



**AUSTPAC RESOURCES N.L.**

ACN 002 264 057  
ABN 87 002 264 057

Level 12, Currency House

23 Hunter Street

SYDNEY NSW 2000

GPO Box 5297

SYDNEY NSW 2001

Telephone: (+61 2) 9221 3211

Facsimile: (+61 2) 9223 1975

Email: [apgtio2@ozemail.com.au](mailto:apgtio2@ozemail.com.au)

[www.austpacresources.com](http://www.austpacresources.com)

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## **QUARTERLY REPORT TO 31 DECEMBER 2003**

- The 2.5 tonnes per hour LTR (low temperature roasting) plant being built by New Zealand Steel at its Glenbrook Steel facility near Auckland, New Zealand, is nearing completion. Commissioning will commence within the next few weeks.
- In November 2003 a letter of intent was signed with Inco Limited under which Inco will evaluate the technical and economic benefits of the EARS process for the regeneration of hydrochloric acid from nickel chloride solutions. The first phase of testwork for Inco Limited using nickel chloride in the EARS process was successfully completed at the Kooragang Island pilot plant in December 2003.
- Planning for the proposed 30,000 tonnes per annum ERMS SR plant on the east coast of Australia continued and capital is being negotiated for the Bankable Feasibility Study, which will cost \$5,000,000.
- Final LTR testwork for BeMaX Resources N.L. was completed in November 2003 with a continuous seven-day pilot plant run. The plant performed to the specifications and the data is being used for the design of the LTR roasting plant for the Pooncarie project in the Murray Basin.

### **CONSTRUCTION OF 2.5 TPH LOW TEMPERATURE ROASTING PLANT - NEW ZEALAND**

The 2.5 tonnes per hour LTR (Low Temperature Roasting) plant being built by New Zealand Steel to test the suitability of Austpac's LTR process for the treatment of tailings from the Waikato North Head iron sand mine is nearing completion. The LTR plant comprises a series of fluid bed roasters and magnetic separators. Austpac engineers have been assisting with the final stages of construction and will be involved in plant commissioning, which will commence within the next few weeks.

Austpac's LTR technology involves low temperature fluid bed roasting to selectively enhance the magnetic and other properties of specific minerals. LTR testwork last year for N.Z. Steel at Austpac's Newcastle pilot plant showed that some iron minerals now being rejected can be recovered and conditioned for use in the steel making process. N.Z. Steel has not made any commitments beyond the licence for the 2.5 tph LTR test plant.

### **INCO TESTWORK FOR GORO NICKEL PROJECT AT EARS FACILITY, NEWCASTLE**

In November 2003 Austpac announced that it has signed a Letter of Intent with Inco Limited (Inco, formerly International Nickel) under which Inco will evaluate Austpac's EARS hydrochloric acid regeneration process for use in the Goro nickel project in New Caledonia.

The significant implications for Austpac are:

- we have initiated a technical alliance with the world's second largest nickel producer,
- it is a new industry application for Austpac's technologies, in addition to the titanium mineral sands and the steel industries, and
- if implemented at Goro, the EARS plant will be one of the largest acid regeneration plants in the world.

Austpac patented the EARS process in 1992 and since that time has refined the technology, primarily for the processing of iron chloride solutions generated by leaching ilmenite in the Company's ERMS SR synthetic rutile process. Inco is assessing the EARS process for converting nickel chloride solutions into pure nickel oxides and hydrochloric acid, and its potential to significantly reduce the capital and operating costs of the acid regeneration section of the Goro project.

In December 2003, the first stage of a testwork program using a nickel chloride in the EARS process was successfully completed at the Kooragang Island pilot plant. The work was monitored by Inco and Goro project engineers, who are presently processing and evaluating the data prior to making a decision in February 2004 on the next stage.

### **BEMAX TESTWORK AT ERMS FACILITY, NEWCASTLE**

The final testwork program for BeMaX Resources N.L. was successfully completed in November 2003 with a continuous seven day pilot plant run. The plant performed to specifications and the data gathered are being used for final engineering design and costing for the LTR roasting plant for the Pooncarie project in the Murray Basin.

### **ERMS SR PLANT - EAST COAST AUSTRALIA**

In October 2003, Austpac entered into an agreement with Consolidated Rutile Limited (CRL) for the supply of ilmenite to a 30,000 tpa ERMS SR plant proposed by Austpac for the eastern seaboard of Australia. Under a long term contract Austpac will purchase 70,000 tpa of high-chrome ilmenite concentrate from CRL's mineral sand operations on North Stradbroke Island to produce a high grade synthetic rutile (>97% TiO<sub>2</sub>) for titanium dioxide pigment manufacture. At the same time, Austpac also announced an agreement with Iluka Resources Limited (Iluka) for the sale of synthetic rutile to Iluka from the proposed ERMS SR plant. Both contracts are subject to the successful completion of a Bankable Feasibility Study (BFS) by Austpac.

Planning for the BFS for the proposed 30,000 tpa ERMS SR plant continues and preliminary site selection is in progress. The BFS is estimated to cost \$5,000,000 and these funds are presently being organised from several sources. The economics of the 30,000 tpa plant are robust, and we are confident that the necessary capital raising will be successful.

The BFS will take approximately six months to complete, with three months testwork at the Kooragang Island pilot plant on a bulk sample of ilmenite concentrate from CRL's North Stradbroke Island heavy mineral sand operations. This will be followed by detailed engineering, design and costing of the ERMS SR plant. Project financing will follow a positive outcome and a decision to commence project construction could be made in the fourth quarter of 2004.

### **CORPORATE**

On 6 January 2004, Austpac announced the placement of 6,000,000 fully paid ordinary shares at 6 cents each to raise \$360,000 for working capital.

*NOTE: This report is based on and accurately reflects information compiled by M.J. Turbott who is a member of the Australasian Institute of Mining and Metallurgy and a member of the Australian Institute of Geoscientists and is a competent person as defined in the Australian Code for Reporting of Identified Mineral Resources and Ore Reserves.*

**Austpac Resources N.L.** is an Australian listed minerals technology company and emerging synthetic rutile producer. Austpac's processes include technology to transform ilmenite into high grade synthetic rutile, a preferred feedstock for titanium dioxide pigment production. They can also be used to beneficiate a range of heavy minerals, as well as process waste chloride streams from a number of industrial operations.