

Regulatory Announcement

[Go to market news section](#)



Company Baobab Resources PLC
TIDM BAO
Headline Positive Results - Tete Metallurgical Test Work
Released 07:00 27-Oct-08

RNS Number : 6933G
Baobab Resources PLC
27 October 2008

POSITIVE RESULTS: TETE METALLURGICAL TEST WORK 27 October 2008

Baobab Resources plc (AIM:BAO) ('Baobab' or 'the Company'), is pleased to announce the interim results of metallurgical test work being carried out on vanadiferous titano-magnetite ore from the Massamba Group prospects within its Tete project.

Summary

- Stage 1 beneficiation test work at a 106µm grind and 800 Gauss low intensity magnetic separation (LIMS) has produced a high mass yield concentrate assaying 56% iron and 0.7% V₂O₅.
- Low concentrate grades of titanium (<9%), silica (0.5%) and other deleterious elements.
- At current market prices, the value per tonne of concentrate is estimated at US\$80 iron plus vanadium credits.
- Non-magnetic residue containing 22% titanium may be a marketable byproduct.
- Improved concentrate grades are expected from Stage 2 beneficiation test work.
- Stage 2 beneficiation test work is underway.
- Drilling is planned to confirm the extent of mineralization in the Massamba area as indicated by recent aeromagnetic interpretations and field mapping (refer to AIM announcement dated 18th June 2008).

PRODUCT	WEIGHT (g)	Wt DIST. (%)	Fe2O3		V2O5		TiO2		SiO2		Al2O3	
			dist		dist		dist		dist		dist	
			%	%	%	%	%	%	%	%	%	%
MAGS	15.2	75.0	76.8	82.7	0.70	96.4	17.40	64.4	0.39	33.2	3.14	41.3
NON-MAGS	5.1	25.0	48.3	17.3	0.08	3.6	29.0	35.6	2.36	66.8	13.4	58.7
Calculated Head	20.2	100.0	69.7	100.0	0.55	100.0	20.3	100.0	0.88	100.0	5.70	100.0

Chitongue North Davis Tube Recovery at 75 microns & 3000 Gauss

PRODUCT	WEIGHT (g)	Wt DIST. (%)	Fe2O3		V2O5		TiO2		SiO2		Al2O3	
			dist		dist		dist		dist		dist	
			%	%	%	%	%	%	%	%	%	%
MAGS	10.8	53.2	90.2	67.4	0.89	84.3	6.40	17.5	0.18	9.0	2.03	20.1
NON-MAGS	9.5	46.8	49.6	32.6	0.19	15.7	34.3	82.5	2.08	91.0	9.17	79.9
Calculated Head	20.4	100.0	71.2	100.0	0.56	100.0	19.5	100.0	1.07	100.0	5.37	100.0

Chitongue South Davis Tube Recovery at 75 microns & 3000 Gauss

PRODUCT	WEIGHT (g)	Wt DIST. (%)	Fe2O3		V2O5		TiO2		SiO2		Al2O3	
			dist		dist		dist		dist		dist	
			%	%	%	%	%	%	%	%	%	%
MAGS	4.1	20.1	90.1	26.0	0.98	33.6	5.31	5.3	0.23	3.9	1.51	5.3
NON-MAGS	16.4	79.9	64.4	74.0	0.48	66.4	23.8	94.7	1.44	96.1	6.72	94.7
Calculated Head	20.5	100.0	69.6	100.0	0.58	100.0	20.1	100.0	1.20	100.0	5.67	100.0

QEMSCAN

A composite of all three bulk samples was submitted for QEMSCAN Particle Mineralogical Analysis (PMA) investigation to establish the mineralogical and elemental content of the sample, the mineral associations and the department of the major valuable metals to the various minerals.

The mineralogical scan showed that the major minerals are magnetite and ilmenite, the latter being present as two distinct phases of high iron and low iron ilmenite. The vanadium was shown to be mainly contained within magnetite and the high iron ilmenite mineralisation. The magnetite and high iron ilmenite minerals show some degree of association.

Pre-concentration Test Work

The pre-concentration test work investigated the rejection of barren gangue material at a coarse size. It is based on a process termed 'coarse cobbing' which is a dry magnetic separation of coarse particles. A 42kg composite sample has ground to -3.35mm and passed through 1000 Gauss low intensity magnetic separation (LIMS) and 3300 Gauss rare earth magnetic separation (REMS) with both magnetic and non-magnetic residue samples analysed.

The upgrading of vanadium and iron was not achieved in the coarse cobbing process due to liberation issues at that fraction and the limited amount of gangue material in the ore. It was determined to proceed directly to the beneficiation phase of the test work.

Beneficiation Test Work: Stage 1

Beneficiation in mineral processing is the process of upgrading the average metal content of the process feed through the selective discard of a low grade component to create an economic concentrate. Due to the variance in the DTR results, it was thought prudent to create a composite of the Caangua and Chitongue North bulk samples for the beneficiation test work.

Results from the Stage 1 Beneficiation phase of the test work have been returned. Stage 1 involved the grinding of a 15kg ore sample to P80 106 micron and passing it through LIMS of 800 Gauss produce magnetic and non-magnetic sub-samples. The non-magnetics were then processed further at 3000 Gauss to produce magnetic and non-magnetic sub-samples. The magnetic samples from both LIMS separation phases and the final non-magnetic sample were then analysed to determine the iron, vanadium, titanium, silica and alumina contents.

The analytical results of the Stage 1 beneficiation work programme are very encouraging and tabulated below. The iron content was upgraded from a calculated head grade of 49% to 56% at 800 Gauss, representing a 78% total recovery. Vanadium pentoxide (V₂O₅) was also significantly upgraded from a head grade of 0.55% to 0.72%, representing a 90% recovery. Titanium, silica and alumina (deleterious components of a concentrate) returned low grades at 800 Gauss. Phosphorus analysis is pending although it is not expected to be more than 0.1%.

The titanium grade of the non-magnetic residual is 22%, which in itself may be a marketable commodity.

STAGE 1 BENEFICIATION TEST WORK RESULTS: 106µm grind at 800 & 3000 Gauss												
PRODUCT	WEIGHT (g)	Wt DIST (%)	Fe ₂ O ₃		V ₂ O ₅		TiO ₂		SiO ₂		Al ₂ O ₃	
			grade %	dist %	grade %	dist %	grade %	dist %	grade %	dist %	grade %	dist %
800G MAGS	10293.0	68.6	80.3	78.3	0.72	90.3	14.5	49.3	0.50	33.4	2.99	37.8
3000G MAGS	3749.1	25.0	49.6	17.6	0.19	8.8	31.2	38.7	2.24	54.9	10.89	50.2
NON- MAGS	957.9	6.4	44.7	4.1	0.07	0.9	37.6	11.9	1.87	11.7	10.12	11.9
Calculated Head	15000.0	100.0	70.3	100.0	0.55	100.0	20.1	100.0	1.02	100.0	5.42	100.0

PRODUCT	WEIGHT (g)	Wt DIST. (%)	Fe		V		Ti	
			grade %	dist %	grade %	dist %	grade %	dist %
800G MAGS	10293.0	68.6	56.13	78.3	0.41	90.3	8.7	49.3
3000G MAGS	3749.1	25.0	34.69	17.6	0.11	8.8	18.7	38.7
NON- MAGS	957.9	6.4	31.28	4.1	0.04	0.9	22.5	11.9
Calculated Head	15000.0	100.0	49.19	100.0	0.31	100.0	12.1	100.0

The Company completed a high resolution airborne aeromagnetic and radiometric survey in early 2008. Geophysical modeling of the magnetic anomalies associated with known prospects in the Massamba Group indicates that the magnetite bodies are near surface (for the most part 0m to 50m), sub-vertical, varying in width from 50m to 450m and continuous over strike lengths of up to 3.5km, with a combined strike length in excess of 8km. Follow up field investigations have identified additional, previously unrecorded, magnetite outcrops.

The information in this release that relates to Exploration Results is based on information compiled by Technical Director Ben James (BSc). Mr James is a Member of the Australasian Institute of Mining and Metallurgy, is a Competent Person as defined in the Australasian Code for Reporting of exploration results and Mineral Resources and Ore

Reserves, and consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

Mineral Engineering Technical Services Pty Ltd (METS) is an independent specialist consulting group providing services to the global mining industry. Although the company is Perth based, our professional staff are available to help on any job in Australia or overseas, whether from the office or on site. The consultancy has developed over the last 20 years and established itself as a quality service provider. A comprehensive range of services are provided ranging from project development, engineering management, risk assessment, due diligence to technical audits and studies.

Download of this announcement is available from the Baobab website at: www.baobabresources.com

For Further Information please contact:

Baobab Resources plc
Brett Townsend Executive Director

Tel: +61 (0)8 9430 7151

Baobab Resources plc
Jeremy Dowler: Non -Executive Chairman

Tel: +44 (0)1372 450529

Grant Thornton UK LLP
Fiona Owen

Tel: +44 (0)20 7383 5100

Fox-Davies Capital Limited
Daniel Fox-Davies

Tel: +44 (0)20 7936 5200