HASTINGS
Technology Metals Limited

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INFILL DRILLING RESULTS ENHANCE BALD HILL DEPOSIT

HIGHLIGHTS

- **Current reserves and resources at Bald Hill enhanced following receipt of assay results**
- **Best drilling results from Bald Hill which comprised 126 holes for 4,066 metres are outlined in table 1 below**
- **Infill and extension drilling at Auer and Auer North to further increase resources and reserves progressing**
- **Major infill drilling to provide additional metallurgical samples has been completed at Bald Hill and Fraser's**
- **Drilling at Auer, Auer North, and Yangibana for geotechnical and geochemical data to enable upgrade to reserves nearing completion**

INTRODUCTION

Hastings Technology Metals Limited (ASX:HAS) is pleased to announce that its 2018 drilling programme at the Yangibana Rare Earths Project is well advanced and the first assay results have now been received.

DRILLING RESULTS

Assay results have been received from all holes at the Bald Hill deposit (Figure 1), with best intersections shown in Table 1 (stand outs highlighted). Details of hole coordinates and assays are shown in Appendices 1 and 2.

The RC (reverse circulation) rig has now commenced an infill and extension drilling programme at Auer and Auer North deposits. The aim is to increase the resources at these deposits and to undertake sufficient geotechnical, environmental, metallurgical and mining studies such that additional reserves can be defined by the end of 2018.

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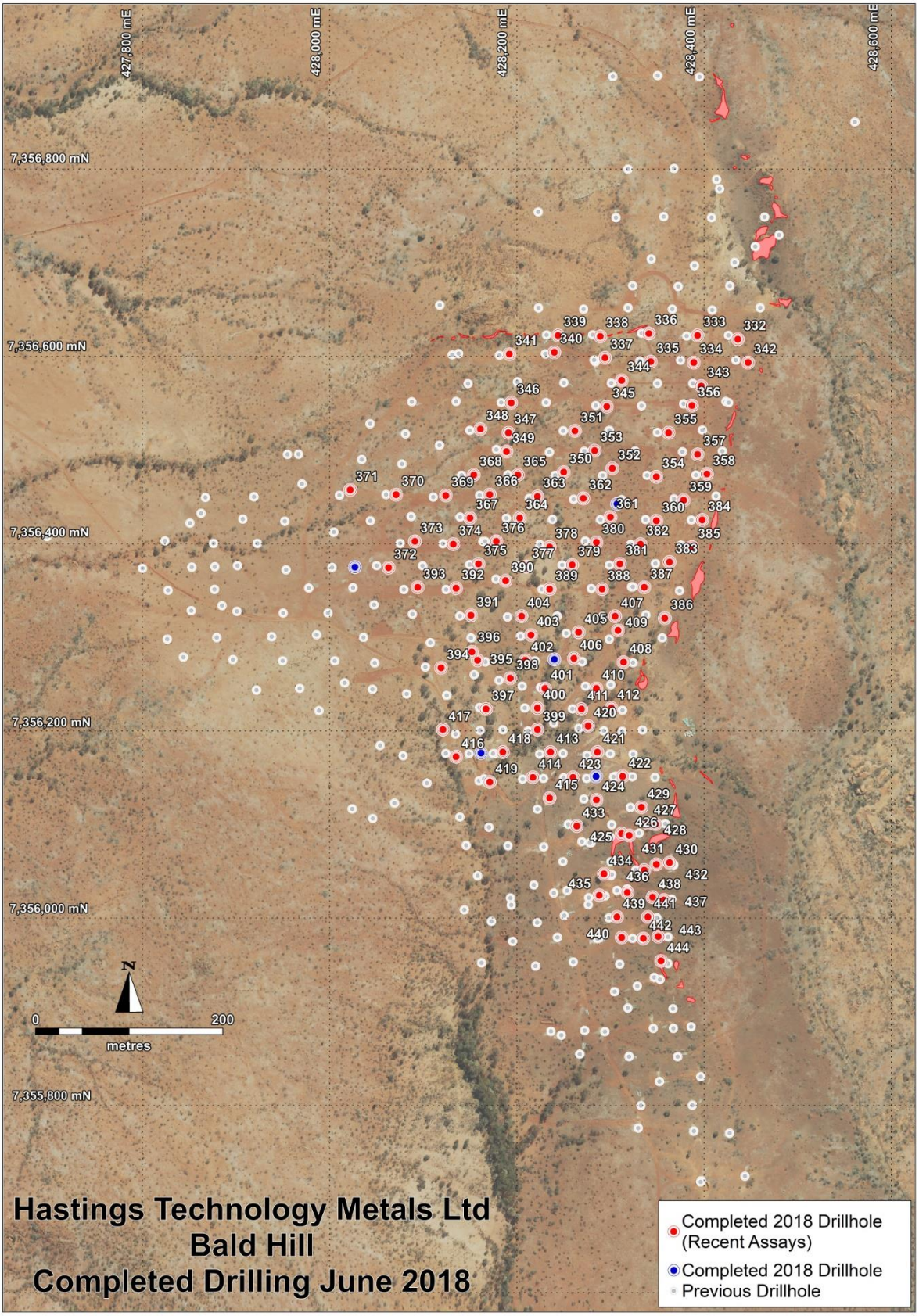
Table 1 – Yangibana Project – Significant RC Results for 2018

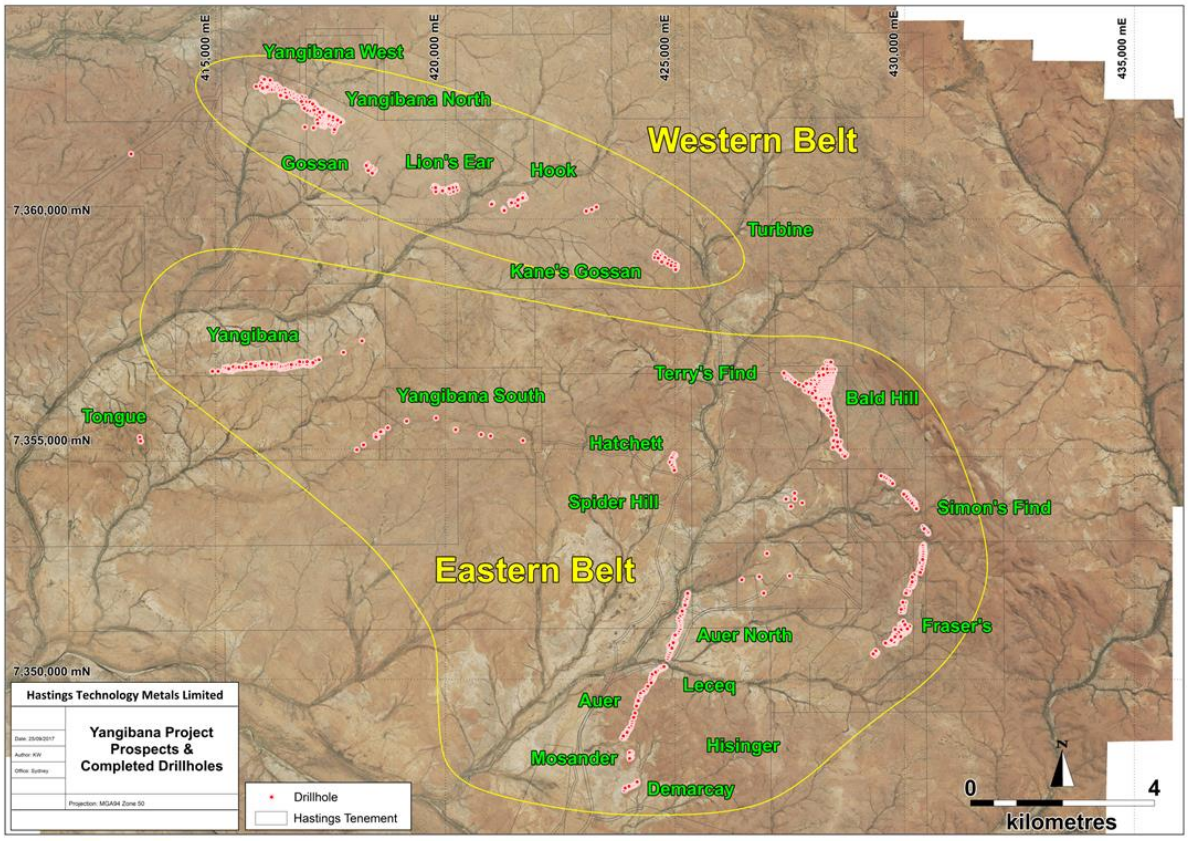
Hole No BHRC	From (m)	To (m)	Interval (m)	%TREO	%Nd_2O_3+Pr_6O_{11}	Nd_2O_3+Pr_6O_{11}: TREO %
332	19	25	6	1.89	0.81	43
333	31	34	3	1.28	0.58	45
334	25	29	4	1.55	0.65	42
337	24	34	10	1.74	0.71	41
338	33	40	7	2.36	0.95	40
341	33	35	2	2.60	0.98	38
342	8	15	7	2.20	0.96	44
344	17	23	6	1.16	0.48	42
375	19	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

The important Nd_2O_3+Pr_6O_{11}:TREO ratio ranges from 37% to 45%, 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.

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



The Company has also completed RC and diamond drill holes within the defined reserves and resources at the Bald Hill and Fraser's deposits (Figure 2) to provide samples to the metallurgical team for testwork to further upgrade the processing plant design and enhance equipment selection.



In addition, the diamond drill rig has completed a short programme to provide comminution and geotechnical samples from Auer, Auer North and Yangibana deposits (Figure 2). The results of testwork on these samples will feed into the mining studies that are under way to upgrade portions of each of these deposits from resources to reserves.

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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).

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% Nb_2O_5 and 0.90% ZrO_2.
- 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.

Competent Persons' Statement

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.

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Appendix 1 – Drillhole Data

Hole No	Easting	Northing	RL	Decl'n	Azimuth	EOH (m)
BHRC332	428436	7356619	361	-90	0	30
BHRC333	428393	7356623	363	-90	0	42
BHRC334	428389	7356594	362	-90	0	36
BHRC335	428343	7356595	363	-90	0	36
BHRC336	428341	7356625	365	-90	0	42
BHRC337	428294	7356599	366	-90	0	40
BHRC338	428289	7356622	367	-90	0	45
BHRC339	428244	7356623	367	-90	0	42
BHRC340	428240	7356605	366	-90	0	36
BHRC341	428192	7356603	366	-90	0	42
BHRC342	428447	7356594	359	-90	0	24
BHRC343	428397	7356569	361	-90	0	30
BHRC344	428312	7356575	363	-90	0	30
BHRC345	428296	7356547	363	-90	0	22
BHRC346	428194	7356551	363	-90	0	33
BHRC347	428191	7356519	362	-90	0	30
BHRC348	428161	7356523	361	-90	0	36
BHRC349	428189	7356499	361	-90	0	29
BHRC350	428250	7356477	360	-90	0	24
BHRC351	428262	7356521	362	-90	0	18
BHRC352	428302	7356481	359	-90	0	18
BHRC353	428283	7356500	360	-90	0	18
BHRC354	428349	7356472	358	-90	0	18
BHRC355	428362	7356519	359	-90	0	28
BHRC356	428387	7356548	360	-90	0	28
BHRC357	428393	7356496	358	-90	0	27
BHRC358	428403	7356475	356	-90	0	21
BHRC359	428378	7356447	356	-90	0	21
BHRC360	428349	7356425	356	-90	0	18
BHRC361	428300	7356429	357	-90	0	21
BHRC362	428271	7356449	358	-90	0	24
BHRC363	428222	7356451	359	-90	0	30
BHRC364	428203	7356428	360	-90	0	30
BHRC365	428201	7356474	360	-90	0	27
BHRC366	428171	7356453	359	-90	0	27
BHRC367	428150	7356428	358	-90	0	21
BHRC368	428154	7356474	359	-90	0	27
BHRC369	428124	7356452	358	-90	0	25
BHRC370	428071	7356453	355	-90	0	38
BHRC371	428022	7356458	354	-90	0	54
BHRC372	428063	7356375	354	-90	0	48
BHRC373	428091	7356403	355	-90	0	36
BHRC374	428132	7356400	356	-90	0	24
BHRC375	428159	7356379	356	-90	0	28
BHRC376	428178	7356403	358	-90	0	30

BHRC377	428210	7356376	355	-90	0	18
BHRC378	428235	7356397	356	-90	0	24
BHRC379	428259	7356378	355	-90	0	15
BHRC380	428285	7356402	356	-90	0	21
BHRC381	428310	7356379	354	-90	0	21
BHRC382	428332	7356400	355	-90	0	18
BHRC383	428363	7356381	354	-90	0	18
BHRC384	428398	7356426	355	-90	0	15
BHRC385	428387	7356397	354	-90	0	16
BHRC386	428358	7356321	351	-90	0	15
BHRC387	428336	7356354	353	-90	0	24
BHRC388	428291	7356352	353	-90	0	18
BHRC389	428235	7356352	353	-90	0	12
BHRC390	428188	7356361	354	-90	0	24
BHRC391	428151	7356324	352	-90	0	33
BHRC392	428135	7356353	354	-90	0	28
BHRC393	428094	7356354	354	-90	0	42
BHRC394	428119	7356268	350	-90	0	60
BHRC395	428158	7356276	350	-90	0	42
BHRC396	428152	7356285	350	-90	0	45
BHRC397	428167	7356224	348	-90	0	60
BHRC398	428193	7356257	349	-90	0	50
BHRC399	428222	7356202	347	-90	0	57
BHRC400	428222	7356225	348	-90	0	50
BHRC401	428230	7356246	349	-90	0	40
BHRC402	428209	7356276	350	-90	0	35
BHRC403	428215	7356303	351	-90	0	24
BHRC404	428205	7356323	352	-90	0	23
BHRC405	428266	7356306	351	-90	0	18
BHRC406	428261	7356278	350	-90	0	24
BHRC407	428305	7356323	351	-90	0	24
BHRC408	428314	7356274	349	-90	0	24
BHRC409	428308	7356308	351	-90	0	27
BHRC410	428285	7356246	349	-90	0	30
BHRC411	428269	7356224	348	-90	0	38
BHRC412	428301	7356225	348	-90	0	24
BHRC413	428236	7356178	347	-90	0	56
BHRC414	428217	7356151	347	-90	0	54
BHRC415	428235	7356129	347	-90	0	54
BHRC416	428135	7356173	346	-90	0	76
BHRC417	428121	7356202	347	-90	0	63
BHRC418	428185	7356178	346	-90	0	63
BHRC419	428171	7356146	345	-90	0	66
BHRC420	428276	7356206	347	-90	0	36
BHRC421	428286	7356178	348	-90	0	36
BHRC422	428313	7356152	348	-90	0	30
BHRC423	428260	7356151	347	-90	0	42

BHRC424	428285	7356127	347	-90	0	40
BHRC425	428312	7356091	347	-90	0	30
BHRC426	428320	7356089	347	-90	0	27
BHRC427	428340	7356102	347	-90	0	20
BHRC428	428348	7356101	347	-90	0	18
BHRC429	428333	7356119	347	-90	0	22
BHRC430	428363	7356060	346	-90	0	16
BHRC431	428349	7356058	347	-90	0	20
BHRC432	428336	7356052	347	-90	0	29
BHRC433	428264	7356099	347	-90	0	48
BHRC434	428293	7356048	347	-90	0	42
BHRC435	428288	7356025	346	-90	0	42
BHRC436	428318	7356028	346	-90	0	36
BHRC437	428357	7356020	346	-90	0	20
BHRC438	428345	7356023	346	-90	0	22
BHRC439	428307	7356002	346	-90	0	36
BHRC440	428312	7355980	345	-90	0	36
BHRC441	428340	7356002	346	-90	0	24
BHRC442	428335	7355979	345	-90	0	30
BHRC443	428351	7355981	345	-90	0	24
BHRC444	428354	7355955	345	-90	0	24
BHRC445	428511	7355213	336	-60	90	40
BHRC446	428533	7355188	336	-60	90	24
BHRC447	428529	7355160	337	-60	90	42
BHRC448	428545	7355144	338	-60	90	30
BHRC449	428556	7355115	339	-60	90	36
BHRC450	428566	7355091	340	-60	90	24
BHRC451	428530	7355089	340	-60	90	52
BHRC452	428534	7355066	340	-60	90	33
BHRC453	428541	7355068	340	-60	90	48
BHRC454	428577	7355039	342	-60	90	30
BHRC455	428584	7355017	342	-60	90	30
BHRC456	428600	7354991	342	-60	90	42
BHRC457	428625	7354968	342	-60	90	42

Appendix 2 – Assay Data

Hole No	From	To	%TREO	%Nd2O3+Pr6O11
BHRC332	18	19	0.16	0.06
BHRC332	19	20	0.85	0.34
BHRC332	20	21	2.40	1.02
BHRC332	21	22	1.79	0.74
BHRC332	22	23	2.68	1.11
BHRC332	23	24	2.29	1.00
BHRC332	24	25	1.35	0.65
BHRC332	25	26	0.18	0.08

BHRC333	30	31	0.04	0.01
BHRC333	31	32	0.75	0.32
BHRC333	32	33	1.95	0.89
BHRC333	33	34	1.15	0.54
BHRC333	34	35	0.06	0.02
BHRC334	24	25	0.37	0.15
BHRC334	25	26	1.29	0.55
BHRC334	26	27	0.66	0.28
BHRC334	27	28	0.72	0.33
BHRC334	28	29	3.54	1.43
BHRC334	29	30	0.05	0.01
BHRC335	27	28	0.04	0.01
BHRC335	28	29	0.73	0.29
BHRC335	29	30	1.74	0.72
BHRC335	30	31	1.28	0.52
BHRC335	31	32	0.91	0.38
BHRC335	32	33	0.07	0.02
BHRC336	33	34	0.03	0.01
BHRC336	34	35	1.10	0.44
BHRC336	35	36	1.18	0.48
BHRC336	36	37	0.72	0.30
BHRC336	37	38	0.27	0.12
BHRC337	23	24	0.37	0.15
BHRC337	24	25	2.22	0.88
BHRC337	25	26	1.17	0.44
BHRC337	26	27	2.55	0.97
BHRC337	27	28	3.25	1.26
BHRC337	28	29	2.97	1.31
BHRC337	29	30	2.61	1.03
BHRC337	30	31	0.65	0.28
BHRC337	31	32	0.38	0.16
BHRC337	32	33	0.45	0.20
BHRC337	33	34	1.11	0.54
BHRC337	34	35	0.17	0.07
BHRC338	32	33	0.21	0.08
BHRC338	33	34	0.91	0.40
BHRC338	34	35	0.64	0.29
BHRC338	35	36	7.28	2.79
BHRC338	36	37	2.94	1.16
BHRC338	37	38	1.57	0.62
BHRC338	38	39	2.46	1.02
BHRC338	39	40	0.73	0.34
BHRC338	40	41	0.32	0.13

BHRC339	2	3	0.47	0.19
BHRC339	3	4	1.07	0.42
BHRC339	4	5	0.38	0.15
BHRC339	33	34	0.04	0.01
BHRC339	34	35	0.12	0.04
BHRC339	35	36	0.77	0.31
BHRC339	36	37	0.88	0.35
BHRC339	37	38	0.29	0.13
BHRC340	26	27	0.11	0.04
BHRC340	27	28	0.63	0.25
BHRC340	28	29	0.60	0.25
BHRC340	29	30	0.43	0.18
BHRC340	30	31	0.56	0.25
BHRC340	31	32	0.15	0.06
BHRC341	32	33	0.43	0.16
BHRC341	33	34	3.54	1.34
BHRC341	34	35	1.65	0.63
BHRC341	35	36	0.11	0.04
BHRC342	7	8	0.32	0.14
BHRC342	8	9	1.74	0.77
BHRC342	9	10	2.34	1.11
BHRC342	10	11	1.13	0.50
BHRC342	11	12	4.98	2.09
BHRC342	12	13	3.10	1.33
BHRC342	13	14	0.77	0.33
BHRC342	14	15	1.37	0.59
BHRC342	15	16	0.20	0.08
BHRC343	22	23	0.39	0.15
BHRC343	23	24	1.03	0.45
BHRC343	24	25	0.25	0.11
BHRC343	25	26	0.59	0.28
BHRC343	26	27	0.26	0.11
BHRC344	16	17	0.02	0.01
BHRC344	17	18	0.78	0.34
BHRC344	18	19	2.18	0.92
BHRC344	19	20	1.23	0.51
BHRC344	20	21	0.77	0.31
BHRC344	21	22	0.77	0.32
BHRC344	22	23	1.21	0.49
BHRC344	23	24	0.28	0.11
BHRC345	12	13	0.14	0.05
BHRC345	13	14	0.77	0.31
BHRC345	14	15	0.75	0.31

BHRC345	15	16	0.63	0.27
BHRC345	16	17	1.14	0.47
BHRC345	17	18	1.09	0.44
BHRC345	18	19	0.52	0.21
BHRC345	19	20	0.08	0.03
BHRC346	26	27	0.17	0.06
BHRC346	27	28	0.76	0.29
BHRC346	28	29	0.58	0.22
BHRC346	29	30	0.96	0.37
BHRC346	30	31	0.18	0.06
BHRC347	21	22	0.11	0.05
BHRC347	22	23	0.99	0.40
BHRC347	23	24	1.06	0.43
BHRC347	24	25	1.23	0.48
BHRC347	25	26	0.26	0.10
BHRC349	20	21	0.02	0.00
BHRC349	21	22	0.48	0.20
BHRC349	22	23	0.49	0.20
BHRC349	23	24	0.04	0.01
BHRC350	15	16	0.10	0.05
BHRC350	16	17	0.83	0.37
BHRC350	17	18	0.54	0.24
BHRC350	18	19	0.27	0.13
BHRC351	11	12	0.24	0.10
BHRC351	12	13	0.59	0.27
BHRC351	13	14	0.62	0.33
BHRC351	14	15	0.63	0.27
BHRC351	15	16	0.03	0.01
BHRC353	8	9	0.09	0.03
BHRC353	9	10	0.98	0.45
BHRC353	10	11	0.80	0.37
BHRC353	11	12	0.95	0.38
BHRC353	12	13	0.98	0.41
BHRC353	13	14	0.08	0.02
BHRC354	9	10	0.16	0.07
BHRC354	10	11	1.30	0.55
BHRC354	11	12	0.88	0.35
BHRC354	12	13	0.10	0.04
BHRC355	23	24	0.18	0.07
BHRC355	24	25	1.38	0.58
BHRC355	25	26	0.65	0.27
BHRC355	26	27	0.07	0.02
BHRC356	23	24	0.35	0.15

BHRC356	24	25	1.36	0.60
BHRC356	25	26	0.08	0.02
BHRC357	15	16	0.12	0.05
BHRC357	16	17	1.72	0.71
BHRC357	17	18	1.04	0.46
BHRC357	18	19	0.79	0.38
BHRC357	19	20	0.53	0.25
BHRC357	20	21	0.65	0.30
BHRC357	21	22	0.23	0.12
BHRC358	8	9	0.20	0.08
BHRC358	9	10	0.66	0.29
BHRC358	10	11	1.04	0.43
BHRC358	11	12	0.57	0.24
BHRC358	12	13	0.53	0.21
BHRC358	13	14	1.17	0.47
BHRC358	14	15	1.55	0.65
BHRC358	15	16	1.02	0.44
BHRC358	16	17	0.08	0.03
BHRC359	15	16	0.33	0.13
BHRC359	16	17	0.63	0.24
BHRC359	17	18	0.02	0.01
BHRC360	6	7	0.04	0.01
BHRC360	7	8	1.73	0.67
BHRC360	8	9	0.42	0.18
BHRC360	9	10	0.96	0.40
BHRC360	10	11	2.06	0.77
BHRC360	11	12	0.32	0.14
BHRC360	12	13	0.18	0.08
BHRC360	13	14	1.22	0.46
BHRC360	14	15	0.28	0.11
BHRC360	15	16	1.20	0.48
BHRC360	16	17	0.04	0.01
BHRC361	8	9	0.17	0.08
BHRC361	9	10	0.54	0.24
BHRC361	10	11	0.37	0.17
BHRC361	11	12	0.95	0.36
BHRC361	12	13	1.48	0.55
BHRC361	13	14	0.14	0.05
BHRC362	12	13	0.39	0.18
BHRC362	13	14	0.84	0.38
BHRC362	14	15	1.78	0.73
BHRC362	15	16	5.57	2.12
BHRC362	16	17	0.38	0.15

BHRC362	17	18	0.25	0.10
BHRC362	18	19	1.22	0.54
BHRC362	19	20	0.23	0.10
BHRC363	20	21	0.29	0.09
BHRC363	21	22	0.72	0.29
BHRC363	22	23	0.25	0.11
BHRC363	23	24	0.51	0.19
BHRC363	24	25	1.57	0.60
BHRC363	25	26	0.14	0.05
BHRC366	10	11	0.09	0.04
BHRC366	11	12	0.46	0.23
BHRC366	12	13	0.23	0.09
BHRC366	13	14	0.57	0.32
BHRC366	14	15	0.34	0.18
BHRC367	10	11	0.15	0.06
BHRC367	11	12	0.49	0.21
BHRC367	12	13	0.57	0.24
BHRC367	13	14	1.17	0.48
BHRC367	14	15	0.93	0.38
BHRC367	15	16	0.04	0.01
BHRC368	17	18	0.17	0.07
BHRC368	18	19	1.82	0.70
BHRC368	19	20	0.87	0.37
BHRC368	20	21	0.82	0.34
BHRC368	21	22	0.08	0.03
BHRC369	15	16	0.23	0.09
BHRC369	16	17	0.63	0.29
BHRC369	17	18	0.24	0.10
BHRC371	41	42	0.35	0.13
BHRC371	42	43	0.83	0.36
BHRC371	43	44	0.16	0.07
BHRC371	46	47	0.20	0.07
BHRC371	47	48	0.77	0.30
BHRC371	48	49	0.32	0.12
BHRC372	17	18	0.04	0.01
BHRC372	18	19	0.90	0.32
BHRC372	19	20	2.20	0.80
BHRC372	20	21	0.64	0.25
BHRC372	21	22	2.00	0.81
BHRC372	22	23	0.07	0.02
BHRC373	26	27	0.08	0.03
BHRC373	27	28	0.75	0.28
BHRC373	28	29	1.23	0.48

BHRC373	29	30	1.14	0.46
BHRC373	30	31	0.17	0.04
BHRC374	14	15	0.15	0.05
BHRC374	15	16	4.00	1.44
BHRC374	16	17	0.63	0.25
BHRC374	17	18	0.05	0.01
BHRC375	18	19	0.10	0.04
BHRC375	19	20	1.46	0.56
BHRC375	20	21	0.68	0.32
BHRC375	21	22	1.17	0.55
BHRC375	22	23	0.97	0.42
BHRC375	23	24	3.23	1.24
BHRC375	24	25	1.27	0.48
BHRC375	25	26	0.12	0.05
BHRC376	20	21	0.02	0.01
BHRC376	21	22	0.53	0.21
BHRC376	22	23	0.81	0.30
BHRC376	23	24	0.70	0.32
BHRC376	24	25	0.56	0.23
BHRC376	25	26	1.00	0.38
BHRC376	26	27	1.53	0.55
BHRC376	27	28	0.05	0.02
BHRC377	9	10	0.06	0.02
BHRC377	10	11	1.10	0.43
BHRC377	11	12	0.18	0.08
BHRC378	18	19	0.20	0.09
BHRC378	19	20	1.02	0.41
BHRC378	20	21	0.38	0.16
BHRC379	4	5	0.17	0.07
BHRC379	5	6	0.50	0.21
BHRC379	6	7	0.53	0.14
BHRC379	7	8	1.13	0.47
BHRC379	8	9	1.17	0.51
BHRC379	9	10	1.02	0.44
BHRC379	10	11	0.92	0.39
BHRC379	11	12	0.91	0.37
BHRC379	12	13	0.18	0.07
BHRC380	16	17	0.18	0.09
BHRC380	17	18	0.80	0.34
BHRC380	18	19	0.29	0.11
BHRC381	12	13	0.08	0.02
BHRC381	13	14	3.43	1.68
BHRC381	14	15	1.08	0.52

BHRC381	15	16	2.37	0.95
BHRC381	16	17	1.11	0.42
BHRC381	17	18	0.32	0.12
BHRC382	8	9	0.11	0.05
BHRC382	9	10	1.89	0.95
BHRC382	10	11	4.50	1.82
BHRC382	11	12	4.07	1.59
BHRC382	12	13	0.06	0.02
BHRC383	9	10	0.65	0.26
BHRC383	10	11	0.55	0.23
BHRC383	11	12	0.64	0.27
BHRC383	12	13	0.28	0.11
BHRC384	10	11	0.39	0.16
BHRC384	11	12	0.71	0.30
BHRC384	12	13	0.17	0.07
BHRC385	5	6	0.08	0.02
BHRC385	6	7	0.66	0.28
BHRC385	7	8	0.66	0.26
BHRC385	8	9	0.46	0.18
BHRC385	9	10	0.35	0.14
BHRC385	10	11	1.02	0.40
BHRC385	11	12	1.60	0.59
BHRC385	12	13	2.79	1.19
BHRC385	13	14	0.13	0.04
BHRC386	5	6	0.15	0.06
BHRC386	6	7	1.43	0.58
BHRC386	7	8	1.35	0.58
BHRC386	8	9	0.70	0.30
BHRC386	9	10	1.08	0.44
BHRC386	10	11	0.51	0.21
BHRC386	11	12	0.07	0.02
BHRC387	15	16	0.12	0.05
BHRC387	16	17	2.75	1.11
BHRC387	17	18	1.04	0.41
BHRC387	18	19	0.36	0.14
BHRC388	5	6	0.31	0.13
BHRC388	6	7	1.26	0.53
BHRC388	7	8	1.70	0.71
BHRC388	8	9	0.75	0.31
BHRC388	9	10	2.74	1.05
BHRC388	10	11	2.74	1.05
BHRC388	11	12	0.61	0.24
BHRC388	12	13	0.41	0.17

BHRC389	1	2	0.11	0.02
BHRC389	2	3	0.58	0.22
BHRC389	3	4	2.50	1.01
BHRC389	4	5	0.17	0.07
BHRC390	17	18	0.07	0.02
BHRC390	18	19	0.60	0.25
BHRC390	19	20	1.17	0.46
BHRC390	20	21	1.03	0.39
BHRC390	21	22	0.35	0.14
BHRC391	21	22	0.13	0.06
BHRC391	22	23	0.74	0.32
BHRC391	23	24	0.69	0.27
BHRC391	24	25	0.10	0.03
BHRC392	21	22	0.40	0.16
BHRC392	22	23	2.09	0.83
BHRC392	23	24	2.20	0.85
BHRC392	24	25	0.31	0.12
BHRC393	22	23	0.03	0.01
BHRC393	23	24	1.01	0.35
BHRC393	24	25	0.05	0.01
BHRC393	30	31	0.27	0.11
BHRC393	31	32	0.74	0.27
BHRC393	32	33	0.61	0.23
BHRC393	33	34	0.20	0.08
BHRC395	31	32	0.03	0.01
BHRC395	32	33	0.97	0.40
BHRC395	33	34	1.11	0.45
BHRC395	34	35	2.27	0.88
BHRC395	35	36	0.88	0.35
BHRC395	36	37	0.09	0.03
BHRC396	35	36	0.06	0.02
BHRC396	36	37	1.29	0.46
BHRC396	37	38	0.67	0.26
BHRC396	38	39	0.23	0.09
BHRC396	39	40	1.57	0.69
BHRC396	40	41	1.22	0.47
BHRC396	41	42	0.80	0.31
BHRC396	42	43	0.68	0.19
BHRC397	37	38	0.11	0.04
BHRC397	38	39	2.45	0.92
BHRC397	39	40	0.68	0.24
BHRC397	40	41	0.35	0.12
BHRC397	41	42	0.37	0.14

BHRC397	42	43	0.12	0.05
BHRC397	43	44	0.36	0.15
BHRC397	44	45	1.03	0.42
BHRC397	45	46	0.74	0.31
BHRC397	46	47	0.77	0.33
BHRC397	47	48	0.59	0.24
BHRC397	48	49	0.84	0.30
BHRC397	49	50	1.11	0.42
BHRC397	50	51	0.40	0.16
BHRC398	33	34	0.52	0.18
BHRC398	34	35	1.55	0.59
BHRC398	35	36	0.09	0.03
BHRC398	36	37	0.27	0.10
BHRC398	37	38	0.59	0.23
BHRC398	38	39	0.46	0.18
BHRC398	39	40	1.07	0.42
BHRC398	40	41	0.49	0.20
BHRC399	33	34	0.52	0.19
BHRC399	34	35	1.30	0.49
BHRC399	35	36	4.25	1.64
BHRC399	36	37	1.79	0.71
BHRC399	37	38	1.30	0.55
BHRC399	38	39	1.07	0.48
BHRC399	39	40	1.46	0.64
BHRC399	40	41	1.35	0.52
BHRC399	41	42	1.50	0.60
BHRC399	42	43	0.28	0.11
BHRC399	43	44	1.30	0.50
BHRC399	44	45	1.16	0.46
BHRC399	45	46	1.51	0.59
BHRC399	46	47	1.65	0.68
BHRC399	47	48	0.74	0.30
BHRC399	48	49	0.17	0.06
BHRC400	27	28	0.48	0.15
BHRC400	28	29	0.66	0.23
BHRC400	29	30	0.53	0.20
BHRC400	30	31	0.31	0.12
BHRC400	31	32	1.40	0.52
BHRC400	32	33	1.14	0.47
BHRC400	33	34	1.18	0.45
BHRC400	34	35	1.18	0.44
BHRC400	35	36	1.87	0.71
BHRC400	36	37	0.57	0.22

BHRC400	37	38	0.72	0.27
BHRC400	38	39	1.79	0.69
BHRC400	39	40	0.81	0.33
BHRC400	40	41	0.67	0.26
BHRC400	41	42	0.98	0.39
BHRC400	42	43	2.94	1.24
BHRC400	43	44	0.20	0.08
BHRC401	20	21	0.49	0.14
BHRC401	21	22	1.22	0.42
BHRC401	22	23	0.77	0.29
BHRC401	23	24	0.75	0.28
BHRC401	24	25	0.96	0.38
BHRC401	25	26	1.65	0.70
BHRC401	26	27	1.17	0.47
BHRC401	27	28	0.61	0.23
BHRC401	28	29	1.01	0.38
BHRC401	29	30	0.22	0.09
BHRC402	19	20	0.09	0.01
BHRC402	20	21	1.76	0.62
BHRC402	21	22	1.14	0.35
BHRC402	22	23	0.76	0.27
BHRC402	23	24	2.52	0.91
BHRC402	24	25	0.50	0.19
BHRC402	25	26	2.35	0.90
BHRC402	26	27	2.01	0.76
BHRC402	27	28	0.46	0.21
BHRC402	28	29	0.16	0.06
BHRC403	11	12	0.51	0.18
BHRC403	12	13	0.81	0.31
BHRC403	13	14	0.73	0.31
BHRC403	14	15	0.13	0.05
BHRC404	16	17	0.16	0.07
BHRC404	17	18	1.12	0.47
BHRC404	18	19	1.05	0.41
BHRC404	19	20	0.07	0.02
BHRC406	13	14	0.46	0.18
BHRC406	14	15	0.61	0.22
BHRC406	15	16	1.84	0.72
BHRC406	16	17	2.01	1.05
BHRC406	17	18	1.05	0.50
BHRC406	18	19	0.23	0.10
BHRC407	8	9	0.10	0.03
BHRC407	9	10	0.57	0.22

BHRC407	10	11	0.61	0.26
BHRC407	11	12	0.57	0.23
BHRC407	12	13	0.70	0.28
BHRC407	13	14	0.85	0.32
BHRC407	14	15	0.32	0.12
BHRC407	15	16	0.60	0.23
BHRC407	16	17	0.23	0.09
BHRC407	17	18	0.24	0.10
BHRC407	18	19	0.19	0.08
BHRC407	19	20	1.69	0.76
BHRC407	20	21	0.12	0.05
BHRC408	12	13	0.22	0.09
BHRC408	13	14	1.34	0.57
BHRC408	14	15	3.30	1.63
BHRC408	15	16	0.47	0.25
BHRC408	16	17	0.14	0.06
BHRC409	16	17	0.15	0.06
BHRC409	17	18	0.70	0.27
BHRC409	18	19	2.36	0.93
BHRC409	19	20	0.87	0.36
BHRC409	20	21	2.06	0.87
BHRC409	21	22	0.50	0.24
BHRC409	22	23	1.69	0.87
BHRC409	23	24	1.49	0.81
BHRC409	24	25	0.15	0.07
BHRC410	16	17	0.17	0.06
BHRC410	17	18	0.83	0.32
BHRC410	18	19	0.46	0.16
BHRC410	19	20	1.44	0.53
BHRC410	20	21	1.91	0.77
BHRC410	21	22	0.10	0.04
BHRC410	22	23	0.35	0.16
BHRC410	23	24	0.24	0.12
BHRC410	24	25	0.09	0.04
BHRC410	25	26	1.84	0.81
BHRC410	26	27	0.04	0.01
BHRC411	19	20	0.10	0.03
BHRC411	20	21	0.77	0.26
BHRC411	21	22	0.53	0.17
BHRC411	22	23	2.17	0.81
BHRC411	23	24	1.17	0.47
BHRC411	24	25	0.75	0.26
BHRC411	25	26	0.99	0.36

BHRC411	26	27	1.06	0.39
BHRC411	27	28	0.66	0.26
BHRC411	28	29	0.32	0.13
BHRC412	16	17	0.51	0.19
BHRC412	17	18	0.96	0.42
BHRC412	18	19	0.48	0.21
BHRC412	19	20	0.57	0.25
BHRC412	20	21	1.79	0.62
BHRC412	21	22	0.05	0.02
BHRC413	30	31	0.40	0.13
BHRC413	31	32	1.52	0.53
BHRC413	32	33	1.36	0.51
BHRC413	33	34	1.93	0.82
BHRC413	34	35	1.28	0.51
BHRC413	35	36	1.37	0.54
BHRC413	36	37	1.09	0.41
BHRC413	37	38	1.81	0.71
BHRC413	38	39	0.59	0.23
BHRC413	39	40	1.49	0.58
BHRC413	40	41	1.41	0.55
BHRC413	41	42	0.50	0.19
BHRC413	42	43	0.15	0.06
BHRC413	43	44	1.06	0.40
BHRC413	44	45	0.47	0.18
BHRC413	45	46	1.12	0.42
BHRC413	46	47	1.90	0.71
BHRC413	47	48	0.30	0.11
BHRC414	40	41	0.05	0.01
BHRC414	41	42	3.04	1.21
BHRC414	42	43	1.02	0.40
BHRC414	43	44	1.19	0.46
BHRC414	44	45	0.99	0.37
BHRC414	45	46	0.45	0.17
BHRC414	46	47	0.41	0.15
BHRC414	47	48	0.74	0.28
BHRC414	48	49	0.19	0.07
BHRC415	36	37	0.06	0.02
BHRC415	37	38	0.99	0.38
BHRC415	38	39	2.62	1.06
BHRC415	39	40	0.29	0.11
BHRC415	40	41	0.34	0.13
BHRC415	41	42	0.28	0.11
BHRC415	42	43	0.93	0.42

BHRC415	43	44	1.60	0.63
BHRC415	44	45	0.85	0.34
BHRC415	45	46	0.65	0.26
BHRC415	46	47	2.05	0.82
BHRC415	47	48	0.99	0.39
BHRC415	48	49	0.46	0.18
BHRC416	65	66	0.41	0.16
BHRC416	66	67	0.78	0.30
BHRC416	67	68	0.68	0.24
BHRC416	68	69	0.48	0.17
BHRC417	46	47	0.28	0.12
BHRC417	47	48	0.48	0.20
BHRC417	48	49	1.42	0.51
BHRC417	49	50	0.58	0.21
BHRC417	50	51	0.20	0.07
BHRC418	36	37	0.05	0.01
BHRC418	37	38	1.95	0.69
BHRC418	38	39	1.64	0.58
BHRC418	39	40	3.90	1.44
BHRC418	40	41	1.32	0.48
BHRC418	41	42	0.60	0.24
BHRC418	42	43	0.95	0.36
BHRC418	43	44	0.80	0.31
BHRC418	44	45	0.15	0.06
BHRC418	45	46	0.60	0.22
BHRC418	46	47	1.03	0.38
BHRC418	47	48	0.37	0.14
BHRC419	46	47	0.06	0.02
BHRC419	47	48	0.58	0.20
BHRC419	48	49	3.45	1.16
BHRC419	49	50	1.06	0.41
BHRC419	50	51	0.97	0.41
BHRC419	51	52	1.41	0.55
BHRC419	52	53	1.54	0.61
BHRC419	53	54	0.84	0.34
BHRC419	54	55	3.40	1.18
BHRC419	55	56	1.64	0.59
BHRC419	56	57	0.79	0.28
BHRC419	57	58	0.97	0.36
BHRC419	58	59	1.17	0.43
BHRC419	59	60	0.60	0.22
BHRC420	15	16	0.45	0.15
BHRC420	16	17	1.57	0.58

BHRC420	17	18	2.01	0.75
BHRC420	18	19	0.39	0.14
BHRC420	19	20	0.35	0.13
BHRC420	20	21	0.85	0.31
BHRC420	21	22	0.52	0.19
BHRC420	22	23	1.83	0.71
BHRC420	23	24	0.78	0.27
BHRC420	24	25	0.83	0.32
BHRC420	25	26	0.20	0.08
BHRC420	26	27	0.23	0.09
BHRC420	27	28	1.25	0.56
BHRC420	28	29	0.73	0.30
BHRC420	29	30	1.26	0.55
BHRC420	30	31	0.20	0.07
BHRC421	27	28	0.27	0.10
BHRC421	28	29	0.61	0.24
BHRC421	29	30	0.74	0.28
BHRC421	30	31	0.46	0.18
BHRC422	14	15	0.04	0.01
BHRC422	15	16	1.65	0.63
BHRC422	16	17	0.99	0.41
BHRC422	17	18	0.26	0.10
BHRC422	18	19	0.43	0.18
BHRC422	19	20	1.24	0.52
BHRC422	20	21	0.54	0.23
BHRC422	21	22	0.07	0.02
BHRC423	20	21	0.15	0.05
BHRC423	21	22	1.33	0.52
BHRC423	22	23	0.85	0.32
BHRC423	23	24	0.33	0.13
BHRC423	24	25	0.26	0.10
BHRC423	25	26	0.97	0.38
BHRC423	26	27	0.79	0.32
BHRC423	27	28	0.19	0.07
BHRC423	28	29	0.57	0.21
BHRC423	29	30	0.90	0.34
BHRC423	30	31	0.73	0.27
BHRC423	31	32	0.59	0.25
BHRC423	32	33	0.52	0.20
BHRC423	33	34	0.60	0.23
BHRC423	34	35	0.85	0.33
BHRC423	35	36	1.30	0.51
BHRC423	36	37	0.34	0.13

BHRC423	37	38	1.00	0.45
BHRC423	38	39	0.14	0.05
BHRC424	14	15	0.20	0.08
BHRC424	15	16	0.78	0.31
BHRC424	16	17	0.70	0.28
BHRC424	17	18	0.35	0.14
BHRC424	18	19	0.69	0.29
BHRC424	19	20	2.53	1.01
BHRC424	20	21	0.33	0.13
BHRC424	21	22	0.95	0.36
BHRC424	22	23	0.57	0.21
BHRC424	23	24	0.25	0.09
BHRC424	24	25	0.24	0.10
BHRC424	25	26	0.30	0.11
BHRC424	26	27	0.37	0.14
BHRC424	27	28	2.84	1.04
BHRC424	28	29	0.18	0.07
BHRC425	2	3	0.06	0.02
BHRC425	3	4	0.52	0.22
BHRC425	4	5	0.53	0.24
BHRC425	5	6	1.27	0.51
BHRC425	6	7	3.27	1.30
BHRC425	7	8	6.23	2.25
BHRC425	8	9	2.91	1.08
BHRC425	9	10	3.94	1.46
BHRC425	10	11	2.65	1.04
BHRC425	11	12	3.58	1.30
BHRC425	12	13	1.87	0.71
BHRC425	13	14	0.56	0.24
BHRC425	14	15	0.30	0.12
BHRC425	15	16	0.23	0.10
BHRC425	16	17	0.40	0.17
BHRC425	17	18	0.66	0.25
BHRC425	18	19	1.18	0.52
BHRC425	19	20	1.37	0.53
BHRC425	20	21	0.76	0.32
BHRC425	21	22	0.21	0.09
BHRC425	22	23	0.84	0.37
BHRC425	23	24	1.10	0.49
BHRC425	24	25	0.27	0.12
BHRC426	3	4	0.29	0.11
BHRC426	4	5	0.60	0.23
BHRC426	5	6	0.48	0.18

BHRC426	6	7	0.49	0.20
BHRC426	7	8	0.85	0.33
BHRC426	8	9	0.70	0.26
BHRC426	9	10	0.60	0.22
BHRC426	10	11	1.23	0.46
BHRC426	11	12	0.50	0.19
BHRC426	12	13	0.39	0.15
BHRC426	13	14	0.89	0.36
BHRC426	14	15	2.13	0.80
BHRC426	15	16	0.24	0.10
BHRC426	16	17	0.50	0.21
BHRC426	17	18	1.09	0.47
BHRC426	18	19	0.09	0.03
BHRC426	19	20	1.37	0.64
BHRC426	20	21	0.77	0.34
BHRC426	21	22	0.47	0.21
BHRC426	22	23	0.07	0.02
BHRC427	0	1	0.36	0.15
BHRC427	1	2	1.54	0.61
BHRC427	2	3	4.05	1.65
BHRC427	3	4	0.27	0.10
BHRC427	8	9	0.23	0.08
BHRC427	9	10	0.58	0.23
BHRC427	10	11	3.06	1.16
BHRC427	11	12	0.53	0.23
BHRC427	12	13	1.12	0.51
BHRC427	13	14	1.45	0.63
BHRC427	14	15	0.10	0.04
BHRC428	0	1	0.47	0.19
BHRC428	1	2	2.01	0.78
BHRC428	2	3	0.12	0.04
BHRC428	3	4	0.06	0.02
BHRC428	4	5	0.05	0.02
BHRC428	5	6	1.27	0.50
BHRC428	6	7	2.75	1.05
BHRC428	7	8	2.39	0.97
BHRC428	8	9	1.22	0.55
BHRC428	9	10	1.86	0.90
BHRC428	10	11	0.46	0.21
BHRC428	11	12	0.10	0.03
BHRC429	9	10	0.17	0.06
BHRC429	10	11	1.39	0.52
BHRC429	11	12	1.32	0.52

BHRC429	12	13	0.88	0.34
BHRC429	13	14	1.21	0.45
BHRC429	14	15	0.70	0.28
BHRC429	15	16	0.07	0.02
BHRC430	8	9	0.08	0.03
BHRC430	9	10	3.09	1.30
BHRC430	10	11	1.06	0.46
BHRC430	11	12	1.65	0.71
BHRC430	12	13	0.17	0.06
BHRC431	0	1	0.54	0.21
BHRC431	1	2	0.04	0.01
BHRC431	4	5	0.49	0.19
BHRC431	5	6	1.08	0.43
BHRC431	6	7	0.03	0.01
BHRC431	10	11	0.05	0.02
BHRC431	11	12	3.64	1.68
BHRC431	12	13	0.45	0.20
BHRC432	0	1	0.67	0.27
BHRC432	1	2	3.34	1.35
BHRC432	2	3	1.36	0.57
BHRC432	3	4	0.97	0.41
BHRC432	4	5	0.94	0.38
BHRC432	5	6	0.04	0.01
BHRC432	14	15	0.08	0.03
BHRC432	15	16	0.58	0.27
BHRC432	16	17	0.99	0.41
BHRC432	17	18	0.26	0.12
BHRC432	18	19	1.22	0.58
BHRC432	19	20	0.14	0.06
BHRC433	20	21	0.04	0.01
BHRC433	21	22	2.06	0.74
BHRC433	22	23	0.49	0.18
BHRC433	23	24	0.51	0.20
BHRC433	24	25	0.19	0.08
BHRC433	25	26	0.26	0.12
BHRC433	26	27	0.23	0.10
BHRC433	27	28	1.36	0.53
BHRC433	28	29	0.47	0.19
BHRC433	29	30	0.63	0.23
BHRC433	30	31	0.87	0.32
BHRC433	31	32	0.32	0.12
BHRC433	32	33	0.29	0.11
BHRC433	33	34	1.17	0.46

BHRC433	34	35	0.42	0.16
BHRC433	35	36	0.33	0.13
BHRC433	36	37	0.41	0.16
BHRC433	37	38	0.83	0.31
BHRC433	38	39	0.29	0.11
BHRC433	39	40	0.43	0.18
BHRC433	40	41	0.50	0.21
BHRC433	41	42	0.49	0.19
BHRC433	42	43	1.39	0.53
BHRC433	43	44	0.38	0.15
BHRC434	28	29	0.23	0.10
BHRC434	29	30	0.52	0.21
BHRC434	30	31	3.69	1.52
BHRC434	31	32	1.46	0.61
BHRC434	32	33	1.31	0.52
BHRC434	33	34	1.43	0.56
BHRC434	34	35	2.19	0.93
BHRC434	35	36	1.59	0.65
BHRC434	36	37	0.61	0.24
BHRC434	37	38	0.29	0.12
BHRC435	30	31	0.27	0.10
BHRC435	31	32	1.34	0.53
BHRC435	32	33	1.47	0.56
BHRC435	33	34	1.18	0.46
BHRC435	34	35	0.66	0.30
BHRC435	35	36	1.45	0.59
BHRC435	36	37	0.32	0.12
BHRC435	39	40	0.10	0.04
BHRC437	0	1	1.16	0.48
BHRC437	1	2	1.17	0.46
BHRC437	2	3	3.03	1.40
BHRC437	3	4	0.95	0.40
BHRC437	4	5	4.65	1.90
BHRC437	5	6	1.21	0.51
BHRC437	6	7	0.10	0.04
BHRC437	7	8	0.08	0.03
BHRC437	8	9	0.30	0.14
BHRC437	9	10	0.69	0.32
BHRC437	10	11	1.78	0.75
BHRC437	11	12	2.09	0.88
BHRC437	12	13	0.23	0.09
BHRC437	13	14	0.77	0.33
BHRC437	14	15	0.76	0.34

BHRC437	15	16	1.61	0.75
BHRC437	16	17	0.06	0.02
BHRC438	3	4	0.15	0.07
BHRC438	4	5	1.33	0.60
BHRC438	5	6	1.03	0.44
BHRC438	6	7	1.11	0.46
BHRC438	7	8	4.42	1.78
BHRC438	8	9	1.88	0.79
BHRC438	9	10	0.15	0.06
BHRC438	10	11	0.11	0.05
BHRC438	11	12	0.08	0.03
BHRC438	12	13	0.11	0.04
BHRC438	13	14	0.04	0.01
BHRC438	14	15	0.60	0.24
BHRC438	15	16	1.35	0.54
BHRC438	16	17	0.63	0.26
BHRC438	17	18	1.46	0.66
BHRC438	18	19	0.75	0.35
BHRC438	19	20	0.10	0.04
BHRC439	21	22	0.06	0.02
BHRC439	22	23	0.91	0.41
BHRC439	23	24	0.11	0.05
BHRC440	24	25	0.33	0.15
BHRC440	25	26	0.55	0.24
BHRC440	26	27	1.49	0.59
BHRC440	27	28	0.79	0.32
BHRC440	28	29	0.38	0.15
BHRC440	29	30	1.16	0.52
BHRC440	30	31	0.73	0.30
BHRC440	31	32	0.28	0.11
BHRC441	2	3	0.57	0.23
BHRC441	3	4	0.07	0.02
BHRC441	4	5	0.48	0.19
BHRC441	5	6	0.58	0.22
BHRC441	6	7	0.90	0.40
BHRC441	7	8	1.99	0.87
BHRC441	8	9	0.58	0.25
BHRC441	9	10	0.42	0.18
BHRC441	10	11	0.96	0.41
BHRC441	11	12	0.95	0.39
BHRC441	12	13	1.19	0.50
BHRC441	13	14	1.39	0.63
BHRC441	14	15	2.69	1.26

BHRC441	15	16	0.70	0.32
BHRC441	16	17	0.78	0.37
BHRC441	17	18	0.22	0.10
BHRC442	8	9	0.05	0.02
BHRC442	9	10	1.67	0.69
BHRC442	10	11	2.07	0.84
BHRC442	11	12	1.13	0.50
BHRC442	12	13	0.38	0.17
BHRC442	13	14	1.26	0.55
BHRC442	14	15	0.62	0.24
BHRC442	15	16	0.77	0.32
BHRC442	16	17	1.38	0.53
BHRC442	17	18	0.68	0.26
BHRC442	18	19	0.08	0.03
BHRC442	19	20	0.15	0.06
BHRC442	20	21	0.45	0.20
BHRC442	21	22	1.40	0.58
BHRC442	22	23	3.50	1.46
BHRC442	23	24	4.15	1.90
BHRC442	24	25	1.21	0.53
BHRC442	25	26	0.52	0.23
BHRC442	26	27	0.06	0.02
BHRC443	1	2	0.21	0.09
BHRC443	2	3	1.12	0.44
BHRC443	3	4	1.24	0.50
BHRC443	4	5	0.87	0.35
BHRC443	5	6	0.92	0.37
BHRC443	6	7	0.50	0.21
BHRC443	7	8	3.99	1.75
BHRC443	8	9	1.81	0.71
BHRC443	9	10	1.52	0.61
BHRC443	10	11	1.04	0.45
BHRC443	11	12	0.71	0.30
BHRC443	12	13	2.01	0.90
BHRC443	13	14	6.80	3.14
BHRC443	14	15	1.81	0.82
BHRC443	15	16	0.54	0.24
BHRC443	16	17	0.13	0.05
BHRC444	0	1	1.06	0.47
BHRC444	1	2	0.33	0.15
BHRC444	2	3	0.54	0.25
BHRC444	3	4	0.82	0.34
BHRC444	4	5	0.77	0.33

BHRC444	5	6	1.83	0.75
BHRC444	6	7	0.21	0.09
BHRC444	7	8	0.44	0.18
BHRC444	8	9	1.62	0.65
BHRC444	9	10	0.96	0.37
BHRC444	10	11	0.77	0.31
BHRC444	11	12	0.30	0.11
BHRC444	18	19	0.08	0.03
BHRC444	19	20	0.96	0.48
BHRC444	20	21	0.23	0.10
BHRC444	21	22	0.49	0.20
BHRC444	22	23	0.13	0.05
BHRC445	24	25	0.37	0.15
BHRC445	25	26	1.46	0.58
BHRC445	26	27	1.36	0.67
BHRC445	27	28	0.54	0.28
BHRC445	28	29	0.20	0.10
BHRC446	15	16	0.09	0.03
BHRC446	16	17	0.51	0.21
BHRC446	17	18	2.35	0.96
BHRC446	18	19	3.08	1.22
BHRC446	19	20	0.24	0.10
BHRC447	23	24	0.03	0.01
BHRC447	24	25	0.88	0.31
BHRC447	25	26	2.70	0.95
BHRC447	26	27	1.05	0.42
BHRC447	27	28	1.36	0.52
BHRC447	28	29	0.54	0.22
BHRC447	29	30	0.46	0.20
BHRC448	19	20	0.05	0.01
BHRC448	20	21	0.57	0.21
BHRC448	21	22	0.51	0.24
BHRC448	22	23	0.73	0.31
BHRC448	23	24	1.73	0.77
BHRC448	24	25	0.27	0.11
BHRC449	25	26	0.23	0.10
BHRC449	26	27	0.48	0.20
BHRC449	27	28	0.57	0.23
BHRC449	28	29	0.07	0.02
BHRC450	14	15	0.22	0.09
BHRC450	15	16	0.63	0.27
BHRC450	16	17	0.65	0.27
BHRC450	17	18	0.58	0.27

BHRC450	18	19	0.21	0.09
BHRC451	43	44	0.17	0.07
BHRC451	44	45	1.23	0.54
BHRC451	45	46	0.23	0.09
BHRC454	13	14	0.05	0.01
BHRC454	14	15	1.22	0.47
BHRC454	15	16	1.09	0.47
BHRC454	16	17	0.55	0.21
BHRC454	17	18	1.28	0.48
BHRC454	18	19	0.58	0.25
BHRC454	19	20	0.12	0.05
BHRC455	16	17	0.05	0.02
BHRC455	17	18	0.68	0.26
BHRC455	18	19	0.56	0.20
BHRC455	19	20	0.47	0.21
BHRC455	20	21	0.51	0.24
BHRC455	21	22	0.58	0.26
BHRC455	22	23	0.54	0.22
BHRC455	23	24	0.80	0.35
BHRC455	24	25	0.88	0.37
BHRC455	25	26	0.57	0.22
BHRC455	26	27	0.39	0.15
BHRC456	29	30	0.22	0.08
BHRC456	30	31	2.04	0.74
BHRC456	31	32	1.46	0.55
BHRC456	32	33	0.82	0.33
BHRC456	33	34	0.77	0.34
BHRC456	34	35	0.91	0.39
BHRC456	35	36	0.57	0.24
BHRC456	36	37	0.09	0.03
BHRC457	30	31	0.37	0.14
BHRC457	31	32	0.71	0.28
BHRC457	32	33	0.68	0.28
BHRC457	33	34	0.55	0.23
BHRC457	34	35	0.52	0.22
BHRC457	35	36	0.31	0.13

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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	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	• Assay results reported in this announcement relate to reverse circulation infill drilling that tested the Bald Hill deposit and the smaller Bald Hill Southeast 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. • 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. • The area tested by this drilling programme includes portions of the current Measured and indicated Resources at Bald Hill and Bald Hill Southeast.
Drilling techniques	• *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).*	• Reverse Circulation drilling utilised a nominal 5 1/4 inch diameter face-sampling hammer.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Recoveries are recorded by the geologist in the field at the time of drilling/logging. • 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. • 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.
Logging	• *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.*	• 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. • Logging is considered to be semi-quantitative

Criteria	JORC Code explanation	Commentary
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	given the nature of reverse circulation drill chips. • All RC drill holes in the current programme are logged in full.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 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. • 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. • Bulk samples were placed in green plastic bags, with the sub-samples collected placed in calico sample bags. • 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. • A sample size of 2-4kg was collected and considered appropriate and representative for the grain size and style of mineralisation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• 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 • 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.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• At least two company personnel verify all significant intersections. • 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. • No adjustments of assay data are considered necessary.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys),*	• A Garmin GPSMap62 hand-held GPS is used to define the location of the drill hole collars.

Criteria	JORC Code explanation	Commentary
	trenches, mine workings and other locations used in Mineral Resource estimation. • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Standard practice is for the GPS to be left at the 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. • Grid system used is MGA 94 (Zone 50) • Topographic control is based on the detailed 1m topographic survey undertaken by Hyvista Corporation in 2016.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Hole collars were initially laid out at 50m beyond the 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. • Further details are provided in the collar co-ordinate table contained elsewhere in this report. • No sample compositing is used in this report, all results detailed are the product of 1m downhole sample intervals.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• 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.

Sample security	• *The measures taken to ensure sample security.*	• 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:
		  • Hastings Technology Metals Ltd
		  • Address of laboratory
		  • Sample range
		• 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.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• 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.

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	• *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.* • *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.*	• The RC drilling within the current Measured plus Indicated Resources at Bald Hill and Bald Hill Southeast that is reported in this document was carried out within M09/157. • All Yangibana tenements are in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Bald Hill deposit was previously drilled by Hurlston Pty Limited in joint venture with Challenger Pty Limited in the late 1980s.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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. • These ironstone lenses have been explored previously for base metals, manganese, uranium, diamonds and rare earths. • 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.

Drill hole Information	• *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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *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.*
		• Refer to details of drilling in table in the body of this report and the appendices.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• All intervals reported are composed of 1m downhole intervals and as such are length weighted. A lower cut-off grade of 0.20%Nd_2O_3+Pr_6O_{11} has been used for assessing significant intercepts, and no upper cut-off grade was applied. • Maximum internal dilution of 2m was incorporated in reported significant intercepts. .
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• True widths for mineralisation have not been calculated and as such only downhole lengths have been reported. • It is expected that true widths will be less than downhole widths, due to the apparent dip of the mineralisation.
Diagrams	• *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.*	• Appropriate maps and sections are available in the body of this ASX announcement.
Balanced reporting	• *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.*	• Reporting of results in this report is considered balanced.
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.*	• Geological mapping has continued in the vicinity of the drilling as the programme proceeds.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions, depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• 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.