

# Hastings raises 6.5 million ahead of pre-feasibility study for Yangibana Project



Hastings Rare Metals Ltd. ('Hastings', ASX: HAS) owns, or has controlling interests in, two major rare earths (REE) projects in Western Australia: the Hastings Project and the Yangibana Project. Hastings has full ownership of the Hastings Project, which is developing a JORC resource, containing Dysprosium, Yttrium, Zirconium and Niobium among other rare earths. As for the Yangibana Project, Hastings maintains 70% control in a joint venture with Rare Earth Minerals PLC ('REM', LON: REM) and its deposits contain several critical demand REE's including neodymium.

Hastings has recently announced the raising of AUD\$ 6.5 million (with the possibility to raise an additional AUD\$ 2.5 million) through a share placement in support of its 70% joint venture partner REM to fund a prefeasibility study (PFS) for the Yangibana Rare Earths Project in the Gascoyne Region of Western Australia. The placement reflects the favorable results of an independent Scoping Study for Yangibana, which predicts excellent project economics based on relatively low capital investment and high returns in view of its potential to deliver a great variety of critical rare earths. The injection of funds allows for the Project to advance to the next development stages even as Hastings enjoyed a good cash position ahead of the placement.

The project is relatively inexpensive, given that it needs an additional AUD\$ 390 million investment, while having an estimated value of around a billion dollars – which is what most rare earth projects cost. The PFS will provide a better

assessment of the costs while including mining lease applications, mine engineering, processing, regulatory matters as well as environmental and social impact (relations with local indigenous populations) studies. Until the PFS is completed, a previous scoping study suggests that the Yangibana Project is rich in neodymium oxide, praseodymium, dysprosium oxide and europium oxide, which are some of the highest demand critical rare earths featuring high potential recovery rates.

Last November, Hastings, announced that Yangibana's JORC mineral resource had been increased from 45,000 tons of total rare earth oxides (TREO) to 103,000 tons (with grade improving from 1.34% TREO to 1.73% TREO). Moreover, the JORC update continued to show that the resource presents a high volume of high demand REE's including 23,500 tons of neodymium oxide, 6,500 tons of praseodymium oxide, 360 tons of dysprosium oxide and 625 tons of europium oxide.

At the 'Hastings Project', Hastings is targeting the eventual production of yttrium oxide, niobium oxide and zirconium oxide, making the Project very attractive for high technology companies looking to secure critical rare metal supplies outside of China – which, for the time being, remains the main, if not the only, producer of dysprosium. The high density of the HREE mineralization is especially significant given that europium, terbium, dysprosium and yttrium all have their own 'individual' markets. One of the most high demand HREE's is dysprosium and the historical metallurgical results from the Hastings resource pilot plant tests have yielded recoveries of around 75% for Yttrium and Dysprosium, 80% for Niobium and Zirconium.

The rare earth market is especially in Europe important because it does not have resources comparable to those in North America, Africa or the former Soviet Bloc countries and Hastings has had the foresight to take advantage of an Australian trade mission to target the European market, which

is in a scramble to secure reliable supplies of REE's. Hastings' mineralogy, moreover, is conducive to the delivery of a high grade beneficiation product, which will not require a large or very complex processing facility: the smaller the processing plant will be, the lower the capital costs (CAPEX) for comparable rare earth oxide (REO) output capacity. Indeed, the rare earth mineral at Hastings is xenotime, which is one of the minerals that can best be beneficiated into high grade mineral concentrates. Other minerals can also lead to good REO values but not as economically as xenotime, given lower grade and higher CAPEX for the same REO output with more by-product.