**ASX: HRZ** 

ASX ANNOUNCEMENT 16 February 2023



## SHALLOW, CLAY HOSTED RARE EARTH AND SCANDIUM MINERALISATION LOCATED AT MULTIPLE PROSPECTS NEAR KALGOORLIE

- Metalhawk Limited (Metalhawk) completed a regional 123 hole, Air Core (AC) program about 25 km southeast of Kalgoorlie, close to the Golden Ridge and Cannon Projects in 2022. Metalhawk have the Ni rights over a number of Horizon Minerals Limited (Horizon) tenements in this area, and under the rights agreement assay for other elements on behalf of Horizon.
- In addition to the nickel suite of elements, Metalhawk routinely assayed 5m composite samples for a multi-element package that included rare earth elements Ce, La. This data was made available to Horizon. Subsequently 8 holes with anomalous levels of Ce and La, were then selected for resampling as single meter intervals. These were then tested for the complete Rare Earth Element (REE) suite, in addition to Sc, Y and La.
- Significant results<sup>3,4</sup> including the 'magnet' REO's (Pr, Nd,Sm,Tb, Dy) obtained south of Cannon are tabled below:

Hole ID	From (m)	To (m)	Width	Ce <sub>2</sub> O <sub>3</sub> g/t	Pr <sub>6</sub> O <sub>11</sub> g/t	Nd₂O₃ g/t	Tb₄O <sub>7</sub> g/t	Dy₂O₃ g/t	Sm <sub>2</sub> O <sub>3</sub> g/t	La₂O₃ g/t	TREO <sup>1,2</sup> g/t
BVA179	30	32	2	632	90	311	2.6	13.6	40.9	375	1527
BVA181	31	33	2	738	85	304	3.8	19.1	55.9	457	1795
BVA182	32	34	2	773	82	293	3.7	18.4	53.9	434	1784
BVA186	31	32	1	913	128	464	6.31	31.1	89.2	604	2437
BVA188	32	33	1	937	100	367	6.09	32.1	71.0	525	2220

 $1. \quad \mathsf{TREO}=\mathsf{La}_2\mathsf{O}_3+\mathsf{Ce}_2\mathsf{O}_3+\mathsf{Pr}_6\mathsf{O}_{11}+\mathsf{Nd}_2\mathsf{O}_3+\mathsf{Pm}_2\mathsf{O}_3+\mathsf{Sm}_2\mathsf{O}_3+\mathsf{Eu}_2\mathsf{O}_3+\mathsf{Gd}_2\mathsf{O}_3+\mathsf{Tb}_4\mathsf{O}_7+\mathsf{Dy}_2\mathsf{O}_3+\mathsf{Ho}_2\mathsf{O}_3+\mathsf{Er}_2\mathsf{O}_3+\mathsf{Tm}_2\mathsf{O}_3+\mathsf{Yb}_2\mathsf{O}_3+\mathsf{Lu}_2\mathsf{O}_3+\mathsf{Sm}_2\mathsfO_3+\mathsf{Sm}_2\mathsfO_3+\mathsf{Sm}_2\mathsfO_3+\mathsf{Sm$ 

2. Anomalous TREO>1000ppm

- The REE mineralisation is hosted within ultramafic, saprolitic clays around 30m deep and is open in all directions. No REE exploration has previously been completed in the area.
- Separately, anomalous levels of scandium associated with ultramafic geology was highlighted at Snake Hill near Golden Ridge. The maximum single meter scandium (Sc) assay was 445 g/t from 32m.

Commenting on the new REE-Sc mineralisation, Horizon Managing Director Mr Jon Price said:

"It's encouraging to see this new REE and scandium mineralisation discovered so close to Kalgoorlie. As rare earth prices steadily improve, we have noted there has been a substantial increase amongst explorers discovering clay hosted rare earths in Western Australia over the last 12 months.

<sup>3</sup> See Tables and Competent Persons Statement and JORC Tables on Page 6, 16. <sup>4</sup> See Forward Looking and Cautionary Statements on Page 15.

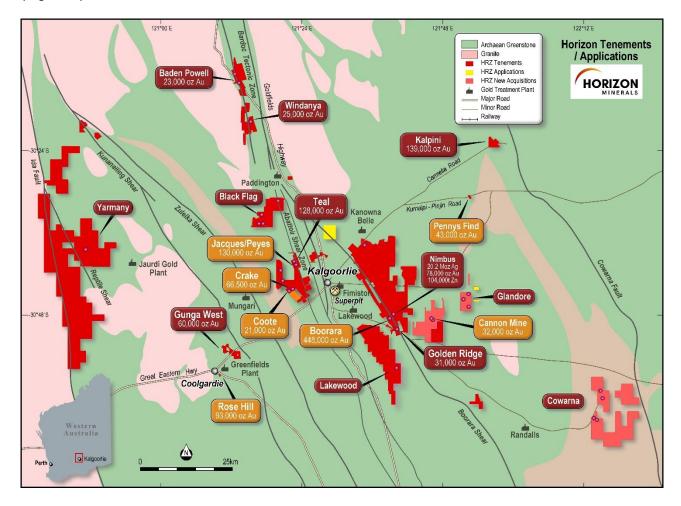
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Although our primary focus has, and remains, on building resources and developing near term gold mines at Cannon and Pennys Find, this is a relatively easy opportunity where we can potentially add REO's and scandium to Horizons expanding multi-commodity interests (Ag, Zn, Ni, Pt, Pd, Li) by initially collecting some of the drill samples and submitting them to a laboratory for sighter metallurgical recovery work for both the REE and scandium. We will then assess the potential economics."

#### Overview

Horizon Minerals Limited (ASX: HRZ) ("Horizon" or the "Company") is pleased to announce assay results from drilling conducted by Metalhawk Limited<sup>1</sup> from the 100% owned Cannon and Golden Ridge project areas located near Kalgoorlie-Boulder in the heart of the Western Australian goldfields (Figure 1).



#### Figure 1: Horizon's Project area location, resources and surrounding infrastructure

1. See HRZ ASX announcement 26 Oct 2021



In 2022 Metalhawk completed a regional 123 hole, Air Core program about 25 km southeast of Kalgoorlie, close to the Golden Ridge and Cannon Projects. The drilling focussed on discovering new nickel mineralisation where Metalhawk have the Ni rights over a number of Horizon tenements in this area.

In addition to the nickel suite of elements, Metalhawk Limited routinely assayed 5m composite samples for a multi-element package that included Ce, La. This data was made available to Horizon Minerals. Subsequently 8 holes with anomalous levels of Ce and La, were then selected for resampling as single meter intervals and tested for the complete Rare Earth Element (REE) suite, in addition to Sc, Y and La.

#### **Project Geology**

The Cannon deposit occurs within Horizon's Bulong South gold project located 30km east-southeast of Kalgoorlie in the Eastern Goldfields region of Western Australia, on granted mining lease M25/333. The geology comprises a thickly interbedded sequence of ultramafics, high Mg basalts and shales with felsic porphyry and lamprophyric intrusive dykes. Gold is typically found in quartz veins in the basalt.

The Cannon deposit was discovered by Southern Gold Limited in 2008 following up geochemical anomalies testing for strike extensions of the George's Reward mineralisation immediately north of the Bulong South deposit. The George's Reward prospect was initially held by Northern Mining Limited and comprised an Inferred Mineral Resource of approximately 23,000 ounces when purchased by Westgold Limited in 2015.

The Golden Ridge area is largely associated with the north-south trending, sub vertical quartzfeldspar porphyry located between ultramafic, shales and cherts to the west and an ultramafic (talccarbonate) sequences to the east. Gold mineralisation is similar to Boorara and observed in flat lying vein arrays and thicker, steeper dipping, contact style lodes.

#### Summary of Results

Drillhole resampling was undertaken on the 8 anomalous air core holes and specific composite intervals showing the highest Ce and La grades. The single splits were submitted to Intertek for aqua regia (partial) digest and multi-element assaying including the REE suite (Table 5a-5c). More complete (full digest) work is planned during the metallurgical test work phase.

Metalhawk completed 4 air core lines south of Cannon, three lines were barren but one line in particular returned significant amounts of saprolitic hosted REE enrichment. The mineralisation was about 30m deep, flat lying and laterally extensive. There is very little other REE data around this area, further work would focus on testing the REE thickness and grade potential to the north and south.



Hole ID	From (m)	To (m)	Width	Ce <sub>2</sub> O <sub>3</sub> g/t	Pr <sub>6</sub> O <sub>11</sub> g/t	Nd <sub>2</sub> O <sub>3</sub> g/t	Tb₄O <sub>7</sub> g/t	Dy₂O₃ g/t	Sm <sub>2</sub> O <sub>3</sub> g/t	La₂O₃ g/t	TREO <sup>1,2</sup> g/t
BVA179	30	32	2	632	90	311	2.6	13.6	40.9	375	1527
BVA180	32	34	2	442	70	242	2.6	13.3	37.3	315	1167
BVA181	31	33	2	738	85	304	3.8	19.1	55.9	457	1795
BVA182	32	34	2	773	82	293	3.7	18.4	53.9	434	1784
BVA186	31	32	1	913	128	464	6.31	31.1	89.2	604	2437
BVA187	30	32	2	377	68	250	5.7	33.4	47.0	290	1167
BVA188	32	33	1	937	100	367	6.09	32.1	71.0	525	2220
BVA189	32	33	1	273	68	239	3.3	16.6	37.9	323	1016

Table 2. Significant REO results (including magnet REE's - Pr, Nd, Tb, Dy, Sm) from South of Cannon

 $3. \qquad \mathsf{TREO}=\mathsf{La}_2\mathsf{O}_3+\mathsf{Ce}_2\mathsf{O}_3+\mathsf{Pr}_6\mathsf{O}_{11}+\mathsf{Nd}_2\mathsf{O}_3+\mathsf{Pm}_2\mathsf{O}_3+\mathsf{Sm}_2\mathsf{O}_3+\mathsf{Eu}_2\mathsf{O}_3+\mathsf{Gd}_2\mathsf{O}_3+\mathsf{Tb}_4\mathsf{O}_7+\mathsf{Dy}_2\mathsf{O}_3+\mathsf{Ho}_2\mathsf{O}_3+\mathsf{Er}_2\mathsf{O}_3+\mathsf{Tm}_2\mathsf{O}_3+\mathsf{Yb}_2\mathsf{O}_3+\mathsf{Lu}_2\mathsf{O}_3+\mathsf{Ce}_2\mathsf{O}_$ 

4. Anomalous TREO>1000 g/t

The bulk of the Metalhawk drilling was directed to the Snake Hill area, 2km east of Golden Ridge where there appears to be linear zone of scandium enrichment in the regolith. Central to this, BVA065 recorded a maximum single meter scandium assay of 445 g/t from 32m. Results shown below.

Hole ID	From (m)	To (m)	Width	Sc <sub>2</sub> O <sub>3</sub> g/t <sup>1</sup>	Ni %	Co %
BVA065	30	35	5	376	0.17	0.14
inc	32	33	1	445	0.29	0.71

Table 3. BVA065 Sc assay result

Scandium is often found as a weathering product from ultramafic rocks. These ultramafic rocks are common around the Golden Ridge area also and would likely be prospective for hosting scandium enrichment.



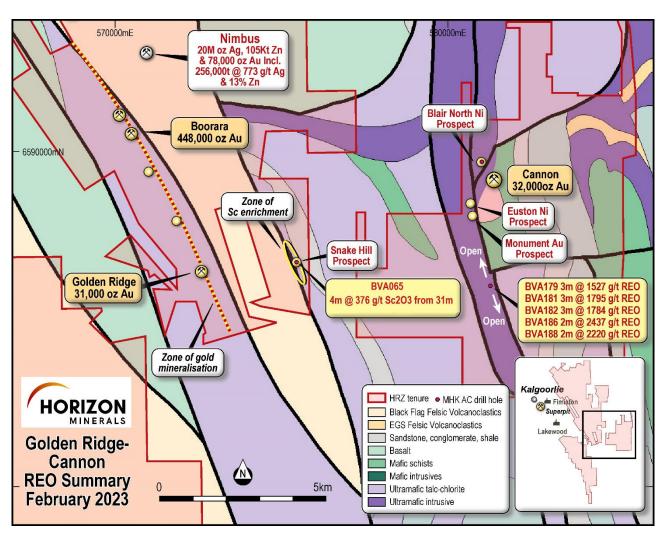


Figure 2: Golden Ridge – Cannon drilling REE highlights

#### **Next Steps**

Horizon's focus remains on obtaining all the permitting and approvals necessary to bring the high grade Cannon underground gold mine into production later this year. A preliminary review of REE's in general has identified that one of the main issues of developing a low grade clay hosted REE is the cost of extraction and concentrate recovery. If this cost can be achieved efficiently, the project economics would be enhanced. Horizon will submit drill samples for metallurgical testing, including beneficiation and processing pathways (e.g. "ammonium sulphate process"). Should the results be encouraging, a scoping study based on a conceptual resource model for both the REE and scandium will be undertaken.





#### Authorised for release by the Board of Directors

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Hole Id	East (m) GDA2020	North (m) GDA2020	Depth (m)	Dip	Azimuth
BVA065	375085	6587087	35	-60	62.5
BVA179	380697	6585496	69	-60	090
BVA180	380618	6585498	83	-60	090
BVA181	380538	6585494	87	-60	090
BVA182	380456	6585493	71	-60	090
BVA186	380140	6585496	82	-60	090
BVA187	380061	6585498	64	-60	090
BVA188	379980	6585494	62	-60	090
BVA189	379882	6585509	81	-60	090

#### Table 4: Metalhawk REE AC drill hole details.

#### **Competent Person Statement**

Information in this announcement that relates to exploration results is based on information compiled by David O'Farrell who is the Exploration Manager of Horizon Minerals. Mr O'Farrell is a Member of The Australian Institute of Mining and Metallurgists (AusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr O'Farrell consents to the inclusion in the document of the information in the form and context in which it appears.





Table 5a. Complete REE resampling results (Ce-Ho)
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Hole ID	Fr	То	Ce	Ce2O3	Dy	Dy2O3	Er	Er2O3	Eu	Eu2O3	Gd	Gd2O3	Но	Ho2O3
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
BVA065	30	31	122.527	143.5158751	1.248	1.43233	0.634	0.724979	0.502	0.581266	1.417	1.633234	0.234	0.268047
BVA065	31	32	703.192	823.6487896	6.444	7.395779	3.248	3.714088	3.005	3.47949	7.751	8.933803	1.166	1.335653
BVA065	32	33	414.225	485.1817425	5.512	6.326122	2.794	3.194939	2.647	3.064961	6.653	7.668248	1.025	1.174138
BVA065	33	34	204.719	239.7873647	6.905	7.924869	3.537	4.04456	3.186	3.689069	7.899	9.104387	1.253	1.435312
BVA065	34	35	281.556	329.7865428	7.349	8.434447	3.6	4.1166	3.625	4.197388	8.912	10.27197	1.307	1.497169
BVA179	30	31	626.593	733.9283809	14.715	16.88841	4.82	5.51167	10.398	12.03984	27.413	31.59622	2.221	2.544156
BVA179	31	32	452.743	530.2978759	12.657	14.52644	4.371	4.998239	8.101	9.380148	22.998	26.50749	1.958	2.242889
BVA179	32	33	255.616	299.4030208	10.496	12.04626	4.068	4.651758	5.675	6.571083	17.218	19.84547	1.723	1.973697
BVA179	33	34	133.917	156.8569821	7.624	8.750065	3.326	3.803281	3.382	3.916018	11.124	12.82152	1.333	1.526952
BVA179	34	35	32.657	38.2511441	4.012	4.604572	2.456	2.808436	1.002	1.160216	4.147	4.779832	0.849	0.97253
BVA180	30	31	10.199	11.9460887	1.689	1.938465	1.084	1.239554	0.405	0.46895	1.422	1.638997	0.352	0.403216
BVA180	31	32	291.877	341.8755301	6.176	7.088195	2.467	2.821015	4.049	4.688337	10.308	11.881	1	1.1455
BVA180	32	33	427.682	500.9439266	11.837	13.58532	4.065	4.648328	7.877	9.120778	21.858	25.19353	1.837	2.104284
BVA180	33	34	327.874	384.0388162	11.401	13.08493	4.114	4.704359	6.979	8.080984	20.137	23.20991	1.795	2.056173
BVA180	34	35	207.883	243.4933579	10.753	12.34122	4.293	4.909046	5.404	6.257292	17.16	19.77862	1.796	2.057318
BVA181	30	31	33.833	39.6285929	2.057	2.360819	1.267	1.448815	0.655	0.758425	1.986	2.289064	0.397	0.454764
BVA181	31	32	646.977	757.8041601	14.38	16.50393	4.717	5.39389	9.882	11.44237	26.528	30.57617	2.191	2.509791
BVA181	32	33	613.809	718.9544817	18.835	21.61693	6.302	7.206337	12.011	13.90754	34.891	40.21537	2.9	3.32195
BVA181	33	34	243.958	285.7480054	9.472	10.87101	3.778	4.320143	4.784	5.539394	15.463	17.82265	1.564	1.791562
BVA181	34	35	142.53	166.945389	9.304	10.6782	4.17	4.768395	3.793	4.391915	14.178	16.34156	1.681	1.925586
BVA182	30	31	11.748	13.7604324	1.866	2.141608	1.034	1.182379	0.799	0.925162	3.581	4.127461	0.382	0.437581
BVA182	31	32	40.425	47.3498025	1.822	2.091109	1.116	1.276146	0.544	0.629898	1.944	2.240654	0.365	0.418108
BVA182	32	33	750.783	879.3921279	16.109	18.4883	5.192	5.937052	11.235	13.00901	29.735	34.27256	2.443	2.798457
BVA182	33	34	570.468	668.1891684	16.053	18.42403	5.495	6.283533	10.085	11.67742	28.522	32.87446	2.494	2.856877
BVA182	34	35	224.423	262.8666599	10.259	11.77425	4.018	4.594583	5.168	5.984027	16.684	19.22998	1.701	1.948496
BVA182	35	36	115.578	135.3765114	8.33	9.560341	3.779	4.321287	3.425	3.965808	12.708	14.64724	1.514	1.734287
BVA186	30	31	389.08	455.729404	6.159	7.068684	2.163	2.473391	3.61	4.180019	9.702	11.18253	0.941	1.077916



Hole ID	Fr	То	Ce	Ce2O3	Dy	Dy2O3	Er	Er2O3	Eu	Eu2O3	Gd	Gd2O3	Но	Ho2O3
BVA186	31	32	780.275	913.9361075	27.143	31.15202	8.048	9.202888	17.948	20.78199	49.055	56.54079	3.974	4.552217
BVA186	32	33	185.244	216.9762972	11.367	13.04591	4.619	5.281827	5.783	6.696136	17.302	19.94229	1.858	2.128339
BVA186	33	34	75.436	88.3581868	18.89	21.68005	11.069	12.6574	4.62	5.349498	18.006	20.75372	3.812	4.366646
BVA186	34	35	21.469	25.1466397	15.348	17.6149	9.677	11.06565	3.015	3.491069	14.329	16.51561	3.383	3.875227
BVA187	30	31	406.591	476.2400383	28.022	32.16085	14.158	16.18967	10.033	11.61721	29.862	34.41894	5.047	5.781339
BVA187	31	32	237.89	278.640557	30.282	34.75465	14.707	16.81745	11.43	13.2348	41.339	47.64733	5.589	6.4022
BVA187	32	33	56.576	66.2674688	15.297	17.55637	9.998	11.43271	2.996	3.469068	15.191	17.50915	3.515	4.026433
BVA187	33	34	219.361	256.9375393	21.908	25.14381	11.404	13.04047	7.603	8.803514	29.731	34.26795	4.351	4.984071
BVA187	34	35	36.727	43.0183351	7.586	8.706452	4.557	5.21093	1.858	2.151378	8.829	10.17631	1.665	1.907258
BVA188	30	31	194.128	227.3821264	4.055	4.653924	2.283	2.610611	1.135	1.314217	3.399	3.917687	0.775	0.887763
BVA188	31	32	76.546	89.6583298	3.128	3.590006	1.821	2.082314	0.805	0.93211	2.485	2.864211	0.6	0.6873
BVA188	32	33	800.751	937.9196463	27.952	32.08051	11.007	12.5865	14.729	17.05471	44.247	50.99909	4.526	5.184533
BVA188	33	34	178.798	209.4260974	24.504	28.12324	12.384	14.1611	7.869	9.111515	29.731	34.26795	4.682	5.363231
BVA188	34	35	31.113	36.4426569	11.808	13.55204	7.554	8.637999	2.069	2.395695	11.394	13.13272	2.685	3.075668
BVA189	30	31	73.275	85.8270075	2.614	3.000088	1.551	1.773569	0.666	0.771161	2.19	2.524194	0.511	0.585351
BVA189	31	32	96.638	113.1920894	6.602	7.577115	3.268	3.736958	2.84	3.288436	8.726	10.05759	1.174	1.344817
BVA189	32	33	233.547	273.5536011	14.512	16.65542	5.821	6.656314	7.903	9.150884	24.41	28.13497	2.411	2.761801
BVA189	33	34	119.783	140.3018279	14.983	17.19599	7.36	8.41616	5.513	6.383503	18.767	21.63084	2.734	3.131797
BVA189	34	35	56.34	65.991042	9.944	11.41273	5.973	6.830126	2.226	2.577485	9.403	10.8379	2.103	2.408987



Table 5b. Complete REE resampling results (La-Sm)

Hole ID	Fr	То	La	La2O3	Lu	Lu2O3	Nd	Nd2O3	Pr	Pr6O11	Sc	Sc2O3	Sm	Sm2O3
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
BVA065	30	31	6.159	7.223275	0.085	0.096654	6.597	7.694741	1.624	1.962117	80.847	123.9385	1.688	1.957405
BVA065	31	32	28.218	33.09407	0.45	0.511695	37.953	44.26838	8.977	10.84601	290.199	444.8751	10.215	11.84531
BVA065	32	33	25.065	29.39623	0.375	0.426413	33.119	38.63	7.901	9.545988	237.739	364.4539	9.065	10.51177
BVA065	33	34	24.146	28.31843	0.491	0.558316	37.412	43.63736	8.673	10.47872	249.442	382.3946	10.861	12.59442
BVA065	34	35	31.239	36.6371	0.489	0.556042	44.959	52.44018	10.289	12.43117	204.725	313.8434	12.442	14.42774
BVA179	30	31	350.951	411.5953	0.367	0.417316	311.679	363.5424	88.167	106.5234	13.497	20.6909	47.164	54.69137
BVA179	31	32	289.763	339.834	0.357	0.405945	222.96	260.0605	61.8	74.66676	12.735	19.52276	34.676	40.21029
BVA179	32	33	188.435	220.9966	0.386	0.438921	142.614	166.345	39.034	47.16088	12.432	19.05826	23.351	27.07782
BVA179	33	34	115.941	135.9756	0.349	0.396848	78.423	91.47259	21.252	25.67667	13.231	20.28312	13.074	15.16061
BVA179	34	35	33.985	39.85761	0.325	0.369558	18.27	21.31013	4.978	6.01442	14.081	21.58617	3.513	4.073675
BVA180	30	31	6.359	7.457835	0.158	0.179662	5.813	6.780283	1.503	1.815925	12.276	18.81911	1.415	1.640834
BVA180	31	32	139.066	163.0966	0.266	0.302469	119.259	139.1037	34.474	41.65149	11.325	17.36123	18.558	21.51986
BVA180	32	33	290.339	340.5096	0.352	0.400259	225.332	262.8272	63.481	76.69774	11.558	17.71841	34.582	40.10129
BVA180	33	34	248.269	291.1699	0.392	0.445743	189.503	221.0363	52.322	63.21544	11.365	17.42255	29.872	34.63957
BVA180	34	35	187.501	219.9012	0.413	0.469622	131.061	152.8696	35.435	42.81257	11.395	17.46854	21.65	25.10534
BVA181	30	31	16.584	19.44972	0.189	0.214912	14.907	17.38752	4.148	5.011614	11.295	17.31524	2.663	3.088015
BVA181	31	32	353.928	415.0868	0.353	0.401396	283.422	330.5834	80.576	97.35192	10.302	15.79297	44.557	51.6683
BVA181	32	33	426.398	500.0796	0.481	0.546945	326	380.2464	89.978	108.7114	10.771	16.51194	51.915	60.20063
BVA181	33	34	167.731	196.7149	0.372	0.423001	116.527	135.9171	31.907	38.55004	10.664	16.34791	19.391	22.4858
BVA181	34	35	146.901	172.2855	0.41	0.466211	87.1	101.5934	23.612	28.52802	13.735	21.05576	14.648	16.98582
BVA182	30	31	13.868	16.26439	0.124	0.141	19.943	23.26152	5.165	6.240353	11.157	17.10368	3.23	3.745508
BVA182	31	32	20.118	23.59439	0.169	0.19217	15.639	18.24133	4.374	5.284667	10.715	16.4261	2.197	2.547641
BVA182	32	33	398.928	467.8628	0.367	0.417316	320.278	373.5723	91.069	110.0296	11.343	17.38882	49.913	57.87911
BVA182	33	34	341.59	400.6168	0.419	0.476445	265.187	309.3141	73.605	88.92956	11.88	18.21204	43.17	50.05993
BVA182	34	35	185.219	217.2248	0.375	0.426413	125.463	146.34	34.657	41.87259	12.8	19.6224	20.787	24.10461
BVA182	35	36	132.108	154.9363	0.375	0.426413	80.527	93.92669	21.831	26.37621	13.819	21.18453	13.283	15.40297
BVA186	30	31	95.65	112.1783	0.204	0.231968	89.963	104.9328	24.834	30.00444	15.096	23.14217	15.368	17.82073



Hole ID	Fr	То	La	La2O3	Lu	Lu2O3	Nd	Nd2O3	Pr	Pr6011	Sc	Sc2O3	Sm	Sm2O3
BVA186	31	32	515.076	604.0811	0.516	0.586744	463.524	540.6544	127.95	154.5892	12.826	19.66226	76.949	89.23006
BVA186	32	33	174.682	204.867	0.556	0.632228	135.376	157.9026	37.312	45.08036	13.086	20.06084	23.445	27.18682
BVA186	33	34	85.771	100.5922	1.349	1.533948	72.119	84.1196	18.25	22.04965	29.167	44.71301	15.481	17.95177
BVA186	34	35	34.101	39.99365	1.031	1.17235	36.214	42.24001	8.542	10.32044	33.011	50.60586	8.971	10.40277
BVA187	30	31	191.674	224.7953	2.014	2.290119	197.463	230.3208	53.326	64.42847	23.355	35.80322	38.534	44.68403
BVA187	31	32	302.883	355.2212	1.643	1.868255	232.367	271.0329	60.502	73.09852	23.976	36.75521	42.527	49.31431
BVA187	32	33	52.539	61.61774	1.013	1.151882	43.664	50.92969	10.919	13.19234	25.616	39.26933	9.533	11.05447
BVA187	33	34	267.912	314.2072	1.24	1.410004	170.875	199.3086	46.201	55.82005	25.069	38.43078	28.875	33.48345
BVA187	34	35	49.638	58.21545	0.413	0.469622	32.317	37.69455	8.357	10.09693	16.186	24.81314	6.097	7.070081
BVA188	30	31	13.967	16.3805	0.313	0.355912	17.689	20.63245	4.718	5.700288	23.271	35.67444	4.259	4.938736
BVA188	31	32	10.697	12.54544	0.282	0.320662	12.314	14.36305	3.295	3.981019	23.661	36.27231	2.957	3.428937
BVA188	32	33	448.173	525.6173	1.193	1.35656	367.037	428.112	100.364	121.2598	24.325	37.29023	61.258	71.03478
BVA188	33	34	193.149	226.5251	1.26	1.432746	139.745	162.9986	36.105	43.62206	25.642	39.30919	27.453	31.8345
BVA188	34	35	31.085	36.45649	0.754	0.857373	26.664	31.10089	6.6	7.97412	28.751	44.07528	6.225	7.21851
BVA189	30	31	7.22	8.467616	0.208	0.236517	9.622	11.2231	2.497	3.016875	25.35	38.86155	2.423	2.809711
BVA189	31	32	94.884	111.28	0.48	0.545808	72.963	85.10404	20.068	24.24616	20.949	32.11482	11.725	13.59631
BVA189	32	33	275.807	323.4664	0.698	0.793696	204.861	238.9499	56.347	68.07845	20.269	31.07238	32.758	37.98618
BVA189	33	34	147.944	173.5087	0.885	1.006334	109.82	128.094	29.69	35.87146	19.288	29.5685	20.619	23.90979
BVA189	34	35	34.664	40.65394	0.596	0.677712	30.901	36.04293	7.917	9.565319	24.051	36.87018	7.19	8.337524



#### Table 5c. Complete REE resampling results (Tb-Yb)

Hole ID	Fr	То	Tb	Tb407	Tm	Tm2O3	Y	Y2O3	Yb	Yb2O3	Total REO
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
BVA065	30	31	0.195	0.229359	0.093	0.106215	4.031	5.118967	0.578	0.6581686	168.0837
BVA065	31	32	1.082	1.272648	0.468	0.534503	19.089	24.24112	3.061	3.4855607	954.3658
BVA065	32	33	0.874	1.027999	0.395	0.45113	16.691	21.1959	2.525	2.8752175	599.4749
BVA065	33	34	1.067	1.255005	0.524	0.59846	20.764	26.3682	3.364	3.8305868	367.2568
BVA065	34	35	1.164	1.369097	0.525	0.599603	20.933	26.58282	3.267	3.7201329	480.4852
BVA179	30	31	2.724	3.203969	0.536	0.612166	36.914	46.87709	2.769	3.1530603	1746.248
BVA179	31	32	2.429	2.85699	0.497	0.567624	33.542	42.59499	2.797	3.1849439	1309.74
BVA179	32	33	1.875	2.205375	0.496	0.566482	30.012	38.11224	2.791	3.1781117	812.4604
BVA179	33	34	1.268	1.491422	0.423	0.483108	26.114	33.16217	2.526	2.8763562	461.208
BVA179	34	35	0.599	0.704544	0.348	0.397451	25.099	31.87322	2.188	2.4914756	127.7956
BVA180	30	31	0.234	0.275231	0.172	0.196441	6.171	7.836553	1.127	1.2833149	37.2648
BVA180	31	32	1.194	1.404383	0.312	0.356335	15.882	20.16855	1.876	2.1362012	739.0706
BVA180	32	33	2.314	2.721727	0.479	0.547066	31.635	40.17329	2.605	2.9663135	1282.367
BVA180	33	34	2.114	2.486487	0.485	0.553919	29.451	37.39982	2.83	3.222521	1051.945
BVA180	34	35	1.896	2.230075	0.525	0.599603	31.896	40.50473	2.991	3.4058517	736.2306
BVA181	30	31	0.282	0.331688	0.195	0.22271	6.68	8.482932	1.256	1.4302072	94.07686
BVA181	31	32	2.781	3.271012	0.513	0.585897	35.406	44.96208	2.758	3.1405346	1726.32
BVA181	32	33	3.696	4.347235	0.698	0.797186	47.783	60.67963	3.703	4.2166061	1864.369
BVA181	33	34	1.802	2.119512	0.464	0.529934	31.222	39.64882	2.682	3.0539934	725.8871
BVA181	34	35	1.641	1.930144	0.502	0.573334	43.828	55.65718	2.776	3.1610312	530.5745
BVA182	30	31	0.327	0.384617	0.134	0.153041	17.71	22.48993	0.838	0.9542306	73.71928
BVA182	31	32	0.251	0.295226	0.166	0.189589	9.446	11.99548	1.172	1.3345564	105.6853
BVA182	32	33	3.22	3.787364	0.572	0.653281	2.99	3.797001	2.99	3.404713	1971.504
BVA182	33	34	3.126	3.676801	0.609	0.695539	42.638	54.146	3.331	3.7930097	1597.868
BVA182	34	35	1.903	2.238309	0.481	0.54935	35.95	45.65291	2.762	3.1450894	742.2992
BVA182	35	36	1.432	1.684318	0.458	0.523082	41.627	52.86213	2.607	2.9685909	465.85
BVA186	30	31	1.15	1.35263	0.259	0.295804	15.159	19.25041	1.605	1.8276135	750.3563



Hole ID	Fr	То	Tb	Tb407	Tm	Tm2O3	Y	Y2O3	Yb	Yb2O3	Total REO
BVA186	31	32	5.365	6.310313	0.818	0.934238	63.146	80.18911	4.244	4.8326428	2437.385
BVA186	32	33	2.013	2.367691	0.611	0.697823	32.501	41.27302	3.934	4.4796458	707.285
BVA186	33	34	2.815	3.311003	1.513	1.727997	76.208	96.77654	8.726	9.9362962	394.388
BVA186	34	35	2.199	2.586464	1.211	1.383083	93.067	118.1858	6.277	7.1476199	192.9555
BVA187	30	31	4.422	5.201156	2.13	2.432673	77.588	98.529	13.7	15.60019	1166.161
BVA187	31	32	5.287	6.218569	1.905	2.175701	114.503	145.4074	10.653	12.1305711	1168.557
BVA187	32	33	2.339	2.751132	1.233	1.408209	109.296	138.795	6.267	7.1362329	269.5029
BVA187	33	34	3.652	4.295482	1.438	1.64234	121.31	154.0516	7.807	8.8898309	962.2343
BVA187	34	35	1.177	1.384387	0.535	0.611024	56.723	72.03254	2.578	2.9355686	189.6483
BVA188	30	31	0.605	0.711601	0.363	0.414582	13.03	16.5468	2.242	2.5529654	292.4534
BVA188	31	32	0.453	0.532819	0.284	0.324356	10.049	12.76123	1.997	2.2739839	137.5845
BVA188	32	33	5.185	6.098597	1.416	1.617214	80.715	102.5	8.404	9.5696348	2220.491
BVA188	33	34	4.104	4.827125	1.557	1.77825	89.947	114.2237	8.192	9.3282304	782.7998
BVA188	34	35	1.723	2.026593	0.935	1.067864	87.537	111.1632	4.689	5.3393643	169.278
BVA189	30	31	0.386	0.454013	0.225	0.256973	10.358	13.15362	1.426	1.6237862	122.57
BVA189	31	32	1.155	1.358511	0.491	0.560771	21.462	27.25459	3.421	3.8954927	379.7841
BVA189	32	33	2.83	3.328646	0.756	0.863428	43.644	55.42352	4.986	5.6775582	1016.057
BVA189	33	34	2.587	3.042829	0.987	1.127253	46.915	59.57736	5.7	6.49059	570.1111
BVA189	34	35	1.561	1.836048	0.746	0.852007	46.171	58.63255	3.642	4.1471454	202.1709



	Cut-off	М	easur	ed	l	ndicat	ed		Inferre	d	т	otal R	esource
Project	grade (g/t)	Mt	Au (a/t)	Oz	Mt	Au (a/t)	Oz	Mt	Au (a/t)	Oz	Mt	Au (a/t)	Oz
Boorara OP	0.5	1.28	1.23	50,630	7.19	1.27	294,140	2.56	1.26	103,470	11.03	1.26	448,240
Kalpini	0.8				1.40	2.43	108,000	0.47	2.04	31,000	1.87	2.33	139,000
Jacques - Peyes	0.8				0.97	2.59	81,000	0.77	1.98	49,000	1.74	2.32	130,000
Teal	1.0				1.01	1.96	63,680	0.80	2.50	64,460	1.81	2.20	128,140
Crake	0.8				1.33	1.47	63,150	0.08	1.27	3,300	1.42	1.46	66,450
Coote	1.0							0.42	1.54	21,000	0.42	1.54	21,000
Capricorn	0.5							0.70	1.20	25,500	0.70	1.20	25,500
Baden Powell								0.60	1.20	23,000	0.60	1.20	23,000
Cannon UG	1.0				0.18	5.1	28,580	0.05	2.30	3,750	0.23	4.40	32,330
Rose Hill OP	0.5	0.19	2.00	12300	0.09	2	6,100				0.29	2.00	18,400
Rose Hill UG	2.0				0.33	4.5	47,100	0.18	4.80	27,800	0.51	4.60	74,900
Pennys Find	1.5				0.20	5.45	35,000	0.10	3.60	8,000	0.27	4.99	43,000
Gunga West	0.6				0.71	1.6	36,440	0.48	1.50	23,430	1.19	1.56	59,870
Golden Ridge	1.0				0.47	1.83	27,920	0.05	1.71	2,800	0.52	1.82	30,720
TOTAL		1.47	1.33	62,930	13.89	1.77	791,150	7.32	1.64	386,210	22.60	1.71	1,240,290

#### Horizon Minerals Limited – Summary of Gold Mineral Resources

#### Confirmation

The information in this report that relates to Horizon's Mineral Resources estimates is extracted from and was originally reported in Horizon's ASX announcements "Intermin's Resources Grow to over 667,000 Ounces" dated 20 March 2018, "Rose Hill firms as quality high grade open pit and underground gold project" dated 8 December 2020, "Updated Boorara Mineral Resource Delivers a 34% Increase In Gold Grade" dated 27 April 2021, "Penny's Find JV Resource Update" dated 14 July 2021, "Updated Crake Resource improves in quality" dated 7 September 2021, "Jacques Find-Peyes Farm Mineral Resource update" dated 15 September 2021, "Kalpini Gold Project Mineral Resource Update" dated 28 September 2021 and "Gold Resources increase to 1.24Moz" dated 28 September 2022, each of which is available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates or Ore Reserves estimates have not been materially modified from the original market announcements.



#### Horizon Minerals Limited – Summary of Vanadium / Molybdenum Mineral Resources

Desired	Cut-off	Tonnage		Grade		N	letal content (N	lt)
Project	grade (%)	(Mt)	V <sub>2</sub> O <sub>5</sub> (%)	Mo (ppm)	Ni (ppm)	V <sub>2</sub> O <sub>5</sub>	Мо	Ni
Rothbury (Inferred)	0.30	1,202	0.31	259	151	3.75	0.31	0.18
Lilyvale (Indicated)	0.30	430	0.50	240	291	2.15	0.10	0.10
Lilyvale (Inferred)	0.30	130	0.41	213	231	0.53	0.03	0.03
Manfred (Inferred)	0.30	76	0.35	369	249	0.26	0.03	0.02
TOTAL		1,838	0.36	256	193	6.65	0.46	0.36

#### Horizon Minerals Limited – Summary of Silver / Zinc Mineral Resources

#### Nimbus All Lodes (bottom cuts 12g/t Ag, 0.5% Zn, 0.3g/t Au)

Category	Tonnes	Grade	Grade	Grade	Ounces	Ounces	Tonnes
	Mt	Ag (g/t)	Au (g/t)	Zn (%)	Ag (Moz)	Au ('000oz)	Zn ('000t)
Measured Resource	3.62	102	0.09	1.2	11.9	10	45
Indicated Resource	3.18	48	0.21	1.0	4.9	21	30
Inferred Resource	5.28	20	0.27	0.5	3.4	46	29
Total Resource	12.08	52	0.20	0.9	20.2	77	104

#### Nimbus high grade silver zinc resource (500g/t Ag bottom cut and 2800g/t Ag top cut)

Category	Tonnes	Grade	Grade	Ounces	Tonnes
	Mt	Ag (g/t)	Zn (%)	Ag (Moz)	Zn ('000t)
Measured Resource	0	0	0	0	0
Indicated Resource	0.17	762	12.8	4.2	22
Inferred Resource	0.09	797	13.0	2.2	11
Total Resource	0.26	774	12.8	6.4	33

#### Confirmation

The information is this report that relates to Horizon's Mineral Resources estimates on the Richmond Julia Creek vanadium project and Nimbus Silver Zinc Project is extracted from and was originally reported in Intermin's and MacPhersons' ASX Announcement "Intermin and MacPhersons Agree to Merge – Creation of a New Gold Company Horizon Minerals Ltd" dated 11 December 2018 and in MacPhersons' ASX announcements "Quarterly Activities Report" dated 25 October 2018, "Richmond – Julia Creek Vanadium Project Resource Update" dated 16 June 2020, "New High Grade Nimbus Silver Core Averaging 968 g/t Ag" dated 10th May 2016 and "Nimbus Increases Resources" dated 30th April 2015, each of which is available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates have not been materially modified from the original market announcements.



#### **Forward Looking and Cautionary Statements**

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain any additional mine licenses, permits and other regulatory approvals required in connection with mining and third party processing operations, competition for among other things, capital, acquisition of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

Statements regarding plans with respect to the Company's mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) where applicable and the current ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward-looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcements.



# Appendix 1 – Golden Ridge and Cannon Projects JORC Code (2012) Table 1, Section 1 and 2

Mr David O'Farrell, Exploration Manager compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for those sections. The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) requirements for the reporting of Mineral Resources. For further detail, please refer to the announcements made to the ASX by Intermin Resources Ltd and Horizon Minerals Ltd (2019-2022) relating to the Boorara, Cannon and Golden Ridge project areas.

# SECTION 1: SAMPLING TECHNIQUES AND DATA (Extracted and modified from Metalhawk Ltd ASX release 1 April 2022)

	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	<ul> <li>167 aircore (AC) holes have been completed as part of this program for 11,238m. Hole depths ranged from 12m to 113m. Assay results remain pending from holes BVA087 to BVA157.</li> <li>AC holes were angled at -60° or -90° and drilled to the east at between 060 and 090 azimuth.</li> <li>Drillhole locations were established by handheld GPS. Logging of drill samples included lithology, weathering, texture, moisture and contamination. Sampling protocols and QAQC are as per industry best practice procedures.</li> <li>AC drilling was sampled using a combination of composite sampling (2m - 6m) and single 1m sampling.</li> <li>All MHK samples were sent to Intertek Genalysis in Kalgoorlie, crushed to 10mm, dried and pulverized (total prep) in LM5 units to produce a sub-sample. The pulps were then sent to Perth for analysis (for Au, Pt, Pd) via 25g Fire Assay with ICP-OES (Intertek code FA25/MS) with a 5ppb lower detection limit and also analysed for 33 elements via four acid digest with ICP-OES (Intertek code 4A/OE04).</li> <li>HRZ resampling comprised scoop sampling of about 1-2kg of the open drill pile into a labelled calico bag</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	AC drilling was used to obtain 1-metre samples that were passed through a cyclone and collected in a bucket which was then emptied on the ground.



Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	The sample recovery was visually assessed and noted.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	The recovery was considered normal for this type of drilling. AC samples were variably dry, damp and sometimes wet. Sample condition was logged.
	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.	All AC holes were drilled to blade refusal.
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.	A qualified geologist logged all AC holes in full and supervised the sampling. Photographs were taken of all AC sample spoils.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
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.	AC samples were collected using a cyclone attached to the drill rig. The sample material was emptied on the ground and a 400g-1000g sub- sample was taken from each one-metre interval using a sampling scoop.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Field QC involves the review of laboratorysupplied certified reference material, in house controls, blanks, splits and duplicates. These QC results are reported by the laboratory with final assay results.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	No field duplicates were taken.
	, 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.	All samples were analysed at a Perth laboratory Intertek Genalysis using Fire-Assay (Intertek code FA25/MS) with mass-spectrometer finish (Au, Pt, Pd) and also analysed for 33 elements via four acid digest with ICP-OES (Intertek code4A/OE04).
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample preparation included sorting, drying and pulverizing (85% passing 75 µm) in a LM5 steel mill.
		The sample sizes are considered more than adequate to ensure that there are no particle size effects.
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.	Metalhawk samples were assayed at Intertek Genalysis Laboratories, Perth, using 25g charge fire assay (0.005ppm detection limit) with a mass- spectrometer finish for Au, Pt, Pd and a four-acid digest for 33-elements. Horizon Samples were
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis	also assayed at Intertek by 0.5g Aqua regia digest with ICP-MS finish. 62 elements were analysed including all REE.



	including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	reporting gold miner	ools have been utilised for ralisation. control procedures involve		
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	duplicate assaying pulps as well as inte of these data are r	of randomly selected assay ernal laboratory standards. All eported to the Company and ency and any discrepancies.		
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	inspected reported i	om the Company have visually ntervals. were twinned in the current		
	The use of twinned holes.	program.			
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Primary AC data was collected using a standard set of Excel templates on a Toughbook laptop computer in the field. These data are checked validated and transferred to the company database No adjustments or calibrations have been made to			
		any assay data.			
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	a field GPS unit.	s have been established using MGA_GDA94, zone 51 for		
	Specification of the grid system used. Quality and adequacy of topographic control.	easting, northing an A nominal RL of 350 drilling.	d RL. Om has been used for this		
Data spacing and	Data spacing for reporting of Exploration Results.	The moving loop (MLEM) configuration is as follows:			
distribution	Whether the data spacing and distribution is	SIGNAL			
	sufficient to establish the degree of geological	Base Frequency (Hz)	0.25		
	and grade continuity appropriate for the Mineral	Current (A)	80		
	Resource and Ore Reserve estimation procedure(s) and classifications applied.	Stacks	32+		
	Whether sample compositing has been	Readings	Minimum three repeatable		
	applied.	Window Timing	SMARTem Standard		
		GEOMETRY			
		Configuration	In-Loop		
		Station Spacing (m)	100m		
		Loop Dimensions (m)	200m x 200m		
		Loop Turns	1		
		Coordinate System(s)	GDA94, MGA Zone 51		
		SYSTEM			
		TEM System	SMARTem24		
		Sensor	Supracon HTS		

		<ul><li>The drillhole spacing along lines are between 50m and 200m apart. The section spacings are a minimum of 200m.</li><li>Data from aircore drilling is not suitable for estimation of Mineral Resources.</li><li>AC sample compositing occurred over 2m to 6m intervals.</li></ul>
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.	Aircore drill holes were positioned so that drilling was essentially perpendicular to strike of the regional stratigraphy. No sampling bias is believed to have been introduced.
Sample security	The measures taken to ensure sample security.	Sample security for AC drilling is managed by the Company. After preparation in the field samples are packed into labelled polyweave bags and despatched to the laboratory. All samples were transported by the Company directly to the assay laboratory. The assay laboratory audits the samples on arrival and reports and discrepancies back to the Company.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No review of the sampling techniques has been carried out.

## SECTION 2: REPORTING OF EXPLORATION RESULTS

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 work programs were conducted at the Berehaven Project on licenses E26/210 and E26/216 which are 100% owned by the Company. Exploration was also conducted on licenses P26/4381-4386 and E/25/349, E25/543 and E25/564 which are owned by Horizon Minerals Limited. MHK has acquired the nickel rights on these tenements.
	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 tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous exploration by other parties was carried out for gold and nickel exploration and identified anomalous geochemical values via soil sampling and auger sampling. Other early work also included aeromagnetic surveys and interpretation.

		Limited nickel exploration has been carried out on the project. For details of previous exploration on the project refer to the ITAR (Independent Technical Assessment Report) included in the Metal Hawk Prospectus dated 29 <sup>th</sup> September 2020.
Geology	Deposit type, geological setting and style of mineralisation.	The geological setting is of Archaean age with common host rocks related to komatiite-hosted nickel sulphide mineralisation as found throughout the Yilgarn Craton of Western Australia. The Archaean rocks are deeply weathered and locally are covered by variable thicknesses of transported ferruginous clays and gravel.
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:</li> <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>	Refer to drill results tables and the Notes attached in this announcement.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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 reported results have been length-weighted. No top cuts were applied. A nominal cut-off of 1500 g/t REE was applied with a minimum thickness of 1m. No aggregate samples are reported. No metal equivalent values have been used or reported.
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 (e.g. 'down hole length, true width not known').	No definite relationships between mineralisation widths and intercept lengths are known from this AC drilling due to the highly weathered nature of the material sampled. Drillhole intersections may not be true widths.
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.	Refer to Figures in text.

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.	All relevant assay results have been reported.
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.	All meaningful and material information has been included in the body of this announcement.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or 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	Further work will be planned subject to a internal project review.