High-grade REE & P_2O_5 trench results returned from Tundulu to assist with metallurgy

DY6 Metals Ltd (ASX: DY6, "DY6" or the "Company") is pleased to report the results from its recent metallurgy sampling program at the Tundulu REE & Niobium carbonatite project in Malawi.

Highlights:

- A total of 63 metallurgical samples were collected from 37 sample locations along high-grade historic trench (TUTR10) at Tundulu
- Sampling results returned up to a high of 3.35% TREO and 27.5% P_2O_5 over the sampled 83m length of trench TUTR10:
  - an exciting component of the sampling results is the average HREO, being 13% of the TREO basket
  - undetectable to very low levels of deleterious elements including mercury, lead and cadmium in the phosphorus (P) rich rocks confirms the exceptional grade quality of the phosphate at Tundulu; and
  - the sampling is representative of the mineralised Bastnaesite and Apatite carbonatite rock types exposed within the trench
- Selected samples are being collected to form a 150kg composite to be sent for metallurgical analysis
- 5 bioavailability composite samples were also taken across various historical trenches at Tundulu, targeting phosphate-rich rocks, to determine the solubility of phosphate in the samples and understand its potential for direct fertilization
- Majority of samples showed excellent P solubility (using 2% citric acid) of over 40%, with one returning solubility of 81%. This is above the industry threshold of 9.4% P_2O_5 solubility using Citric Acid as the reagent in the acid leach process
- 9 samples representing predominant lithologies at Tundulu have been collected and will also be sent to RSC Australia for petrographic examination to validate the historical mineralogical and rock composition
- Samples from the Company's recent reconnaissance soil and rock chip program at the Ngala Hill PGE, Cu & Ni Project have been submitted to SGS South Africa for analysis, with results expected towards the end of the month

Tundulu REE Project

Tundulu is formed of several hills in a ring around a central vent called Nathace Hill where the majority of the historic surface sampling and drilling was undertaken. The predominant geology at Nathace Hill is REE apatite hosting carbonatites and feldspathic breccia and comprises a large inner agglomerate vent. Mineral rich carbonatite also occurs at Tundulu Hill east of Nathace and Makhanga Hill west of Nathace and is previously unexplored and prospective for REEs and niobium mineralisation.

REE mineralisation remains open towards southern and western directions of Nathace Hill and potentially extends beyond the boundaries of the previously established mineralised area over Tundulu Hill. Initial indications of mineralisation appear to be high in valuable MREEs and low measurable radioactive uranium (U) and thorium (Th). This compares favourably to Lynas Rare Earths' Mount Weld Central Lanthanide Deposit where Th and U concentrations in the ore are approximately 660 ppm and 25 ppm respectively.[1]

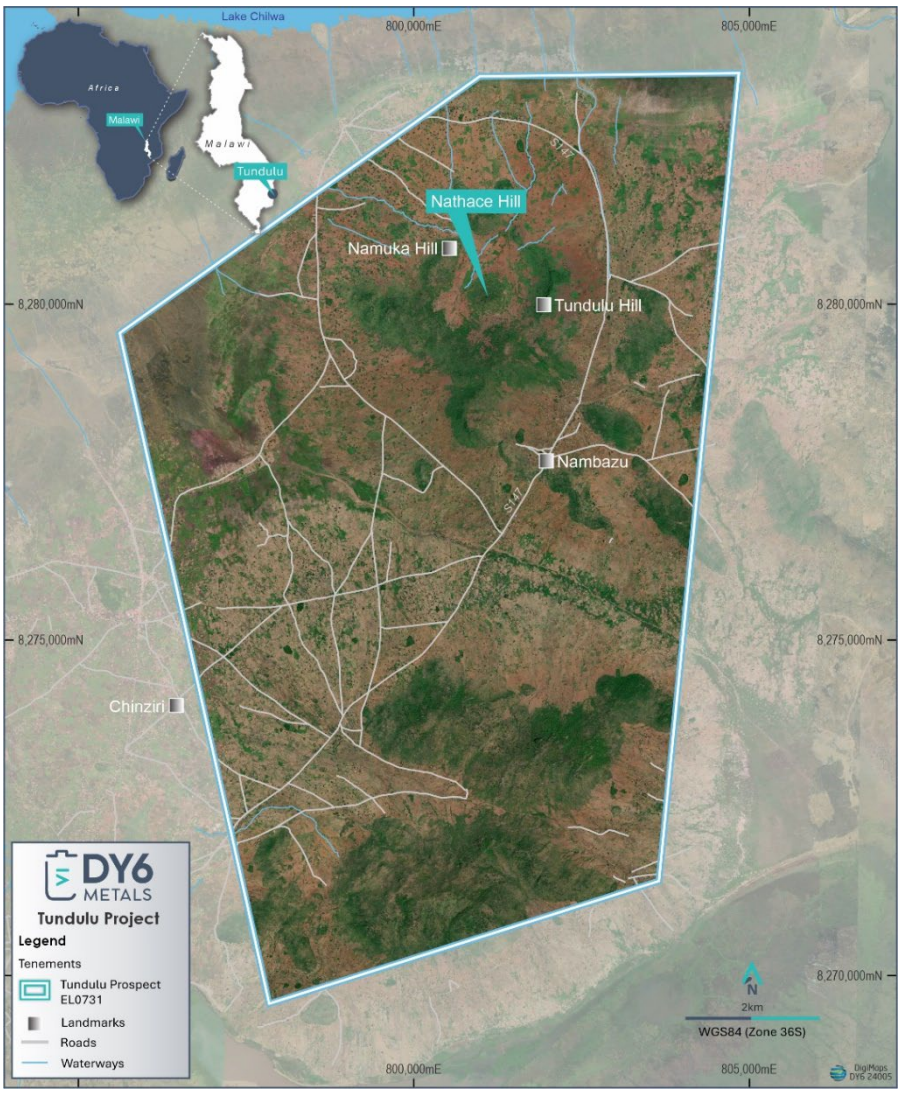

***Figure 1**. Map of Tundulu license area (EL0731)*

[1] Mt Weld Rare Earths Project Mine Closure Plan March 2021, Appx G - Mine Closure Plan.pdf (epa.wa.gov.au)

A total of 63 metallurgical samples were collected from 37 sample locations along high-grade historic trench (TUTR10) at Tundulu.

Sampling results returned up to a high of 3.35% TREO and 27.5% P_2O_5 (average of 0.85% TREO and 8.26% P_2O_5) over the sampled 83m length of trench TUTR10. The average HREO component of the TREO basket was 13%, with high-value heavy rare earth elements Dy & Tb contributing 2.5%. Undetectable to very low levels of deleterious elements including mercury, lead and cadmium in the P-rich rocks confirms the exceptional grade quality of the phosphate at Tundulu.

The sampling is representative of the mineralised Bastnaesite and Apatite carbonatite rock types exposed within the trench. Select samples are being collected to form a 150kg composite to be sent to for metallurgical analysis.

5 bioavailability composite samples were also taken across various historical trenches at Tundulu, targeting phosphate rich rocks. *'Bioavailability'* is used for analysis on phosphorous rock sources to determine the solubility of phosphate in soils. This analysis is useful in determining whether a particular phosphate rock type is suitable for direct fertiliser applications where the phosphate would be applied directly to the soil for uptake.

The analysis has been undertaken at Nagrom metallurgical and analytical laboratory in Kelmscott, Western Australia under standard atmospheric conditions using 2% citric acid. The majority of samples showed excellent phosphorus (P) solubility of over 40%, with one returning solubility of 81%. The exceptional quality of the phosphate-rich rocks at Tundulu is manifested by their undetectable to very low levels of deleterious elements including mercury, lead and cadmium.

The metallurgical test work will aim to evaluate historical studies undertaken at Tundulu and assess the findings from a 2017 metallurgical report, completed by the previous operators of the licence. The test work will initially focus on validating the beneficiation results achieved by the previous laboratory.

Conducting test work at this early stage enables the Company to ascertain the preliminary viability of producing two product streams: namely a REE commercially saleable concentrate and a mixed phosphate concentrate containing rare earths.

Ngala Hill PGE, Ni & Cu Project

Samples taken from the Company's recent reconnaissance soil and rock chip program at the Ngala Hill PGE, Cu & Ni Project have been submitted to SGS South Africa for analysis. The Company expects to release results from this program towards the end of the month.

Figure 2. *Weighing and collection of samples from Trench 10 (TUTR10)*

-ENDS-

This announcement has been authorised by the Board of DY6.

Abbreviations

- ***TREO*** = *Total Rare Earth Oxides – La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3*
- ***HREO*** = *Heavy Rare Earth Oxides –Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3*
- ***HREO%*** = *HREO/TREO * 100*
- ***DyTb:TREO*** = *(Dy_2O_3 + Tb_4O_7)/TREO * 100*
- **MREE**=*Nd, Pr, Dy, Tb*
- **P** = *Phosphorus*
- **P_2O_5** = *Phosphorus pentoxide*

More information

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Competent Persons Statement

The Information in this announcement that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Allan Younger, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Younger is a consultant of the Company. Mr Younger has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the `Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Younger consents to the inclusion of this information in the form and context in which it appears in this announcement. Mr Younger holds shares in the Company.

Table 1: DY6 Rock Chip Sample Results – Tundulu Project

Sample ID	Easting	Northing	La (ppm)	Ce (ppm)	Dy (ppm)	Eu (ppm)	Nb (ppm)	Nd (ppm)	Pr (ppm)	Sm (ppm)	Tb (ppm)	Y (ppm)	P_2O_5 wt%	TREO (ppm)
PHA0006	801329	8280169	1464	1949	26.76	14.68	1298	735	248	69.2	6.17	110	2.72	5,610
PHA0007	801331	8280169	91.1	167	4.56	2.45	244	68	19.96	9	0.9	24.6	0.72	477
PHA0008	801333	8280168	1661	2355	150	47.52	595	890	284	161	27.82	622	11.96	7,753
PHA0009	801335	8280168	4143	5087	196	54.34	4037	1529	543	196	33.89	852	17.03	**15,539**
PHA0010	801337	8280167	1290	2013	173	54.06	658	868	258	175	31.53	735	12.29	7,057
PHA0011	801338	8280167	1325	1746	244	65.54	785	847	237	199	43.43	1009	16.34	7,299
PHA0012	801340	8280166	675	881	41.7	11	276	237	78.03	38.1	7	191	3.83	2,673
PHA0013	801342	8280166	820	1135	91.86	30.46	504	533	151	102	16.89	386	5.94	4,099
PHA0014	801344	8280165	1069	1664	162	50.07	388	752	214	160	29.62	653	10.17	6,044
PHA0015	801346	8280165	436	682	53.17	14.82	262	242	68.37	47.8	9.42	223	3.66	2,237
PHA0016	801348	8280164	690	1204	172	45.87	854	508	132	136	30.01	704	12.04	4,681
PHA0017	801350	8280164	1418	2925	235	77.96	2151	1511	416	275	41.82	1129	18.43	**10,151**
PHA0018	801352	8280163	1610	3119	419	111	2005	1595	440	335	73.52	1645	27.53	**11,961**
PHA0019	801354	8280163	1617	2450	202	55.94	2610	1098	330	183	35.22	740	11.81	8,406
PHA0021	801356	8280162	657	1225	185	43.71	196	510	135	126	31.79	702	10.71	4,655
PHA0022	801358	8280162	1528	2061	224	54.88	591	899	265	171	37.94	840	12.6	7,671
PHA0023	801360	8280161	526	976	86.92	24.25	408	372	106	73.8	16	350	4.98	3,198
PHA0024	801362	8280161	644	1171	119	29.34	542	424	123	86	21.25	435	6.55	3,871
PHA0025	801364	8280160	190	394	19.03	5.07	218	117	35.71	17.5	3.15	81.2	1.6	1,075
PHA0026	801366	8280160	232	504	98.44	23.13	361	195	50.49	57.5	17.74	368	5.62	2,029
PHA0027	801367	8280159	1815	3442	106	51.24	270	1530	460	205	22.05	410	6.01	9,891
PHA0028	801369	8280159	3268	4446	98.94	40.92	295	1329	476	154	20.33	377	5.99	**12,461**

Sample ID	Easting	Northing	La (ppm)	Ce (ppm)	Dy (ppm)	Eu (ppm)	Nb (ppm)	Nd (ppm)	Pr (ppm)	Sm (ppm)	Tb (ppm)	Y (ppm)	P_2O_5 wt%	TREO (ppm)
PHA0029	801371	8280158	1834	2970	137	52.83	397	1252	387	186	26.91	490	8.37	9,079
PHA0030	801373	8280158	1831	3481	133	55.41	404	1414	450	206	26.31	496	7.8	**10,003**
PHA0031	801375	8280157	1845	3554	87.29	53.56	2514	1629	479	230	18.76	301	4.8	**10,052**
PHA0032	801377	8280157	1854	2766	135	57.63	216	1311	371	222	26.86	465	7.17	8,924
PHA0033	801383	8280155	4853	5614	122	64.83	77	1699	583	249	25.56	415	5.87	**16,603**
PHA0034	801385	8280154	7949	8553	96.58	56.8	77	2091	812	225	20.98	336	4.58	**24,355**
PHA0035	801387	8280154	827	1358	48.75	18.58	22	427	133	65.7	9.11	182	2.92	3,782
PHA0036	801389	8280153	1246	2062	85.89	30.61	94	673	204	107	16.28	319	6.82	5,867
PHA0037	801391	8280153	1014	1640	42.55	17.59	69	515	160	69.5	8.29	167	7.6	4,455
PHA0039	801393	8280152	1289	2006	60.57	24.45	92	571	182	85.3	11.99	218	6.29	5,469
PHA0040	801394	8280152	1491	2523	61.89	25.4	98	737	234	96.8	12.04	245	7.02	6,649
PHA0041	801396	8280151	10000	10000	211	147	109	4985	1000	628	51.45	647	7.17	**33,597**
PHA0042	801398	8280151	2429	3828	123	62.06	194	1769	523	259	24.6	435	5.62	**11,601**
PHA0043	801400	8280150	2614	3933	153	61.01	243	1635	504	242	28.41	534	9.41	**11,944**
PHA0044	801402	8280150	2514	3814	130	58.81	261	1671	504	240	25.66	441	5.83	**11,540**

Table 2: DY6 Bioavailability Sample Results – Tundulu Project

SAMPLE ID	Easting	Northing	Mass (kg)	Moisture (%)	Ce (ppm)	Y (ppm)	U (ppm)	Th (ppm)	P_2O_5 (%)	P Extraction (%)	CaO (%)	Al_2O_3 (%)	Fe_2O_3 (%)	MgO (%)	SiO_2 (%)	S (%)	F (ppm)	Cl (%)	Cd (ppm)	Pb (%)	Hg (ppm)
PHA001	801356.01	8280200.36	0.252	2.16	816	274	9.5	70.0	4.906	41.49	6.80	7.96	18.49	0.13	41.40	3.465	2800	<0.01	2	0.030	<0.01
PHA002	801342.83	8280193.89	0.253	3.64	1330	547	6.0	114.5	10.543	16.26	10.50	0.67	27.38	0.07	26.68	5.239	4400	0.01	<1	0.043	<0.01
PHA003	801356.37	8280203.35	0.253	0.78	1141	68	7.5	73.5	2.400	71.45	5.42	12.51	7.33	0.18	51.78	0.540	600	0.01	2	0.006	<0.01
PHA004	801313.88	8280131.15	0.248	0.71	888	53	5.5	48.5	1.272	80.50	2.61	14.22	5.60	0.26	58.16	0.044	<200	<0.01	1	0.004	0.03
PHA005	801311.69	8280087.32	0.254	0.78	1044	79	8.0	67.0	1.086	61.30	1.30	11.59	7.16	0.09	64.31	0.007	400	<0.01	2	0.002	0.01

Annexure A: JORC Code, 2012 Edition – Table 1 report

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 (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 pulverized 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.*	• Field rock chip samples of outcrop were taken by field staff from outcrops utilising a geo-pick and hand tool. Samples are photographed and stored in labelled clear plastic bags for transport to the lab for analysis. Results are attached. • Samples were selected more on the basis of understanding lithotypes rather than being fully representative of mineralisation.
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).*	• No recent drilling is utilised on this program or reported in this announcement. Previous exploration included 2874m of diamond drilling and 6172m of RC drilling.
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.*	• Not recorded in historic data. Further review needs to be undertaken by the Company.

Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate*	• Qualitative geological logging of rock chips and outcrops is completed in the field.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	*Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged. 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 sampling technique used to obtain rock chip samples from outcrops manually is in line with industry standards and standard exploration practices. • Rock chip sample data is not for use in resource in resource estimation.
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 (i.e. lack of bias) and precision have been established.*	• Recent assays reported in this announcement were completed as a four-acid digest with MS determination approaching a total digest and is an appropriate exploration approach. • Historical analyses are defined only as being ICP; digestion methods are not specified in available data. Additional research is required.

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.*	• Field data is collated and sent back to DY6 geological staff and/or contractors where it is checked and verified.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	• No recent drilling is utilised on this program or reported in this announcement. • DY6 sample points were located using handheld GPS.

Criteria	JORC Code explanation	Commentary
	• *Specification of the grid system used.* *Quality and adequacy of topographic control.*	
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.*	• No recent drilling is utilised on this program or reported in this announcement
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.*	• Not recorded. Core is reportedly available for inspection at Malawi Geological Survey Head Office in Zomba.
Sample security	• *The measures taken to ensure sample security.*	• Company staff collected all laboratory samples. • Contractors affiliated to the laboratory were used for the transport of the samples to the lab.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audit of data has been completed to date.

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 Tundulu tenure is pending grant with the relevant government authorities and there are no known impediments to operation in the project area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical exploration is known to have been conducted by JICA (Japanese International Cooperation Agency) from 1988-91. Full details are being researched. • The Tundulu licence area was explored for REE during 2014/15. Most of the known exploration data has been obtained by DY6 however further review and investigation will be required. • Small scale phosphate mining was also undertaken by unknown parties in 2014. • A full literature search continues to be undertaken by DY6 staff to acquire all relevant data.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Tundulu is a carbonatite ring complex forming part of the Chilwa Alkaline Province in southern Malawi. The geological structure of the Tundulu Ring Complex comprises of three igneous centres. The first comprises a circular aureole of fenitization about a 2 km diameter plug of syenite. The second carbonatite ring structure centred on Nathace Hill has a diameter of 500-600m. Wrench faulting prior to emplacement of the third centre displaced the western half of the Nathace Hill ring structure 250m to the north. The third centre comprises small plugs and thin sheets of meta-nephelinite and beforsite.

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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• No recent drilling has been undertaken on the project since 2014 as reported in this announcement.
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.*	• No aggregation methods were used and no metal equivalents are 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.*	• No new mineralisation widths are being reported. Historical results are included for context.

Criteria	JORC Code explanation	Commentary
	• 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').	
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.*	• Please see maps and diagrams included in the announcement text, that provide locations for the claims and their location relative to other projects in the area, with known geology from government mapping.
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.*	• The release is considered to be balanced and is based on current available data for the project area
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.*	• The historical data currently available to the Company is known to be incomplete and requires further investigation. • Attempts will be made to obtain and collate the full historical exploration data.
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.*	• The Company intends to continue explore the tenements initially with a comprehensive grid-controlled rock chip sampling program and resampling of accessible old trenches. • Historical data will be integrated after validation.