

24 July 2018

## JUNE 2018 QUARTERLY REPORT

Hastings Technology Metals Limited  
ABN 43 122 911 399

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### Board

Charles Lew (Executive Chairman)

Jean Claude Steinmetz (Non-Exec  
Director)

Guy Robertson  
(Finance Director  
and Company Secretary)

- **Environmental Review Document (ERD) for Yangibana Project submitted to Environmental Protection Agency (EPA) of Western Australia**
- **Infill drilling programme at Bald Hill and Fraser's nearing completion providing samples for additional pilot plant tests**
- **Geotechnical drilling programme commences at Yangibana, Yangibana West, Auer and Auer North to establish additional reserves**
- **Infill and extension drilling commences at Auer and Auer North seeking additional resources and reserves**
- **Commencement of preliminary and early works on site**
- **Project financing discussions continue to progress**

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## Yangibana Project

### *EPA Submission*

The Environmental Review Document (ERD) for the Yangibana Project was submitted to the Environmental Protection Agency (EPA) of Western Australia in late June 2018

The lodgement achieved a significant milestone in the Yangibana Project approvals process, and the document confirms that the project meets the scope of work outlined in the EPA approved environmental scoping document.

A thorough understanding of the surrounding environment and the project's environmental impacts has been achieved with detailed studies of a range of prescribed issues.

The ERD demonstrates how any potential impacts from the project that may have been highlighted by the various studies can be managed by Hastings.

One of the key findings of the studies is that the naturally occurring radioactive material can be largely removed from the ore through processing and is retained on-site in Western Australia. As such, the Mixed Rare Earths Carbonate (MREC) is not subject to regulatory requirements of the International Atomic Energy Agency (IAEA)

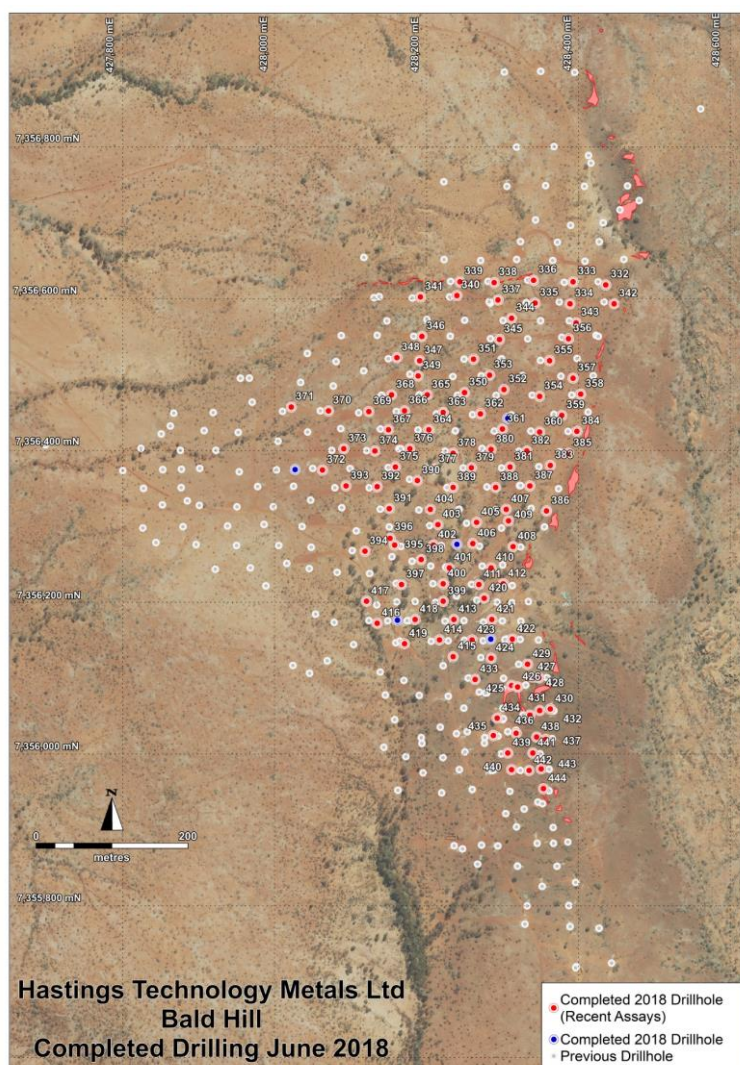
Transport Regulations and can be transported as general freight cargo using existing logistics operators and ports.

Tailings waste will be retained on site in permanent tailing storage facilities. Modelling shows the facilities can be rehabilitated at closure to be below the areas naturally occurring radiation levels.

The EPA will now review the ERD and provide feedback to Hastings prior to the document being released for a four-week public review period.

### ***Infill Drilling – Bald Hill and Fraser’s***

Infill drilling to provide further samples for additional pilot plant-scale testwork was completed at Bald Hill and Fraser’s during the quarter. Assay results were received from all holes at the Bald Hill deposit (Figure 1), with best intersections shown in Table 1. Details of hole coordinates and assays are shown in the ASX Release of 28 June 2018.



**Figure 1 – Yangibana Project – Bald Hill Drill Coverage Showing 2018 Holes Reported**

Hole No BHRC	From (m)	To (m)	Interval (m)	%TREO	%Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> : TREO %
332	19	25	6	1.89	0.81	43
333	31	34	3	1.28	0.58	45
334	25	29	4	1.55	0.65	42
337	24	34	10	1.74	0.71	41
338	33	40	7	2.36	0.95	40
341	33	35	2	2.60	0.98	38
342	8	15	7	2.20	0.96	44
344	17	23	6	1.16	0.48	42
375	19	256	6	1.46	0.59	41
381	13	17	4	2.00	0.89	45
382	9	12	3	3.49	1.45	42
362	13	19	6	1.67	0.67	40
388	6	12	6	1.63	0.65	40
399	34	48	14	1.48	0.59	40
400	28	43	15	1.12	0.44	39
402	20	28	8	1.44	0.53	37
413	31	47	16	1.19	0.46	39
415	37	48	11	1.05	0.42	40
418	37	47	10	1.29	0.48	37
419	47	60	13	1.42	0.52	37
425	3	24	21	1.64	0.63	39
428	5	11	6	1.66	0.70	42
432	0	5	5	1.46	0.60	41
434	29	37	8	1.60	0.65	41
437	0	16	16	1.29	0.55	43
438	4	9	5	1.95	0.81	42
441	5	17	12	1.09	0.48	44
442	9	26	17	1.26	0.54	42
443	2	16	14	1.78	0.77	43
446	16	19	3	1.98	0.80	40

**Table 1 – Yangibana Project – Significant RC Results for 2018**

The important Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>:TREO ratio ranges from 37% to 45%, in line with the November 2017 JORC Resource average of 42%. This ratio represents the proportion of the key value elements, neodymium and praseodymium oxides, to TREO in the planned mixed rare earths carbonate product.

### ***Geotechnical Drilling***

Diamond drilling has commenced at Yangibana, Yangibana West, Auer and Auer North to provide geotechnical data to be incorporated into mine planning studies and the definition of ore reserves, expected to be announced during the September quarter.

### ***Infill and Extension Drilling – Auer and Auer North***

Infill and extension drilling has commenced at Auer and Auer North aiming to increase the Measured and Indicated Resources at these two deposits. Geotechnical, metallurgical and environmental work will then support the establishment of increased ore reserves at both deposits, expected to be announced in the December quarter.

### ***Preliminary Works***

The construction of the first packages of the preliminary works programme commenced during the quarter. On-site construction of the construction water supply bore and pipeline started in July, as well as off-site fabrication of the accommodation village buildings. Earthworks and site installation of the accommodation village is planned to commence in the September quarter.

### **Brockman project**

The Company continued the process of preparing documentation to support the application of a Mining Lease on the Brockman Project.

### **Corporate**

#### ***Funding***

As per the Definitive Feasibility Study (DFS) it is expected that financing of the processing plant will be structured on a debt : equity basis of 65% : 35%. During the quarter considerable progress has been made towards securing additional equity funding and conducting more formal discussions with project finance bankers after seeking expressions of interest based on a term sheet and the DFS financial model.

The underlying assumptions and production targets as defined in the DFS have not changed substantially since the date of its release on 28 November 2017. Based on the current MREC basket price of ~US \$ 28, the project remains strongly economically viable with profitability of ~ US \$8 on a per kg TREO basis after taking into account all processing, separation and financing costs.

The Company will update the market as these funding discussions proceed.

**Change of Auditor**

The Company has appointed PriceWaterhouse Coopers as auditor effective for the year ended 30 June 2018.

**TERMINOLOGY USED IN THIS REPORT**

**Total Rare Earths Oxides, TREO**, is the sum of the oxides of the light rare earth elements lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), and samarium (Sm) and 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).

**Competent Person Statements**

*The information in this report and DFS that relates to Resources is based on information compiled by Lynn Widenbar. Mr Widenbar is a consultant to the Company and a member of the Australasian Institute of Mining and Metallurgy. The information in this report and DFS 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.*

*Each has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this announcement and DFS 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 consent to the inclusion in this report and DFS of the matters based on his information in the form and context in which it appears.*

## **About Hastings Technology Metals**

### *Yangibana Project*

Hastings Technology Metals (ASX:HAS, the Company) is advancing the Yangibana Rare Earths Project towards production following the completion of a positive Definitive Feasibility Study. The Yangibana Project hosts rare earths deposits rich in neodymium and praseodymium, elements vital in the production of permanent magnets that provide many critical components of wide ranging high-tech products, including electric vehicles, renewable energy wind turbines, robotics, medical applications and others. The Company aims to be the next significant producer of neodymium and praseodymium outside of China.

The established Yangibana ore reserves and mineral resources are predominantly within tenements held 100% by Hastings, with the majority in granted Mining Leases. Lesser mineral resources are held in a joint venture in which Hastings holds a 70% interest and has management control.

The Definitive Feasibility Study has established Probable Ore Reserves of 5.15 million tonnes at 1.12% total rare earths oxides (TREO) including 0.45% neodymium and praseodymium oxides ( $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$ ). This ore reserve is the basis of the initial operation at a planned production rate of up to 15,000 tonnes per annum (tpa) MREC including 3,400 tpa of  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$ .

Including the above Ore Reserves, the Project hosts JORC Measured, Indicated and Inferred Mineral Resources of 21.00 million tonnes at 1.17% TREO including 0.40%  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$ . From this Mineral Resource, an Additional Production Target (APT) of a further 2.64 million tonnes from 100% owned ground, from Measured and Indicated Mineral Resources, will add to feed for the production plant in later years.

Many more of the Company's deposits have the potential for additional mineral resources, and exploration programmes are in place to evaluate these areas in the future, plus the numerous other targets identified to date.

### *Brockman Project*

The Company is progressing a Mining Lease Application over the Brockman Rare Earths and Rare Metals Project.

The Brockman deposit, near Halls Creek in Western Australia, contains JORC Indicated and Inferred Mineral Resources totalling 41.4 million tonnes (comprising 32.3 million tonnes Indicated Mineral Resources and 9.1 million tonnes Inferred Mineral Resources) at 0.21% TREO, including 0.18% HREO, plus 0.36%  $\text{Nb}_2\text{O}_5$  and 0.90%  $\text{ZrO}_2$ .

The Company aims to capitalise on the strong demand for critical rare earths created by the expanding demand for new technology products.

### **For further information please contact:**

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Stefan Wolmarans, Chief Operating Officer, +61 488 070 534



**TENEMENT SCHEDULE**

**as at 30 June 2018 (All tenements are in Western Australia)**

***YANGIBANA PROJECT***

**Hastings Technology Metals Ltd**

Es09/2084, 2086, 2095, 2129 - 100%

P09/482 - 100%

M09/157 - 100%

**Gascoyne Metals Pty Limited (100% subsidiary)**

Es09/1989, 2007, 2137, - 100%

Es09/1043, 1703, 1704, 1705, 1706, 2278, 2279 2280 - 70%

Ms09/159, 161, 163 - 70%

Ms09/160, 164, 165 - 100%

G09/10 - 100%

G09/11, 13, 14 - 70%

L09/66-72, 74, 75, 80-83 - 100%

**Yangibana Pty Limited (100% subsidiary)**

Es09/1700, 1943, 1944, 2018 - 100%

Ms09/158, 162 -100%

Gs09/16-18 – 100%

***BROCKMAN PROJECT***

**Brockman Project Holdings Pty Limited (100% subsidiary)**

M80/636

P80/1626 to 1635 - 100%

E80/4555 - 100%