ASX Announcement

17 MAY 2023

REGIONAL TARGETS UNCOVERED AT VICTORIA BORE

HIGHLIGHTS

- **M3 Mining completes detailed litho-structural interpretation, highlighting complex geology buried by shallow cover at the Victoria Bore Copper Project**
- **Identification of nine priority base-metal targets within the Company's tenure indicates geological interpretations that are encouraging for mineralisation**
- **Planned fieldwork aims to evaluate and assess the potential of these high-priority targets**

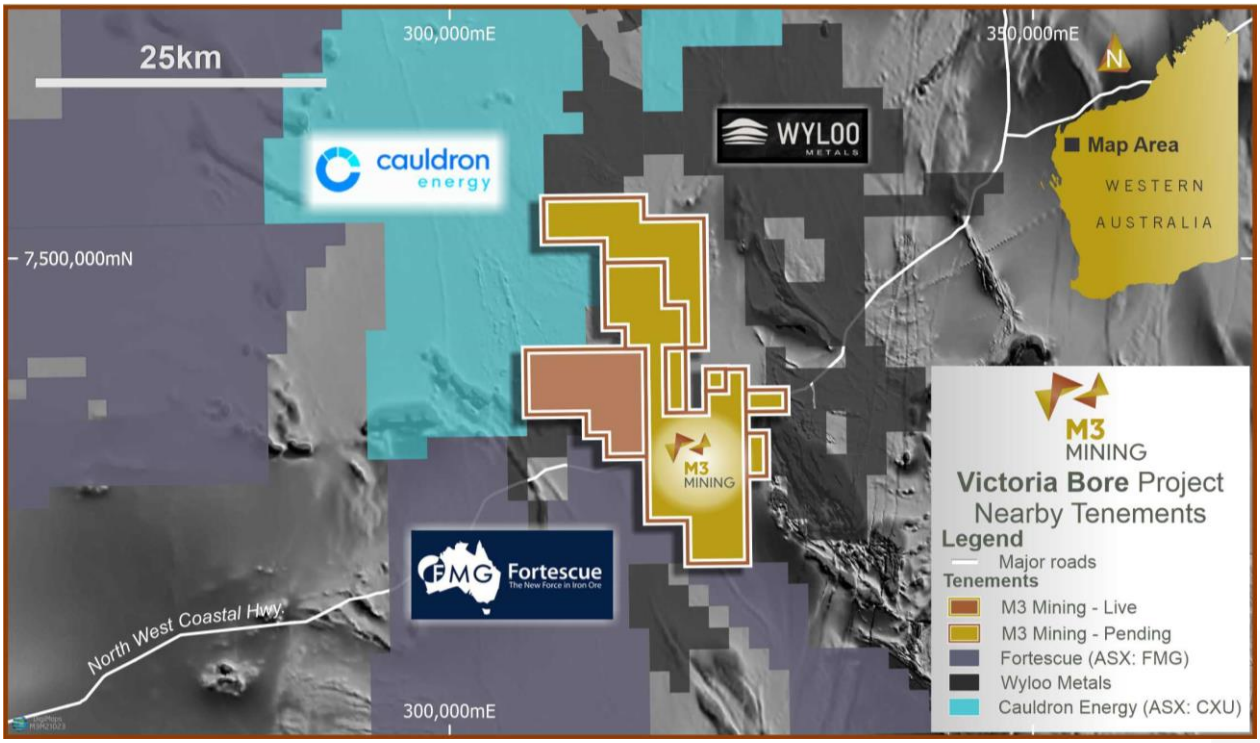

Figure 1 – Overview of The Victoria Bore Copper Project

M3 Mining Limited (ASX:M3M) (M3 Mining or the **Company)** is excited to announce the completion of a litho-structural interpretation and a regional targeting exercise at the Victoria Bore Copper Project (**Victoria Bore** or the **Project**).

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Projects
Edjudina Gold Project (100% Owned)
Victoria Bore Copper Project (100% Owned)

Shares on Issue	46.5M
Share Price	$0.10
Market Cap	$4.65M
ASX Code	M3M

EXECUTIVE DIRECTOR SIMON ELEY:

"M3 Mining is pleased to release our detailed litho-structural interpretation for the Victoria Bore Copper Project. Through analysis of the aeromagnetic and radiometric survey data, we have been able to understand the geological and structural complexities that are hidden under shallow cover within our project area. The produced maps highlight multiple generations of deformation present, which provides the team with valuable knowledge for future exploration.

In addition, a targeting exercise was completed that focused on outlining areas prospective for base metals mineralisation. Nine priority areas have been identified within our granted tenure and we will be initiating field work promptly to analyse their potential. This marks a step forward for the Company, as we begin to expand regionally across our ground at Victoria Bore."

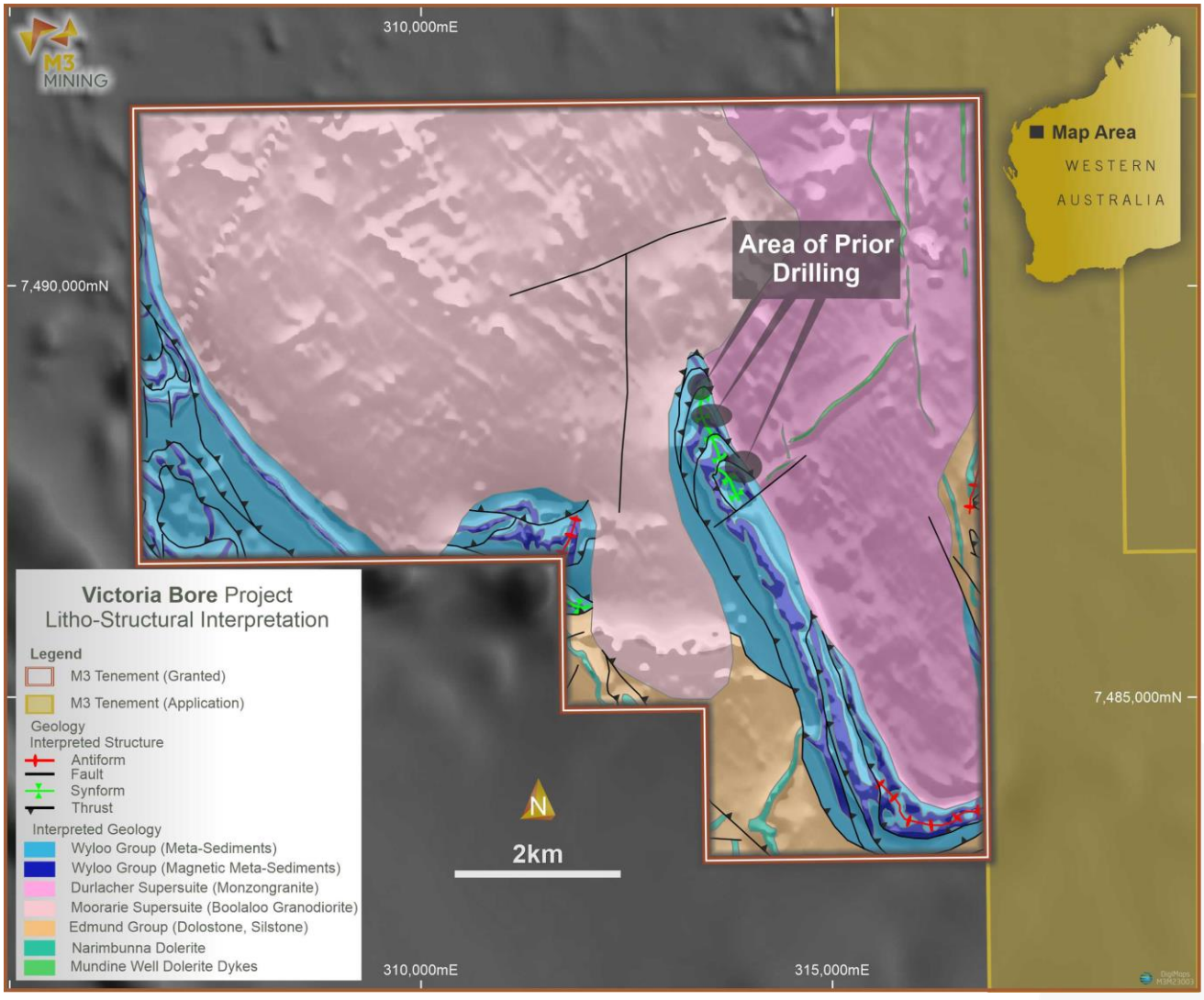

Figure 2 – Litho-Structural Interpretation of Victoria Bore

Litho-Structural Interpretation

A litho-structural interpretation of the Victoria Bore project area was completed using a combination of high resolution magnetic and radiometric data and previous mapping by GSWA (see Figure 2).

The identified rock types include Paleoproterozoic meta-sediments of the Wyloo Group, which contain the historical Victoria Copper Mine. This formation extends southeastward, forming a limb that tapers off in the southeastern corner. Wyloo meta-sediments are also present on the western side of the tenement. The majority of the Project's area is occupied by two distinct types of granitic batholiths which have been locally intruded by dolerite dykes. Towards the south and east, there are Mesoproterozoic dolostones and siltstones from the Edmund Group which contains intrusive sills of the Narimbunna Dolerite.

The sediments within the project area have been subjected to multiple events of folding, faulting, and thrust faulting, resulting in a complex structural environment within the identified geology.

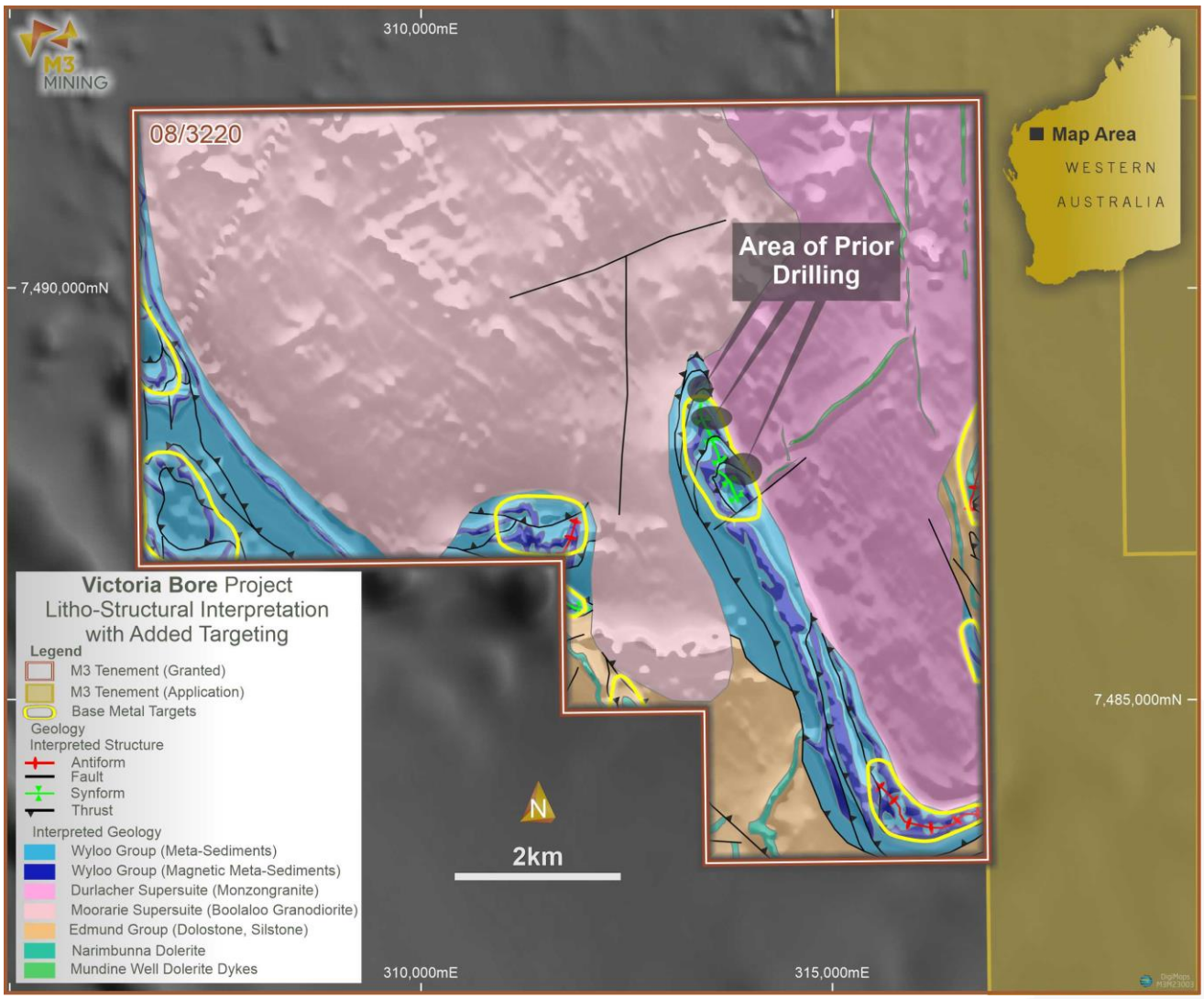

Figure 3 – Litho-Structural Interpretation of Victoria Bore with Base Metal Targets

Regional Targeting

Base metals potential at Victoria Bore is evident with reported copper, lead, zinc, silver anomalies found in Wyloo Group meta-sediments nearby, specifically in the Ashburton Formation. These occurrences, including historic mines, are situated adjacent to the east of the Company's tenure. The Victoria Copper Mine along with recent drilling by M3 is interpreted to also occur within the aforementioned Ashburton Formation. The litho-structural interpretation has highlighted 13km^2 of ground that is interpreted to be meta-sediments of the Wyloo Group. Areas within this geology that occur alongside major folding and/or thrust faulting is the subject for priority base metal targeting (See Figure 3). To assess the mineralisation potential, the company is currently planning soil geochemistry surveys to determine if the identified targets exhibit the required geochemical signatures indicative of underlying base metal mineralisation.

In addition to base metals, the highly folded sediments in Victoria Bore may offer potential for antiform-hosted orogenic gold. Specifically, deformed sediments in close proximity to the dolerite formations exhibit favourable conditions for gold mineralisation due to the combination of competency contrast and the presence of a geochemical front. Surface geochemistry surveys will also be utilised over priority areas to assess the projects potential for gold mineralisation.

Update on Ongoing Graphite Work

As previously announced[1], the source of the Victoria Bore EM Conductor is a lens of graphitic shale. The shale has been since assayed for total graphitic carbon (TGC). Significant intercepts include:

- 4m at 9.9% TGC from 211m & 5m at 8.0% TGC from 220m (VBRC012)
- 2m at 6.0% TGC from 71m & 2m at 5.8% TGC from 89m (VBRC014)

M3 Mining have submitted a bulk sample of its graphitic shale to IMO Metallurgy who are completing flotation amenability testwork, along with a mineralogical investigation. This will provide the Company with the necessary information to determine whether an economic graphite concentrate can be produced from the graphite intercepted thus far at Victoria Bore. At this stage, the Company is still unaware of the nature of mineralisation along with the flake size distribution.

The Company expects to receive preliminary results for this analysis within the current quarter and will update shareholders accordingly.

If the graphite in VBRC012 is continuous with VBRC014 and the metallurgical testwork is positive the entire 1,400m long conductive trend presents itself as a prospective exploration corridor for graphite (See Figure 4). This has not yet been confirmed and is just the Company's interpretation at this stage. Further exploration and test results are required to confirm this view.

[1] See M3M ASX Announcement, 20/01/23, **"Victoria Bore Copper Project Exploration Update"** for additional details.

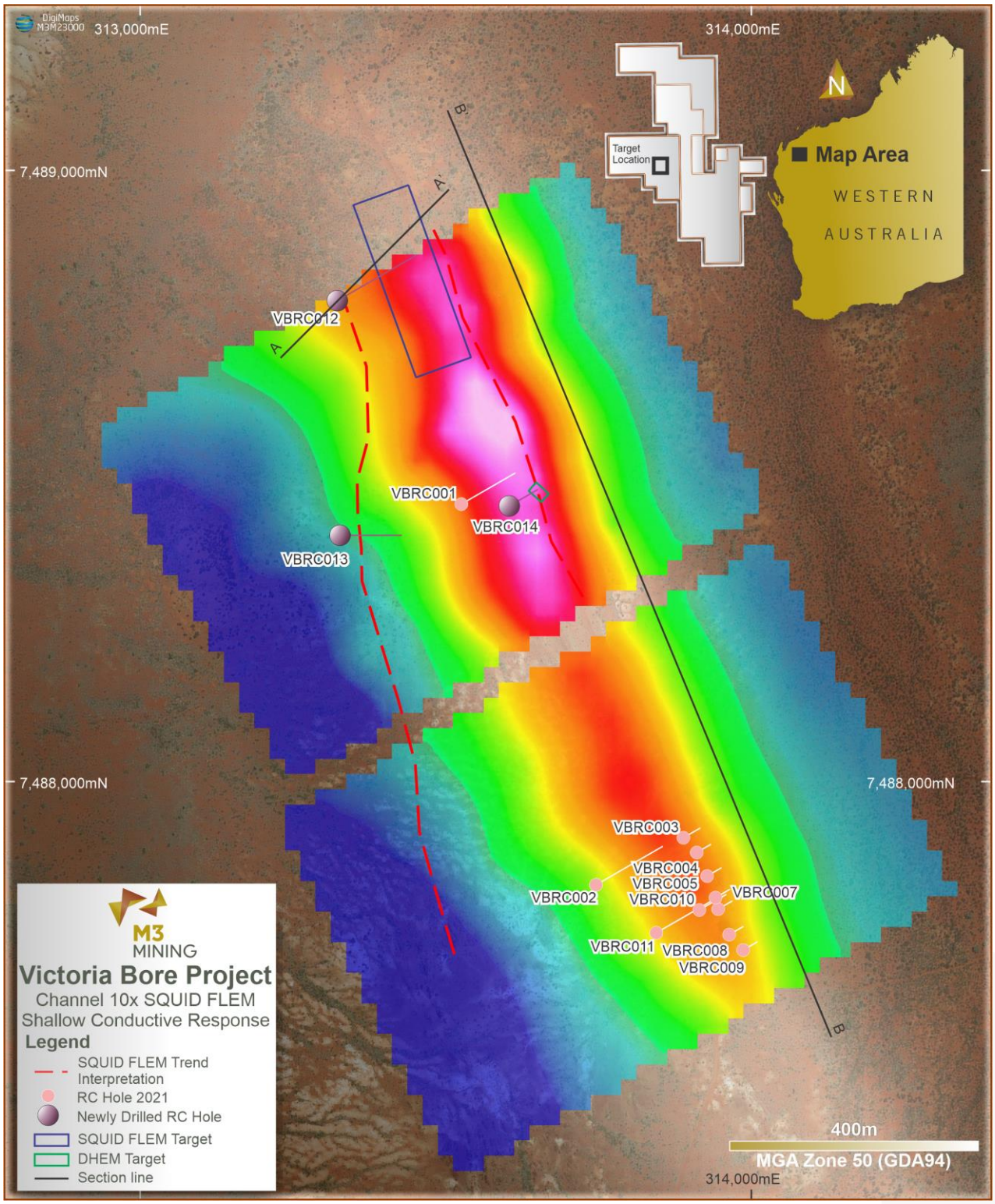

Figure 4 – Plan view of drilling showing shallow conductivity response

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This announcement has been authorised for issue by the Board of M3 Mining Limited in accordance with ASX Listing Rule 15.5.

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About M3 Mining

M3 Mining Limited (ASX:M3M) is a Perth-based mineral exploration company focused on creating value for shareholders through exploration and development of a high-quality copper and gold exploration portfolio. M3 Mining's projects are strategically located in regions surrounded by majors and has experienced minimal modern, systematic exploration across both projects. The Company's strategy is to apply a systematic approach to the assessment and prioritisation of its projects, all of which have the potential to produce material discoveries.

The information in this announcement that relates to exploration results is based on and fairly represents information compiled by Jeremy Clark, a competent person who is a member of the AusIMM. Jeremy Clark is the sole director of Lily Valley International Pty. Ltd. Jeremy Clark has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Jeremy Clark consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.

Appendix 1 – JORC Table

JORC Code, 2012 Edition – Table 1 report – Aeromagnetic and Radiometric Survey

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• Modern aeromagnetic survey flown to assist with mineral exploration activities across the entire Victoria Bore tenement package. • Magnetic, radiometric and elevation data recorded along individual flight lines. • Aircraft: Fixed-Wing (Cessna 206) • System Type: Gradiometer
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• Not relevant for geophysical surveys.
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 relevant for geophysical surveys.
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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• Not relevant for geophysical surveys.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all cores 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.	• Not relevant for geophysical surveys.

Criteria	JORC Code explanation	Commentary
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.	• Not relevant for geophysical surveys.
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.	• Not relevant for geophysical surveys.
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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• The coordinate system for the project was GDA94, MGA Zone 50. • A local coordinate system was utilised during data collection. The Maxwell project and exported ASCII files have been converted to real world coordinates.
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.	• Survey lines were flown east-west • Regional lines were flown at 100m spacing • A detailed zone was flown at 50m spacing to acquire higher density data.
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.	• Survey lines were flown east-west • Flying height: 30m • Total line km: 4,407km • No orientation bias is believed to have been introduced.
Sample security	• The measures taken to ensure sample security.	• Not relevant for geophysical surveys.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Data reviewed and audited by geophysical survey company.

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 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 Victoria Bore Copper Project consists of one exploration license and seven exploration licence applications • No joint venture or royalties are understood to impact the tenements. • No known impediments are understood to occur to allow further exploration.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Limited exploration has been completed, historical rock chip sampling as well as a MLEM was completed along with a first pass RC program as released previously. • Exploration is considered to be at an early stage across all tenements.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The data supplied indicates mineralisation within the tenements is potentially in line with the commonly observed shear hosted, structurally control mineralisation style. Limited understanding of the mineralisation occurs to date

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• N/A – No drilling undertaken.

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.*	• N/A – No data aggregation.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• N/A – No drilling undertaken.
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.*	• Suitable maps are included in the body of the announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Key results and conclusions have been included in the body of the announcement.
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.*	• Historical data mentioned in the release can be found in previous releases and detailed in the Independent Geologist Report in the prospectus.
Further work	• *The nature and scale of planned further work (eg 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.*	• Low impact field work is planned for the future to investigate the target areas identified by the litho-structural interpretation