

# Hastings Rare Metals Limited ABN 43 122 911 399

ASX Code: Shares - HAS

Listed options - HASO

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Board and Management
David Nolan (Chairman)
Alastair Metcalf (CEO)
Anthony Ho (Non-executive
Director)
Steve Mackowski (Technical
Director)
Guy Robertson (CFO)

Advisory Board Tony Grey Dr Tony Mariano

www.hastingsraremetals.com

# SEPTEMBER 2012 QUARTERLY ACTIVITIES REPORT

#### **HIGHLIGHTS**

- ANSTO successfully recovers niobium and zirconium in line with previous test results
- Scoping Study completed showing compelling economics with a base case net present value (NPV) of A\$1.9 billion, an IRR of 26% and payback of 3.6 years for the 100% owned Hastings Project
- · Project development to continue as planned
- \$3 million capital raising completed

# **HASTINGS PROJECT (100% owned)**

During the quarter Hastings Rare Metals Limited (ASX: HAS, HASO) announced the completion of a Scoping Study on its Hastings rare earths Project near Halls Creek in the East Kimberley region (Figure 1). The Scoping Study incorporates the results of extensive testwork completed by the Australian Nuclear Science and Technology Organisation (ANSTO) and by Jacobs Engineering.

As reported previously, the Scoping Study confirms a strong business case for development of the Hastings heavy rare earths project. The Company is now able to confirm:

- The resource at the Hastings Project can be mined by conventional open-cut methods
- The mine life would be 25 years based on the existing Resources of 36.2 million tonnes. With further drilling, the resource could be significantly increased
- The study assumes that ore would be processed through a plant built onsite in Western Australia, without the need to transport intermediate products interstate or overseas
- The flow sheet has been confirmed, with metallurgical recoveries of 75% for rare earths and 70% to 75% for rare metals
- The project is to produce over 10,000 tonnes of rare earths oxides and rare metal oxides annually for 25 years. The saleable products will be high purity oxides that are significantly more valuable than rare earth carbonates or concentrates
- The strong demand and supply shortage projected for heavy rare earths are highly opportune for the Project. Heavy rare earths, such as Dysprosium and Yttrium that are both on the US Department of Energy's 'critical' list, represent the majority of the projected revenue
- The project has a base case net present value (NPV') of A\$1.9 billion, with substantial upside. For example, using price forecasts from BCC Research, including Dysprosium at US\$2,170/kg (currently around US\$950/kg), would more than triple the NPV of the Project
- The Scoping Study has successfully reduced the risks and identified options to further optimise the project.











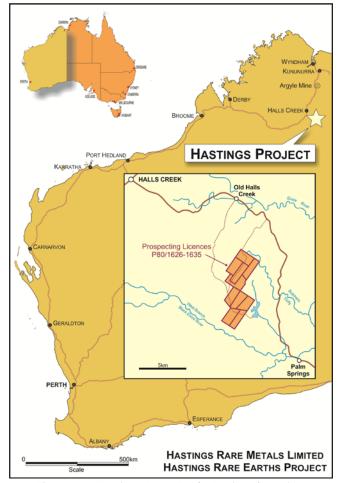


Figure 1 - Hastings Rare Earths Project location

While the results of the Scoping Study demonstrate attractive economics, further potential exists to improve the project. Examples include:

- Drilling of the Southern Extension would increase the mine life and improve the economics
- The opportunity to increase production to 1.5mtpa, which was one of the scenarios reviewed by Jacobs Engineering
- Process optimisation work currently being undertaken by ANSTO may increase the recoveries
  or optimise the flow sheet. The piloting testwork may also identify process improvements or
  cost reduction opportunities
- There may be the opportunity to contract-out additional components of the operation rather than incur the capital expenditure
- Synergies and optimisation of the process with strategic partners.



#### Advancing the Project

The Scoping Study demonstrates the strong economics of the Hastings heavy rare earths project. Significant previous metallurgical and pilot plant test work has allowed the Project to advance more quickly than some other projects. The matching of recoveries of niobium and zirconium to the historical work is significant. The Company is now in a position to proceed to the next major stages of development, which are:

- 1. Process optimisation work at ANSTO
- 2. Pilot design work, construction and operation
- 3. Pre-feasibility work
- 4. Securing a strategic partner for development of the project.

A strategic partner and investors are being considered to fund the major components of the feasibility work. Preliminary discussions have confirmed that the product suite is very attractive to a number of parties in the major manufacturing countries and the Company is confident of being able to secure a suitable partner.

# YANGIBANA PROJECT (60% owned)

At Yangibana, results from a limited programme of sampling of the known ironstone deposits within Hastings tenements were received and all such deposits have now been sampled. Grab samples collected during the visit were analysed by Genalysis in Perth. Results were as follows:

- One sample of fenitised host rock was taken from the west end of Yangibana prospect, within E09/1043, returning 6246ppm TREO including 2788ppm Nd<sub>2</sub>O<sub>3</sub>
- At the Hook prospect, within E09/1706, seven samples were collected with best results being 6266ppm TREO including 1080ppm Nd<sub>2</sub>O<sub>3</sub>, 35,038ppm (3.50%) TREO including 6434ppm Nd<sub>2</sub>O<sub>3</sub>, and 21,201ppm (2.12%) TREO including 3789ppm Nd<sub>2</sub>O<sub>3</sub>
- At Kane's Gossan, also within E09/1706, a total of five samples were taken with best results being 2971ppm TREO, 6792ppm TREO including 1194ppm Nd<sub>2</sub>O<sub>3</sub>, 19,166ppm (1.92%) TREO including 3758ppm Nd<sub>2</sub>O<sub>3</sub>, and 15,315ppm (1.53%) TREO including 3093ppm Nd<sub>2</sub>O<sub>3</sub>

These results are in line with expectations for this project, where drilling by earlier explorers has indicated an average grade for the ironstone lenses of around 1.6%TREO including 4000ppm  $Nd_2O_3$ . Based on the historical drilling, previous explorers estimated the non JORC resources as indicated in Figure 2.

In addition, a reconnaissance visit was made to the northwest corner of the tenement package adjacent to the Edmund River, east of Edmund homestead. Widespread calcrete was located, but scintillometer readings were consistently low and no samples were collected.



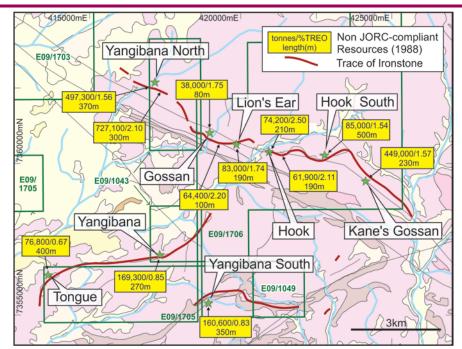


Figure 2 - Yangibana - Locations of the various prospects showing historical, non JORC resources

Hastings has made application for an additional Exploration Licence, E09/1989, to the south of the existing tenement package. The application covers a number of carbonatite sills that are considered to have potential to host rare earth mineralisation. Analysis of the hyperspectral survey data reported in the last quarterly report indicates the potential for a cluster of these sills to occur within the application area and this requires field assessment and sampling once the tenement is granted.

## **CAPITAL RAISING**

In mid-October, the Company announced that a \$3 million capital raising to sophisticated and institutional investors had been completed. The capital raising was oversubscribed and well supported by major shareholders, Asian investors and Australian brokers.

The issue price was 11 cents per share, a 15% discount to the last sale price of 13 cents prior to the issue. Investors also receive one free listed option for every two new shares.

Approximately 28 million shares will be issued in two tranches. Tranche 1 (approximately 19 million shares) has been issued. Tranche 2 (approximately 9 million shares and 14 million options) will be issued upon shareholder approval at the Annual General Meeting.

Patersons Securities Limited acted as the Lead Manager to the placement.

#### **WORK PLAN AHEAD**

The work plan ahead for the Hastings' project includes:

- Ongoing discussions with strategic partners
- Undertake variability test work and mini pilot plant trials
- Optimisation of extraction process
- Preparation for process design and engineering





#### **BOARD APPOINTMENT**

Mr David Nolan, Chairman, has advised the Company that he will not be seeking re-election and will retire at the upcoming Annual General Meeting, to focus on the demands of the legal practice, of which he is a partner. Mr Nolan will continue to be the Company's legal counsel.

On 24 October 2012 Mr Guy Robertson, the Company's CFO, was appointed to the Board.

Mr Anthony Ho will be appointed Chairman with effect from the date of the Annual General Meeting.

# **About Hastings Rare Metals**

- Hastings Rare Metals is a leading Australian rare earths company, with two rare earths projects in Western Australia.
- The Hastings deposit contains JORC Indicated and Inferred Resources totaling 36.2 million tonnes at 0.21% TREO, including 0.18% HREO, plus 0.89%  $Z_rO_2$  and 0.35%  $Nb_2O_5$ .
- Rare earths are critical to a wide variety of current and new technologies, including smart phones, hybrid cars, wind turbines and energy efficient light bulbs.
- The Hastings deposit contains predominantly heavy rare earths (HREO) (85%), such as dysprosium and yttrium which are substantially more valuable than the more common light rare earths (LREO).
- The company aims to capitalise on the strong demand for heavy rare earths created by expanding new technologies. It is recently validated the extensive historical work and completed a Scoping Study that confirmed the attractive economics of the Hastings heavy rare earths project.

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### Competent Person's Statement

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The information in this presentation that relates to Resources is based on information compiled by Simon Coxhell. Simon Coxhell is a consultant to the Company and a member of the Australasian Institute of Mining and Metallurgy. The information in this presentation that relates to Exploration Results is based on information compiled by Andy Border, an employee of the Company and a member of the Australasian Institute of Mining and Metallurgy. The information in this presentation that relates to metallurgy is based on information compiled by Steve Mackowski, an employee of the Company and a fellow of the Australian Institute of Mining and Metallurgy.

Each have sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this presentation and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code"). Each consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

