savings, using the existing shaft and metallurgical facilities.

GEOLOGY

The Kimberley 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 area strikes in an east-west direction and dips to the north at about 10°. The reef thickness varies from a waste on contact up to a 50cm well-developed oligomictic conglomerate. Average reef thickness is 30cm within the 7 Shaft vicinity. 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.

The Egoli project orebody is a defined high-grade fluvial channel (payshoot), and is a large orebody of world-class proportions. This payshoot represents a divergent fluvial channel which forms part of the basin-wide Kimberley Reef deposition system. The Kimberley Reef has been mined from the Evander goldfield in the east as well as at operations in the Welkom goldfield in the west (an extent of over 400km). Locally, the Egoli project payshoot is comparable with the currently mined Kinross payshoot (at the 8 Shaft) in geology, mineralisation as well as time and style of deposition. The successfully mined Kinross payshoot is therefore analogous to the Egoli project payshoot and has been deposited by the same fluvial system with the same source areas of sediment.

EVANDER REGION continued

MINERAL RESOURCES

	Mineral Resources								
	At 30 June 2021				At 30 June 2020				
	Contained gold				Contained gold				
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Measured	0.46	8.51	3.90	0.13	0.46	8.51	3.90	0.13	
Indicated	2.94	9.85	28.93	0.93	2.94	9.85	28.93	0.93	
Measured and									
Indicated	3.39	9.67	32.83	1.06	3.39	9.67	32.83	1.06	
Inferred	6.26	9.68	60.58	1.95	6.26	9.68	60.58	1.95	
Total	9.65	9.68	93.41	3.00	9.65	9.68	93.41	3.00	

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 248cmg/t, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.71t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MODIFYING FACTORS

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	MCF %	PRF %
Egoli project	800,000	2.07	248	120	11	90	95

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves								
		At 30 Jun	e 2021		At 30 June 2020				
		Containe	d gold			Containe			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Proved	0.45	5.90	2.64	0.08	0.45	5.90	2.64	0.08	
Probable	2.99	6.72	20.08	0.65	2.99	6.72	20.08	0.65	
Total	3.44	6.61	22.72	0.73	3.44	6.61	22.72	0.73	

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 248cmg/t, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (2.71t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION



Factor that affected the Mineral Resources reconciliation

Cut-off grade decreased due to lower-cost mining method and increased gold price



Factor that affected the Mineral Reserves reconciliation

Modifying factors impacted positively due to lower mining costs, higher gold price and proximity of mining activities to infrastructure
Egoli project



Life-of-mine planning

The feasibility study and early works programme compiled by DRA Global, scheduling only the Measured and Indicated Mineral Resources, specified a nine-year life-of-mine for the Egoli project. Post the Group's evaluation and reassessment of its capital employment strategy and the peak funding required for the Egoli project, the decision was taken to progress the project as an internal phased organic growth section over a calculated threeand-a-half-year period, ramping up as the mining at 24 Level winds down. This further materially reduces the upfront debt funding requirement. The nine-year life will commence in year four of the project plan, post the dewatering of the 3 Decline at the 7 Shaft system.

Further upside exists at the Egoli project when a portion of the reported Inferred Mineral Resources is allowed to be converted to Indicated and Measured Mineral Resources in future as more data becomes available through underground mining activity. These newly converted Mineral Resources could then be modelled into the mine reserves, further increasing the current life of the project to some 14 years.

The Egoli project payshoot extends past the current 8 Shaft infrastructure, towards the Rolspruit project and, through the current geological model's extrapolation, terminates at the Poplar project. This represents a total project target trend extending in excess of 15km, that is contained within the existing Evander Mines mining right.

Egoli project Mineral Reserves sensitivity



Base gold price (ZAR800,000/kg)



PAN AFRICAN RESOURCES PLC MINERAL RESOURCES AND MINERAL RESERVES REPORT 2021 71

Rolspruit project

BACKGROUND

The Rolspruit project is an exploration project where the orebody is a down-dip extension of the Kinross payshoot currently being exploited at 8 Shaft. The project is located immediately west-north-west of the 8 Shaft. Exploration on the Rolspruit project commenced in 1955, and by 1988, a total of 53 boreholes with accompanying reef deflections had been completed by various companies. The Group regularly reviews its portfolio of exploration projects and applies the latest available economic data to assess their feasibility.

GEOLOGY

The Kimberley Reef strikes in an east-west direction and dips at 28° to the north, and has been intersected at an average depth of 2,300m below surface. The footwall sill break is an intrusive sill that is associated with a reverse fault, which resulted in a 90m displacement of the reef horizon. The Kimberley Reef at Rolspruit is a well-developed oligomictic conglomerate up to 1m thick, averaging about 37cm. In this area, the Kimberley Reef is very similar to that of the 8 Shaft with high gold grade values mostly located at the base of the unit, and associated with the presence of carbon and some visible gold on the footwall contact.

MINERAL RESOURCES

The MRE was performed by ExploreMine Consultants Proprietary Limited in April 2011, with no recent updates as no new information on the project is available. A review of the resulting prefeasibility study was conducted in 2012 and reviewed by SRK Consulting (South Africa) in 2017, with all operational and capital expenditure being escalated. An extensive channel sampling database for the adjoining 8 Shaft area and the surface drilling data for Rolspruit formed the dataset for the reviewed resource estimation.

Macro-ordinary kriging was applied to Indicated Resources while a Sichel's t-estimation technique was used to estimate the Inferred Mineral Resources. The Indicated MRE was defined on the 8 Shaft channel sampling dataset and subsequent geozones. The block size employed during this estimation was 60m by 60m.

		Mineral Resources								
		At 30 Jun	e 2021		At 30 June 2020					
		Contained gold				Containe	d gold			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Measured	-	_	_	-	_	_	-	_		
Indicated	23.78	11.78	280.09	9.00	23.73	11.80	279.91	9.00		
Measured and										
Indicated	23.78	11.78	280.09	9.00	23.73	11.80	279.91	9.00		
Inferred	2.09	9.25	19.36	0.62	2.09	9.25	19.36	0.62		
Total	25.87	11.58	299.45	9.63	25.82	11.59	299.27	9.62		

MINERAL RESOURCES

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 418cmg/t, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). Mineral Resources are reported inclusive of Mineral Reserves. All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.71t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

MODIFYING FACTORS

At 30 June 2021	Gold price ZAR/kg	Cut-off value g/t Au	Cut-off value cmg/t	Stoping width cm	Dilution %	MCF %	PRF %
Rolspruit project	800,000	3.73	447	120	16.5	85	96.4

MINERAL RESERVES

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

	Mineral Reserves								
		At 30 June 2021			At 30 June 2020				
		Contained gold				Contained gold			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Proved	-	-	-	-	_	-	_	-	
Probable	23.36	8.60	201.01	6.46	23.36	8.60	201.01	6.46	
Total	23.36	8.60	201.01	6.46	23.36	8.60	201.01	6.46	

Notes:

Mineral Reserves are reported in accordance with the SAMREC Code. Mineral Reserves would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 447cmg/t, applying a gold price of ZAR800,000/kg (US\$1,659/oz at US\$/ZAR:15.00). All Mineral Reserves reported exclude geological structures. Mineral Reserves are reported as in situ tonnes (2.71t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.



EVANDER REGION continued



Rolspruit project Mineral Reserves sensitivity



Life-of-mine planning

Turgis Consulting conducted a prefeasibility study on the Rolspruit project in 2012. The study indicated a potential 29-year life-of-mine for the Rolspruit project with peak production of approximately 450Koz per annum. The project will, however, require new twin shaft infrastructure to a depth of 2,371m for the main shaft and 2,261m for the ventilation shaft as well as underground development to enable the cost-effective extraction of ore from the Rolspruit project. The life of the project is dependent on when the construction of the required shaft infrastructure commences.



MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION



Factor that affected the Mineral Resources reconciliation

Cut-off grade increased slightly due to inflationary increase in mining costs assumed

Factor that affected the Mineral Reserves reconciliation

Cut-off grade increased slightly due to inflationary increase in mining costs assumed through conventional narrow tabular breast mining at a depth of more than 2,500m

Poplar project

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 mother holes were drilled in the project area, with an additional 146 intersections obtained through deflection drill holes. No additional information has been obtained during the period under review. The Group regularly reviews its portfolio of exploration projects and applies the latest available economic data to assess their feasibility.

GEOLOGY

The Kimberley Reef occurs at a depth below surface of between 500m in the west and 1,200m in the east. The reef strikes north-

MINERAL RESOURCES

south and dips nine to 24° 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 30cm, generally a thin reef hosting high gold grades. The reef has north-east to south-west trending channels or payshoots which are evident in other parts of the Evander Basin.

A series of seven major, subparallel and fairly evenly spaced faults traverse the property. These are all orientated in a roughly north-north-east to south-south-west direction. Throws on these faults vary between 50m and 400m.

	Mineral Resources							
	At 30 June 2021				At 30 June 2020			
		Containe	Contained gold			Contained gold		
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz
leasured	_	-	_	_	_	_	_	_
ndicated	18.38	7.35	135.02	4.34	15.50	7.82	121.22	3.90
leasured and								
ndicated	18.38	7.35	135.02	4.34	15.50	7.82	121.22	3.90
nferred	8.98	6.67	59.92	1.93	7.91	6.91	54.70	1.76
otal	27.36	7.12	194.93	6.27	23.41	7.51	175.92	5.66
Category Measured Indicated Measured and Indicated Inferred Total	Tonnes million – 18.38 18.38 8.98 27.36	Grade g/t 7.35 7.35 6.67 7.12	Tonnes gold - 135.02 135.02 59.92 194.93	Moz - 4.34 4.34 1.93 6.27	lonnes million - 15.50 15.50 7.91 23.41	Grade g/t 7.82 7.82 6.91 7.51	Ionnes gold - 121.22 121.22 54.70 175.92	▼ 3 3 1 5

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 489cmg/t, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.71t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.

Poplar project





MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION

Factor that affected the Mineral Resources reconci

Cut-off grade remained stable due to inflationary increase in mining costs assumed and higher gold price

Evander South project

BACKGROUND

The Evander South project is in the south-western limb of the Evander Basin. It is located directly west of Evander Mines' 9 Shaft and is south of the Poplar project. A total of 116 mother holes were drilled in the project area, with 475 deflections. No additional information has been obtained during the period under review.

GEOLOGY

The Kimberley Reef at Evander South occurs at a depth of between 300m in the west and 1,200m in the east, below surface, with a northsouth strike and dips between six and 19°. It comprises a sequence of fluvial channel sediments that were deposited in a braided stream environment with final deposition 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 oligomictic conglomerate. Carbon was observed in several of the borehole intercepts drilled at the Evander South project.

MINERAL RESOURCES

		Mineral Resources								
		At 30 Jun	e 2021		At 30 June 2020					
		Contained gold				Contained gold				
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz		
Measured	-	-	-	-	_	-	_	-		
Indicated	13.41	8.16	109.38	3.52	11.71	8.83	103.41	3.33		
Measured and										
Indicated	13.41	8.16	109.38	3.52	11.71	8.83	103.41	3.33		
Inferred	13.27	5.60	74.36	2.39	10.63	6.12	65.07	2.09		
Total	26.68	6.89	183.74	5.91	22.34	7.54	168.48	5.42		

Notes:

Mineral Resources are reported in accordance with the SAMREC Code. Mineral Resources would be the same if reported according to the guidelines of the CIM's National Instrument 43-101. Cut-off values are calculated at 333cmg/t, applying a gold price of ZAR900,000/kg (US\$1,866/oz at US\$/ZAR:15.00). All Mineral Resources reported exclude geological structures. Mineral Resources are reported as in situ tonnes (2.71t/m³). Any discrepancies in totals are due to rounding. Effects of mining and recovery losses have been considered in the cut-off grade calculations.



MINERAL RESOURCES AND MINERAL RESERVES RECONCILIATION



Factor that affected the Mineral Resources reconcilia

Cut-off grade decreased slightly due to inflationary increase in mining costs assumed and higher gold price

Evander South project Grade/tonnage curve





Evander Mines' Mineral Resources and Mineral Reserves reconciliation

At 30 June 2021, Evander Mines reported Mineral Resources of 34.8Moz (294.5Mt at 3.68g/t) and Mineral Reserves of 8.8Moz (189.4Mt at 1.45g/t) contained gold. The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Mineral Reserves. Mineral Reserves are reported as mill-delivered tonnes at the head grade, having duly considered all modifying factors. Mineral Resources and Mineral Reserves reported are contained within the mining right and prospecting right boundaries of Evander Mines.

The Evander South Mineral Resources of 26.7Mt at 6.89g/t for 5.9Moz (13.4Mt at 8.16g/t for 3.5Moz are Indicated Mineral Resources and 13.3Mt at 5.60g/t for 2.4Moz are Inferred Mineral Resources) occur on the Evander South prospecting right MP30/5/1/2/2/248 PR. This prospecting right is being consolidated into the Evander Mines mining right MP30/5/1/2/2/126 MR through a section 102 application that was lodged at the DMRE on 8 December 2017. Acknowledgment of the section 102 application was received from the DMRE on 10 May 2021, and is currently being processed.

All mined-out areas have been depleted from the reported Mineral Resources and Mineral Reserves.

MINERAL RESOURCES COMPARISON

	Mineral Resources								
		At 30 Jun	e 2021		At 30 June 2020				
		Contained gold				Containe	d gold		
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Measured	23.26	2.43	56.43	1.81	28.37	1.93	54.85	1.76	
Indicated	207.86	2.92	607.77	19.54	204.45	2.99	610.56	19.63	
Measured and									
Indicated	231.12	2.87	664.19	21.35	232.82	2.86	665.41	21.39	
Inferred	63.39	6.62	419.71	13.49	54.07	6.68	360.95	11.61	
Total	294.51	3.68	1,083.90	34.85	286.89	3.58	1,026.36	33.00	



RECONCILIATION OF MINERAL RESOURCES

Evander Mines' Mineral Resources posted the following changes for the reporting period.

Total Mineral Resources increased by 1.91Moz contained gold from 33.00Moz (286.89Mt at 3.58g/t) at 30 June 2020 to 34.85Moz (294.51Mt at 3.68g/t) post total mining depletion.

The increase can mainly be attributed to the escalation in the gold price used (in rand terms) from ZAR750,000/kg of gold in 2020 to ZAR900,000/kg of gold in 2021, and the consequent decrease of cut-off grades. The other factor that led to a decrease in the cut-off grades specifically for the 8 Shaft project is an optimisation in the mining model and high-grade panels being intersected by mining and sampling in the current financial year.

At the 8 Shaft, a contractor mining model was adopted and mining occurs closer to the shaft infrastructure.

At Egoli, the traditional off-reef development model was substituted for a lower-cost on-reef development mining method which also decreases the lead time to first gold production. This had a marked change in the Mineral Resources statement for the 8 Shaft, Evander South and Poplar projects.



Mineral Resources reconciliation

Mineral Resources at reporting date Decrease in Mineral Resources Increase in Mineral Resources



EVANDER REGION continued

MINERAL RESERVES COMPARISON

Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation. It is expected that Evander Mines' 8 Shaft 25 Level to 26 Level mining project's Mineral Resource would be converted to Mineral Reserves by the next reporting period.

	Mineral Reserves								
		At 30 June 2021			At 30 June 2020				
		Contained gold				Contained gold			
Category	Tonnes million	Grade g/t	Tonnes gold	Moz	Tonnes million	Grade g/t	Tonnes gold	Moz	
Proved	17.03	0.78	13.35	0.43	16.83	0.64	10.84	0.35	
Probable	172.34	1.52	261.63	8.41	166.83	1.56	260.04	8.36	
Total	189.37	1.45	274.98	8.84	183.66	1.47	270.88	8.71	





RECONCILIATION OF MINERAL RESERVES

Evander Mines' total Mineral Reserves increased by 131Koz (5.70Mt at 0.72g/t) contained gold, post mining depletion during the current financial year. Mineral Reserves are reported inclusive of diluting and contaminating material delivered to the respective metallurgical plant for treatment and beneficiation.

This increase is attributable to:

- The depletion of ~87Koz of gold recovered through both the underground and tailings operations
- The depletion of mining activity on the Kinross dam (unrecovered gold) through the Elikhulu operation
- The inclusion of the 24 Level mining areas to the Mineral Reserves of the 8 Shaft complex
- The decrease in the cut-off grade used and resultant positive impact on the modifying factors used in the Mineral Reserves conversion as experienced by actual mining activities during the reporting period.

GLOSSARY

%	Parts per hundred/percentage
3D	Three-dimensional
7 Shaft	Evander Mines' 7 Shaft
8 Shaft	Evander Mines' 8 Shaft pillar and 24 Level project
AIM	Alternative Investment Market, the London Stock Exchange's international market for smaller
	growing companies
Au	Gold
Barberton Mines	Barberton Mines Proprietary Limited
BGB	Barberton Greenstone Belt
BIOX®	Biological Oxidation (BIOX®) gold extraction process developed at Barberton Mines. It is an environmentally friendly process of releasing gold from the sulphide that surrounds it by using bacteria
Brownfield project	Project based on prior work or rebuilt from a previous one
BTRP	Barberton Tailings Retreatment Plant, a gold recovery tailings plant owned by Barberton Mines, which commenced production in FY2014
CIL	Carbon-in-leach
CIM	Canadian Institute of Mining
CIP	Carbon-in-pulp
cm	Centimetre
cmg/t	Centimetre grammes per tonne
CO ₂	Carbon dioxide
DMRE	Department of Mineral Resources and Energy
EIA	Environmental impact assessment
Elikhulu	Elikhulu Tailings Retreatment Plant project
EMPr	Environmental management programme
ETC	Eastern Transvaal Consolidated Mines
Evander Mines	Evander Gold Mines Limited and Evander Gold Mining Proprietary Limited
g/t	Grams/tonne
GSSA	Geological Society of South Africa
H ₂ O	Water
H ₂ S	Hydrogen sulfide
ha	Hectares
JSE	JSE Limited incorporating the Johannesburg Securities Exchange, the main bourse in South Africa
kg	Kilogramme
King IV™	King IV Report on Corporate Governance for South Africa, 2016™
km	Kilometre
Koz	Thousand ounces
kt	Thousand tonnes
ktpm	Thousand tonnes per month
LSE	London Stock Exchange
LTIFR	Lost-time injury frequency rate
m	Metre
MCF	Mine call factor
Metorex	Metorex Limited

GLOSSARY continued

Mineral Reserves	A Mineral Reserve is the economically minable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at a prefeasibility or feasibility level as appropriate that include application of modifying factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Mineral Reserves are defined, usually the point where the ore is
	delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
	Mineral Reserves are reported inclusive of diluting and contaminating material delivered for treatment or dispatch from the mine without treatment. To avoid confusion in reporting Mineral Reserves, the definition of treatment is taken to include any beneficiation of the raw product that might take place before or during the metallurgical process. For clarity, tonnages and grade of saleable product may be reported for certain commodities, with clear descriptions indicating such.
Mineral Resources	A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.
	Mineral Resources are subdivided, and must be so reported, in order of increasing confidence in respect of geoscientific evidence, into Inferred, Indicated or Measured categories.
MMR	Main Muiden Reef
Moz	Million ounces
MPRDA	Mineral and Petroleum Resources Development Act
MRC	Main Reef Complex
MRE	Mineral Resources estimation/estimates
Mt	Million tonnes
MTPA	Mpumalanga Tourism and Parks Agency
OZ	Ounce
Pan African	Holding company – Pan African Resources PLC
PC	Prince Consort
PRF	Plant recovery factor
QA/QC	Quality assurance and quality control
RIFR	Reportable injury frequency rate
RoM	Run-of-mine
SA	South Africa
SACNASP	South African Council for Natural Scientific Professions
SAMREC Code	South African Code for Reporting of Mineral Resources and Mineral Reserves (2016 edition)
SANAS	South African National Accreditation System
SGS Barberton	SGS Barberton assay laboratory
SHEQC	Safety, health, environment, quality and community
t	Tonnes
TSF	Tailings storage facility
the current financial year or the period/year under review	The year ended 30 June 2021
the Group or the Company or Pan African Resources	Pan African Resources PLC, listed on the LSE's AIM and on the JSE in the 'Gold Mining' sector
the prior financial year	The year ended 30 June 2020
US\$	United States dollar
WUL	Water-use licence
ZAR	South African rand
ZK	Zwartkoppie

CORPORATE INFORMATION

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COMPETENT PERSON

The competent person for Barberton Mines and Evander Mines, Hendrik Pretorius, the Group technical services manager, signs off the Mineral Resources and Mineral Reserves report for the Group. He is a member of the South African Council for Natural Scientific Professions (SACNASP No. 400051/11 – Management Enterprise Building, Mark Shuttleworth Street, Innovation Hub, Pretoria, South Africa), as well as a member in good standing of the Geological Society of South Africa (GSSA No. 965978 – CSIR Mining Precinct, corner Rustenburg and Carlow Roads, Melville, South Africa). Hendrik has 18 years' experience in economic geology and mineral resource management.

Hendrik holds a BSc (Hons) degree in Geology from the University of Johannesburg as well as a Graduate Diploma in Mining Engineering (GDE) from the University of the Witwatersrand. He is based at The Firs Building, 2nd Floor, Office 204, corner Cradock and Biermann Avenues, Rosebank, Johannesburg, South Africa. Hendrik has confirmed in writing to Pan African that the information disclosed is compliant with the relevant requirements of section 12 of the JSE Listings Requirements and the Table 1 requirements of the SAMREC Code and that it may be published in the form and context in which it is intended.



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