BAOBAB RESOURCES PLC

CSIRO PYROMETALLURGICAL TESTWORK CONFIRMS PRODUCT QUALITY

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HIGHLIGHTS

- Following the successful pyrometallurgical test work campaign completed during the Pre-Feasibility Study, the Company has completed a second round of bench-scale beneficiation, reduction and smelting tests of oxidised iron ore that again demonstrates that a low impurity pig iron product can be achieved.
- A final iron alloy containing **99% Fe** after refining was produced which is significantly purer than the specification of a commercial pig iron product.
- **Critically, the experiments demonstrated that both titanium and vanadium could be removed from the pig iron to separate slag by-products.**
- The iron making process can be adapted to ensure that products are tailored to meet end user requirements (particularly with regards to carbon content). Assuming a final composition containing 4.0% carbon, the test work results indicate that a high quality pig iron product of the following specifications can be produced (after Vanadium removal):

Carbon:	**4.0%**	**Sulphur:**	**<0.01%**
Silicon:	**0.1 to 0.3%**	**Phosphorus:**	**<0.01%**
Manganese:	**<0.2%**	**Copper:**	**<0.04%**
Vanadium:	**<0.2%**	**Other:**	**<0.1%**
Titanium:	**<0.05%**	**Iron:**	**95.0 to 95.5%**

- The test work further confirmed the suitability of three sources of local thermal coal (from two commercial operations and one in-development project in the immediate Tete Project area) in the reduction process, achieving at least 85%, and up to 93%, metallisation.
- The bulk samples of Tenge oxide iron ore, Massamba carbonate and local thermal coal product have arrived at FLSmidth's test facilities in the USA where pilot scale reduction tests are scheduled to commence this month.
- Further larger scale test work utilising the direct reduced iron produced at FLS will be conducted to confirm the final specifications of both titanium and vanadium by-products.

Commenting today, Ben James, Baobab's Managing Director, said: *'the second round of pyrometallurgical results confirms the Company's conviction that a high quality, low impurity pig iron can be produced from Baobab's iron ore resources and locally sourced thermal coal; coal that is being produced as a by-product of the washing process on the project boundary and, due to logistics constraints and tightening market conditions, is not considered commercially viable for export and is being stockpiled and, in some cases, reburied.*

'Importantly, the test work also demonstrates the clean removal of titanium to the slag and that vanadium can also be separately liberated. Larger scale test work, using the DRI produced in the pilot scale reduction simulation, will clarify the specifications of both by-products.'

PYROMETALLURGICAL TEST WORK

SAMPLE SELECTION, COMMINUTION & BENEFICIATION

As part of the Pre-Feasibility Study ('PFS'), a series of bench scale comminution, beneficiation, reduction and smelting tests were completed utilising fresh, non-oxidised iron ore from the Tenge resource block of the Tete Project and locally derived thermal coal products. The test work demonstrated that a low impurity pig iron product could be produced (please refer to RNS dated 4 March 2013 for further details).

Following on from the PFS test work, the Company has successfully completed a second phase of beneficiation and pyro-metallurgical studies on a representative sample of the oxidised iron ore which dominates the upper portions of the Tenge resource block and which would constitute plant feed for the initial years of operation.

The oxide sample was collected from surface exposures across the Tenge deposit and despatched to Bureau Veritas laboratories in Perth, Western Australia, where the dry crushing, screening and magnetic cobbing beneficiation flowsheets, established during the PFS, were utilised to produce a magnetic concentrate product (please refer to RNS dated 16 July 2012 for further flow sheet details). The oxide concentrate reported a grade of 50.1% Fe, 0.73% V_2O_5 and 17.6% TiO_2 at a mass recovery of c.67%.

Samples of local thermal coal were collected from two commercial operations and one in-development project in the immediate Tete area. The coal samples represent a middling by-product that is produced during the coal washing process and, not currently considered viable for export, is being stockpiled.

Plate 1: Pig Iron (top) & titanium slag (bottom) produced from Baobab iron ore & local Mozambique coal

The oxide concentrate and coal samples were then despatched to the Commonwealth Scientific and Industrial Research Organisation (CSIRO) laboratories in Melbourne, Australia for bench scale reduction and smelting test work.

REDUCTION TEST RESULTS

Reduction tests were conducted using a bench-scale rotary kiln simulator that has been used for the simulation of the reduction of ilmenite at operations in Western Australia. The aim of the test work was to increase the metallic iron content of the iron ore concentrate through the production of a direct reduced iron ('DRI') via a rotary kiln, using local thermal coal as the reductive agent. The DRI would be then charged directly to an electric arc furnace that is designed to produce pig iron as well as titanium and vanadium slag by-products in staged refining operations.

Reductive roasting tests on the Tenge oxide concentrate at 1100°C achieved at least 85% and up to 93% metallisation.

SMELTING TEST RESULTS

An inductively heated furnace was used to confirm the ability to produce pig iron from the reduced iron sample and determine the quality of the pig iron. The test work involved a series of melts of the DRI material with the addition of varying amounts of carbonate flux and oxygen injection.

Chemical analysis of the final refined iron alloy product returned a grade of 99% Fe which is significantly higher than that of standard commercial pig iron specifications. Pig iron typically also contains a fixed amount of carbon which can be added to the hot metal at the end of the process to meet end user requirements. It is also envisaged that the liquid pig iron will be de-sulphurised and de-phosphorised in addition to removal of the vanadium. Assuming a final product containing 4% carbon, the test work results indicate that the total impurities (i.e. ∑ S, P, Cu, Pb, Al, Co, Sb, As, Sn, Mo, Ni, Cr) would be less than 0.15% and the iron content of the pig iron would be about 95%.

The experiments demonstrated that both titanium and vanadium can be removed from the iron to separate slag by-products. The results indicate that the titanium slag by-product would grade 47% TiO_2. Further work is required to determine if this can be upgraded to an industry standard titanium product.

The vanadium recovery tests successfully demonstrated that the process is chemically viable. Further work will be conducted at a larger scale once the pilot scale reduction test work at FLSmidth's facility in the USA is complete and additional DRI generated.

The information in this release that relates to Exploration Results is based on information compiled by Managing 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.

ABOUT BAOBAB RESOURCES PLC

Baobab Resources Plc ('Baobab' or the 'Company') is wholly focused in Mozambique where it is currently completing a Bankable Feasibility Study ('BFS') at its pig iron and ferro-vanadium project in the Tete province (the 'Tete Project'), one of Africa's fastest growing mining and industrial centres. The International Finance Corporation ('IFC') holds a 15% participatory interest in the Tete Project.

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