

## Regulatory Announcement

**Company** [Pan African Resources PLC](#)  
**TIDM** PAF  
**Headline** Manica metallurgical results  
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Pan African Resources PLC  
("Pan African" or "the Company")

### **Manica Project, Mozambique**

#### **Update on metallurgical test results forming part of pre-feasibility study**

Pan African Resources PLC (AIM: PAF), the African based gold exploration company, announces the results of the metallurgical work completed on the Fair Bride prospect within the Manica Project, where the company is completing a pre-feasibility study on an opencast mine.

#### **Highlights**

- Overall gold recoveries from the upper oxide zone is 90% through normal cyanidation
- Overall gold recovery from the lower sulphide zone is 86% through a combination of flotation, BIOX<sup>®</sup> and normal cyanidation
- Further optimisation test work is currently underway

#### **Scope of work**

The mineralised envelope at Fair Bride can be divided into an upper oxide zone (weathered) and a lower sulphide zone (unweathered), both of which are being investigated to be mined from surface. Traditionally gold recovery in oxide zones is more easily achievable than in sulphide zones where the gold is often locked up within sulphide minerals. However, in recent years, efficient and effective gold extraction has been achieved from sulphide zones through additional extraction processes. With this in mind the company engaged the BIOX<sup>®</sup> division of Gold Fields Limited ("Gold Fields") to carry out metallurgical test work as part of the pre-feasibility study.

#### **Work completed**

**Oxide zone** - A 10kg representative oxide sample was submitted to SGS Lakefield in South Africa. The sample reported a recovery of 90.12% as a result of normal cyanidation.

**Sulphide zone** - A 500kg composite sulphide core sample was submitted to SGS Lakefield in South Africa for laboratory flotation test work and a 10.17kg concentrate was produced therefrom for BIOX<sup>®</sup> test work. These tests resulted in gold dissolution recoveries with some tests as high as 93% and an overall recovery of 86% through a combination of flotation, BIOX<sup>®</sup> and normal cyanidation.

## Work currently underway

Pan African together with the BIOX<sup>®</sup> division of Gold Fields are currently finalising a conceptual metallurgical flow diagram, preliminary equipment lists and order-of-magnitude cost estimates for the treatment of the mineralised envelope as part of the pre-feasibility study. These cost estimates will also be used in the engineering assessment of an opencast mine which is ongoing.

Jan Nelson, CEO, Pan African, commented: "The Company is very pleased that the work completed indicates that the metallurgical results at a basic stage without optimisation are excellent. High recoveries such as these are paramount to the success of any mining project. The Company expects to report on the initial results of the mine engineering study on the viability of an opencast mine in the near future and expects to complete, on time, the pre-feasibility study before the end of 2006. The exploration programme at Manica to locate further mineralised zones along strike from Fair Bride is well underway and several drill targets have already been identified."

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

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## NOTES TO THE EDITOR

- SGS Lakefield is a SANAS accredited laboratory in South Africa. Flotation test work was overseen by Mr. H Stallknecht, Manager Flotation Technologies for SGS Lakefield Research Africa and carried out by Mrs. J Rupnarain, Head Flotation Technologies SGS Lakefield Research Africa.
- The BIOX<sup>®</sup> process is a registered trademark of Gold Fields and all test work was overseen by Mr. Jan van Niekerk, Senior Metallurgical Consultant (Refractory Ores) for Gold Fields BIOX<sup>®</sup>.
- BIOX<sup>®</sup> – is a process whereby bacteria is used to pre-treat refractory sulphide gold ores such as pyrite, arsenopyrite and pyrrhotite. The gold in these sulphide ores is often encapsulated in sulphide minerals which prevent gold from being leached by cyanide. The BIOX<sup>®</sup> process destroys the sulphide minerals and exposes the gold for subsequent cyanidation, increasing recovery rates.
- SANAS – South African National Accreditation System.
- Detailed copies of the individual metallurgical reports will be posted on the company website under: Manica – pre-feasibility study.

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