

**4th December 2012**

## **POSITIVE METALLURGICAL RESULTS AT URUBU**

### **HIGHLIGHTS**

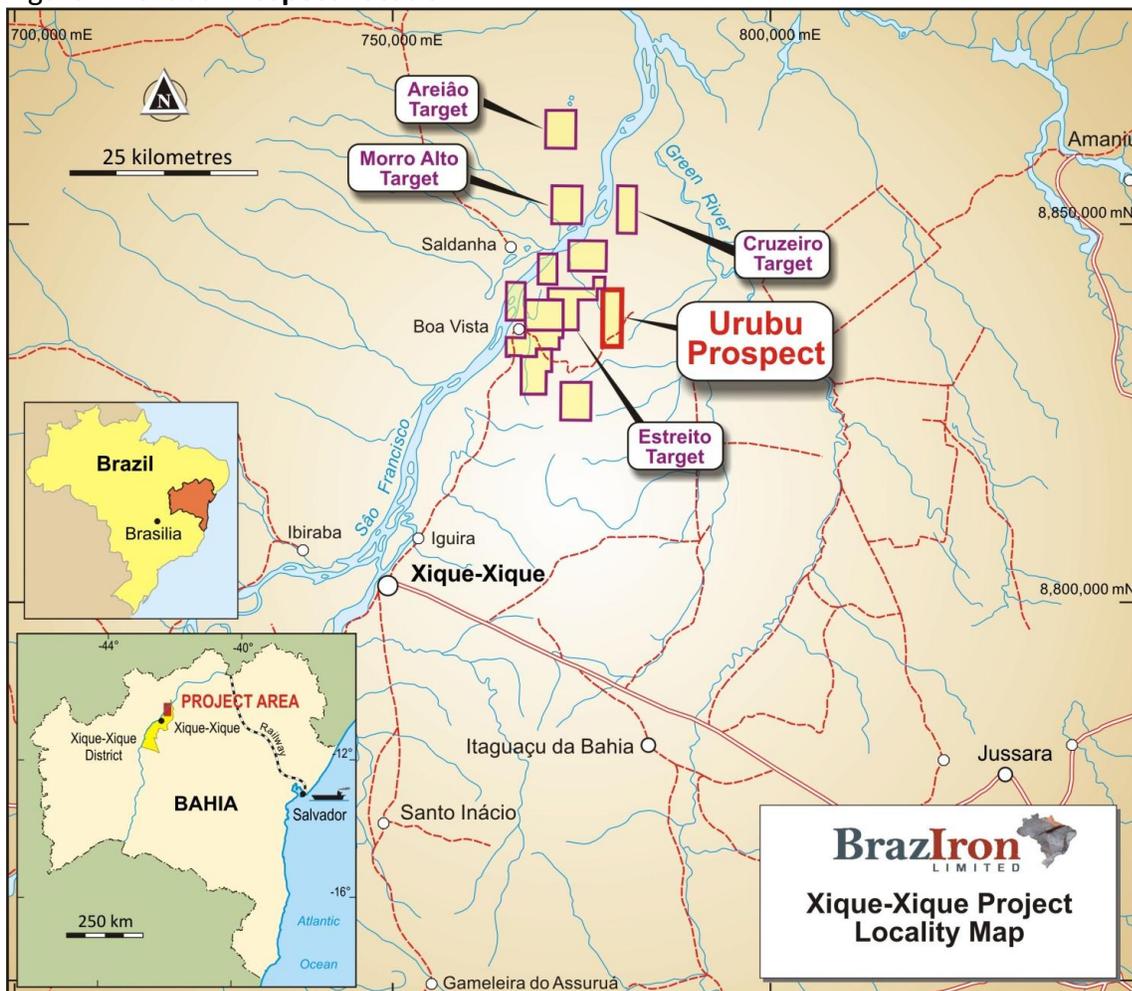
- Reverse floatation tests on core from BrazIron's flagship Urubu Prospect carried out by ALS Metallurgy in Perth, confirm that a marketable concentrate of 65% Fe and 5% SiO<sub>2</sub> can readily be produced at an Iron recovery of over 65%.
- Following these positive results more detailed optimisation work will be undertaken to improve recoveries and eventually move toward a comprehensive processing flow sheet.
- This round of metallurgical testing was preliminary in nature and designed to confirm the probability of a marketable product.
- Lack of availability of suitable drill rigs will delay rec-commencement of drilling at Urubu until early 2013. In the interim, a partial JORC compliant resource for that portion of Urubu that has been adequately drilled is currently being calculated.

## Metallurgical Results

The Board of BrazIron Ltd (the “Company”) is pleased to provide an update on exploration work at its 51% owned Urubu Iron Ore Prospect, which is part of the Xique Xique Project in Bahia Province, Brazil. Urubu lies some 8km from the navigable Sao Francisco River adjacent to a major irrigation and sugar-growing project, offering the potential for transport and infrastructure sharing initiatives (Figure 1).

Diamond drilling was first undertaken at Urubu in 2008, and identified near surface iron mineralization over a strike length of approximately 5 kilometers. Follow-up drilling commenced in February 2012, with an additional 1450m of diamond drilling having been completed since that date.

Figure 1: **Urubu Prospect Location**



## Metallurgy

A program of floatation test work was conducted on samples from the Urubu Prospect with the aim of determining if a marketable product could be produced. Sixteen drill hole interval samples from four drill holes were prepared into two composites of differing grade to provide some guidance as to variations in metallurgical recovery across the ore body.

**Master Composite 1** - Holes XUD-011 and XUD-014  
**Master Composite 2** - Holes XUD-019 and XUD-017

Table 1: **Composite Assays**

Composite	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	TiO <sub>2</sub> (%)	MnO (%)	CaO (%)	LOI		
							1000°	650°	425°
Master Comp 1	26.3	60.1	0.67	0.015	0.016	0.02	1.95	1.8	1.66
Master Comp 2	34.6	50.7	0.04	<0.004	0.018	0.06	-0.16	-0.07	0.07

A series of seven bench scale reverse floatation optimisation tests were conducted on both composites to determine if the samples could be upgraded to a potentially saleable product within reasonable economic parameters. Reverse floatation (floatation of Silica rather than Iron) is common in the Brazilian iron industry due to the dominance of Hematite in the Itabarite Banded Iron Formations (BIFs) common across the country, in contrast to the Magnetite dominance of many Australian BIFs. Reverse floatation may not necessarily be the ultimate processing route, but it was chosen as the more reliable first step in determining if a concentrate could be produced that would meet international benchmarks.

The target criteria were to produce a product with an Iron content exceeding 63%, Silica below 5%, at an Iron recovery exceeding 60%.

A range of tests were undertaken to assess the impact of various grind sizes and grinding regimes. The test results (Figures 2 and 3) demonstrate that best results at this preliminary stage were obtained with a primary grind of P80 53µm, de-slime and regrind of tails to P80 38µm, to obtain a 65% Iron product with roughly 5% Silica at an Iron recovery of 65%.

Consideration will now be given to more advanced metallurgical testing to lift Iron recoveries and reduce Silica content to better define the processing route and optimise process economics.

Figure 2: Silica Grade v Fe Recovery Curves

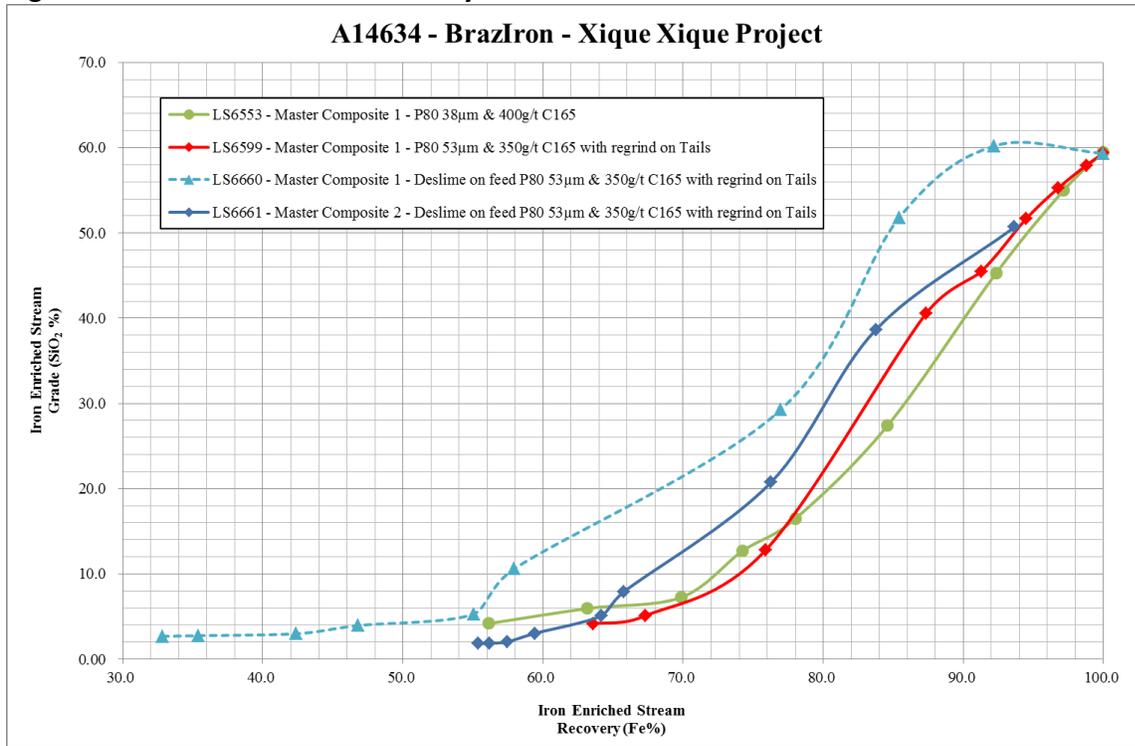
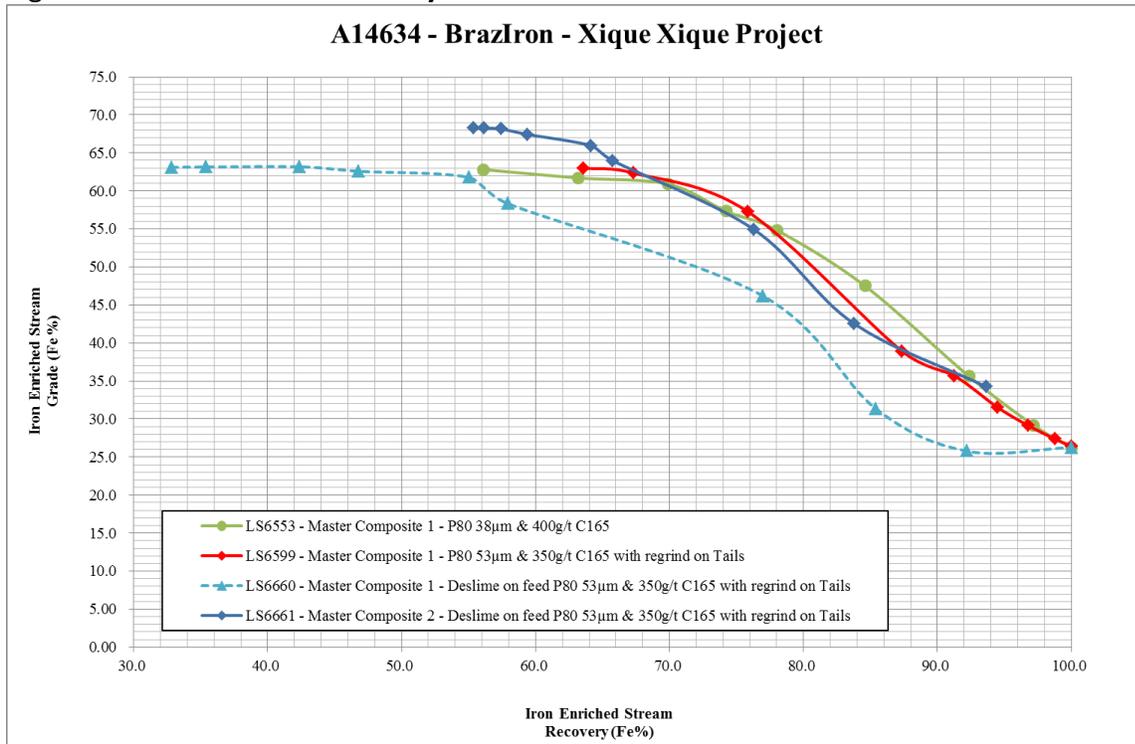


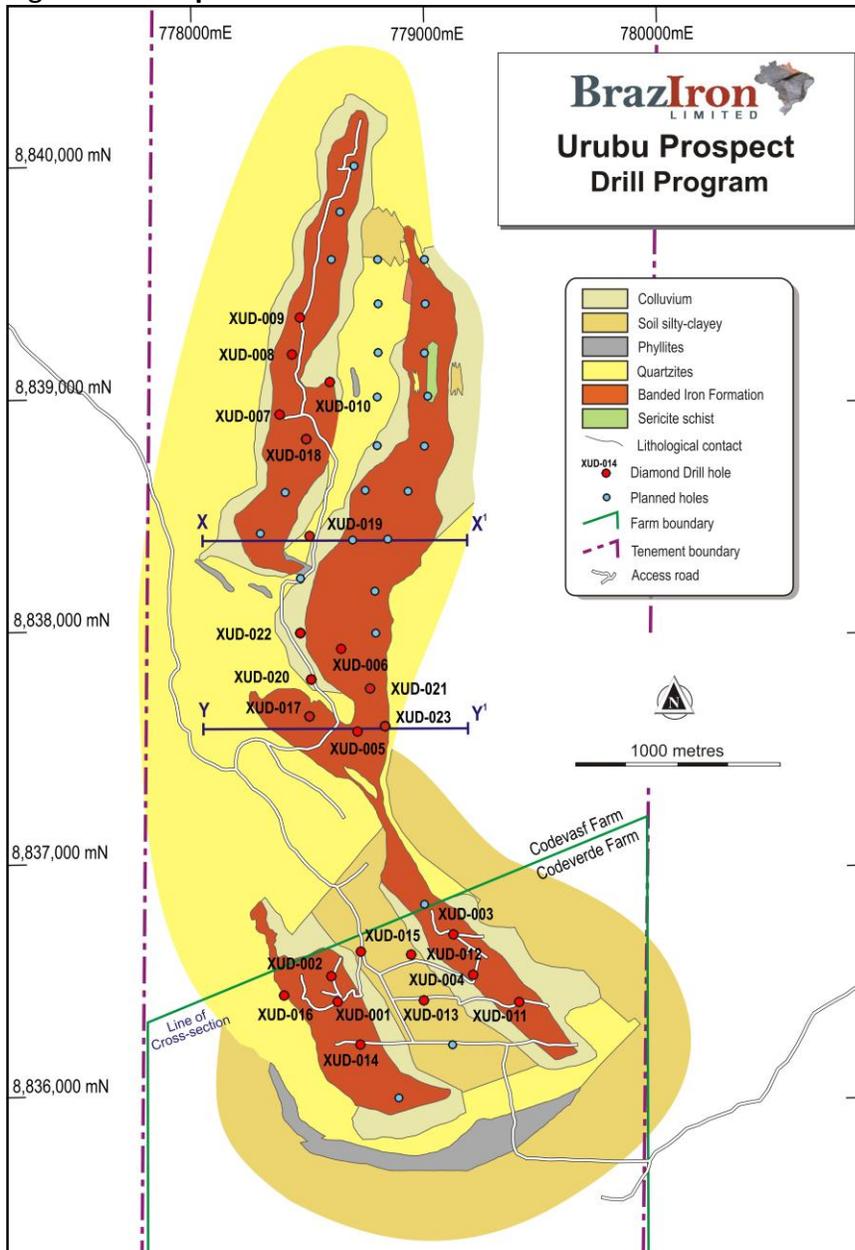
Figure 3: Fe Grade v Fe Recovery Curves



## JORC Resource.

As previously announced, drilling was suspended at Urubu at the end of September 2012 in order to obtain additional environmental permits, and to allow a transition to more cost effective drilling.

Figure 4. Drill plan



Land ownership at Urubu is divided between two agricultural companies, Codeverde (southern portion) and Codevasf (northern portion). Although the land on which Urubu sits has no agricultural value, it is within these much larger farming areas, and thus approval is required from both agricultural companies and the national environmental agency INEMA, for the clearing of vegetation for drilling.

All approvals for the Codeverde section had been previously obtained and this area has been drilled to a sufficient spacing to allow the calculation of a JORC compliant Mineral Resource on this portion of the Urubu ore body.

The Codevasf section has been partially drilled and requires additional environmental permitting to allow drilling on the eastern limb and the northern extents of the western limb. Approximately 1200m of additional RC drilling is required to be able to calculate a JORC compliant Mineral Resource over the whole of the Urubu ore body.

This permitting approval process is well advanced and the Company expects these permits to be issued in coming weeks.

During the hiatus of drilling, discussions have been held with various local drilling contractors to source a suitable RC rig for the completion of this program. It is anticipated that drilling can recommence in early 2013.

In the meantime, the Company has progressed the calculation of a JORC Resource over the southern portion of Urubu and anticipates being able to pass this to the market in the near future.

Commenting on the operating update, CEO Brad George said:

*“These metallurgical results are impressive and represent another milestone for the Xique Xique Project. The work undertaken was preliminary in nature, and designed simply to answer the fundamental question of whether a marketable concentrate could be produced. The answer is yes, and so we now move on to more detailed work that will ultimately give us a processing solution, that we expect to show enhanced Fe recoveries from what we’ve see in this preliminary work.*

*Our decision to move to RC drilling was based on economic criteria due to the much greater speed and reduced cost of RC over Diamond drilling in hard BIF. RC rigs however are not as common in Brazil as in Australia, but we are confident we have sourced suitable rigs and crews to enable us to recommence work once we receive our environmental approval in coming weeks.*

*In the meantime we have taken the opportunity to calculate a JORC compliant resource over the smaller and less attractive southern portion of Urubu to demonstrate to the market the size potential and attractive mining characteristics of Urubu. A preliminary resource with significant upside, positive metallurgy and then development of transport solutions, may allow us to soon demonstrate the as yet unrecognised economic potential of Urubu.”*

----ENDS----

For enquiries in connection with this release, please contact:

BrazIron Limited:

+61 (0) 8 9485 0039 Telephone

+61 (0) 8 9485 0069 Facsimile

## **COMPETENT PERSONS STATEMENT**

*The information provided in this Report that relates to Exploration Results is based on information compiled by Mr Robert Annett, a consultant to the Company. Mr Annett is a qualified geologist with over 30 years experience and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Annett has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting Exploration Results, Minerals Resources and Ore Reserves. Mr Annett consents to the inclusion in this Report of the matters based on the information in the form and context in which it appears.*

## **ABOUT BRAZIRON**

BrazIron Limited is a Bermuda registered company listed on the Australian Securities Exchange (ASX) with the stock code "BZL".

The Company's aim is to become a significant integrated ferrous metals producer. It owns four projects in Brazil prospective for iron mineralization for a total of around 660 square kilometers.

BrazIron is actively exploring for iron and is also looking to increase its project portfolio in Brazil and in other locations.