

BAOBAB RESOURCES PLC

TETE PRE-FEASIBILITY STUDY RETURNS POSITIVE RESULT

ROBUST ECONOMICS: NPV₁₀ US\$1.3 BILLION

28 MARCH 2013



Baobab Resources Plc ('Baobab' or the 'Company'), the Mozambique focused mineral resource development company, is pleased to present a summary of the Pre-Feasibility Study (the 'Study' or 'PFS') assessing the economic viability of its 85% owned Tete pig iron and ferro-vanadium project (the 'Tete Project') in which International Finance Corporation ('IFC') holds a 15% participatory interest.

HIGHLIGHTS

- PFS confirms the Tete Project as a strategic asset of global significance based on:
 - Long-term mine life:** 1Mtpa pig iron production for 37 years exploits just 15% of the current global resource (as tabled in Annexure 2).
 - Production of high-demand, low-impurity commodities at lowest quartile operating costs,** maximising the Project's unique access to low-cost raw materials.
 - Modular ability to ramp up production beyond 1Mtpa** mitigates financial exposure and allows project scaling.
- Base case scenario of 1Mtpa pig iron production estimates a capital expenditure of US\$1.14bn and delivers strong project economics, with a **pre-tax NPV₁₀ of US\$1.3bn, pre-tax IRR of 22%** and a payback period of 4-5 years.
- The Study, completed by independent consultants, assessed low risk, tried and tested beneficiation, reduction and smelting technologies used in similar, commercial operations worldwide.
- Very competitive operating cost of US\$225/t (FOB) pig iron firmly establishes the project as one of the lowest cost producers globally.
- Co-production of c.3,000tpa ferro-vanadium alloy will deliver by-product revenues in the order of US\$75m (gross) per annum, which corresponds to 14% of total revenue and is equivalent to a by-product credit of c.US\$65/t pig iron.
- The Government of Mozambique offers various investment incentives for major industrial projects, with more favourable taxation terms for projects that add a significant amount of value in-country, create local employment and are export orientated. The completion of the PFS now enables the Company to enter into negotiations as to the structure of the tax treatment for the Tete Project with reference to established precedent agreements. It is for these reasons that the Company has not presented 'after-tax' figures.

Commenting today, Ben James, Baobab's Managing Director, said: *'with the results of this PFS we now have independent confirmation of the Tete Project's viability, and more importantly, its compelling economics. This marks another significant milestone on the Company's way to becoming not only the first iron producer in Mozambique, but also one of the lowest cost producers of pig iron globally. In addition, to be able to do this using tried and tested technology and modular plant equipment allows us to keep the Project as straight-forward as possible whilst limiting initial financial exposure. In short, this PFS confirms our objectives at Tete of adding value on-site, maximising margin and minimising risk.'*

'While waiting for these results to be finalised and with funding in place the Board elected to maintain forward momentum and work has already commenced on the Project's Definitive Feasibility Study. We look forward to keeping shareholders updated with progress.'

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PRE-FEASIBILITY STUDY: EXECUTIVE SUMMARY

The Pre-Feasibility Study was completed by a leading group of internationally respected consulting firms and individuals including Coffey Mining Limited, John Clout and Associates, ProMet Engineers, SNC Lavalin, Coffey Environment and Ferrum Consultants. Equipment suppliers were also involved in the design and costing of the pyro-metallurgical flow sheets. Analysis was largely completed at the Amdel, ALS Chemex and CSIRO laboratories in Australia. The Study has been completed to a PFS-level of accuracy and is based on a number of process engineering initiatives including raw materials analysis, bench scale test work and the process comparison with similar, existing pig iron production plants.

The project is located in the Tete province of Mozambique, a country richly endowed with both mineral and gas resources. The province hosts some of the largest undeveloped coal reserves remaining on Earth and, with estimates pointing towards the area having the potential to produce up to 20% of the world's seaborne coking coal within the next decade, is fast-tracking to become a mining and industrial hub of global significance.

Since commencing exploration in 2008, the Company has defined a 725Mt global resource inventory (573Mt inferred and 152Mt indicated, estimated and classified under the guidelines of the JORC (2004) Code), 550Mt of which underlies the very compact 2.5km² footprint of the Tenge/Ruoni prospect (refer to Annexure 2 and RNS dated 21 February 2013 for details).

Immediately south of, and sharing the Company's licence boundaries, are c.15Bt of coking and thermal coal resources being brought into production by two of the world's largest mining companies, Rio Tinto and Vale, along with tier one steel producers, Tata Steel, Nippon Steel, Jindal Steel and POSCO. Other operators in the area include AIM listed companies Beacon Hill Resources plc, Ncondezi Coal Company plc and Eurasian Natural Resources Corporation plc (ENRC).

The Tete province is also home to southern Africa's largest source of hydro-electric power, the 2,075 megawatt Cahora Bassa dam. Additional hydro-power schemes, currently in the advanced planning stages, will see power production more than double once implemented. Thermal power production is also likely in the near future.

The Project stands to benefit from the significant infrastructure investments already being made in the region. The Rail corridors linking the Tete province with the coast are rapidly being refurbished and expanded, as are the ports of Beira and Nacala. The Company is confident that it will be able to secure allocation well in advance of estimated production time lines.

It is the project's strategic access to the requisite iron and steel making commodities of iron ore, coal, power and water that differentiates Baobab's project from any other in Africa, if not globally, and presents an unique opportunity to add substantial value on site through the mine-mouth smelting of a high value pig iron product.

Pig iron is classified as a raw material derived from the intermediate smelting of iron ore. It is used alongside scrap iron in electric arc furnaces (EAFs) to generate crude and finished steel products. The global consumption of pig iron is estimated at c.70Mtpa (including the domestic Chinese market), complementing a c.350Mt annual consumption of scrap iron.

Due to its consistent chemical composition and density, pig iron is considered a superior product and typically trades at a premium to scrap iron. Pig iron prices vary between markets with North America typically reporting the lowest prices and Asia, in particular China, the highest. Current pricing ranges from \$425/t to \$500/t.

The market fundamentals for pig iron are robust and supported to a large extent by the on-going development of the BRIC (Brazil, Russia, India and China) economies as well as sub-Saharan Africa where regional demand for construction steel continues to grow on the back of rapid urbanisation and the commissioning of large scale infrastructure projects such as Mozambique's emerging offshore gas industry. Other key drivers to the continued growth of the pig iron sector include the maturing of China's scrap iron market and a general decline in the quality of scrap iron elsewhere in the world.

The Pre-Feasibility Study indicates that there is the potential to establish an economically viable operation at the Tete Project. The production of pig iron was evaluated using tried and tested beneficiation, reduction and smelting technologies, which are well established in similar commercial operations worldwide, including South Africa and New Zealand. The base case scenario of 1 million tonnes per annum ('Mtpa') pig iron production estimates a capital expenditure of US\$1.14bn and delivers strong project economics, with pre-tax NPV₁₀ of USD1.3bn, a pre-tax IRR of 22% and a payback period of 4-5 years. A summary of the base case model is presented in Table 1.

The Government of Mozambique offers various investment incentives for major industrial projects, with more favourable taxation terms for projects that add a significant amount of value in-country, create local employment and are export orientated. For instance, BHP Billiton's Mozal aluminium smelter and Kenmare's Moma mineral sands project have both been granted Industrial Free Zone (IFZ) status which makes them exempt from corporation tax, import duties, export duties and Value Added Tax while requiring payment of a 1% turnover tax. The completion of the PFS now enables the Company to enter into discussions with the

Government of Mozambique as to the structure of the tax regime for the Tete Project. It is for these reasons that the Company has not presented 'after tax' figures.

Table 1
Summary - Base Case Model - 1Mtpa

NPV @ 10% (Pre - Tax)	US\$M	1,261
EBITDA (LOM)	US\$M	10,376
EBITDA (Avg. p.a, steady state)	US\$M p.a	280

<i>1Mtpa with 37 years LOM</i>	Unit	Value
Key Parameters		
Resource Base	Mt	117
Life Of Mine	Years	37
Pig Iron production (LOM)	Mt	37
FerroVanadium Production (LOM)	Kt	119
Royalty ⁽¹⁾	%	3%
Commodity Prices		
Pig Iron	US\$/t	450
Ferro-vanadium	US\$/t	25,000
Unit Operating Costs (FOB)		
Pig Iron (Pre Credit)	US\$/t pig iron	225
Ferro-vanadium	US\$/t pig iron	4,652
Pig Iron (Post Credit)	US\$/t pig iron	159
Capital Expenditure		
Upfront Capex - Pig Iron Plant	US\$M	1,010
Upfront Capex - FerroVanadium Plant	US\$M	133
Total Upfront Capex	US\$M	1,143
Sustaining Capital - First 5 years ⁽²⁾	%	2.5%
Sustaining Capital > 5Years ⁽²⁾	%	5.0%

(1) Model assumes 5 year grace period from start of production

(2) Calculated on mechanical plant and equipment cost (c. 40% of upfront Capex)

The pyro-metallurgical test work completed during the PFS not only provided physical and empirical evidence that a high-quality, low-impurity pig iron could be generated through the direct reduction and smelting of concentrates derived from the Project's iron ore, but also demonstrated the viability of the locally produced middling by-product coal as an agent in the reduction process. Please review RNS dated 4 March 2013 for further details.

As this middling coal is essentially a waste by-product, the Company will be able to negotiate a very competitive mine-gate rate which is one of the key drivers, along with the ability to co-generate a significant power credit and a very low stripping ratio averaging just 0.4 over the first c.10 years of mining, that establishes the Tete project as potentially one of the lowest cost pig iron producers globally. The PFS estimate of a pre-credits free on board ('FOB') cost of production of US\$225/t pig iron and post by-product credit cost of production of US\$159/t is considered to be very competitive, particularly when compared to the estimated FOB operating cost of \$385/t of Brazilian operations. Operations in Russia and the Ukraine are thought to have similar production costs to Brazil, while domestic Chinese operating costs are thought to be substantially higher.

The mineralisation at Tete includes significant amounts of vanadium which will be extracted as a vanadium slag during the smelting process. Further refining of the vanadium slag results in the production of ferro-vanadium alloy, currently sold at price levels of around US\$25,000/t. The operating cost to upgrading the vanadium slag to ferro-vanadium alloy is US\$4,650/t, less than a third of the operating cost of a dedicated ferro-vanadium production plant. At 1Mtpa pig iron production, the operation would co-produce c.3,000tpa ferro-vanadium alloy, delivering by-product revenues in the order of US\$75m (gross) per annum, which corresponds to 14% of total revenue and is equivalent to a by-product credit of c.US\$65/t pig iron.

Titanium is successfully separated from the iron during the smelting process and recovered as a titanium slag by-product grading approximately 30% TiO₂. The slag is likely to be of commercial use only as a low cost material for road construction or as an extender in the cement industry and has limited impact on the financial model.

The Pre-Feasibility Study modelled 1Mtpa pig iron production over a 37-year mine life which resulted in the development of 110Mt, just 15% of the total 725Mt resource, clearly highlighting the opportunity for expanded production scenarios. The modular character of the plant equipment supports a staged development model, thereby limiting initial financial exposure. Scoping-level assessments of 2Mtpa and 4Mtpa operations are on going.

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.

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ANNEXURE 1: PRE-FEASIBILITY STUDY

RESOURCES & MINING

The current 725Mt resource base, comprising three areas as summarised in RNS dated 21 February 2013, is the culmination of systematic diamond and reverse circulation drilling programmes completed since March 2009 totalling more than 79,000m. Mineralised zones are routinely submitted for X-Ray Fluorescence Spectrometry (XRF) head analysis followed by Davis Tube Recovery (DTR) determination and XRF assay of recovered magnetic concentrate. A total of more than 9,700 DTR determinations have been completed to date.

The Pre-Feasibility Study has focused exclusively on the resources underlying the 2.5km² footprint of the Tenge/Ruoni prospect. Mineralisation at Tenge/Ruoni has been synformally folded with the fold hinge plunging gently to the west-northwest. The northern and southern limbs of the fold comprise the Ruoni North and Ruoni South resource blocks, while the outcropping fold hinge comprises the Tenge resource block to the east. The buried central portion of the fold comprises the Ruoni Flats resource block. Drilling programmes conducted during 2011 and 2012 estimated a total resource of 550Mt, estimated under the guidelines of the JORC (2004) Code, across the four resource blocks at Tenge/Ruoni: 398Mt and 152Mt classified as Inferred and Indicated respectively (the indicated resources are limited to Tenge and Ruoni North). Please refer to Annexure 2 and RNS dated 21 February 2013 for details

Coffey Mining modelled mining requirements to support 1Mtpa pig iron production in a staged, two pit configuration exploiting portions of the Tenge and Ruoni North resource blocks for a total of 110Mt over a mine life of 37 years. The Tenge Stage 1 pit would be mined in years zero to 23 with a very low average strip ratio of 0.4. Mining in the Ruoni North Stage 1 and 2 pits would begin in years 18 and 25 respectively to the end of the modelled period.

Mining would utilise a conventional open pit method with drill and blast followed by load and haul. Aerial conveying options were also considered to transport iron ore across the Revuboe River to the proposed plant location. Pit optimisations, using Whittle Four-X software, were undertaken in the Tenge, Ruoni North and Ruoni South resource zones to generate pit shells from which mine production schedules were developed for use in the cash flow model.

The project's large resource inventory is sufficient to support significantly larger scale mining operations underpinning 2Mtpa to 4Mtpa pig iron production.

MINERAL PROCESSING

The Pre-Feasibility Study evaluated the base case scenario for 1Mtpa of pig iron production to a PFS-level of detail. Baobab's consultants have investigated a number of technologically advanced pyro- and hydro-metallurgical processes with a view of utilising latest technology in order to improve economic viability of the Project. However, Baobab has concluded that the use of proven, low risk technology is better suitable for a project in Mozambique.

The base case scenario is based on a three stage crushing circuit to produce 1.96Mtpa of concentrate in a dry magnetic separation process (also known as 'coarse cobbing') at the coarse grain size of 6.3mm. Please refer to RNS dated 16 July 2012 for further details on the beneficiation test work.

The iron making technology utilises multi-hearth furnaces and rotary kilns for the direct reduction of the concentrate prior to smelting in an electric furnace. Titanium and other impurities are slagged off during the smelting process. The molten metal then enters a vanadium recovery vessel before the hot metal is directed to the casting unit to mould pig iron billets. This technology is proven for the processing of ores of similar specification to the Project's iron ore and is in operation in many plants worldwide, including NZ Steel's Glenbrook facility in New Zealand and EVRAZ's Highveld Steel plant in South Africa.

During the course of the PFS, bench-scale reduction and smelting pyro-metallurgical test work was carried out at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) laboratories in Australia. The test work was conducted using coarse concentrates derived from the Tenge resource block and samples of thermal coal collected from two commercial operations in the immediate Tete area. The coal samples represent a middling by-product that is produced during the coal washing process and, not commercially viable for export, is being stockpiled.

The reduction test work, using a rotary kiln simulator, returned very promising results with in excess of 70% metallisation being achieved after a short residence time. Samples from the rotary kiln experiments were inductively smelted in a crucible to produce a clean disc of pig iron reporting 97% Fe (at 1.8% C) and containing a very low level of titanium of 0.002%. For further details on the pyro-metallurgical test work, please review RNS dated 4 March 2013.

VANADIUM & TITANIUM BY-PRODUCTS

The proposed 1Mtpa pig iron production will result in approximately 25,000tpa of vanadium slag by-product, with 3,300tpa contained vanadium or 5,900tpa V_2O_5 (vanadium pentoxide). At a vanadium recovery of 78%, this equates to a potential final contained vanadium capacity of 2,590tpa. By comparison the nameplate contained vanadium capacity at the recently rebuilt Windimurra plant in Australia is 6,300tpa. This significant vanadium credit warranted the inclusion of a dedicated vanadium recovery plant as part of this project with the aim to produce high value ferro-vanadium alloy.

The titanium slag, which is recovered from the smelting process in the electric arc furnace, is solidified and crushed and can then be on sold for road construction material or extender in the cement industry. Extraction of titanium from the slag is technically not proven and not considered an option at this stage of the project.

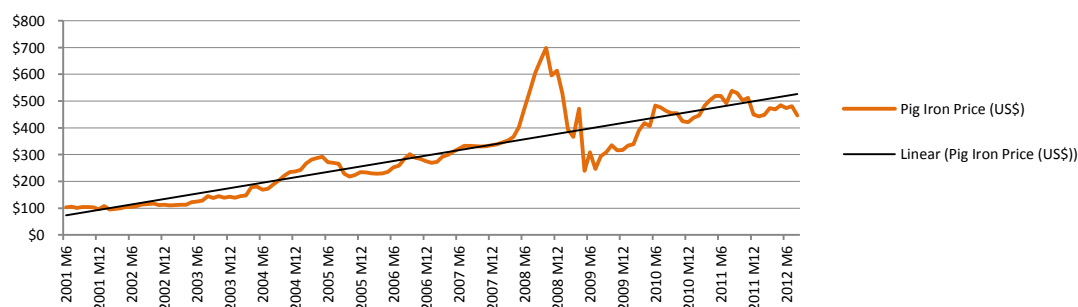
PIG IRON MARKET

Pig iron is classified a raw material derived from the intermediate smelting of iron ore. It is used alongside scrap iron in electric arc furnaces (EAFs) to generate crude and finished steel products. The global consumption of pig iron is estimated at c.70Mtpa (including the domestic Chinese market), complementing a c.350Mt annual consumption of scrap iron. Due to its consistent chemical composition and density, pig iron is considered a superior product and typically trades at a premium to scrap iron.

The market fundamentals for pig iron are robust and supported to a large extent by the on-going development of the BRIC (Brazil, Russia, India and China) economies as well as sub-Saharan Africa where regional demand for construction steel continues to grow on the back of rapid urbanisation and the commissioning of large scale infrastructure projects such as Mozambique's emerging offshore gas industry. Other key drivers to the continued growth of the pig iron sector include the maturing of China's scrap iron market and a general decline in the quality of scrap iron elsewhere in the world.

Over the last decade the price of pig iron, driven by the growth in global demand for crude steel, has increased at an average rate of c.15% per annum (Figure 1). The price of pig iron shows a strong correlation with raw material costs (iron ore and coal). Current pig iron prices vary between markets with North America typically reporting the lowest prices and Asia, in particular China, the highest. Current pricing ranges from \$425/t to \$500/t.

Figure 1: Brazilian Export Pig Iron Price (US\$)



Source: www.steelonthenet.com

INFRASTRUCTURE

The Project is strategically located to access abundant, low tariff hydro-electric power and thermal coal, two critical components in the beneficiation of iron ore and down-stream smelting.

Tete is rapidly becoming a mining centre of global significance with current estimates indicating that the area could be producing up to 20% of the world's coking coal within the next decade. The Project stands to benefit from the significant infrastructure investments already being made in the region by companies such as Rio Tinto and Vale as they bring their coal reserves into production.

Recent discoveries in the off-shore gas sector is likely to see Mozambique become one of the largest gas exporters globally with an anticipated investment of c.US\$40bn to develop the industry.

Electricity & Coal Supply: Low tariff hydro-electric power is readily available from the 2,075MW Cahora Bassa dam. Studies are underway to expand the dam's capacity by an additional 1,300MW. A new 1,500MW scheme at Mphanda N'kuwa, also on the Zambezi River, is in advanced planning stages.

The Project is surrounded by a number of tier one thermal and coking coal projects, mainly represented by Rio Tinto (in joint venture with Tata Steel at the Benga operation), Vale, Minas de Revuboe (a Joint Venture of Talbot Group, Nippon Steel and POSCO), Jindal Steel and Power and London listed companies Ncondezi, Eurasian Natural Resources Corporation ('ENRC') and Beacon Hill Resources.

Coal fired power plants have been proposed for Vale's Moatize and Rio Tinto's Benga coal operations as well as the Ncondezi and Jindal projects.

Power Co-generation: Significant operating cost savings will be achieved through the co-generation of power by recovering the heat energy from the kiln operation and the electric arc furnaces as well as the combustion energy from waste gas which is incinerated in an afterburner. This could see co-generation account for 60-80% of power requirements of the iron making process.

Port: The port of Beira is currently being refurbished to accommodate the coal production around Tete. Significant multilateral investment is going into upgrading the port of Beira and the deep-water port of Nacala. The government, in association with the private sector, has launched three task forces to move the development of coal export options forward. It is understood that these three task forces have been mandated to review the expansion options at Beira and Nacala and an additional Greenfields deep-water port in Zambezia Province at different time horizons. The development timeline coincides with the timeline of the Project, with first production modelled for 2016.

Rail: The rail networks linking the Tete region with the ports of Beira and Nacala are in the process of refurbishment and expansion. The Sena rail corridor, linking Tete with Beira is currently operating at a capacity of 2.5Mtpa that will expand this year to 6Mtpa and beyond to 18Mtpa by 2016. Vale is leading a consortium to refurbish and expand the corridor linking Tete with Nacala. The railway is due to be commissioned by early 2015 and will have an initial capacity of 30Mtpa, of which 12Mtpa will be made available to third parties.

Mine to Rail: The Transport Options Study completed as part of the PFS assessed the potential routes of mine construction material and operating equipment to the mine site during the construction phase and transport of pig iron from the mine site to the Sena rail line during production. Four transport routes were considered along rail, heavy haulage asphalt or gravel and combined power service corridors capable of accommodating 18 wheeler articulated trucks. Existing national asphalt and gravel roads were utilised where possible and new corridors were proposed where access was limited. The study also considered four potential crossing points along the east to west flowing Ncondezi River south east of the mine site as well as rail siding and transfer options at the mine site and connection to the Sena rail line.

ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT

As part of the finalisation of the scoping phase of the Environmental Impact Assessment the public consultation process was finalised in February 2013. The Public Participation Report was handed over to MICOA for evaluation. This important step launches the actual EIA phase, which has in some areas already commenced (wet season baseline studies are nearing completion).

CAPITAL & OPERATING EXPENDITURE ESTIMATES

The accuracy of the capital and operating expenditures ('capex' and 'opex' respectively) presented in the Pre-Feasibility Study are considered to be within a PFS-level accuracy of $\pm 25\%$ to 30% .

Table 2 summarises the capex estimates for an operation producing 1Mtpa of pig iron. It is assumed that the existing port facilities will be upgraded by the port authority and the port capital cost is associated with the mobile equipment required to load and haul the material onto the ship loader feed.

The infrastructure capital cost estimate is based on the construction of a haulage road between the Sena railway line and the production plant for transport of iron ore and coal. The cost for both the haulage road and the

electrical power lines are assumed to be shared with Ncondezi, who require the same infrastructure for their coal/power generation project. The rail capital cost includes all required rolling stock.

Sustaining capital costs are based on the mechanical plant and equipment capital cost and set at 2.5% for the first 5 years and 5% for the remainder of the plant operation.

Table 2		
Summary Capital Costs: Pig Iron Making		
Cost Centre	Unit	1Mtpa
Plant facilities direct cost	US\$M	
• Equipment Costs	US\$M	201
• Other Direct Costs	US\$M	158
• Construction and Installation	US\$M	204
• In-Plant Infrastructure	US\$M	137
Total indirect cost	US\$M	196
<i>Subtotal</i>	<i>US\$M</i>	<i>896</i>
Ex-Plant Infrastructure	US\$M	114
TOTAL CAPEX	US\$M	1,010

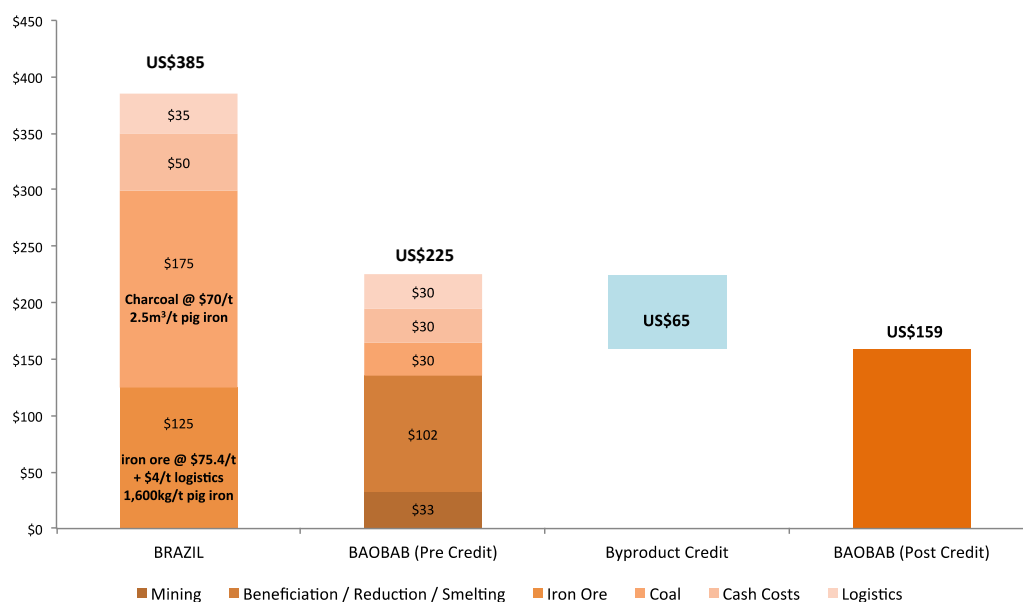
Table 3 summarises the opex estimates for pig iron production. Power costs are based on hydro-electric power supplied by the Cahora Bassa dam or from future coal fired power stations at US0.05/kWhr. Cost of co-generated power was set at US0.03/kWhr.

The pyro-metallurgical test work completed during the PFS demonstrated the viability of the locally produced middling by-product coal as an agent in the reduction process. As this is essentially a waste by-product, the Company has assumed a coal cost of US\$30/t delivered from one of the existing, nearby coal processing facilities.

Table 3		
Summary Site Operating Costs: Pig Iron Making		
Cost Centre	Unit	US\$ average over mine life
Mining	US\$/t pig iron	33
Beneficiation	US\$/t pig iron	7
Smelting & Refining	US\$/t pig iron	125
Infrastructure	US\$/t pig iron	30
Personnel Cost	US\$/t pig iron	12
Other cost and contingency	US\$/t pig iron	18
TOTAL OPEX	US\$/t pig iron	225

The calculated operating cost for the Tete project is considered to be very competitive, particularly when compared to the average cost of production in Brazil where an FOB opex of \$385/t has been estimated by Ferrum Consultants (Figure 2). Brazilian operations typically utilise charcoal as a reductant, thereby adding a significant environmental cost to the process. Operations in Russia and the Ukraine are thought to have similar production costs to Brazil, while domestic Chinese operating costs are thought to be substantially higher.

Figure 2: FOB opex comparison



Source: Ferrum Consultants

The recovery of vanadium from by-product slags from iron-making processes is a well-known and proven technology. The Operating and Capital Cost of recovering vanadium via a roast-leach process has been estimated to an order of magnitude level of accuracy. This process lends itself to the production of V₂O₅ flake, V₂O₃ powder or ferro-vanadium alloys. For the purposes of this Study the production of ferro-vanadium (FeV80) was considered as the final product.

The capital and operating cost estimates are tabulated below. The operating cost to upgrading the vanadium slag to ferro-vanadium alloy is US\$4,650/t, less than a third of the operating cost of a dedicated ferro-vanadium production plant. At 1Mtpa pig iron production, the operation would co-produce c.3,000tpa ferro-vanadium alloy, delivering by-product revenues in the order of US\$75m (gross) per annum, equivalent to a by-product credit of c.US\$65/t pig iron.

Table 4		
Summary Capital Costs: Ferro-Vanadium Alloy Production Facility		
Cost Centre	Unit	1Mtpa
Plant facilities direct cost	US\$M	
• Equipment Costs	US\$M	54.7
• Other Direct Costs	US\$M	34.7
EPCM - Overall	US\$M	13
Other Indirect Costs	US\$M	8.6
Contingency (20%)	US\$M	22
TOTAL CAPEX	US\$M	133

Table 5		
Summary Operating Costs: FerroVanadium Production Facility		
Cost Centre	Unit	US\$ average over mine life
V Slag preprocessing	US\$/t FeV	76
Leaching & Roasting	US\$/t FeV	2,951
Tails disposal	US\$/t FeV	163
Maintenance	US\$/t FeV	825
Personnel Cost	US\$/t FeV	214
Other cost and contingency (20%)	US\$/t FeV	423
TOTAL OPEX	US\$/t FeV	4,652

FINANCIAL MODEL & SENSITIVITY ANALYSIS

The financial model figures are presented in real terms (capex and opex is shown without cost and price escalation) and ungeared, assuming 100% equity funding. FOB prices for pig iron and ferro-vanadium alloy products have been estimated at US\$450/t and US\$25,000/t respectively. Tables 6 and 7 provide a summary of key physical inputs and financial results of the base case cash flow model for the 1Mtpa pig iron operation.

Table 6			
Summary - Base Case Model (1Mtpa / 37 years)			
Item	Unit	LOM	Avg PA
Total Material	Mt	345	9
Waste	Mt	227	6
Strip ratio	w:o	1.9	
Mill Feed Tonnes	Mt	117	3
Fe Head Grade	%	36.5%	
Mass Recovery	%	61.6%	
Concentrate Production	Mt	72	2
Fe in Concentrate	%	50.9%	
Pig Iron Production	Mt	37	1
V2O5 Slag	Kt	925	25
Ferro Vanadium Production	Kt	119	3

Baobab has elected not to present 'after tax' figures as projects that add a significant amount of value in-country are generally able to negotiate more favourable tax treatment terms. For instance, BHP Billiton's Mozal aluminium smelter and Kenmare's Moma mineral sands project have both been granted Industrial Free Zone (IFZ) status which makes them exempt from corporation tax, import duties, export duties and Value Added Tax while requiring payment of a 1% turnover tax. The completion of the PFS now enables the Company to enter into discussions with the Government of Mozambique as to the structure of the tax regime for the Tete Project.

Table 7		
Summary - Base Case Model - 1Mtpa		
NPV @ 10% (Pre - Tax)	US\$M	1,261
EBITDA (LOM)	US\$M	10,376
EBITDA (Avg. p.a, steady state)	US\$M p.a	280
1Mtpa with 37 years LOM	Unit	Value
Key Parameters		
Resource Base	Mt	117
Life Of Mine	Years	37
Pig Iron production (LOM)	Mt	37
FerroVanadium Production (LOM)	Kt	119
Royalty ⁽¹⁾	%	3%
Commodity Prices		
Pig Iron	US\$/t	450
Ferro-vanadium	US\$/t	25,000
Unit Operating Costs (FOB)		
Pig Iron (Pre Credit)	US\$/t pig iron	225
Ferro-vanadium	US\$/t pig iron	4,652
Pig Iron (Post Credit)	US\$/t pig iron	159
Capital Expenditure		
Upfront Capex - Pig Iron Plant	US\$M	1,010
Upfront Capex - FerroVanadium Plant	US\$M	133
Total Upfront Capex	US\$M	1,143
Sustaining Capital - First 5 years ⁽²⁾	%	2.5%
Sustaining Capital > 5Years ⁽²⁾	%	5.0%
<i>(1) Model assumes 5 year grace period from start of production</i>		
<i>(2) Calculated on mechanical plant and equipment cost (c. 40% of upfront Capex)</i>		

A sensitivity analysis has been undertaken to examine the Project sensitivity in relation to opex and Pig Iron Sales Price the results of which are presented below.

Table 8								
Sensitivity Analysis: 1Mtpa Scenario								
NPV @ 10%		Pig Iron OPEX [USD/t]						
Pig Iron Sales Price		-30%	-20%	-10%	Modelled	10%	20%	30%
		\$158	\$180	\$203	\$225	\$248	\$270	\$293
-20%	\$360	1,067,535	891,124	714,713	538,302	361,892	185,481	9,070
-15%	\$383	1,248,258	1,071,847	895,436	719,025	542,614	366,204	189,793
-10%	\$405	1,428,980	1,252,570	1,076,159	899,748	723,337	546,926	370,516
-5%	\$428	1,609,703	1,433,292	1,256,882	1,080,471	904,060	727,649	551,238
Modelled	\$450	1,790,426	1,614,015	1,437,604	1,261,194	1,084,783	908,372	731,961
5%	\$473	1,971,149	1,794,738	1,618,327	1,441,916	1,265,506	1,089,095	912,684
10%	\$495	2,151,872	1,975,461	1,799,050	1,622,639	1,446,228	1,269,818	1,093,407
15%	\$517.5	2,332,594	2,156,184	1,979,773	1,803,362	1,626,951	1,450,540	1,274,130
20%	\$540	2,513,317	2,336,906	2,160,496	1,984,085	1,807,674	1,631,263	1,454,852

ANNEXURE 2: TETE RESOURCE INVENTORY

Tete Iron Ore Project

Summarised Grade Tonnage Report

Whole Rock Grade Estimates Derived by Ordinary Kriging

*15% Lower Cutoff Grade Applied **No Lower Grade Cutoff Applied

Resource Classification Based on JORC Code (2004) Guidelines

AREA	Resource Classification	Tonnage (Mt)	Fe (%)	V ₂ O ₅ (%)	TiO ₂ (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	LOI (%)	CaO (%)	K ₂ O (%)	MgO (%)	MnO (%)	S (%)
Ruoni North*	Indicated	79.76	37.07	0.42	13.77	15.6	9.46	0.005	-1.77	2.2	0.19	4.92	0.22	0.19
	Inferred	28.82	37.99	0.42	14.28	14.4	9.27	0.004	-1.87	2.06	0.19	4.68	0.21	0.23
	Total	108.58	37.31	0.42	13.9	15.3	9.41	0.005	-1.8	2.16	0.19	4.86	0.22	0.2
Tenge*	Indicated	72.58	37.68	0.41	13.93	14.9	9.59	0.008	-1.69	2.31	0.22	4.19	0.21	0.21
	Inferred	120.3	37.57	0.41	14.03	15.0	9.55	0.008	-1.1	2.15	0.2	3.89	0.21	0.18
	Total	192.88	37.61	0.41	13.99	15.0	9.56	0.008	-1.32	2.21	0.21	4	0.21	0.19
Ruoni South*	Inferred	76.82	33.66	0.37	12.55	18.7	10.59	0.006	-1.06	3.07	0.3	4.73	0.21	0.22
Ruoni Flats*	Inferred	172.45	35.63	0.4	12.93	16.9	10.16	0.006	-1.36	2.62	0.25	4.65	0.2	0.28
Chitongue Grande**	Inferred	60.9	24.9	0.2	9.6	29.4	12	0.003	-0.2	4.8	0.7	4.6	0.2	0.3
South Zone**	Inferred	113	27.5	0.2	10.1	25.9	8	0.29	-0.7	5.2	0.3	6.9	0.3	0.3
Total Indicated		152.34	37.4	0.4	13.8	15.3	9.5	0.006	-1.7	2.3	0.2	4.6	0.2	0.2
Total Inferred		572.29	33.1	0.3	12.3	19.7	9.8	0.1	-1.0	3.3	0.3	4.9	0.2	0.3
Grand Total		724.63	34.0	0.4	12.6	18.8	9.7	0.1	-1.2	3.1	0.3	4.9	0.2	0.2

Where no lower cut-off grade has been applied, the resource blocks have been constrained by geologically defined mineralised zones and therefore reported accordingly; it is currently assumed that mining selectivity is limited within the mineralised zones. Three-dimensional block models were generated for the various deposits to enable grade estimation. Coffey Mining has based its grade interpolation on Ordinary Kriging. Whole rock and concentrate grades were interpolated based on 4m composite samples using domain control for both composite and block selections applying hard boundaries between the zones. A service variable approach to the estimation of block concentrate grades is required to account for the variation in percent recovery weight. The concentrate grades (Fe, V₂O₅, TiO₂, SiO₂, Al₂O₃, P, LOI, CaO, K₂O, MgO, Mn, and S) were then back calculated from these estimates. Ordinary Kriging was also used to obtain estimates of DTR and service variables for the various deposits. However, insufficient DTR test work resulted in a lower confidence in the estimate, precluding their classification