MINOTAUR EXPLORATION LIMITED
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ASX: MEP

MINOTAUR
EXPLORATION

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ASX Release

IP survey reveals Hastings anomaly for Windsor JV, Charters Towers, Qld

Highlights

- IP geophysical survey defines very strong 'Hastings' chargeability anomaly
- Anomaly +3km long and open east along strike
- Potential for base metals mineralisation under cover in high-grade VMS base metals district
- Planning underway for inaugural drill testing

Minotaur Exploration reports results from an IP-resistivity geophysical survey on behalf of the Windsor Joint Venture (Private entity 100%; Minotaur may earn 80%). The survey commenced on 29 July[1] and was completed on 30 August. Results are highly encouraging with a large, very strong IP chargeability anomaly defined under thin cover along +3km of strike. Planning for a first-pass drill test is underway.

Survey Objective

The Windsor JV area includes 175 square kilometres of the Trooper Creek Formation, host to numerous high-grade base metal VMS occurrences including the Thalanga and Highway Reward deposits (Figure 1). The discovery of Thalanga in 1975 generated intensive exploration activity through until the early 1990's, with very limited exploration conducted since.

In particular, little effort has been directed to the covered portions of the project area. Extensive tracts were typically avoided because the highly conductive nature of the cover sequence rendered redundant electrical geophysical techniques of the era due to their inability to see through the cover into basement.

Part of Minotaur's strategy for target generation across the Windsor JV area is that substantial portions of highly prospective basement therefore remain untested. Modern electrical geophysical systems are now better suited to these types of terranes and hence provide an opportunity to investigate areas of basement not previously explored. This approach has proven highly successful for Minotaur in the Cloncurry district, demonstrated by discovery of the Jericho Cu-Au deposit in late 2017, also located under conductive cover where the basement has an otherwise indistinct geophysical signature.

[1] Refer MEP report to ASX, *Quarterly activities report*, dated 30 July 2019

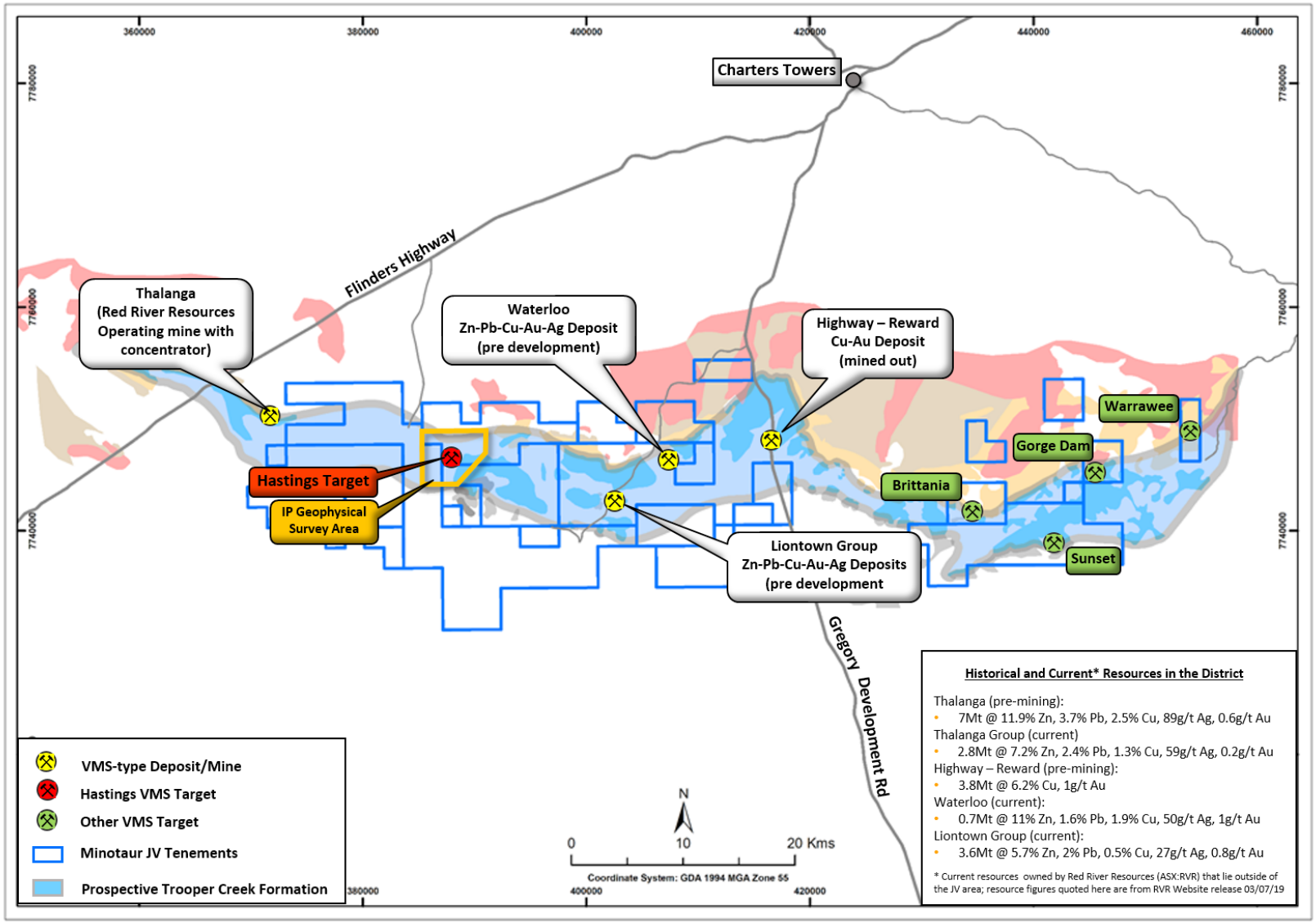

Figure 1: Windsor JV tenements with prospective Trooper Creek Formation, VMS occurrences, and Hastings target

Survey Results

The inaugural IP-resistivity survey comprised 26.5 line kilometres of data collected along 6 north-south lines over an area of cover in the western portion of the JV (Figures 1 and 2). Lines were spaced at 0.75-1km apart. The placement of the survey was guided by a basement interpretation that hypothesised the same stratigraphic horizons hosting Thalanga, Highway Reward and Waterloo VMS deposits occur in the general vicinity of the survey area.

Strong IP chargeability responses, in excess of 25msec, are recorded on 4 consecutive lines producing an anomaly at least 3km long and open to the east. The anomaly has been named Hastings (Figures 2 and 3). Modelled IP chargeability responses vary, but over the main part of the anomaly on lines 4 and 5, range from 35-50msec which is very strong (Figures 4-5). These 3 lines also have coincident low resistivity responses. VMS-type deposits worldwide, typically, have strong chargeability and low resistivity responses due to their high sulphide content (other geological features such as graphitic shale can also produce similar responses).

By way of local comparisons, IP responses associated with Red River Resources' Zn-rich VMS discovery at Liontown East[2] range from 18-30msec. In terms of the strike length of VMS deposits in the district, mineralisation at Liontown (including the Liontown and Liontown East lodes) occurs along approximately 1.5km of strike while the high-grade Zn-rich Thalanga deposit group comprises several discrete lodes along 4km of strike, from West 45 in the west to Orient in the east. The Hastings IP anomaly is modelled along at least 3km of strike.

Previous exploration in the survey area comprised stream, soil and rock chip sampling and limited drilling (Figure 2). The only data recorded over Hastings itself are stream sediment samples and these appear to have been collected in areas of younger cover. Whilst the lack of data hinders a precise interpretation of the basement sequence at this location, at the wider scale Hastings appears to lie close to the Waterloo horizon which hosts the high-grade Waterloo VMS deposit along strike 20km east, which is encouraging (Figure 1).

[2] Refer Red River Resources Ltd report to ASX, *Exceptional High Grade Zinc Discovery at Liontown East*, dated 4 August 2016

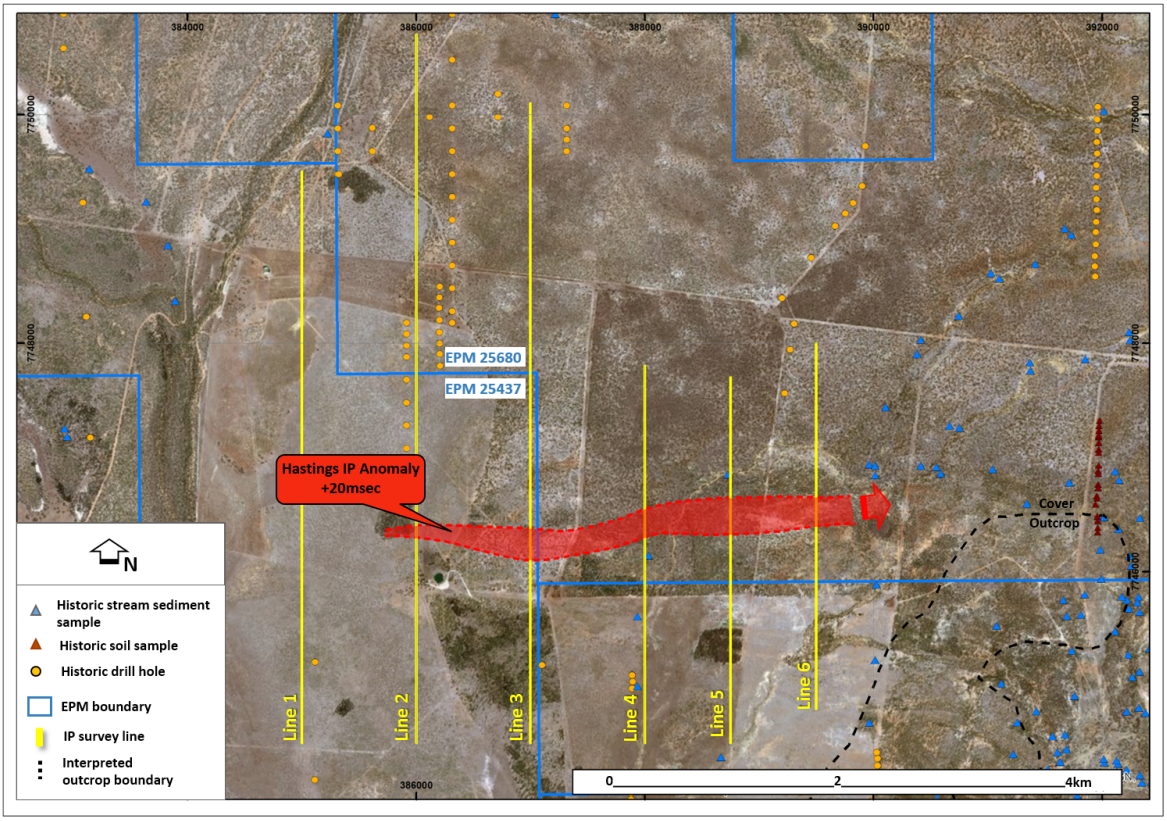

Figure 2: IP geophysical survey area with location of Hastings IP chargeability anomaly and historical exploration data

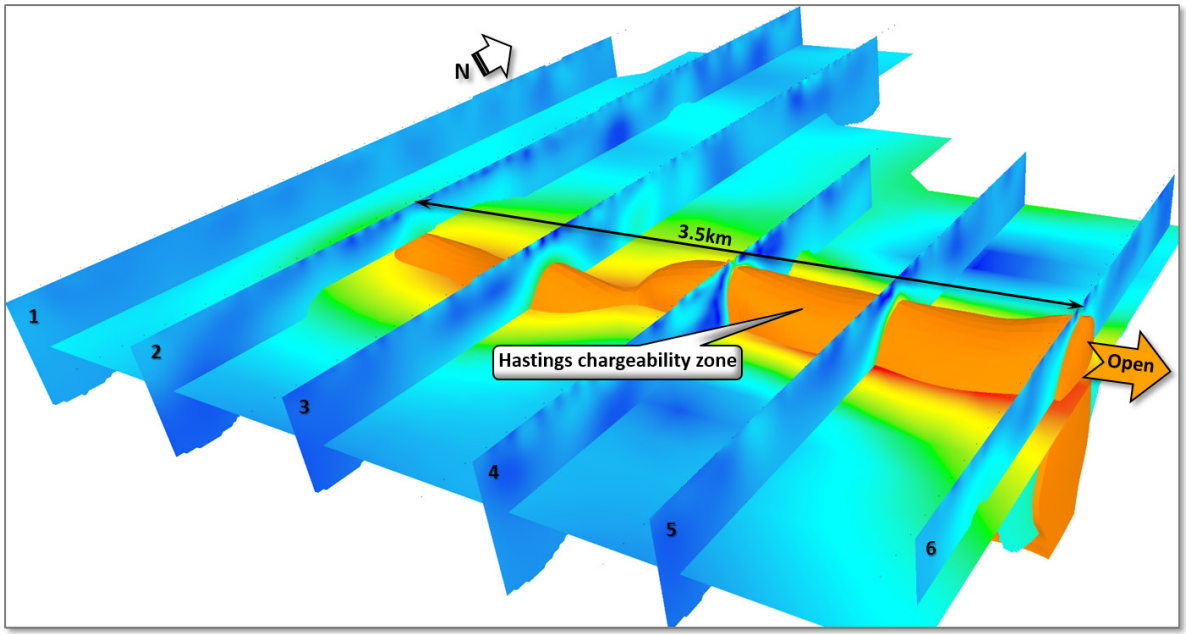

Figure 3: 3D image of Hastings IP anomaly showing IP inversion model sections (1-6) and coherent chargeability zone

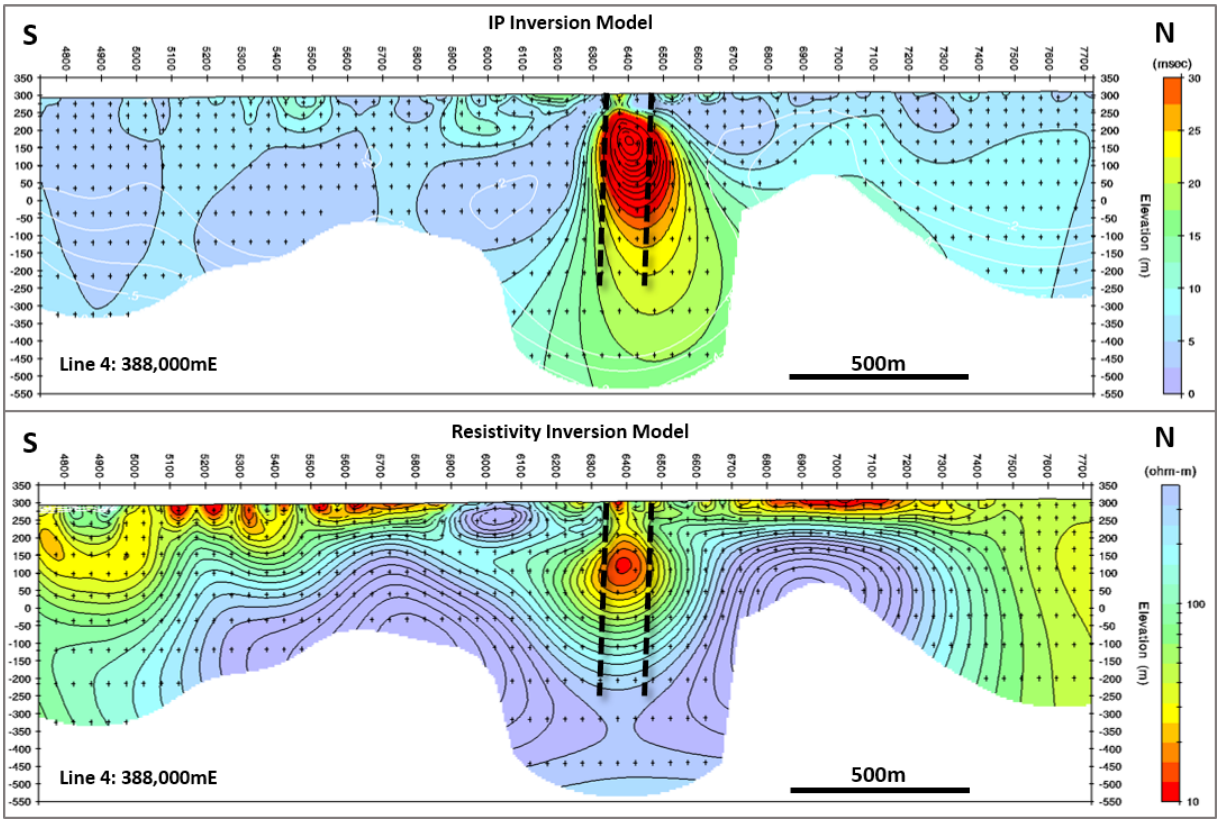

Figure 4: IP and resistivity inversion models for Line 4, section 388,000mE (view looking west).
Note coincidence of IP and resistivity models marked with dashed black lines

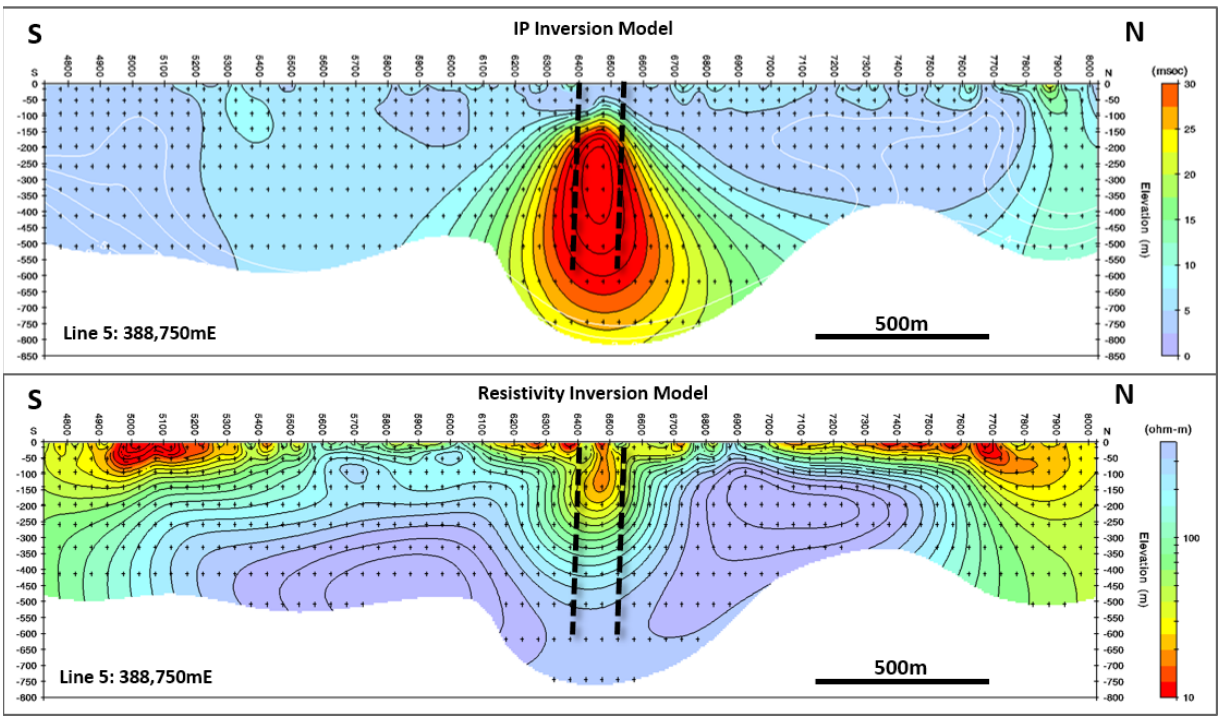

Figure 5: IP and resistivity inversion models for Line 5, section 388,750mE (view looking west).
Note coincidence of IP and resistivity models marked with dashed black lines

Next Steps

The Hastings chargeability anomaly has substantial scale (strike length and dip extent), intensity (very high chargeability), appears to lie in a favourable stratigraphic position and thus presents as a highly prospective VMS base metals target worthy of drill investigation. Field activities have commenced in preparation for drilling.

About the Windsor JV

Windsor JV, centred 200km south-west from Townsville in north east Queensland (Figure 1), encompasses 631km^2 and is a joint venture between Minotaur and the tenement holder. Having achieved its initial expenditure obligation of $400,000 Minotaur may proceed to earn up to 80% interest in the tenements through total expenditure of $4 million over a 5 year earn-in phase.

COMPETENT PERSON'S STATEMENT

Information in this report that relates to Exploration Results is based on information compiled by Mr. Glen Little, who is a full-time employee of the Company and a Member of the Australian Institute of Geoscientists (AIG). Mr. Little has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity that 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 (JORC Code). Mr. Little consents to inclusion in this document of the information in the form and context in which it appears.

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JORC Code, 2012 Edition, Table 1

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 (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.*	The subject of this release is to report on results from an Induced Polarisation (IP) geophysical survey that was conducted within the Windsor JV in NE Qld. The IP survey was conducted by Zonge Engineering. The oversight of the survey and auditing and processing of data acquired from the survey was conducted by Louise L'Oste-Brown, an experienced geophysicist who is on Minotaur staff. The geophysical survey type is Induced Polarisation (IP) and the layout of the survey (termed the "array type") is termed Dipole-Dipole with a 100m receiver dipole size and 100m transmitter dipole size. All lines are oriented North-South and spaced between 750 and 1000 metres apart. A Zonge GGT 30 and a GDD TX 4 transmitter were used along with a GDD GRX-32 receiver. The survey was collected with a frequency of 0.125Hz.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Not applicable to this report.
	Aspects of the determination of mineralisation that are Material to the Public Report.	Not applicable to this report.
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.	Not applicable to this report.

Criteria	JORC Code explanation	Commentary
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 applicable to this report.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not applicable to this report.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable to this report.
	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 applicable to this report.
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.*	Not applicable to this report.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Not applicable to this report.
	The total length and percentage of the relevant intersections logged.	Not applicable to this report.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable to this report.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable to this report.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Not applicable to this report.

Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable to this report.
	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.	Not applicable to this report.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable to this report.
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.*	Not applicable to this report
	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.	The Induced Polarisation (IP) survey method is commonly used to determine the location of disseminated sulphides. An external current is applied and charge separation can occur on sulphide grain boundaries. When the transmitter is turned off the charges decay away. The degree to which this current forms, and the nature of its decay once the primary current is switched off, can be measured. Rock masses containing disseminated sulphide minerals, including pyrite, chalcopyrite and galena, become more readily charged than barren ground. The geophysical method used by Minotaur is entirely appropriate to the style of mineralisation being sought. All data was reviewed at the Zonge Engineering Adelaide office before being transferred to the Minotaur office for audit and processing.
	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 applicable to this report

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Not applicable to this report
	The use of twinned holes.	Not applicable to this report
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not applicable to this report
	Discuss any adjustment to assay data.	Not applicable to this report
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.*	Transmitter and receiver electrode positions area located to hand held GPS accuracy.
	Specification of the grid system used.	Grid system used for collar location by is MGA GDA94, Zone 55.
	Quality and adequacy of topographic control.	The accuracy of horizontal positional data is +/- 5m and the area surveyed has limited topographic relief.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Dipole-Dipole array was a 100m receiver dipole size and 100m transmitter dipole size. All lines are oriented North-South and spaced between 750 and 1000 metres apart.
	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.	Not applicable to this report.
	Whether sample compositing has been applied.	Not applicable to this report.
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.*	The primary line direction is perpendicular to the general geological, structural and interpreted mineralisation trends in the area. No bias is believed to be introduced by the sampling method.

Criteria	JORC Code explanation	Commentary
	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 applicable to this report.
Sample security	*The measures taken to ensure sample security.*	All data was reviewed on site by Zonge Engineering before being transferred to the office of Minotaur. Data was reviewed daily for quality and accuracy. Data is also transferred to Minotaur for secure server storage.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Data is collected and reviewed by personnel of Zonge Engineering then reviewed by personnel of Minotaur. Minotaur is tasked as an independent program manager. No major issues with data quality have arisen during the program.

Section 2: Reporting of Exploration Results

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

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 geophysical data reported here lies within adjoining tenements EPM 25437 and EPM 25680. The EPM's form part of the Windsor Joint Venture with a private entity who own the tenements 100%. Minotaur may earn up to 80% equity in the JV tenements. There are no native title Claims registered over either of EPM 25437 and EPM 25680.
	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.	EPM 25437 or EPM 25680 are secure and compliant with the Conditions of Grant. There are no known impediments to obtaining a licence to operate in the Jericho prospect area.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Significant previous work has been done in the general vicinity of the IP survey area that included, rock chip, soil and stream sediment sampling, limited drilling, mapping and airborne magnetic

Criteria	JORC Code explanation	Commentary
		surveys. That work guided some of Minotaur's interpretation, particularly in regard to estimate depth to basement below younger cover.
Geology	*Deposit type, geological setting and style of mineralisation.*	EPM 25437 and EPM 25680 lie over parts of the Mt Windsor Volcanics and Trooper Creek Formation (part of the Seventy Mile Range Group), a package of Cambro-Ordovician volcanics, volcanoclastics and sediments. These rocks are host to high-grade VMS-style base metal deposits including Thalanga, Highway-Reward, Liontown and Waterloo (the target style of mineralisation under investigate by Minotaur). The rocks have been deformed and are now steeply south dipping. Parts of the EPM's are covered by Tertiary sediments.
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.*	Not applicable to this report.
	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.	Not applicable to this report.

Criteria	JORC Code explanation	Commentary
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.*	Not applicable to this report.
	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.	Not applicable to this report.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable to this report.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Not applicable to this report.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not applicable to this report.
	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').	Not applicable to this report.
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.*	The location of EPM's 25437 and 25680 are shown in Figure 1. Details of the newly defined Hastings IP anomaly are shown in Figures 2-5.
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.*	Only brief information is report here relating to the Hastings IP anomaly. It is a geophysical anomaly, located under cover, and interpretation of the possible source of the anomaly (e.g. that it may represent VMS-style mineralisation) is based on anecdotal information from nearby exploration data.

Criteria	JORC Code explanation	Commentary
		Minotaur point out in the text of the report that similar IP anomalies can also be produced by non-mineralised rocks such as graphitic shale. The only way to test the target is by drilling which is the proposed next activity.
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.*	No meaningful and material exploration data have been omitted.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Minotaur are making preparation for site access for an inaugural drill test of Hastings. Results of that drilling, if conducted, will be reported once completed and the relevant data is available.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to Figure 2 of the body of this report to see the direction that the Hastings IP anomaly is open.