



**ASX Announcement**  
29 March 2012



## HASTINGS RARE METALS COMMISSIONS AIRBORNE SURVEY OVER YANGIBANA PROJECT

### Highlights

- The survey will identify both known rare earth-bearing ironstones and the as yet barely tested potentially rare earth-bearing carbonatite lenses
- The data will also highlight zones of alteration which surround both potential styles of rare earth-bearing mineralisation

The Directors of Hastings Rare Metals Limited (ASX:HAS) are pleased to announce that the Company has commissioned HyVista Corporation to undertake an airborne hyperspectral imagery survey over the Yangibana Project area in the Gascoyne Province of Western Australia. The Yangibana Project comprises six Exploration Licences covering approximately 204 square kilometres. HAS holds a 60% interest in the project with Rare Earth Minerals plc (30%) and Artemis Resources Limited (10%).

Following completion of the survey, HyVista will process the data, delivering project-scale, high resolution, base-map image mosaics. In addition, primary mineralisation and secondary alteration mineral assemblage maps will be delivered providing an unprecedented view into this part of the Gascoyne Province. These maps will define the various alteration zones over the whole project and will categorically identify the distribution of carbonatite and iron oxide minerals in the area surveyed.

Of particular interest to Hastings, the maps will assist in the definition of fenitic alteration zones as interpreted from existing ASTER satellite multispectral data, and carbonatite and ironstone lenses which are known to be associated with rare earth mineralisation in this region. Similar carbonatite dykes have been successfully identified from HyMap imagery at Namibia Rare Earth Inc's Lofdal project in Namibia.

The ASTER satellite multispectral data is based on 30m-pixels and has lower spectral resolution whereas the airborne hyperspectral survey will provide data at 3.5m-pixels with much higher spectral resolution.

This data will direct subsequent fieldwork which will be targeted towards both the known ironstone – rare earth zones and also the as yet barely tested potential for carbonatite-hosted rare earth mineralisation.

The delivery of processed data from the survey is expected by mid May.

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## The Yangibana Project

The Yangibana project is centred approximately 270km east-northeast of Carnarvon on Gifford Creek Station in the Gascoyne region of Western Australia. Rare earth elements are known to occur in association with ironstone lenses within the Yangibana tenements (Figure 1 and Photo 1).

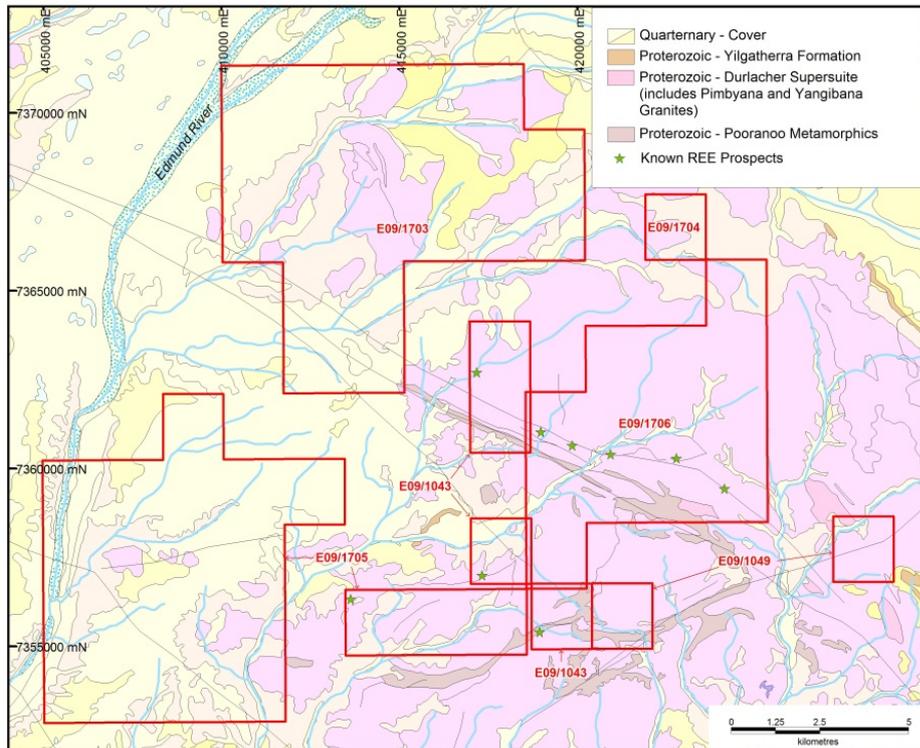


Figure 1 – Yangibana Project tenements, geology and known REE prospects

Limited reverse circulation drilling in the 1980s tested portions of the outcropping ironstones and intersected narrow (to 5m) lenses which returned average grades of around 1.6% TREO. The primary rare earth-bearing mineral is monazite, a light rare earth oxide (LREO)-bearing phosphate mineral with general formula  $(\text{REE})\text{PO}_4$ , with a theoretical total rare earth oxide (TREO) content of almost 70%. Other minerals of potential interest identified from Yangibana are bastnaesite, pyrochlore and ferrocolumbite.

The ironstones host only low grades of the HREOs but of particular interest is the neodymium grade which averages around 4,000ppm  $\text{Nd}_2\text{O}_3$ , or 24% of the TREO. A breakdown of the REOs found in the Yangibana mineralisation based on the drilling results provides the distribution shown in Table 1.

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Oxide	ppm	% of TREO
Lanthanum	2750	16.7
Cerium	7600	46.3
Praseodymium	1050	6.4
Neodymium	4000	24.4
Samarium	500	3.0
Europium	110	0.7
Gadolinium	225	1.4
Terbium	23	0.1
Dysprosium	60	0.4
Erbium	32	0.2
Yttrium	75	0.4
<b>TOTAL</b>	<b>16425</b>	<b>100.0</b>



Table 1 – Breakdown of Rare Earth Oxides based on 1988 drilling

Photo 1 – Typical ironstone ridge at Yangibana

Rare earth expert Dr Tony Mariano, following a site visit to Yangibana in 2010, noted “This monazite contains as high a Neodymium value as I have ever encountered”.

Neodymium is used in the production of high performance magnets used in wind turbines and electric and hybrid cars. Neodymium magnets are much more powerful than traditional ferrite magnet alternatives and provide better performance under a wider range of operating conditions. This allows effective miniaturisation and hence the production of compact, lightweight and powerful motors. Neodymium was listed as one of the five rare earths listed as being under critical supply risk by the US Department of Energy in December 2010.

A number of rock chip sampling programs and an auger drilling program have been carried out more recently, including one by Hastings during September 2011. These programs have returned grades in line with expectations based on the historical drilling.

### Future Exploration

Following completion of the hyperspectral survey, Hastings is planning to undertake detailed mapping and sampling programs on both the ironstone lenses and the as yet untested potential of the area to host rare earth mineralisation associated with carbonatite lenses and associated fenitic alteration zones. These programs will be aided by the data derived from the hyperspectral survey.

These programs will identify targets for drilling later in the year. At this stage the optimum target for initial drilling is the Yangibana North prospect where the previous drilling returned the highest rare earth grades. Figure 2 shows the results of this earlier drilling at Yangibana North and Hastings plans to pattern drill this target to define the first JORC-compliant resource for the project.

Later drilling will then be carried out to test targets as ranked by the results of surface mapping and sampling. Targets already exist over the remainder of the 7km of strike length of known ironstones within the current tenements.

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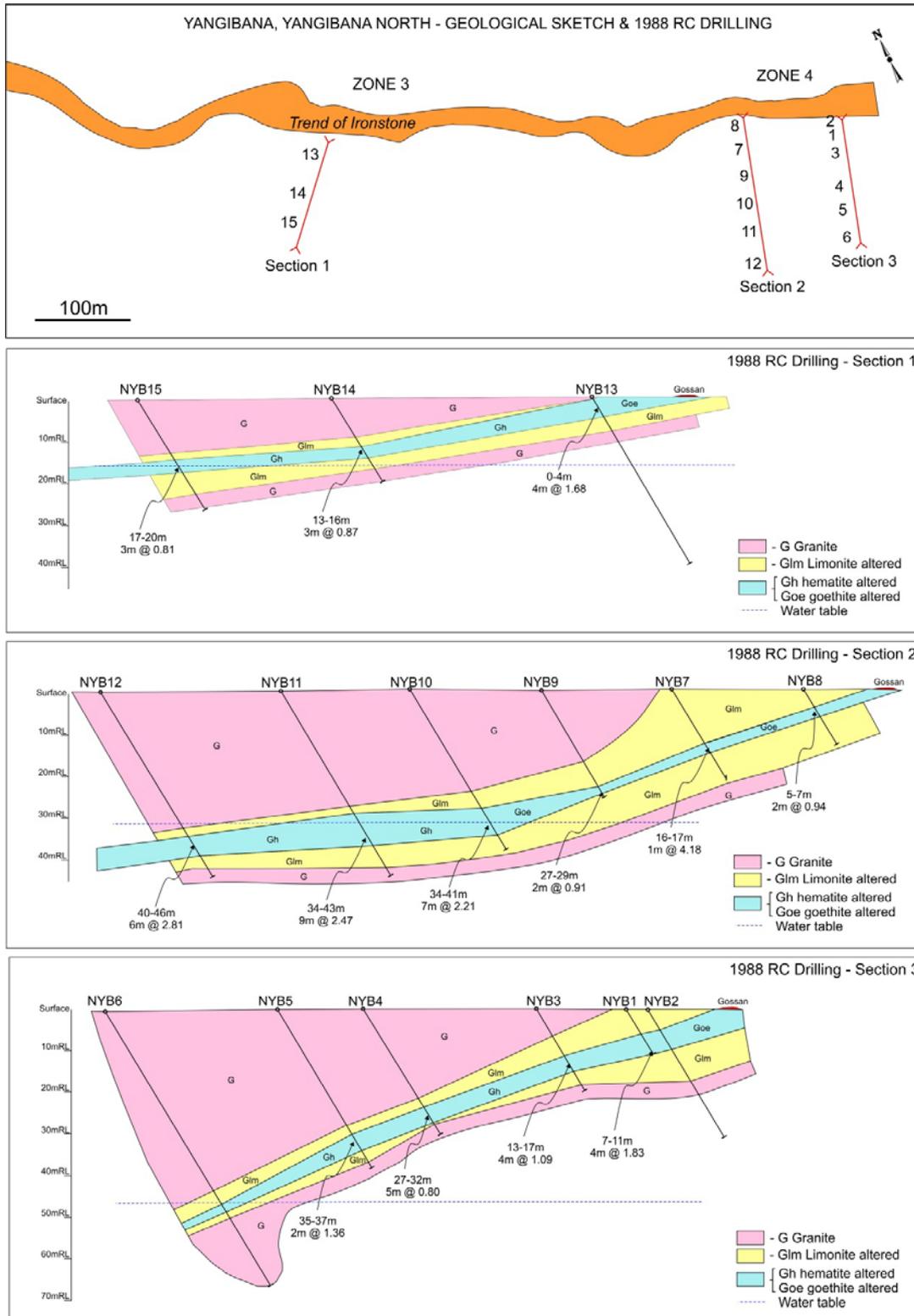


Figure 2 – Previous drilling results at Yangibana North prospect

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### **About Hastings**

Hastings is focused on its 100% owned advanced Hastings Heavy Rare Earth Project and its majority interest in the Yangibana Project, both located in the North West of Western Australia.

The Hastings Heavy Rare Earth Project has a JORC Compliant Resource of 36.2 million tonnes (27.1 indicated and 9.1 inferred) @ 2102ppm (0.21%) Total Rare earth Oxides (TREO) including 85% Heavy Rare Earth Oxides (HREO) 3546ppm (0.35%) Nb<sub>2</sub>O<sub>5</sub> 8913ppm (0.89%) ZrO.

- The Hastings Heavy Rare Earth Project contains significant resources of Dysprosium and Yttrium and the Yangibana Project contains Neodymium, three of the critical rare earths (CREO).
- The Hastings Heavy Rare Earth Project mineralisation contains 85% HREO to TREO, the highest percentage of all advanced exploration projects.

Previously owned by the predecessor of Molycorp, the Hastings Heavy Rare Earth Project has undergone extensive development work in the 1980s including metallurgical test work and the construction of a pilot plant in 1989. The project is at an advanced stage with the current work focused on validating previous work and optimising product suite.

A leading team of rare earth experts has been engaged to take the project forward.

### **Competent Person's Statement**

*The information in this announcement 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 Australian Institute of Mining and Metallurgy. Simon Coxhell has 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"). Simon Coxhell consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.*

*The information in this announcement that relates to Exploration Results is based on information compiled by Andy Border. Andy Border is a consultant to the Company and a member of the Australian Institute of Mining and Metallurgy. Andy Border has 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"). Andy Border consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.*

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