



5 July 2016

## **METALLURGICAL TESTS CONFIRM HIGH QUALITY CALCITE BY-PRODUCT FROM TRÊS ESTRADAS PHOSPHATE DEPOSIT**

- **Metallurgical studies confirm a high quality calcite by-product suitable for aglime can be produced from the Três Estradas deposit**
- **From the rougher tailings of the phosphate flotation, a calcite concentrate grading 48.55% CaO was produced with a CaO recovery of 83.1%**
- **The chemical composition and grain-size distribution of the Três Estradas calcite is high quality and meets specs for use by the agricultural and cement industries**
- **Calcite adds a secondary revenue stream to Três Estradas deposit once in production**
- **Brazil has a robust and growing calcite market with numerous end user applications**

Brazilian fertiliser developer Agua Resources Limited (ASX: AGR) (“Agua” or “Company”) is pleased to announce the completion of metallurgical test work that successfully produced a premium quality calcite by-product. This is an important development that has the potential to significantly enhance the revenue streams of a future operation at Tres Estradas.

### **Calcite Test Work**

The Company engaged Eriez Flotation Division of Pennsylvania, a world leader in advanced flotation technology, to develop a processing sequence to produce a commercial quality calcite concentrate by-product from the fresh rock rougher column tailings of the phosphate flotation. A combination of bench-scale flotation and magnetic separation were employed. The recommended circuit used a sequence of low- and mid-intensity magnetic separation (LIMS and MIMS, respectively) for removal of the magnetic fraction, followed by mica floatation of the rougher phosphate tailings.

The resulting concentrate was 48.55% CaO, with a recovery of 83.1% from the rougher phosphate tailings. The overall chemical composition of the calcite concentrate is exceptional with low levels of magnesium, iron, aluminium and silica, which results in an end product with high neutralizing capacity. Also the extremely fine-grainsize distribution of the Três Estradas calcite, 100% -212 microns (0.212 mm), translates into 100% reactivity. The combination of these parameters results in an outstanding total neutralizing reactivity power (PNRT) of +95% as per Brazilian Fertilizer

### **Management Commentary**

Technical Director Fernando Tallarico commented: “The results of this round of test work at Eriez are exceptional as they not only prove that the process is able to produce a commercial calcite concentrate at a high recovery rate, but also demonstrate that the quality is excellent. Calcite with such high reactivity results in a superior product which means the final consumer can apply fewer tonnes of aglime per hectare. The high quality of the calcite also meets the specifications of the cement industry. Other potential markets include the animal nutrition market which requires a high quality calcite feed to produce DCP (dicalcium phosphate) and for use in thermoelectric plants to neutralize sulphur emissions.”

“As evidenced by the phosphate study results announced earlier this month that showed great improvement in recovery and concentrate grade by the introduction of column flotation, it is expected that an even higher calcite quality can be achieved in the future as we advance our detailed calcite work to full column flotation test,” Dr. Tallarico stated.

Justin Reid, Managing Director of Aguia commented: “As with our recent phosphate metallurgical results that showed approximately a 20% increase in fresh rock recoveries and increased concentrate grade via the use of column leach, we are now able to confidently include calcite as a material revenue generating by-product in our upcoming PEA. The calcite market in Brazil is robust and growing. The quality of the calcite concentrate produced will be considered a premium product which allows for potential distribution into multiple markets.

“Over the last year our team has done a great job de-risking the project and advancing it towards a production decision through diligent technical work and process enhancements. We expect to very shortly publish an enhanced PEA which is expected to reflect that Três Estradas has significant unlocked value. The calcite results only enhance this.”

“We look forward to updating our shareholders on further activities in the coming weeks including project development updates, a resource update, as well as reporting on the results of initial exploration activity on the new claim areas that have been recently optioned.”

<sup>1</sup>2004 Brazilian Fertilizer Legal Code:

PN (neutralizing power) = (CaO% \* 1.78) + (MgO% \* 2.48).

RE (reactivity):

Zero for grain-size of +2mm.

20% for grain-size between -2mm and +0.84mm.

60% for grain-size between -0.84% and +0.30mm.

100% for grain-size of -0.30mm.

PRNT (total neutralizing reactivity power) = (PN \* RE) / 100

#### **NOTE:**

- For details on the Três Estradas Resource, refer to announcement of 27 April 2015, “Aguia Significantly Increases Três Estradas Phosphate Resource by 130% to 70.1 million tonnes”.
- For details on the previous metallurgical results, refer to announcement of 6 June 2016, “Aguia Reports Positive New Column Flotation Results at its Flagship Três Estradas Phosphate Project”.
- For details on the 2015 PEA, refer to announcement of 19 August 2015, “Positive Preliminary Economic Assessment Demonstrates Robust Economics for Três Estradas”

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Fernando Tallarico, who is a member of the Association of Professional Geoscientists of Ontario. Dr Tallarico is a full-time employee of the company. Dr Tallarico has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Tallarico consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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**About Agua:**

*Agua is a fertiliser company focused on the exploration and development of phosphate and potash projects in Brazil to supply the Brazilian agriculture sector. Brazil is Latin America's biggest economy and is heavily reliant on imports of up to 50 per cent of its phosphate and 90 per cent of its potash needs. Agua is well positioned to capitalise on the growing demand for phosphorus and potash based fertilisers in the expanding agriculture sector in Brazil and controls three large projects, located close to existing infrastructure. The Company is committed to its existing projects whilst continuing to pursue other opportunities within the fertiliser sector.*

**Forward Looking Statements:**

This news release contains forward looking statements, which relate to future events or future performance, including, but not limited to, the completion of the size of the Placement, receipt of regulatory approvals and timing thereof, the Company's business strategies and plans for the use of such Placement proceeds, capital expenditure programs and estimates relating to timing and costs, and reflect management's current expectations and assumptions, including, but not limited to the timing and receipt of necessary regulatory approvals and completion of the Placement and stability of general economic and financial market conditions. The use of any of the words "anticipate", "continue", "estimate", "expect", "may", "will", "project", "should", "believe", and similar expressions is intended to identify forward looking statements. Such forward looking statements reflect management's current beliefs and are based on assumptions made by and information currently available to the Company. Readers are cautioned that these forward looking statements are neither promises nor guarantees, and are subject to risks and uncertainties, including imprecision in estimate capital expenditures and operating expenses, stock market volatility, general economic and business conditions, risks associated with liquidity and capital resource requirements, that may cause future results to differ materially from those expected and the forward looking statements included in this news release should not be unduly relied upon. These forward looking statements are made as of the date hereof and the Company does not assume any obligation to update or revise them to reflect new events or circumstances save as required under applicable securities legislation. This news release does not constitute an offer to sell securities and the Company is not soliciting an offer to buy securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of such jurisdiction.

**JORC Code Competent Person Statements:**

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