



EXCELLENT RESULTS FROM EARLY METALLURGICAL TEST WORK ON YANGIBANA SAMPLES

HIGHLIGHTS

- **Monazite identified as the main rare earths-bearing mineral at Yangibana**
- **Monazite known to be amenable to commercial processing**
- **More than 80% of the monazite is liberated at grind size of 80% passing 75 microns**
- **Early beneficiation tests using flotation achieve significant 85% recovery of rare earths into 25% of original mass with a 3.5 times increase in rare earths grade**
- **Results indicate that a relatively low cost and significant uplift of rare earths grade can be achieved early in the processing route**
- **This indicates that a relatively small hydrometallurgical plant will be required**
- **Additional beneficiation routes are also being tested**
- **Hydrometallurgical tests to commence**

INTRODUCTION

Hastings Rare Metals Limited (**ASX:HAS**) is pleased to announce that outstanding results have been received from preliminary mineralogical characterisation test work completed on two composited samples from the JORC resources at Yangibana North.

The main rare earths-bearing mineral has been confirmed to be monazite, a mineral with a long history of successful beneficiation and extraction as a source of rare earth elements at commercial scales. Mineralogical studies have indicated that the Yangibana monazite is well liberated at a relatively coarse grind size of 75 microns.

Beneficiation test work has commenced with recent tests achieving greater than 85% recovery of the total rare earths oxides (TREO) to a higher grade concentrate of less

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than 25% of the initial mass. TREO grade increase to the concentrate has exceeded 3.5 times. Results are very encouraging. Further optimisation tests are under way with the aim of improving the recovered grades and recovery rate.

Testing of alternative beneficiation techniques (using magnetics and gravity methods) will also commence shortly to determine which method or combination of methods provides the best results.

Preliminary test work will also commence to assess the amenability of the mineralisation to leaching by various acids. Such leaching will be used on the beneficiated intermediate mineralisation (concentrate) in the processing route to extract the rare earths oxides.

The Company expects the final beneficiation results to significantly reduce the capital expenditure (capex) and operating expenditure (opex) of the Yangibana Project. The reduction in both capex and opex would be driven by the beneficiation process as it removes a significant portion of waste material. The reduced tonnage of upgraded mineral bearing mass (concentrate) would require a small hydrometallurgical plant to be operated.

Test Work Results

Test work has been undertaken on two composite samples of reverse circulation (RC) chips from the Company's April drilling programme at Yangibana North. They were selected to represent relatively shallow (SHC) and relatively deep (DHC) mineralisation.

Mineral Liberation Analysis

High resolution Mineral Liberation Analysis (MLA) was carried out at ALS Laboratories in Brisbane under the supervision of independent consultant Dr Kwan Wong. In both samples the major rare earths-bearing mineral was identified as monazite. A minor amount of rare earths-bearing bastnaesite was also identified. Mineral Abundances are shown in Table 1.

The MLA results indicate a high degree of liberation of the monazite, with greater than 80% of the monazite in the samples liberated at the selected grind size of 80% passing 75 microns.

Where the rare earths minerals occur as binary or ternary composites they are mostly associated with iron hydroxides and iron oxides (Figure 1).

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Mineral	SHC (%)	DHC (%)
Bastnaesite	0.14	0.03
Brockite	0.01	0.00
Monazite	2.25	2.05
Rhabdophane	0.03	0.00
Synchesite	0.00	0.01
Sulphides	0.06	0.04
Iron Oxides/Hydroxides	35.24	40.28
Manganese Oxides	3.65	0.23
Other Oxides	0.16	0.07
Carbonates	1.57	13.31
Phyllosilicates	7.73	6.25
Silicates	46.68	34.76
Other	2.46	2.96
TOTAL	100	100

Table 1: Mineral Abundances for Two Yangibana North Samples

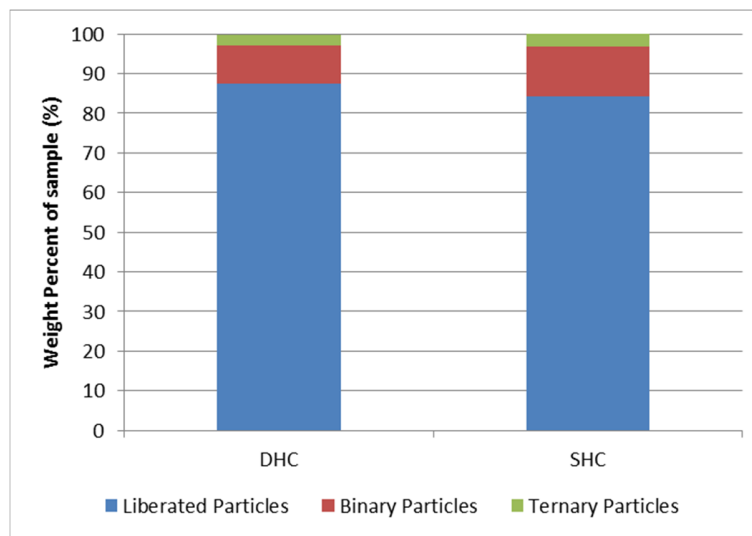


Figure 1 – Mineral Liberation data for Monazite

Beneficiation Test Work - Flotation

Initial beneficiation test work has commenced on the two Yangibana North samples with a number of flotation tests completed by Dr Wong. To date eight tests have been completed with tests 5-7 achieving greater than 85% recovery of the total rare earths oxides (TREO) to a higher grade concentrate of less than 25% of the initial mass (Table 2). TREO grade increase to the concentrate exceeded 3.5 times.

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Test Number	Sample	Concentrate Grade (%TREO)	Calculated Upgrade	Mass Recovery (%)	Recovery (% of TREO)
5	DHC	4.8	3.6	25.4	85
6	SHC	7.9	4.9	19.0	96
7	DHC	4.8	3.6	21.8	86.2
8	SHC	3.3	2.0	44.6	99.1

Table 2 – Summary of Initial Flotation Results

These results suggest that a very significant upgrade can be achieved by relatively low cost flotation techniques. Subject to further tests when these results are translated to an operational scale then the required capacity and capital and operating costs of the subsequent processing section, the hydrometallurgical plant, can be significantly reduced.

This will enhance the economic potential of the project.

Further optimisation test work is under way.

Additional Beneficiation Test Work

Additional beneficiation routes, including magnetic and gravity techniques, are to be tested to ensure the optimum route is determined to upgrade the mineralisation. Two samples from within the recently-announced Bald Hills South resource are currently being prepared for test work, and these will run in parallel with the ongoing programme on samples from the Yangibana North prospect.

Hydrometallurgical Test Work

Initial hydrometallurgical test work will also be undertaken shortly by Nagrom in Perth.

* **TREO** is the sum of the oxides of the heavy rare earth elements (HREO) and the light rare earth elements (LREO).

HREO is the sum of the oxides of the heavy rare earth elements europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and yttrium (Y).

CREO is the sum of the oxides of neodymium (Nd), europium (Eu), terbium (Tb), dysprosium (Dy), and yttrium (Y) that were classified by the US Department of Energy in 2011 to be in critical short supply in the foreseeable future.

LREO is the sum of the oxides of the light rare earth elements lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), and samarium (Sm).

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About Hastings Rare Metals

- Hastings Rare Metals is a leading Australian rare earths company, with two JORC compliant rare earths projects in Western Australia.
- The Yangibana Project hosts JORC Indicated and Inferred Resources totalling 6.79 million tonnes at 1.52% TREO, including 0.35% Nd₂O₃ (comprising 3.96 million tonnes at 1.59% TREO Indicated Resources and 2.83 million tonnes at 1.43% TREO in Inferred Resources).
- The Brockmans (previously known as the Hastings) deposit contains JORC Indicated and Inferred Resources totalling 36.2 million tonnes (comprising 27.1mt Indicated Resources and 9.1mt Inferred Resources) at 0.21% TREO, including 0.18% HREO, plus 0.89% ZrO₂ and 0.35% Nb₂O₅.
- 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 Company aims to capitalise on the strong demand for critical rare earths created by expanding new technologies. It has recently completed a Scoping Study of the Yangibana Project to confirm the economic viability of the Project.

Competent Person's Statement

The information in this report 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 report 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 report that relates to metallurgical results is based on information compiled by Narelle Marriott, a consultant to the Company and a member of the Australasian Institute of Mining and Metallurgy.

Each has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are undertaking 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' ("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.