

# 8 August 2018

## MAJOR AEROMAGNETIC TARGET IDENTIFIED AT YANGIBANA

Hastings Technology Metals Limited

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#### Board

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- Interpretation of aeromagnetic data identifies a major anomaly near Fraser's deposit
- Dimensions 1km by 800m by 400m
- Anomaly strength indicates probable magnetite-rich body
- Potential extensions to Auer and Auer North identified
- Assay results from infill drilling at Fraser's confirm expectations with results including
  - 9m at 3.03%TREO including 1.22% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>
  - > 9m at 2.38%TREO including 1.01% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>
  - > 8m at 1.51%TREO including 0.59% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>
  - 6m at 2.87%TREO including 1.16% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>
  - 4m at 2.80%TREO including 1.15% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>
- Drilling to increase Indicated Resources and thence Probable Reserves commenced at Auer and Auer North

## INTRODUCTION

Hastings Technology Metals Limited (ASX:HAS) is pleased to announce the results of a detailed interpretation completed by independent consultants Southern Geoscience Consultants (SGC) on specific targets indicated in its earlier assessment of the Company's 2016 aeromagnetic and radiometric survey data. The interpretation has identified a major aeromagnetic anomaly that warrants drill testing, and indicated potential extensions of the defined resources at Auer and Auer North.

Results from recently-completed infill reverse circulation (RC) drilling at the Fraser's deposit are in line with expectations. RC and diamond drilling are now under way to increase Indicated Resources and thence reserves at the Auer and Auer North deposits.

## AEROMAGNETIC ANOMALY

SGC's recent work has concentrated on a number of targets in the Fraser's Southwest area being the area that lies between Fraser's deposit in the east and the Auer and Auer North deposits in the west (Figure 1). The major anomaly occurs predominantly in the southern corner of E09/2018 and has been modelled with a significant target as shown in Figures 2 and 3.



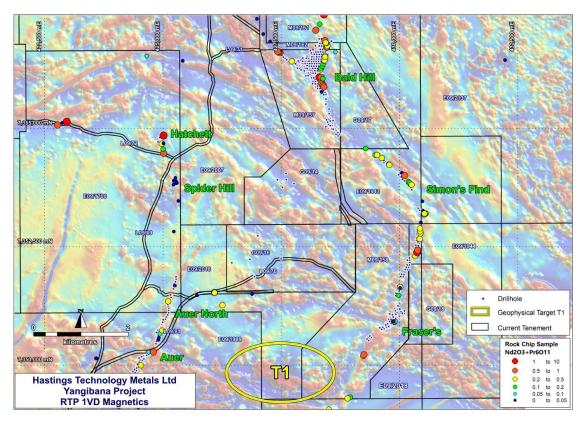


Figure 1 – Aeromagnetic data (RTP 1VD) showing target in southwest corner of E09/2018

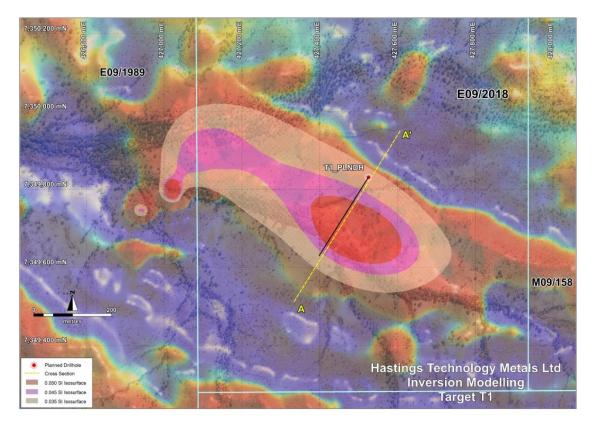
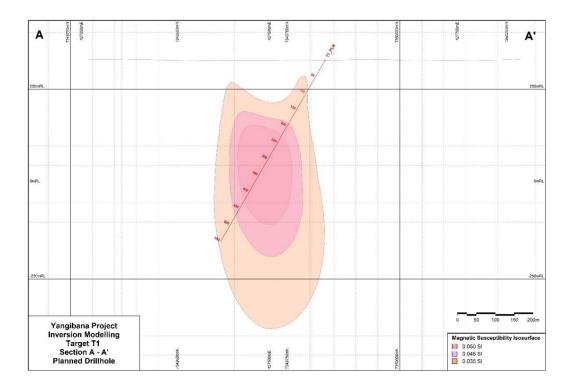


Figure 2 – Modelled Aeromagnetic Feature within E09/2018





### Figure 3 – Inversion Modelled Aeromagnetic Target within E09/2018

The detailed assessment of this feature has defined an anomalous magnetic feature with a strike length of approximately 1km with a strong magnetic susceptibility. The modelled feature has a depth extent of approximately 800m extending from surface, and a width of approximately 400m. This body has a higher intensity core (darker pink in Figure 3) with a strike length of approximately 750m, a depth extent of approximately 650m (from 60m below surface), and a width of approximately 300m.

The strength of the anomaly in the Yangibana environment suggests the presence of a large magnetite-rich body, potentially similar to the magnetite-rich units that host portions of the known rare-earths deposits nearby.

Surface assessment has located evidence of ironstone and samples have been taken for analysis.

A conceptual hole shown in Figures 2 and 3 is planned to provide a first test of the anomaly.

SGC also undertook interpretation of the aeromagnetic data further west, identifying potential extensions of 900m to the north of the current limit of the Auer North deposit and 1,200m to the south of the current limit of the Auer deposit.



## INFILL DRILLING RESULTS

Assay results have been received for all RC holes drilled at Fraser's deposit as part of the programme to deliver a large composite sample representative of the Bald Hill and Fraser's mineralisation for further metallurgical testwork (Figure 4). Results have been in line with expectations with best results shown in Table 1. Details of hole coordinates and assays are shown in Appendices 1 and 2.

Hole No FRRC	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 %
132	39	43	4	1.14	0.49	43
134	29	37	8	1.51	0.59	39
135	21	26	5	1.52	0.64	42
136	23	32	9	2.38	1.01	42
137	30	36	6	1.70	0.69	41
138	10	20	10	1.08	0.49	45
144	76	83	7	1.09	0.46	42
145	65	68	3	2.04	0.78	33
150	32	36	4	1.85	0.73	44
153	94	98	4	2.80	1.15	41
165	11	20	9	3.03	1.22	40
168	30	36	6	2.87	1.16	41
169	32	36	4	1.97	0.81	41

Table 1 – Yangibana Project – Significant RC Results from Fraser's deposit 2018

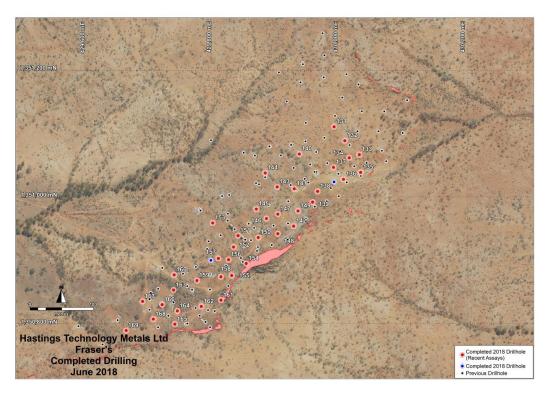


Figure 4 – Fraser's Deposit 2018 Drillholes



The important  $Nd_2O_3+Pr_6O_{11}$ :TREO ratio ranges from 39% to 45% (other than FRRC145), in line with the November 2017 JORC Resource average of 42%. This ratio effects the proportion of the Company's target oxides of neodymium and praseodymium to TREO in the planned mixed rare earths carbonate product.

## **RESERVE EXPANSION DRILLING**

On completion of the programme to recover additional metallurgical samples, both RC and diamond rigs are now focused on a programme to increase Measured and Indicated Resources and then, incorporating additional metallurgical, geotechnical and mining studies, to increase total reserves at the Project.

The current drilling programme is centred on the Auer and Auer North deposits with the intention of further adding to the Measured and Indicated Resources at these deposits. Geotechnical and geochemical work, and metallurgical testwork are all progressing with the aim of completion of mining studies and the establishment of further increased Probable Reserves by the end of 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).

## For further information please contact:

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## **Competent Person Statements**

The information in this announcement that relates to Geophysical Exploration Results is based on information compiled by Mr Russell Mortimer, who is employed as a Consultant to the Company through geophysical consultancy Southern Geoscience Consultants Pty Ltd. Mr Mortimer is a member of the Australian Institute of Geoscientists and a member of the Australian Society of Exploration Geophysicists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Mortimer consents to the inclusion in the report of matters based on information in the form and context in which it appears.

The information in this announcement 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 announcement 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 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 announcement of the matters based on his information in the form and context in which it appears.



## About Hastings Technology Metals

- Hastings Technology Metals is a leading Australian rare earths company, with two rare earths projects hosting JORC-compliant resources in Western Australia.
- The Yangibana Project hosts Probable Reserves totaling 5.15 million tonnes at 1.12% TREO including 0.45%  $Nd_2O_3$ + $Pr_6O_{11}$  within JORC Resources totalling 21.0 million tonnes at 1.17% TREO (comprising Measured Resources of 3.9 million tonnes at 1.19% TREO, Indicated Resources of 8.6 million tonnes at 1.25% TREO and Inferred Resources of 8.4 million tonnes at 1.09% TREO), including 0.40%  $Nd_2O_3$ + $Pr_6O_{11}$ .
- The Brockman deposit contains JORC Indicated and Inferred Resources totalling 41.4 million tonnes (comprising 32.3mt Indicated Resources and 9.1mt Inferred Resources) at 0.21% TREO, including 0.18% HREO, plus 0.36% Nb₂O₅ and 0.90% ZrO₂.
- Rare earths are critical to a wide variety of current and new technologies, including smart phones, electric vehicles, wind turbines and energy efficient light bulbs.
- The Company aims to capitalise on the strong demand for rare earths permanent magnets created by expanding new technologies.



# Appendix 1 – Fraser's drillhole collar data

Hole_ID	Easting	Northing	RL	Decln	Azimuth	EOH
FRRC131	429989	7351111	351.26	-90	0	48
FRRC132	430006	7351089	351.58	-90	0	48
FRRC133	430029	7351067	351.92	-60	135	36
FRRC134	430013	7351062	351.76	-90	0	42
FRRC135	430031	7351039	351.44	-90	0	30
FRRC136	430004	7351028	351.53	-90	0	36
FRRC137	429988	7351047	351.51	-90	0	42
FRRC138	429963	7351009	351.44	-90	0	24
FRRC139	429955	7350992	352.29	-60	135	24
FRRC140	429934	7351068	350.23	-90	0	54
FRRC141	429926	7351013	351.07	-70	135	54
FRRC142	429925	7350954	353.82	-60	135	25
FRRC143	429899	7351016	349.98	-60	135	60
FRRC144	429880	7351038	348.82	-70	135	90
FRRC145	429866	7350981	350.57	-70	135	72
FRRC146	429882	7350966	350.63	-60	135	54
FRRC147	429900	7350973	351.88	-65	135	48
FRRC148	429900	7350942	353.51	-60	135	30
FRRC149	429932	7350978	352.60	-60	135	30
FRRC150	429869	7350936	352.15	-60	135	40
FRRC151	429837	7350939	350.78	-60	135	60
FRRC152	429830	7350921	350.66	-60	135	66
FRRC153	429797	7350959	348.51	-60	135	102
FRRC154	429850	7350895	352.78	-60	135	18
FRRC155	429827	7350876	350.23	-70	135	28
FRRC156	429822	7350901	350.43	-60	135	48
FRRC157	429806	7350903	349.77	-70	135	72
FRRC158	429810	7350874	349.54	-60	135	42
FRRC159	429772	7350868	347.12	-60	135	54
FRRC160	429736	7350877	345.66	-60	130	102
FRRC161	429810	7350837	349.39	-60	135	12
FRRC162	429779	7350827	347.53	-60	130	42
FRRC163	429735	7350853	346.19	-60	135	84
FRRC164	429741	7350820	346.89	-60	135	46
FRRC165	429737	7350799	347.49	-60	140	30
FRRC166	429717	7350830	346.37	-70	140	70
FRRC167	429686	7350835	345.56	-60	145	93
FRRC168	429703	7350807	346.71	-60	145	48
FRRC169	429660	7350789	345.91	-60	135	40



# Appendix 2 – Fraser's mineralised intervals

Hole No	From	То	%TREO	%Nd2O3+Pr6O11
FRRC142	15	16	0.35	0.14
FRRC142	16	17	0.56	0.28
FRRC142	17	18	0.19	0.09
FRRC143	40	41	0.01	0.00
FRRC143	41	42	0.73	0.34
FRRC143	42	43	0.07	0.03
FRRC143	43	44	0.04	0.01
FRRC143	44	45	1.45	0.69
FRRC143	45	46	0.22	0.11
FRRC144	75	76	0.30	0.14
FRRC144	76	77	0.73	0.31
FRRC144	77	78	0.93	0.39
FRRC144	78	79	0.64	0.27
FRRC144	79	80	3.42	1.43
FRRC144	80	81	0.92	0.40
FRRC144	81	82	0.47	0.21
FRRC144	82	83	0.48	0.20
FRRC144	83	84	0.29	0.11
FRRC145	64	65	0.06	0.02
FRRC145	65	66	0.89	0.34
FRRC145	66	67	4.43	1.68
FRRC145	67	68	0.79	0.33
FRRC145	68	69	0.47	0.19
FRRC146	45	46	0.04	0.01
FRRC146	46	47	0.59	0.24
FRRC146	47	48	0.19	0.08
FRRC148	22	23	0.46	0.19
FRRC148	23	24	0.67	0.27
FRRC148	24	25	1.14	0.48
FRRC148	25	26	1.25	0.55
FRRC148	26	27	0.32	0.15
FRRC149	22	23	0.27	0.12
FRRC149	23	24	1.05	0.49
FRRC149	24	25	1.58	0.75
FRRC149	25	26	0.91	0.49
FRRC149	26	27	0.54	0.28
FRRC149	27	28	0.20	0.10
FRRC150	31	32	0.46	0.20
FRRC150	32	33	2.23	1.01
FRRC150	33	34	3.56	1.58
FRRC150	34	35	0.26	0.12
FRRC150	35	36	0.54	0.22
FRRC151	41	42	0.03	0.01
	• -	14	0.05	0.01



FRRC151	47	48	0.05	0.01
FRRC151	48	48	0.49	0.21
FRRC151	49	50	0.62	0.27
FRRC151	50	51	0.29	0.12
FRRC153	93	94	0.08	0.03
FRRC153	94	95	3.76	1.54
FRRC153	95	96	5.54	2.27
FRRC153	96	97	1.23	0.51
FRRC153	97	98	0.68	0.28
FRRC153	98	99	0.16	0.06
FRRC155	5	6	0.09	0.02
FRRC154	6	7	0.52	0.25
FRRC154	7	8	0.84	0.42
FRRC154	8	9	0.59	0.28
FRRC154	9	10	1.24	0.28
FRRC154	9 10	10	1.24	0.48
FRRC154	10	12	0.10	0.04
FRRC154	15	16	0.27	0.11
FRRC155	16	17	3.24	1.38
FRRC155	10	18	0.74	0.31
FRRC155	17	18	0.09	0.03
FRRC155	66	67	0.29	0.03
FRRC157	67	68	0.59	0.13
FRRC157	68	69	0.05	0.02
FRRC157	29	30	0.35	0.02
FRRC158	30	31	0.51	0.10
FRRC158	30	32	0.57	0.25
FRRC158	32	33	0.06	0.23
FRRC158	52 46	47	0.38	0.02
FRRC159	40	47	0.51	0.22
FRRC159	48 71	49 72	0.21	0.09
FRRC160	71 72	72 72	0.30	0.12
FRRC160		73	0.63	0.28
FRRC160	73	74 2	0.12	0.05
FRRC161 FRRC161	1	2	0.05	0.01
	2	3	0.65	0.31
FRRC161	3	4	1.18	0.61
FRRC161	4	5	1.44	0.68
FRRC161	5	6	0.73	0.36
FRRC161	6	7	0.12	0.06
FRRC162	12	13	0.37	0.19
FRRC162	13	14	0.94	0.51
FRRC162	14	15	0.62	0.35
FRRC162	15	16	1.03	0.44
FRRC162	16	17	0.30	0.16
FRRC164	34 35	35 36	0.45 1.13	0.19 0.48
FRRC164				



FRRC164	36	37	0.93	0.39
FRRC164	30	38	0.82	0.34
FRRC164	37	39	0.82	0.12
FRRC164	38 10	11	0.06	0.01
FRRC165	10	11	0.79	0.32
FRRC165	11	12	9.88	3.71
FRRC165	13	14	5.48	2.09
FRRC165	14	15	1.42	0.68
FRRC165	15	16	1.99	0.91
FRRC165	16	17	2.00	0.85
FRRC165	17	18	0.51	0.24
FRRC165	18	19	3.84	1.61
FRRC165	19	20	1.36	0.56
FRRC165	20	21	0.10	0.04
FRRC167	84	85	0.07	0.02
FRRC167	85	86	0.78	0.32
FRRC167	86	87	0.42	0.16
FRRC167	87	88	0.43	0.17
FRRC167	88	89	0.72	0.30
FRRC167	89	90	0.18	0.08
FRRC168	29	30	0.16	0.07
FRRC168	30	31	5.76	2.30
FRRC168	31	32	2.66	1.07
FRRC168	32	33	6.27	2.51
FRRC168	33	34	1.03	0.43
FRRC168	34	35	0.99	0.45
FRRC168	35	36	0.48	0.21
FRRC168	36	37	0.26	0.11
FRRC169	31	32	0.31	0.14
FRRC169	32	33	0.73	0.30
FRRC169	33	34	1.20	0.52
FRRC169	34	35	5.28	2.13
FRRC169	35	36	0.67	0.27
FRRC169	36	37	0.15	0.05



## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

# (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Assay results reported in this announcement relate to reverse circulation infill drilling that tested the Fraser's deposit. The main aim of this programme is to provide material for additional metallurgical testwork. The drillholes reported also form part of the planned grade control drilling at these deposits.</li> <li>Samples from each metre were collected in a cyclone and split using a 3-level riffle splitter. Field duplicates, blanks and Reference Standards were inserted at a rate of approximately 1 in 20.</li> <li>The area tested by this drilling programme includes portions of the current Measured and indicated Resources at Fraser's.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Reverse Circulation drilling utilised a nominal 5 1/4 inch diameter face-sampling hammer.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Recoveries are recorded by the geologist in the field at the time of drilling/logging.</li> <li>If poor sample recovery is encountered during drilling, the geologist and driller have endeavoured to rectify the problem to ensure maximum sample recovery. Visual assessment is made for moisture and contamination. A cyclone and splitter were used to ensure representative samples and were routinely cleaned.</li> <li>Sample recoveries to date have generally been high, and moisture in samples minimal. Insufficient data is available at present to determine if a relationship exists between recovery and grade.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in</li> </ul>	<ul> <li>All drill chip samples are geologically logged at 1m intervals from surface to the bottom of each individual hole to a level that will support appropriate future Mineral Resource studies.</li> <li>Logging is considered to be semi-quantitative given the nature of reverse circulation drill chips.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul><li>nature. Core (or costean, channel, etc) photography.</li><li>The total length and percentage of the relevant intersections logged.</li></ul>	<ul> <li>All RC drill holes in the current programme are logged in full.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The RC drilling rig is equipped with an in-built cyclone and triple tier riffle splitting system, which provided one bulk sample of approximately 25kg, and a sub-sample of 2-4kg per metre drilled.</li> <li>All samples were split using the system described above to maximise and maintain consistent representivity. Most samples were dry. For wet samples the cleanliness of the cyclone and splitter was constantly monitored by the geologist and maintained to avoid contamination.</li> <li>Bulk samples were placed in green plastic bags, with the sub-samples collected placed in calico sample bags.</li> <li>Field duplicates were collected directly from the splitter as drilling proceeded through a secondary sample chute. These duplicates were designed for lab checks as well as lab umpire analysis.</li> <li>A sample size of 2-4kg was collected and considered appropriate and representative for the grain size and style of mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Genalysis (Perth) was used for all analysis work carried out on the 1m drill chip samples and the rock chip samples. The laboratory techniques below are for all samples submitted to Genalysis and are considered appropriate for the style of mineralisation defined at the Yangibana REE Project: FP6/MS</li> <li>Blind field duplicates were collected at a rate of approximately 1 duplicate for every 20 samples that are to be submitted to Genalysis for laboratory analysis. Field duplicates were split directly from the splitter as drilling proceeded at the request of the supervising geologist.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>At least two company personnel verify all significant intersections.</li> <li>All geological logging and sampling information is completed firstly on to paper logs before being transferred to Microsoft Excel spreadsheets. Physical logs and sampling data are returned to the Hastings head office for scanning and storage. Electronic copies of all information are backed up daily.</li> <li>No adjustments of assay data are considered necessary.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations</li> </ul>	<ul> <li>A Garmin GPSMap62 hand-held GPS is used to define the location of the drill hole collars. Standard practice is for the GPS to be left at the</li> </ul>



Criteria	JORC Code explanation	Commentary
	used in Mineral Resource estimation. <ul> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>site of the collar for a period of 5 minutes to obtain a steady reading. Collar locations are considered to be accurate to within 5m. Collars will be picked up by DGPS in the future. Down hole surveys are conducted by the drill contractors using a Reflex electronic single-shot camera with readings for dip and magnetic azimuth nominally taken every 30m down hole, except in holes of less than 30m. The instrument is positioned within a stainless steel drill rod so as not to affect the magnetic azimuth.</li> <li>Grid system used is MGA 94 (Zone 50)</li> <li>Topographic control is based on the detailed 1m topographic survey undertaken by Hyvista Corporation in 2016.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Hole collars were predominantly laid out within 10m of previous drill coverage in areas considered to have potential to increase the Measured plus Indicated resources of the deposit. Collar locations were varied slightly dependent on access at a given site.</li> <li>Further details are provided in the collar co- ordinate table contained elsewhere in this report.</li> <li>No sample compositing is used in this report, all results detailed are the product of 1m downhole sample intervals.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Most drill holes in the current programme are vertical (subject to access to the preferred collar position) and as such intersected widths do not represent true thickness.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>The chain of custody is managed by the project geologist who places calico sample bags in polyweave sacks. Up to 10 calico sample bags are placed in each sack. Each sack is clearly labelled with: <ul> <li>Hastings Technology Metals Ltd</li> <li>Address of laboratory</li> <li>Sample range</li> </ul> </li> <li>Samples were delivered by Hastings personnel to the Nexus Logistics base in order to be loaded on the next available truck for delivery to Genalysis. The freight provider delivers the samples directly to the laboratory. Detailed records are kept of all samples that are dispatched, including details of chain of custody.</li> </ul>



Criteria	JORC Code explanation	Commentary
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audit of sampling data has been completed to date but a review will be conducted once all data from Genalysis (Perth) has been received. Data is validated when loading into the database and will be validated again prior to any Resource estimation studies.</li> </ul>

### Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The RC drilling within the current Measured plus Indicated Resources at Fraser's that is reported in this document was carried out within M09/158.</li> <li>All Yangibana tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The Fraser's deposit was previously drilled by Hurlston Pty Limited in joint venture with Challenger Pty Limited in the late 1980s.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Yangibana ironstones within the Yangibana Project are part of an extensive REE-mineralised system associated with the Gifford Creek Carbonatite Complex. The lenses have a total strike length of at least 12km.</li> <li>These ironstone lenses have been explored previously for base metals, manganese, uranium, diamonds and rare earths.</li> <li>The ironstones are considered by GSWA to be coeval with the numerous carbonatite sills that occur within Hastings tenements, or at least part of the same magmatic/hydrothermal system.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Refer to details of drilling in table in the body of this report and the appendices.</li> </ul>



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>All intervals reported are composed of 1m downhole intervals and as such are length weighted. A lower cut-off grade of 0.20%Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> has been used for assessing significant intercepts, and no upper cut-off grade was applied.</li> <li>Maximum internal dilution of 2m was incorporated in reported significant intercepts.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>True widths for mineralisation have not been calculated and as such only downhole lengths have been reported.</li> <li>It is expected that true widths will be less than downhole widths, due to the apparent dip of the mineralisation.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Appropriate maps and sections are available in the body of this ASX announcement.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Reporting of results in this report is considered balanced.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Geological mapping has continued in the vicinity of the drilling as the programme proceeds.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions, depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The current drilling programme is primarily designed to provide metallurgical testwork samples from Bald Hill and Fraser's deposits. The results from this programme will also be incorporated in the future grade control programme.</li> </ul>

