

ASX Code: RDM

Red Metal Limited is a minerals exploration company focused on the exploration, evaluation and development of Australian copper-gold and basemetal deposits.

Issued Capital:

245,591,743
Ordinary shares

10,975,000
Unlisted options

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ASX ANNOUNCEMENT
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ASSAYS FROM THREE WAYS DRILLING REVEALS ANOMALOUS LEVELS OF NICKEL AND PLATINUM GROUP ELEMENTS

Assaying of mafic intrusive rocks containing semi-massive pyrrhotite veins in the Three Ways drill hole TWD2001 have returned anomalous values of nickel and platinum group elements with the best one metre sample returning 0.28% nickel, 399ppm copper, 672ppm cobalt, 258ppb palladium, 43ppb platinum (Figures 1 to 5, Tables 3 and 4).

Subsequent petrology has shown the presence of fine nickel sulphide inclusions within the vein-hosted pyrrhotite (Figure 3).

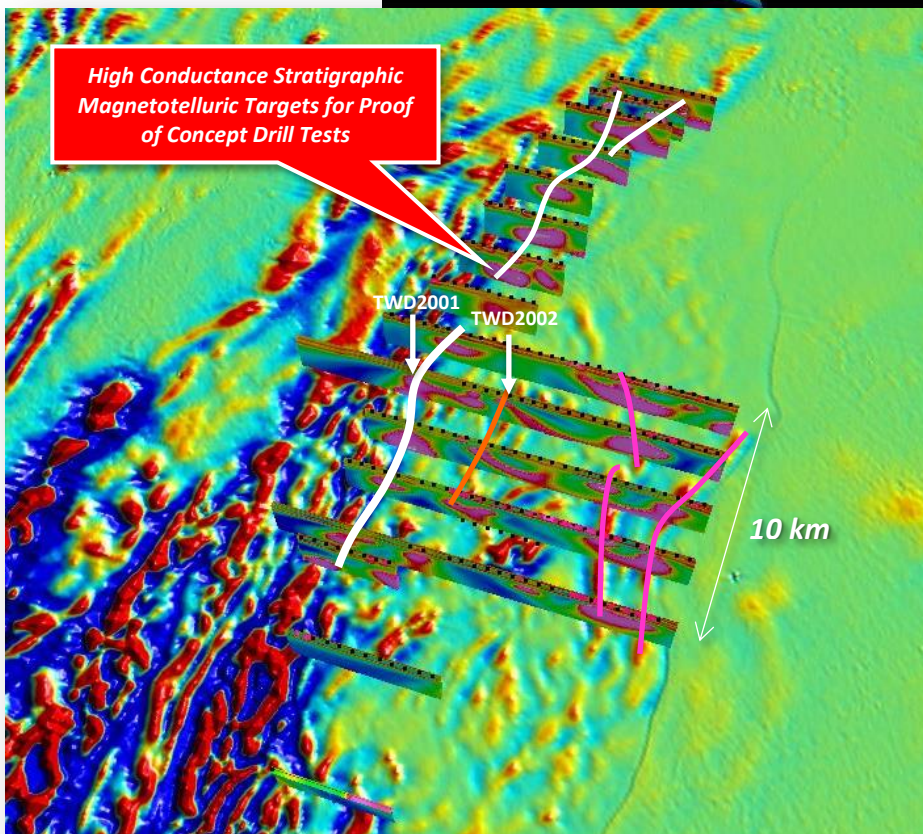
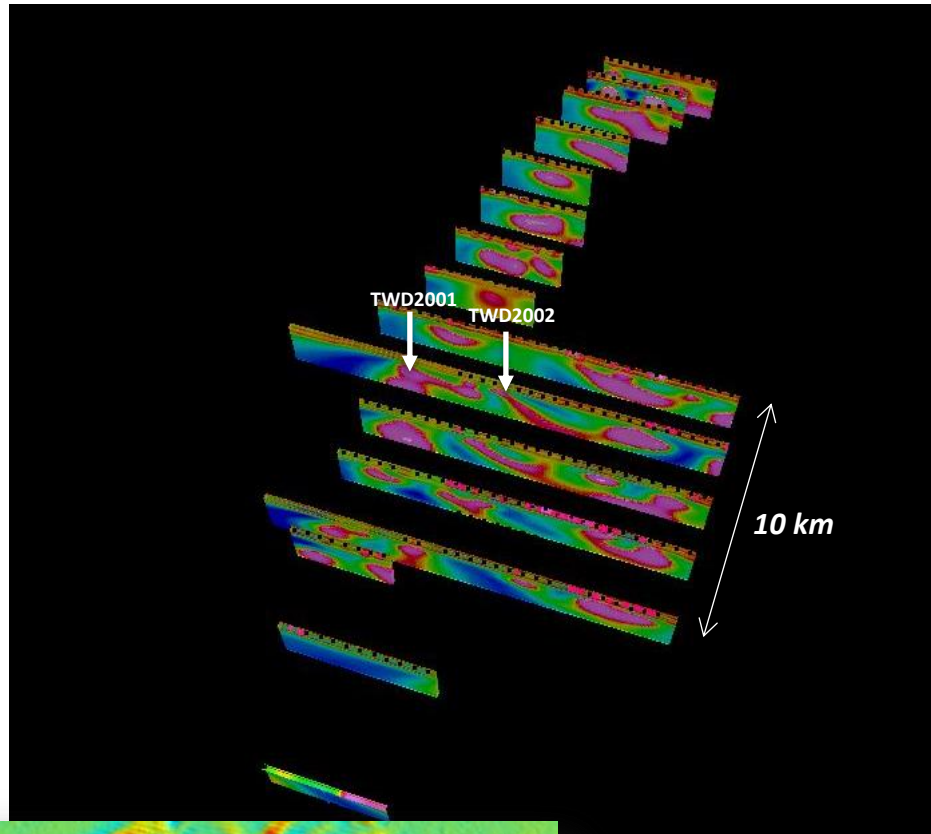
Drill hole TWD2001 targeted a high conductance magnetotelluric anomaly and intersected mafic intrusive rock (gabbro) from 246 metres to the end of hole at 717.7 metres. Potentially conductive rock types include a 7.8 metre interval of semi-massive pyrrhotite veins from 665 metres (Figure 2a) and a narrow 0.5 metre interval of pyrrhotite-chalcopyrite veining from 613.4 metres (Figure 2b). Although the veins contain the highly conductive minerals pyrrhotite and pentlandite, the vein intervals are considered too narrow to cause the strong magnetotelluric anomaly.

Reprocessing of the magnetotelluric data subsequent to the drilling has generated an alternative interpretation that shows the location of the high conductance anomaly east of TWD2001 (Figure 4). This new interpretation remains to be drill tested.

The thick mafic intrusive host rock, together with the elevated nickel and platinum group elements in the remobilised pyrrhotite veins point to the nearby potential for magmatic nickel sulphides. This mineralisation style may relate to the unresolved high conductance magnetotelluric anomalies at Three Ways (Figure 4).

Re-modelling on the magnetotelluric data is ongoing. A deep penetrating, moving loop electromagnetic survey is planned across the drilled magnetotelluric targets to refine follow-up drill positioning. This work is scheduled to commence as soon as climatic conditions permit.

The Three Ways program is funded by OZ Minerals (ASX: OZL) under the terms of the Greenfields Discovery Alliance.



[Figure 1] Three Ways Project: Oblique view looking towards the north northwest showing stacked two dimensional conductivity depth inversions of the magneto-telluric data (above) and underlain by vertical gradient magnetic imagery (below). The imagery maps laterally continuous, highly conductive trends in the basement rocks which also follow magnetic trends. Both drill holes TWD2001 and TWD2002 intersected mafic intrusive rock types (gabbro and dolerite) that did not explain the source to these strong and laterally continuous magnetotelluric anomalies.

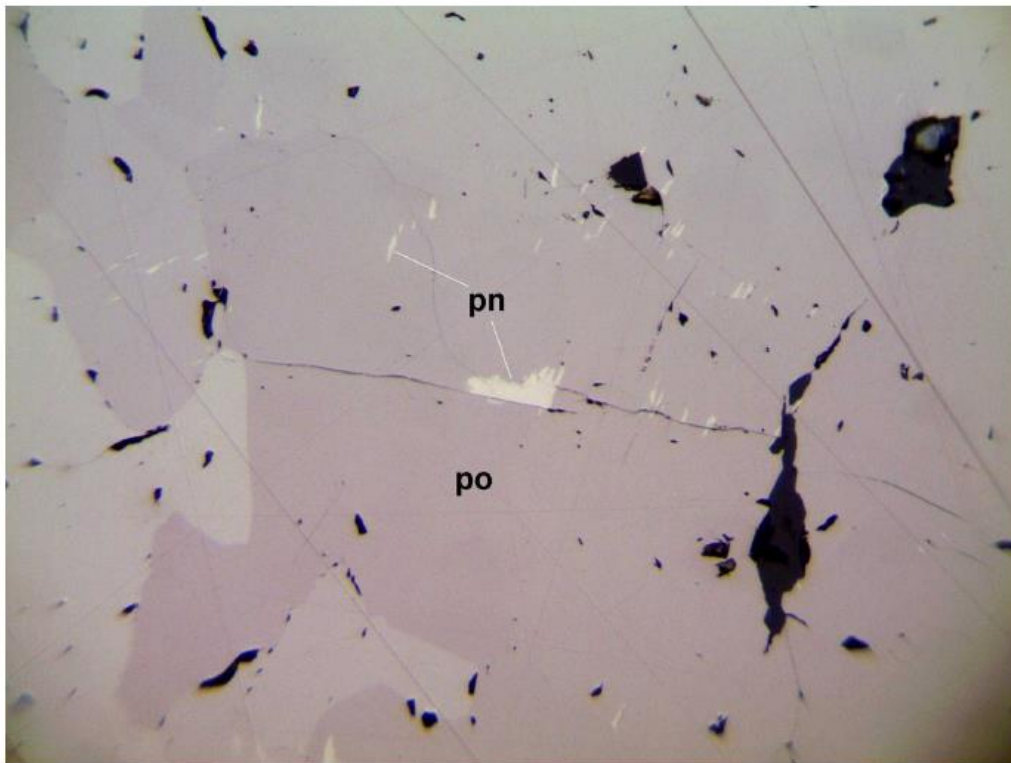


(a) Semi-massive pyrrhotite veins and breccia, TWD2001 665-672.8m

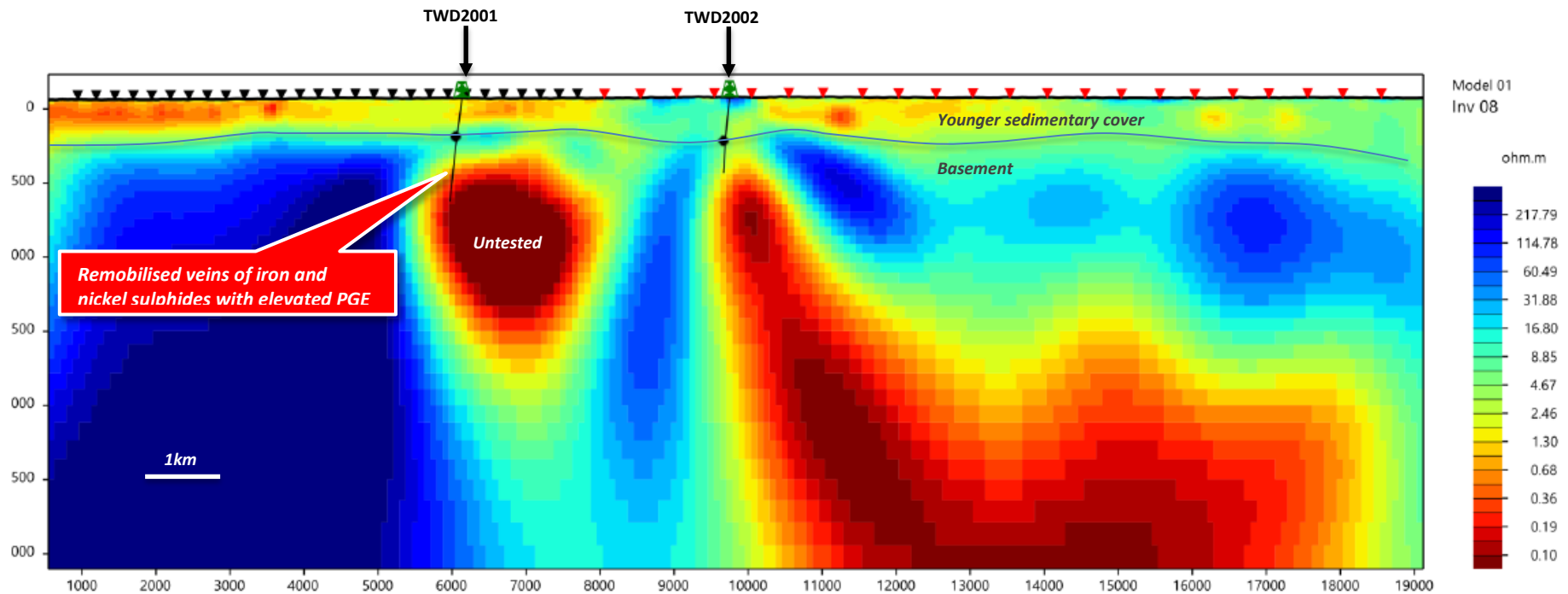


(b) Semi-massive pyrrhotite-chalcopyrite vein zone, TWD2001 613.4-613.9m

[Figure 2] Three Ways Project: Interpreted conductive rocks from TWD2001 (a) A narrow 7.8 metre interval of semi-massive pyrrhotite veins from 665 metres (b) A narrow 0.5 metre vein zone from 614.4 metres containing visible pyrrhotite with chalcopyrite.



[Figure 3] Three Ways Project: Coarse polycrystalline pyrrhotite (po) containing late exsolved flames of pentlandite (pn). Reflected light image of sample TWD2001 from 675.5 metres. Field of view is 0.6mm.



[Figure 4] Three Ways Project: Reprocessed 2D conductance depth image with the first pass drill holes TWD2001 and TWD2002. This imagery indicates the bulk of the high conductance anomaly is east of TWD2001 and remains untested. A deep penetrating, moving loop electromagnetic survey is planned across the unresolved magnetotelluric targets to improve follow-up drill positioning. Vertical distance = 2 x horizontal distance.






[Figure 5] Northwest Queensland and Northern Territory: Major deposits and Red Metal tenement locations.

This announcement was authorised by the Board of Red Metal. For further information concerning Red Metal's operations and plans for the future please refer to the recently updated web site or contact Rob Rutherford, Managing Director at:

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Rob Rutherford
Managing Director



Russell Barwick
Chairman

The information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Robert Rutherford, who is a member of the Australian Institute of Geoscientists (AIG). Mr Rutherford is the Managing Director of the Company. Mr Rutherford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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" (the JORC Code). Mr Rutherford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

Table 1 – Three Ways Project: JORC 2012 sampling techniques and data

Criteria	JORC 2012 Explanation	Commentary
Sampling Techniques	Nature and quality of sampling	<i>TWD2001 and TWD2002 are deep rotary/mud diamond core holes designed to test the source of the regionally significant high conductance magnetotelluric anomalies. TWD2001 comprises of rotary mud chips to 287.6 metres, HQ diamond core to 392.5 metres and NQ2 diamond drill core to the end of hole at 717.7m. TWD2001 comprises of rotary mud chips to 312.9 metres, HQ diamond core to 386.4 metres and NQ2 diamond drill core to the end of hole at 534m. The method of drilling is considered to be of an acceptable quality for evaluating the source of a geophysical target and reporting of exploration results. Sampling for geochemical analysis was selective and is not continuous down the whole length of the core. A one metre length of half core was regularly sampled about every 20 metres down the hole with one metre spaced half core samples collected over localised intervals of mineralisation or geological interest.</i>
	Include reference to measures taken to ensure representativity samples and the appropriate calibration of any measurement tools or systems used.	<i>Magnetic susceptibility values were measured using a hand-held KT9 susceptibility metre which utilises an air calibration to zero the instrument prior to taking a measurement. Samples for geochemical analysis were selected approximately every 20m through unmineralized drill core and approximately every metre through sulphide-mineralised core.</i>
	Aspects of the determination of mineralisation that are Material to the Public Report.	<i>Visual results were observed by an experienced senior geologist and checked by the Exploration Manager of Red Metal. Petrology was undertaken to validate the presence of pentlandite a nickel sulphide mineral.</i>
Drilling Technique	Drill type (eg 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.).	<i>A conventional multipurpose rotary mud, wire-line core rig was utilised to penetrate through the cover sequences to extract HQ and NQ2 diameter core samples in the basement. The core was oriented using Reflex ACT3. The drill hole was surveyed using an Axis Champ north seeking gyro.</i>
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	<i>The length of recovered core and the core rock quality are logged for each core run. Core recovery throughout the fresh basement rocks is very good (100%). Recoveries throughout the weathered zones in the top 20 metres of basement are also very good varying from 80% to 100%</i>
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	<i>Diamond core is reconstructed into continuous runs on an angle iron cradle and marked with orientation lines. Depths are checked against depths marked on the core blocks and rod counts are routinely performed by the drillers.</i>
	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.	<i>No bias expected as very good core recovery</i>
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.	<i>Quantitative geotechnical logging including RQD and core recovery are measured for each core run. Qualitative and quantitative codes and descriptions are used to record geological data such as lithology, mineralisation and alteration prior to sampling. Quantitative structural data is also measured prior to sampling. Magnetic susceptibility is quantified for the total length of the core with measurements taken every 0.5m and averaged over every core run (3 to 6 metres)</i>
	Whether logging is qualitative or quantitative in nature.	
	Core photography	<i>Core is photographed wet and dry.</i>
	The total length and percentage of the relevant intersections logged.	<i>The total lengths of TWD2001 and TWD2002 have been geologically logged. RDQ and magnetic susceptibility has been measured for the total length of the core.</i>

Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	<i>All samples were sawn half-core (PQ, HQ or NQ). Sample length was nominally 1m but varied between 0.45m and 1.4m</i>
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<i>All samples were prepared with standard crush/split/pulverisation techniques at ALS Mt Isa (method CRU-32c / SPL-22Y / PUL-32m).</i>
	Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.	<i>Drilled core was generally of good quality with good core recoveries (>95%), leading to effective half-core sampling with a core saw.</i>
	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.	<i>No field duplicate samples were collected, given the broad sample spacing and limited number of samples submitted.</i>
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<i>Samples of ~1m half-core are considered appropriate for material of <2mm grain size.</i>
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.	<i>All samples were assayed by ALS, with 14% of samples analysed by Li-borate fusion (total digest) XRF & MS (ALS method CCP01) and the remainder by four-acid (near total) digest ICP-MS (ALS method ME-MS61). All samples were assayed for Pt, Pd & Au by fire assay with MS finish (ALS method PGM-MS23)</i>
	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.	<i>No geophysical tools were used to determine element concentrations at Three Ways</i>
	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.	<i>Blanks and certified reference material were regularly inserted and represented approximately 6% of samples assayed. Results and internal lab QC indicate acceptable levels of accuracy.</i>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	<i>Result reviewed by senior geologist and the Managing Director</i>
	The use of twinned holes.	<i>No holes have been twinned</i>
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<i>Primary data is stored both in its source electronic form, and, where applicable, on paper. Assay data is retained in both the original certificate (.pdf) form, where available, and the text files received from the laboratory. Primary data was entered in the field into a portable logging device using standard drop-down codes. Text data files are exported and stored in an Access database. MapInfo software is used to check and validate drill-hole data.</i>
	Discuss any adjustment to assay data.	<i>No adjustments were made</i>
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.	<i>The collar position for TWD2001 and TWD2002 were surveyed by Handheld GPS using GDA94, Zone54 datum. GPS locations are accurate to about 3m.</i>
	Specification of the grid system used.	<i>GDA94_Zone54 datum.</i>
	Quality and adequacy of topographic control.	<i>Topographic relief has been extracted using the ELVIS digital terrain information at Geoscience Australia</i>
Data spacing and distribution	Data spacing for reporting of Exploration Results.	<i>Single holes testing two separate deep geophysical targets.</i>
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity	<i>The drill pierce point spacing is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation</i>

	appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	
	Whether sample compositing has been applied.	<i>No sample compositing has been applied</i>
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.	<i>Mineralisation occurs as an irregular stockwork within homogenous intrusive and structural orientation data did not allow estimation of true thickness.</i>
	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.	<i>Insufficient data to determine bias at this point</i>
Sample security	The measures taken to ensure sample security.	<i>Core was logged and sampled at Red Metal's Cloncurry base and samples transported directly to ALS Mt Isa for preparation and analysis.</i>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<i>No external audits have been undertaken at this early stage.</i>

Table 2 Three Ways Project: JORC 2012 reporting of exploration results

Criteria	JORC 2012 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.	<i>The Three Ways drilling is located within EPM 26941 situated in the Gulf region of north-west Queensland. EPM 26941 is owned 100% by Red Metal Limited. OZ Minerals have an option to earn 51% of the tenement under the terms of the Greenfield Discovery Alliance (refer to RDM ASX announcement lodged 30 January 2019). An ancillary exploration access agreement has been established with the native title claimants and a standard landholder conduct and compensation agreement has been established with the pastoral lease holder at Lorraine Station.</i>
	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.	<i>The tenements are in good standing and no known impediments exist</i>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<i>No previous drilling by other parties</i>
Geology	Deposit type, geological setting and style of mineralisation.	<i>The project is trialling the use of magnetotelluric surveying to identify previously unrecognised, zinc and copper prospective sub-basins with no past drill history located some 130 kilometres along trend from the recently commissioned Dugald River zinc-lead-silver mine. There is no past drill history on Three Ways and no understanding of the geological setting other than what is inferred from interpretation of regional magnetic and gravity imagery.</i> <i>Recent Red Metal drilling has intersected a thick mafic intrusion host rock with elevated nickel and platinum group elements in remobilised pyrrhotite veins which suggest potential for magmatic nickel sulphide mineralisation associated with the unresolved high conductance magnetotelluric targets at Three Ways.</i>
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of survey information for all Material drill holes:	<i>Refer to Table 3 for a summary of drill hole collar data for TWD2001 and TWD2002.</i>
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.	<i>No data aggregation methods have been applied</i>

Criteria	JORC 2012 Explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	<i>No metal equivalent values have been applied</i>
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').	<i>True widths are estimated by measuring the alpha and beta values relative to the oriented core axis for bedding, banding or veining hole. At this stage of exploration insufficient data exists to confidently estimate true widths using the detailed orientation data.</i>
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.	<i>Refer Figures 1 to 5 and Table 3 and Table 4</i>
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.	<i>Refer Table 4</i>
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.	<p><i>TWD2001 and TWD2002 intersected mafic intrusive rocks types (gabbro and dolerite) that fail to explain the source to these strong anomalies.</i></p> <p><i>Assays from the 7.8 metre interval of semi-massive pyrrhotite veins in drill hole TWD2001 returned anomalous low levels of nickel and platinum group elements with the best one metre sample returning 0.28% nickel, 399ppm copper, 258ppb palladium, 43ppb platinum. Subsequent petrology has shown the presence of fine nickel sulphide inclusions within the vein-hosted pyrrhotite. Petrology has shown the presence of fine nickel sulphide inclusions within the vein-hosted pyrrhotite</i></p> <p><i>Although the veins in TWD2001 contain the highly conductive minerals pyrrhotite and pentlandite, the vein intervals are considered too narrow to cause the strong magnetotelluric anomaly.</i></p> <p><i>Drill hole TWD2002 intersected dolerite to the end of hole at 541 metres. No potentially conductive source rocks were observed.</i></p>
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).	<i>Re-modelling on the magnetotelluric data is ongoing. A deep penetrating, moving loop electromagnetic survey is planned across the magnetotelluric targets to improve follow-up drill positioning. A second drill program is scheduled for early in the 2021 field season.</i>

Table 3 – Three Ways Project: Drill collar summary

Hole ID	Easting	Northing	Dip	Grid Azimuth	Depth	RL
TWD2001	421098	7890157	-75	254	717.7	72
TWD2002	424711	7890005	-75	264	534	79

Table 4 – Three Ways Project: List of assays for samples surrounding the anomalous nickel and copper values

Hole ID	Sample ID	From (m)	To (m)	Brief Description	Ni (ppm)	Cu (ppm)	Co (ppm)	Pt (ppb)	Pd (ppb)
TWD2001	BWT027	613	614	gabbro, 25% semi-massive cpy-po veining	291	3700	69	5.1	4
TWD2001	BWT028	616	617	gabbro, calcite vein trace cpy and po	136.5	381	35.2	6.4	4
TWD2001	BWT029	617.9	619	gabbro, trace cpy in carbonate veinlet	119	118.5	31.7	6.7	5
TWD2001	BWT030	629	630	gabbro, albite alteration	137.5	67.7	41.4	7.8	6
TWD2001	BWT031	649	650	gabbro, albite alteration and pyroxene veins	142	13.3	36.8	6.4	4
TWD2001	BWT032	664	665	gabbro, pyroxene vein with <5% po	77.3	12.2	16.3	6.3	4
TWD2001	BWT033	665	666	gabbro, 5% semi-massive po veining	94.3	379	27.8	5.3	12
TWD2001	BWT034	666	667	gabbro, 2% po veining	94.8	76.4	28.7	5.8	5
TWD2001	BWT035	667	668	gabbro, 5% semi-massive po veining	197	76	66	8.8	11
TWD2001	BWT036	668	669	gabbro, 15% semi-massive po veining	794	334	294	17.3	119
TWD2001	BWT037	669	669.9	gabbro, 5% semi-massive po veining	264	714	139	15.5	37
TWD2001	BWT038	669.9	671.15	gabbro, 15% po veining	499	456	139.5	63.1	94
TWD2001	BWT039	671.15	672	gabbro, 25% calcite vein with 5% po	683	1020	158	7.2	58
TWD2001	BWT040	672	673	gabbro, 30% semi-massive po veins	2790	399	672	43	258
TWD2001	BWT041	673	674	gabbro, pyroxene vein 5% po	202	55.2	38.4	8.9	16
TWD2001	BWT042	680.9	682	gabbro, pyroxene vein with late po	131	109.5	37.9	4.4	2

Sampling for geochemical analysis was selective and is not continuous down the whole length of the core. A one metre length of half core was regularly sampled about every 20 metres down the hole with one metre spaced half core samples collected over localised intervals of mineralisation or geological interest. No additional samples exist between those reported intervals in Table 4. All samples other than those reported in this table returned no significant result.

Sample BWT027 & BWT040 base metal analysis prepared by lithium borate fusion, all others by four acid (near total) digest
 po = pyrrhotite cpy = chalcopyrite