

## Regulatory Story

**Company** [Pan African Resources PLC](#)  
**TIDM** PAF  
**Headline** Approval for Barberton Tailings Project  
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Pan African Resources plc

(Incorporated and registered in England and Wales under Companies Act 1985 with registered number 3937466 on 25 February 2000)

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(`Pan African' or the `company')

Approval granted for Phase One of the Barberton Tailings Retreatment Project and the acquisition of Harper Tailings Operations

Pan African is pleased to announce that the board of directors has approved Phase One of the Barberton Tailings Retreatment Project ("BTRP") which will recover gold from the retreatment of the gold tailings situated close to the Barberton Gold Mining Operations ("Barberton"). It is anticipated that the BTRP will increase the production profile at Barberton from 95,000oz to 120,000oz per annum.

### Highlights

- The BTRP comprises a total resource of ~654koz (13.7Mt @ 1.38g/t) and a reserve of ~248koz (13.7Mt @ 0.56g/t)
- A Capital Cost Estimate ("Capex") of GBP27 million (ZAR325 million) has been approved for Phase One of the BTRP in order to retreat 1.2Mt per annum of gold tailings over a six year life, funded from internal cash flows
- Over the life of Phase One of the project, a total of 160koz will be recovered (which includes 120koz from tailings and another 40koz from current underground arisings to be retreated)
- At a gold price of ZAR400,000 per kilogram the project has a net present value ("NPV") of GBP27 million (ZAR325 million)
- Phase One of the BTRP:
  - will increase current production at Barberton by 26% to 120koz per annum
  - is expected to produce gold at an operating cash cost of ZAR194,000 per kilogram
- Commissioning of Phase One of the BTRP is expected to commence in April 2013 with full production being achieved during August 2013 (build -up phase)
- The remaining 129koz\* of reserve will represent Phase Two of the project and the phasing of this additional production is currently being finalised, which would extend the BTRP from 6 to 12 years
- Harper Tailings Operations acquired for a total consideration of GBP830,000 (ZAR10 million)

\*The 40koz resulting from the retreatment of current underground arisings after gold reclaimed from the BTRP is not included in the BTRP reserve of 248koz.

Jan Nelson, Chief Executive Officer of Pan African commented: "This project will be a further example of the tried and tested approach applied at the Phoenix platinum group metals tailings retreatment project to enhance the production profile at Barberton. The operating cash cost profile from underground production at Barberton is currently below ZAR165,000 per kilogram and this project will further increase the margins resulting in increased cash flow. This should ensure that Pan African can increase its dividend as well as pursue other accretive growth opportunities in the near term."

#### Project Concept & Locality

During 2010 the main tailings storage facility (referred to as the Bramber tailings storage facility ('BTSF')) at the Fairview section of Barberton reached the end of its operational life. The BTSF was commissioned in 1987 and has been the main storage facility for gold tailings from the Fairview section of Barberton. In light of current gold prices and the volume of material the BTSF represents, the Company decided to investigate the financial viability of reclaiming recoverable gold from the BTSF.

The exploration programme to investigate the volume and grade of the BTSF comprised a comprehensive auger drilling campaign on a 20 metre by 20 metre grid which included 308 boreholes for a total of 6,074 metres.

Modelling and geological profiling of the boreholes confirmed two distinct geographical populations across the BTSF. This is the result of historical deposition that took place in two separate compartments, a higher grade BIOX® tail section and a lower grade concentrator/flotation tail section. Geostatistical modelling indicates 74,600oz (758kt @ 3.06g/t in situ) for the BIOX® section and 72,900oz (2.369Mt @ 0.96g/t in situ) for the concentrator/flotation section. This represents a total resource of 147,500oz (3.130Mt @ 1.47g/t in situ) of which 24% by volume (51% by gold content) of the total Mineral Resource, originated from the BIOX® process. The flotation process produced the balance.

A total of 10 composite samples representative of the tailings material were submitted for metallurgical recovery test work. Initial excess cyanide test work indicated recoveries varying between 45% and 55%. Further Kinetic test work confirmed recoveries of 52%.

The two adjacent Tailings Storage Facilities ("TSFs"), Harper North and Harper South, both older than the BTSF and also originating from the Fairview Mining operation, were subsequently investigated as an additional surface source that could be reclaimed for gold. After successful test work the dumps were purchased from Michael Harper on 15 December 2011 for an aggregate consideration of ZAR10 million (GBP830,000). A total of 52 auger holes were drilled (1,013.5m drilling) and 753 samples taken (composited at 3 metre intervals to produce 463 samples). A total of five composites, representing the dumps, were submitted for metallurgical test work. These resources are included in the resource statement, as tabled below, and were also converted to reserve after stringent metallurgical test work was performed on the material. The Bramber TSF, Harper South TSF and Harper North TSF were included in the BTRP Phase One business case study.

Furthermore, the Company has completed auger drilling on another 6.8Mt of tailings at the New Consort section of Barberton, which has defined a further 4Mt of reserves (129koz) which would extend the BTRP from approximately 6 to 12 years, comprising Phase Two of the project. The auger holes drilled totalled 48 and equates to 790 metres. A total of 615 samples were taken at 1.5 metre increments that was composited at 3 metre intervals, for a total of 405 combined samples submitted for gold content determination. A total of five composites were submitted for metallurgical test work. Phase Two of the BTRP project is estimated to require a further ZAR55 million (GBP4.6 million). in capital and the phasing of production from this phase is being finalised.

Total Bramber Tailings Dam Resource and Reserve Statement as at 1 June 2011

Harper North and SouthSegalla/ Consort

Project	Resource Category	Mass	Grade	Mineral Resource		Recovery	Reserve Category	Mineral Reserves	
		(kt)	(g/t)	(kg)	(koz)			(kg)	(koz)
Bramber Tailing Dam	Measured	3,130	1.47	4,600	148	51.2%	Probable	2,355	76
	Indicated								
	Inferred								
	Total	3,130	1.47	4,600	148	51.2%	Total	2,355	76
	North	2,693	1.16	3,124	100	21.0%	Probable	656	21
	South	1,083	1.65	1,787	57	39.7%	Probable	709	23
	Total est.	3,776	1.30	4,911	158			1,365	44
	Calcine	290	5.95	1,726	55	18.2%	Probable	314	10
	Non - calcine	6,591	1.38	9,096	292	40.9%	Probable	3,684	118
	Total est.	6,881	1.57	10,821	348			3,998	129
Total Surface Tailings		13,787	1.47	20,332	654			7,718	248

Project Development Summary

The BTRP plant site will be located on the Barberton property and the planned BTSF extension will be positioned adjacent to the current tailings dam on the Farms Bramber South 349JU and Bramber Central 348JU which are owned by Barberton.

The BTRP has been designed to treat 100,000 tons tailings per month through a Carbon in Leach circuit using electro-winning and smelting to produce a saleable product. Current tailings from the Fairview Concentrator and the Fairview BIOX(R) plant totalling 14,000 tons per month will be routed via a pipeline to the BTRP for treatment and 86,000 tons per month will be reclaimed from the BTSF.

In October 2011, Basil Read-Matomo, which successfully constructed Pan African Phoenix Chrome Tailings Retreatment Plant within budget and two months ahead of schedule, completed the BTRP Feasibility Report and Capex. The total Capex for the BTRP is estimated to be GBP27 million (ZAR325 million) of which GBP10 million (ZAR830,000) will be used to extend the current TSF used at the Fairview operation for tailings disposal over the Life of project.

Basil Read-Matomo has been contracted to design, procure and construct the BTRP. Long lead items that have been identified such as leach tanks and carbon regeneration kiln and are currently being procured. Civil work of the BTRP is planned to commence end March 2012 with mechanical construction commencing in June 2012, and commissioning commencing in March 2013, with full production being achieved during August 2013 (build-up phase). The electric power requirement of 4,522kW to the BTRP will be supplied via an overhead 11kV line from the South African electricity utility, Eskom.

At a gold price of ZAR400,000 per kilogram Phase One of the project indicates an NPV of GBP27 million, at a total cash cost of ZAR194,000 per kilogram (ZAR114 per ton) over the life of the project. Capex is estimated at GBP27 million (ZAR325 million) and a total of 160, 000oz of gold will be produced at

an average recovered grade of 0,54g/t. This would increase the annual production profile at Barberton by approximately 20,000 oz per annum.

1 February 2012

Johannesburg

JSE Sponsor

Macquarie First South Capital (Pty) Limited

For further information on Pan African Resources plc, please visit the website at [www.panafricanresources.com](http://www.panafricanresources.com)

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Notes

The resource statement has been compiled in accordance with the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves ("SAMREC"). The verification and validation of the data and the information contained in this announcement was managed by Mr David Briggs (NHD Pr.Sci.Nat), Director: Geologix MRC (Pty) Limited, who is accredited with the South African Council for Natural Scientific Professions ("SACNASP"). He has consented to the inclusion of the technical information in this announcement in the form and context in which it appears.

The services of the following independent consultants and experts were secured to assist and support this process:

- Sampling and Drilling: Gold Mine Sand and Slime Dams Drillers CC
- Assaying, mineralogy and metallurgical test work: SGS Lakefield Resources Africa (Pty) Limited.
- Geological modelling and data conversion for the resources: Geologix MRC (Pty) Limited, a South African Resources and Geological Consultancy. Mr Briggs is accredited with the South African Council for Natural Scientific Professions (SACNASP).
- ENC Minerals: Eugene Nel is a Professional Engineering technologist registered with the Engineering Council of South Africa (ECSA).