

ASX RELEASE

2 September 2014

## Successful completion of Mini-pilot Plant for High Purity Titanium Dioxide and commencement of Pre-feasibility Study

### HIGHLIGHTS

- Continuous production of high-purity titanium dioxide via a proprietary hydrometallurgical process.
- Results confirm potential to deliver lowest-quartile operating costs as indicated in Scoping Study (2013).
- Sedgman and Snowden Mining Industry Consultants to complete a Pre-feasibility Study to produce high-purity titanium dioxide, iron and vanadium chemicals direct from Barrambie ore using proprietary flow-sheet.
- Pre-feasibility Study to be completed in March Q 2015.

Reed Resources Ltd (**ASX: RDR**) ("**Reed**") is pleased to announce that recently completed testwork has confirmed the Barrambie Titanium Project's potential to be a globally significant lowest-quartile cost titanium dioxide producer. Following the successful completion of a continuous mini-pilot scale testwork program on oxide ore from Barrambie, Reed will now commence a Pre-feasibility study ("PFS") to assess the technical feasibility and economic viability of the development of a hard rock titanium mining and processing operation against a set of key commercial parameters.

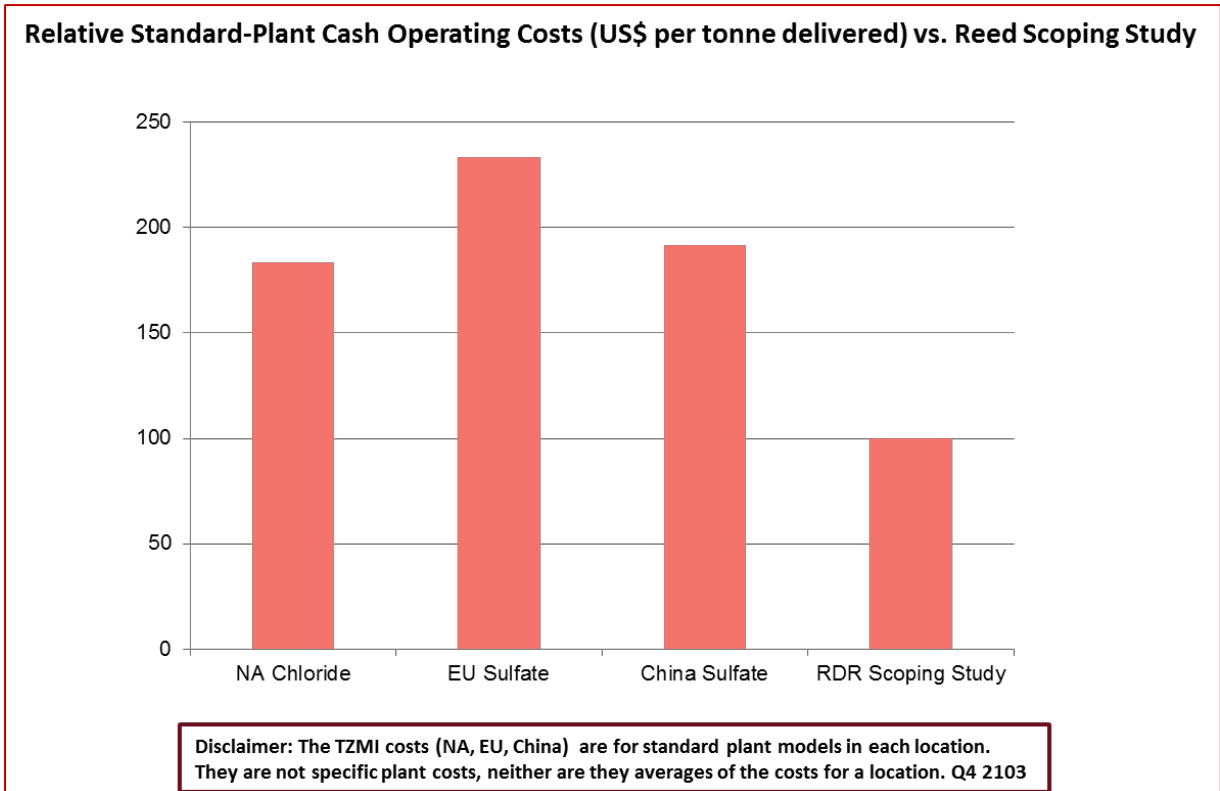
The purpose of the 10kg/day mini-plant campaign was to test and demonstrate the successful operation of each of the major unit operations of the proprietary flowsheet on a continuous basis, namely: (i) leaching of the mineralised material; (ii) titanium dioxide precipitation; (iii) iron hydrolysis; and (iv) acid regeneration.

Internal laboratory AAS assays indicate final product purity levels consistent with earlier testwork, being 99.9% pure titanium dioxide at recoveries exceeding 85%. External XRD assays are awaited to confirm the levels of trace impurities and more accurately define mineralogical qualities.

"Achieving this milestone is another important step forward in the development of Barrambie into a low cost, long term multi-commodity project. In parallel with the PFS we will commence a process to identify and procure a development partner for the project", said Managing Director Chris Reed.

The Scoping Study by Snowden Mining Industry Consultants (ASX Announcement 4 Dec 2013) based on this proprietary process estimated average net operating costs per tonne of titanium dioxide recovered at US\$1,214/t with an indicative accuracy of  $\pm 35\%$ , potentially placing the project at the low end of the global cost curve.





**Figure 1** Indexed, Relative Operating Costs for Standard Plant models in North America, Europe and China using Chloride or Sulfate Process Flowsheets (Q42013)(Source: TZMI) compared to Reed Scoping Study (Source:Reed).

The PFS will investigate the construction of a mineral processing facility to treat run-of-mine ore from the Barrambie Project. It is expected that run-of-mine ore will be crushed and screened at the minesite and then trucked to a processing facility near Geraldton with a nominal capacity of 200,000t of feed per annum, where high purity titanium, vanadium and iron compounds will be produced.

Reed has engaged the services of Mr D.Michael Spratt, an experienced process/construction engineer and former COO of Minproc, to head the owner's team managing the study.

A key feature of the patented process is the acid recovery and regeneration process which shows the potential to operate at significantly lower costs than established technologies previously evaluated by Reed. In addition, the green credentials of the selected process are enhanced by its energy efficiency, low emissions and inert tailings.

Reed holds a licence to deploy a patented acid leach process to extract all valuable metals from the Barrambie Titanium-Vanadium-Iron deposit in Western Australia.

The Barrambie Titanium Project contains total **Indicated and Inferred Mineral Resources** of **47.2Mt** at **22.2% TiO<sub>2</sub>**, **0.63% V<sub>2</sub>O<sub>5</sub>**, and **46.7% Fe<sub>2</sub>O<sub>3</sub>**, at a cut-off grade of 15% TiO<sub>2</sub> (Appendix A), making it the world's second highest grade hard-rock titanium deposit known.

**ENDS**

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### Competent Persons Statement

Information in the report that relates to metallurgical test work results is based on information compiled by Mr Krishna Kannan of Sedgman Ltd, a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Kannan is employed by Sedgman Ltd, a consultant to Reed, and compiled the metallurgical testwork results.

The information in this document that relates “Barrambie Mineral Resource Estimates” is extracted from ASX Release 9/12/2013. The Company confirms that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed, and was reported using the guidelines of the JORC Code 2012, in the form and context in that it appears.

### About Reed Resources

Reed Resources Ltd (ASX: RDR, OTC: RDRUY) is a Western Australian resource developer.

Reed Resources’ American Depositary Receipts (ADR’s) trade under the code RDRUY (CUSIP Number: 758254106). Each Reed Resources ADR is equivalent to 10 ordinary shares of Reed Resources as traded on the ASX. The Bank of New York Mellon is the depository bank.

Website: [www.reedresources.com](http://www.reedresources.com)

### APPENDIX A

#### Barrambie Mineral Resource Estimate for 15% TiO<sub>2</sub> cut-off

Category (JORC, 2012)	Tonnage (Mt)	TiO <sub>2</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	SiO <sub>2</sub> (%)
Indicated	34.7	22.25	0.64	46.77	9.48	14.95
Inferred	12.5	21.99	0.58	46.51	9.32	15.40
Total	47.2	22.18	0.63	46.70	9.44	15.07

All tonnage and grade figures have been rounded down to two or three significant figures, respectively; slight errors may occur due to rounding of values.