

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

Directors:

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Managing Director

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Non-executive Director

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ASX ANNOUNCEMENT
11 MAY 2021

THREE WAYS PROJECT: Ground Electromagnetic Survey Validates Conductors for Follow-Up Drilling

Recent trials of moving-loop, ground electromagnetic surveying (MLEM) across four separate high conductance magnetotelluric (MT) anomalies have refined targets for follow-up drilling.

Modelling of data from the MLEM method has identified six high conductance plates which remain to be drill tested (Table 1 and Figure 2). The modelled plates returned high conductivity thickness values ranging from 6,000 to 30,000 siemens, which are typical of responses from accumulations of sulphides or highly graphitic bodies.

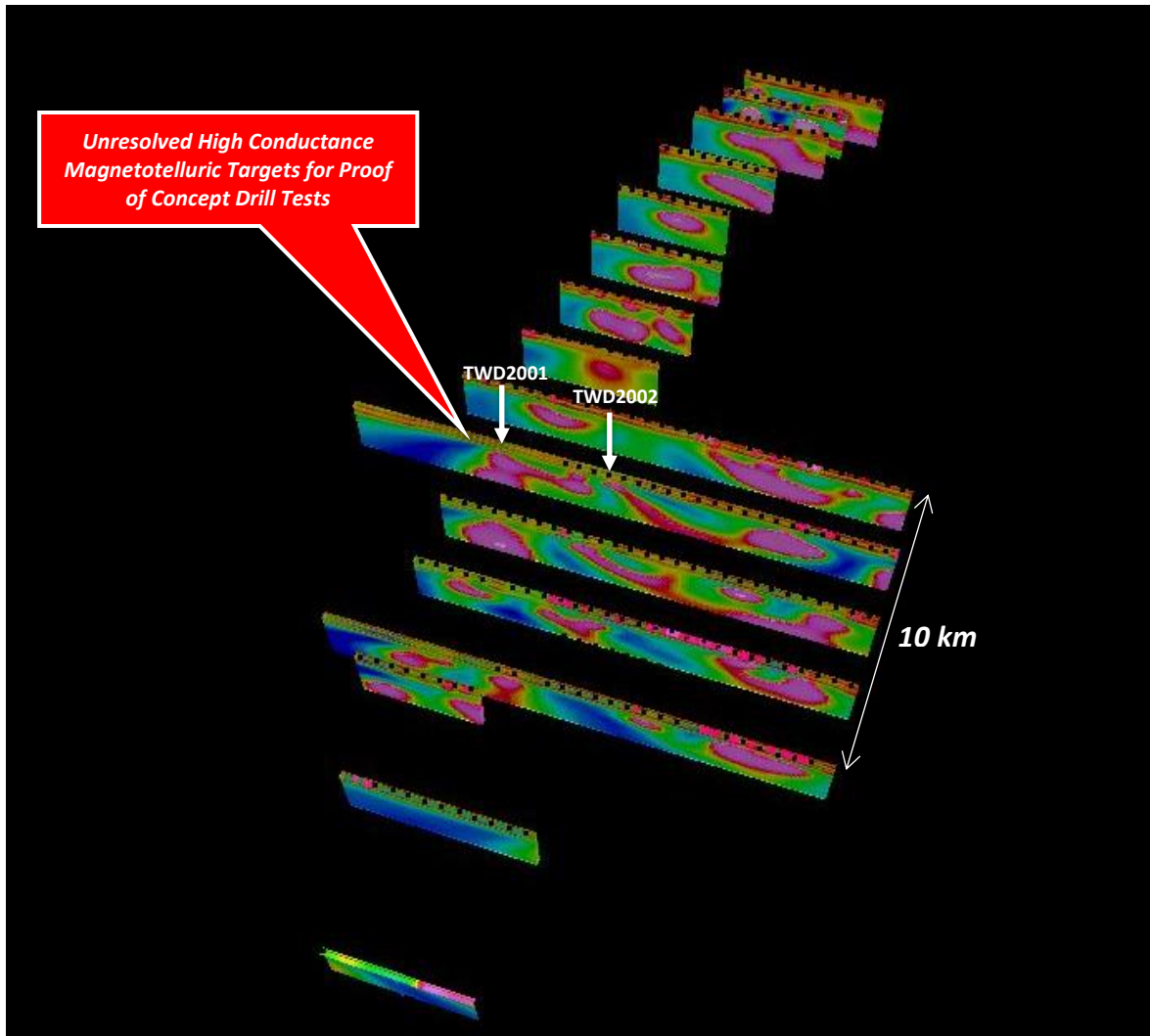
Drilling last year on two broad, high conductance MT targets (TWD2001 and TWD2002) intersected mafic intrusive rocks (gabbro and dolerite) that did not clearly explain the source to these anomalies. However, a narrow zone containing semi-massive pyrrhotite veins in drill hole TWD2001 returned anomalous levels of nickel, copper and platinum group elements that provided encouraging indications of prospectivity (refer to Red Metal ASX announcement dated 28 January 2021).

Modelling of the new MLEM data across TWD2001 allowed the identification of two, shallow dipping, strong conductive plates immediately west and east of its collar that remain to be drill tested (Figure 3). In addition, modelling of the MLEM data over drill hole TWD2002 suggests it stopped short of an east dipping conductor (Figure 3).

Ground electromagnetic surveying across a separate low-amplitude, magnetic anomaly on line 7899600N (Figure 2) identified a west dipping plate with a very high modelled conductance value of 30,000 siemens (Figure 4). This anomaly is yet to be tested by drilling.

A rig has been secured and preparations for drilling in early June are underway.

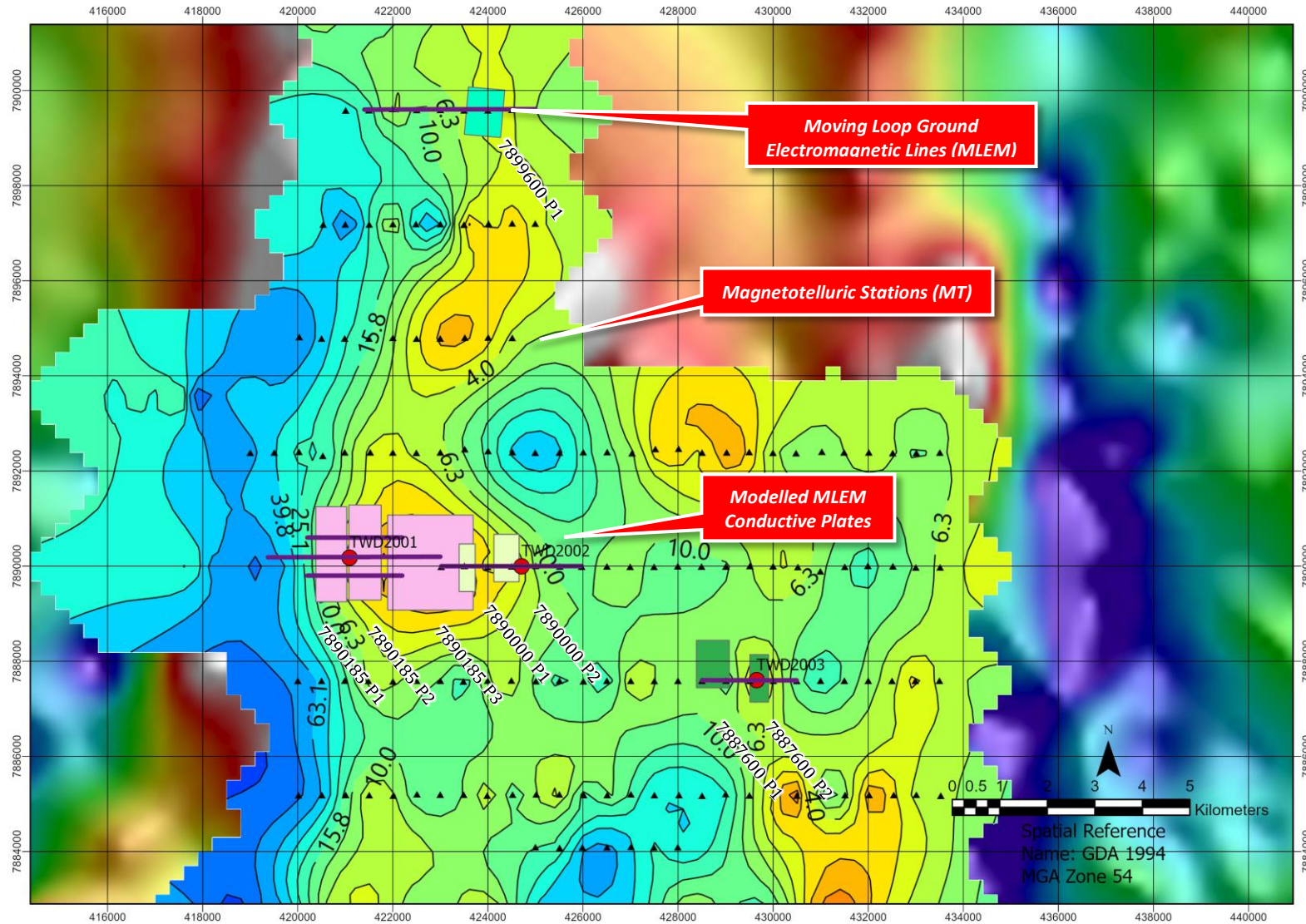
The Three Ways program is funded by OZ Minerals (ASX: OZL) under the terms of the Greenfields Discovery Alliance.



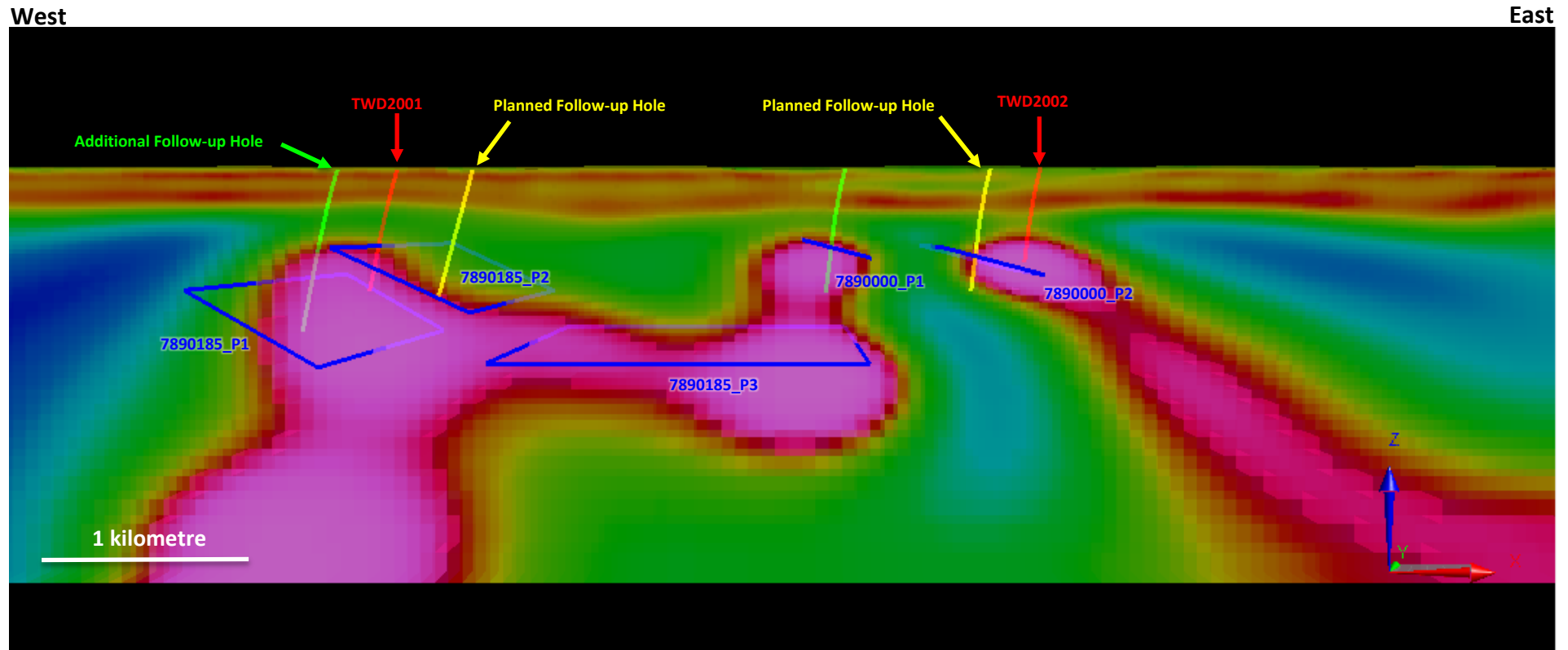
[Figure 1] Three Ways Project: Oblique view looking towards the north northwest showing stacked two dimensional conductivity depth inversions of the magnetotelluric data (above). The imagery maps laterally continuous, highly conductive trends in the basement rocks some of which follow magnetic trends. 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.

[Table 1] Three Ways Project: Modelled conductive plates from recent moving loop ground electromagnetic survey. Refer to Figure 2 for line locations and Figure 3 and Figure 4 for comparison between the moving loop ground electromagnetic plate models and the magnetotelluric depth inversion.

Target	Plate	East	North	Depth	Dip	Az	Strike Extent (metres)	Depth Extent (metres)	Conductivity Thickness (siemens)
7899600N	P1	424260E	7899500N	450	49	279	970	1270	30000
7890185N	P1	421075E	7890285N	430	25	90	2000	750	9000
7890185N	P2	420405E	7890250N	610	30	90	2000	750	9000
7890185N	P3	421890E	7890075N	970	0	90	2000	1800	6000
7890000N	P1	424125E	7890170N	435	15	90	1000	550	10000
7890000N	P2	423395E	7889965N	395	15	90	1000	350	10000
7887600N	P1	429945E	7887615N	440	25	270	1000	550	8000
7887600N	P2	429300E	7887915N	480	30	270	1000	700	8000

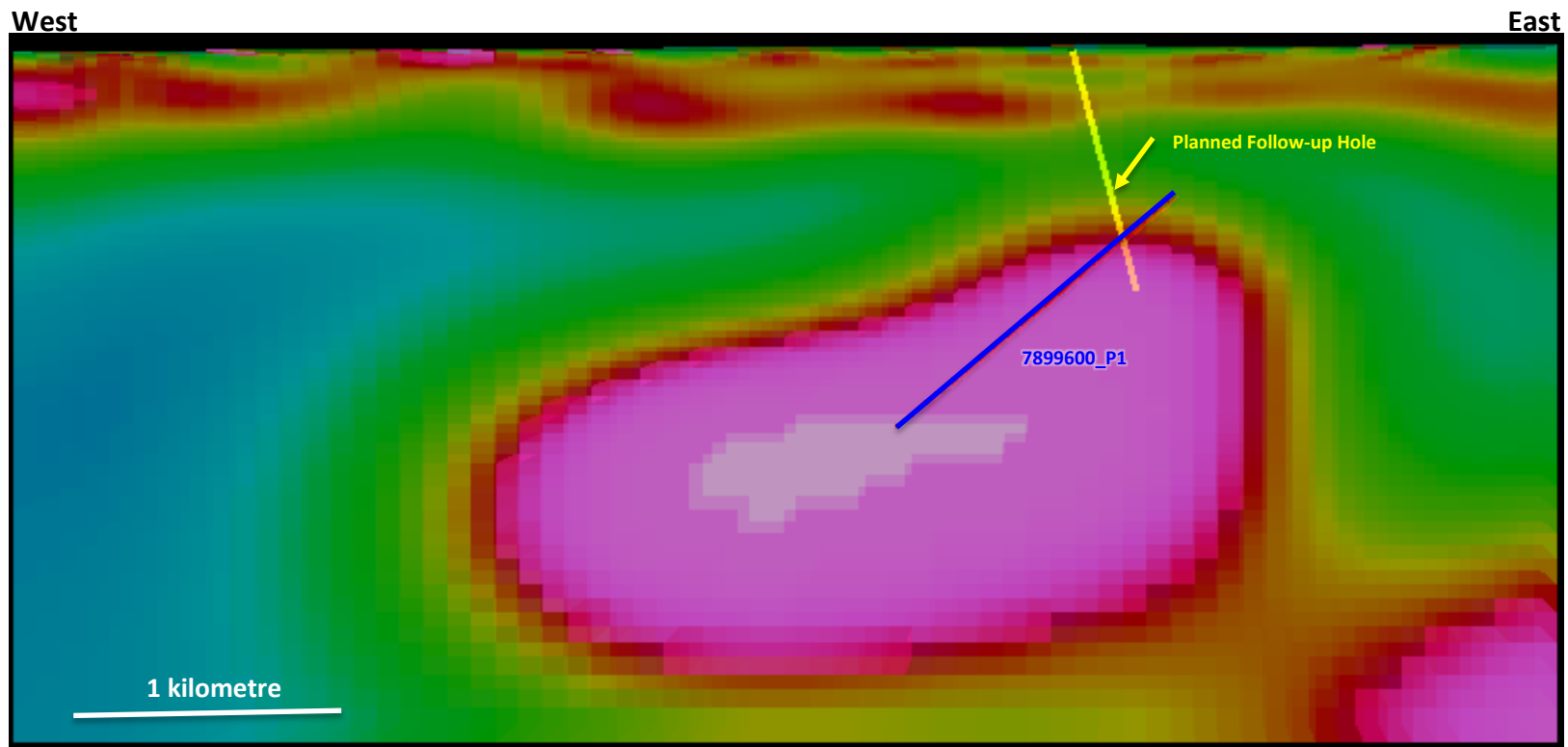


[Figure 2] Three Ways Project: One dimensional magnetotelluric data inversion showing conductivity depth slice image and contours at 600 metres below surface, overlain by recent moving loop ground electromagnetic survey lines and modelled conductivity plates with plate numbers labelled. Background image is residual gravity.



[Figure 3] Three Ways Project: Line 7890000N (Figure 2), 2D conductance depth image derived from the magnetotelluric data with the first pass drill holes TWD2001 and TWD2002 (red) and modelled plates from the recent ground electromagnetic survey (blue). Planned follow-up holes set to start in June 2021 are highlighted in yellow. Additional holes, dependent on result from the planned follow-up holes, are highlighted in green. This imagery shows how holes TWD2001 and TWD2002, targeted directly from the magnetotelluric data, missed the modelled source plates. The ground based, moving loop electromagnetic survey provides higher resolution conductivity data.





[Figure 4] Three Ways Project: Line 7899600N (Figure 2) 2D conductance depth image derived from the magnetotelluric data with modelled plate from the recent ground electromagnetic survey (blue) and the planned follow-up drill hole (yellow).

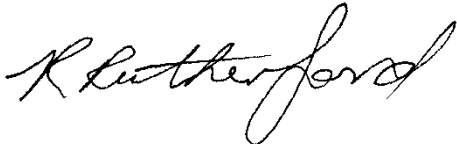




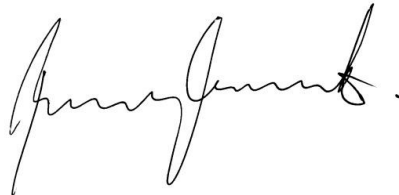
[Figure 5] Northwest Queensland and Northern Territory: Major deposits and Red Metal tenement locations.

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	<p>A moving loop ground electromagnetic survey has been acquired over four high conductance magnetotelluric (MT) targets to better model the positions and strengths of the conductive sources for follow-up drilling. The survey utilised a 400m moving loop and a High Temperature SQUID receiver (SQUID_MLEM).</p> <p>A total of 15.6 line kilometres were surveyed along grid east-west orientation.</p> <p>SQUID_MLEM Configuration:</p> <ul style="list-style-type: none"> • Transmitter loop diameter 400m x 400m • Transmitter current = 70 Amps • Station spacing = 100m and 200m • Transmitter frequency = 0.0833 Hz • EM receivers = high temperature SQUID measuring Z, X and Y components <p>The SQUID_MLEM was acquired by GEM Geophysics Pty Ltd The survey was under the supervision of OZ Mineral in-house geophysicist</p>
	Include reference to measures taken to ensure representativity samples and the appropriate calibration of any measurement tools or systems used.	N/A
	Aspects of the determination of mineralisation that are Material to the Public Report.	N/A
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.).	N/A
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	N/A
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	N/A
	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.	N/A
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.	N/A
	Whether logging is qualitative or quantitative in nature.	N/A
	Core photography	N/A
	The total length and percentage of the relevant intersections logged.	N/A
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	N/A

	Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.	N/A
	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.	N/A
	Whether sample sizes are appropriate to the grain size of the material being sampled.	N/A
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.	N/A
	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.	N/A
	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.	N/A
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	N/A
	The use of twinned holes.	N/A
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	N/A
	Discuss any adjustment to assay data.	N/A
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>SQUID_MLEM station points are recorded with a 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>The SQUID_MLEM survey lines utilised a 400m moving loop with station spaced every 100m along the lines</i>
	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.	N/A
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>The SQUID_MLEM lines were at right angles to the general strike of the geology and over pre-existing magnetotelluric survey lines.</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.	N/A
Sample security	The measures taken to ensure sample security.	N/A
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<i>The SQUID system was checked prior to commencement of the data acquisition. All data was inspected daily by the GEM Geophysics site crew and verified by OZ Minerals in-house geophysicist.</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. Recent Red Metal drilling in 2020 (TWD2001 and TWD2002) 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. Refer to Red Metal ASX announcement dated 28 January 2021.</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:	N/A
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.	N/A
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A

Criteria	JORC 2012 Explanation	Commentary
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').	N/A
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 1 of this report</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.	N/A
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>A second follow-up drill program testing the new SQUID_MLEM conductors is scheduled to begin early June 2021.</i>