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# ASX Announcement

# 3 November 2023

ASX Code: COY

# Significant IP Anomalies Identified at Shuffleton Prospect and Foxtails Prospect

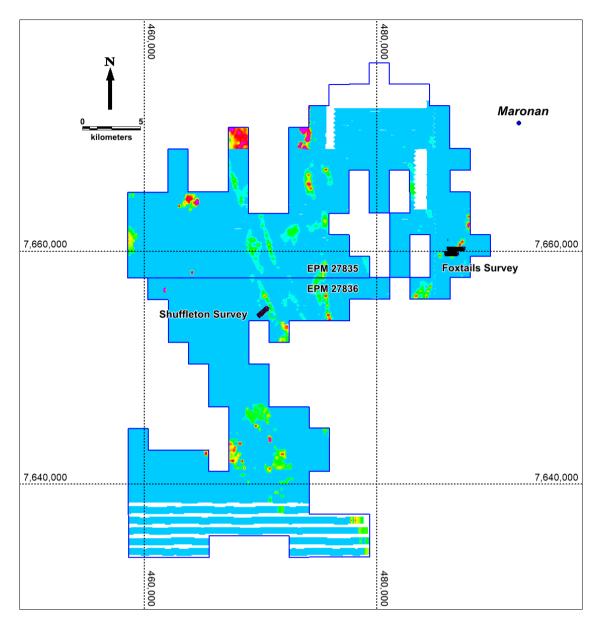
**Coppermoly Limited (ASX: COY)** is pleased to announce that its IP Sounding Survey programs at the Shuffleton Prospect and Foxtails Prospect were successfully completed last week (Fig 1). The preliminary report from Echo Vista Geophysics has identified significant chargeability and resistivity anomalies at both prospects. The Company plans to test those anomalies in the December Quarter 2023.

### Highlights

- At Shuffleton Prospect, a significant chargeability anomaly was detected below the historic Mt Kalkadoon Mine, indicating presence of sulphide mineralization downdip of the known copper ore zone.
- A larger chargeability anomaly was observed about 500m east of the historical Mt Kalkadoon Mine.
- Great contrast in resistivity maps out a major fault zone separating the Soldiers Cap Group in the hanging-wall from the Staveley Formation.
- At Foxtails Prospect, a high chargeability anomaly over 600m long, dipping steeply to the northwest, was recorded. This chargeability anomaly overlays a low resistivity zone, which has the potential to represent a substantial zone of sulphur mineralisation. A modest chargeability and low resistivity anomaly was also recorded to the northwest.
- A drilling program to test those anomalies is planned for the December Quarter 2023.

# Overview of IP Sounding Survey

IP Sounding Surveys were performed at the Shuffleton Prospect and Foxtails Prospect by Echo Vista Geophysics ("EVS") during September and October 2023 (Fig. 1). The IP Sounding method was selected as it has deeper penetration and a higher level of resolution on steeply dipping mineralisation systems according to EVS.



**Figure 1.** Location Map of the IP Sounding Surveys at Shuffleton and Foxtails prospects within EPM27835 and EPM27836 in the Eastern Succession, Mt Isa Inlier, Northwest Queensland. Note the background map is an unlevelled mosaic of three Airborne Geotem Surveys, (Soldiers Cap, Mount Tracey and Kuridala Geotem survey)

#### **IP Sounding Survey at Shuffleton Prospect**

The Shuffleton Prospect hosts a number of historical copper mines and workings operated from 1940s to 1960s, with little known modern exploration programs having been applied to this area. The Company previously reported a broad soil geochemical anomaly in early 2023, which was followed by field mapping.

Mt Kalkadoon Mine produced a high-grade copper ore zone and was operated between the 1940's and 1960's. The deposit is controlled by a NW-striking fault (Fig. 2), with the main ore zone dipping steeply NNE (Fig. 2b), with a massive chalcocite ore zone brecciated with dilatational quartz veins and silicification overprinted. (Fig. 2c).

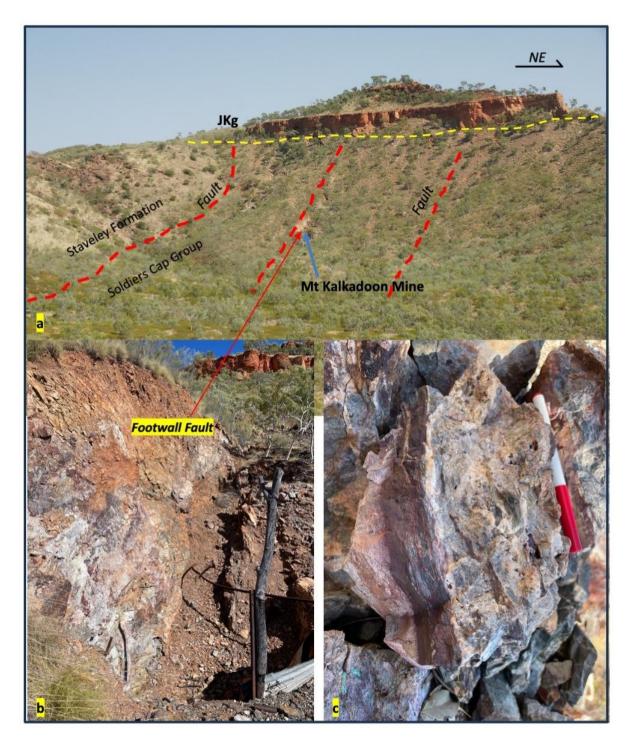
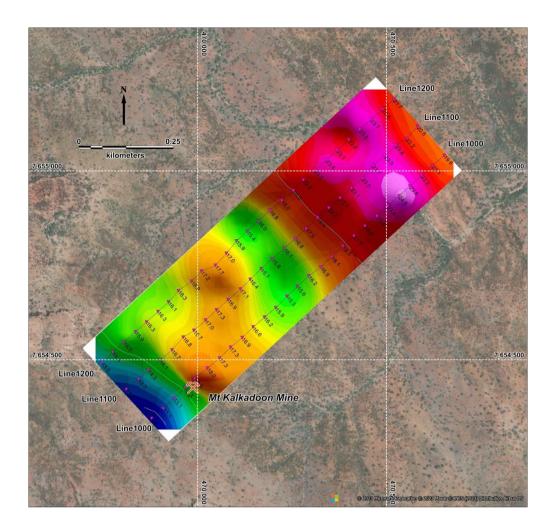


Figure 2. Photos of Mt Kalkadoon Mine site (a), footwall fault surface of the main ore zone (b) and typical ore fabrics (c).

An IP Sounding method has been applied to detect mineralisation at depth at around the historical copper mine level and workings. Three northeast-southwest trending survey lines with 100m line spacings for a total of 3.6-line kilometres were completed (Fig. 3).



**Figure 3.** Location map of IP survey stations/lines and chargeability contours at -400 m depth at Shuffleton Prospect. Note a chargeability high anomaly near the Mt Kalkadoon Mine.

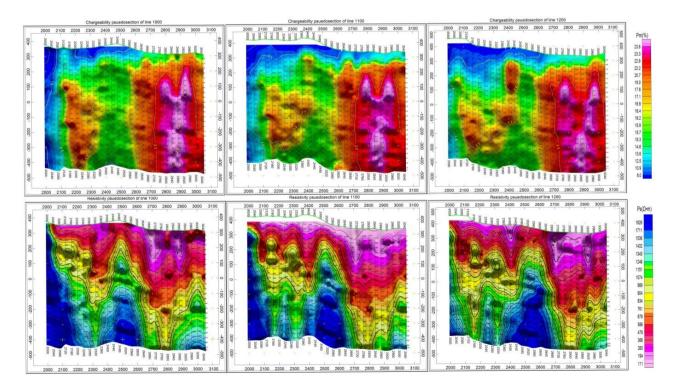
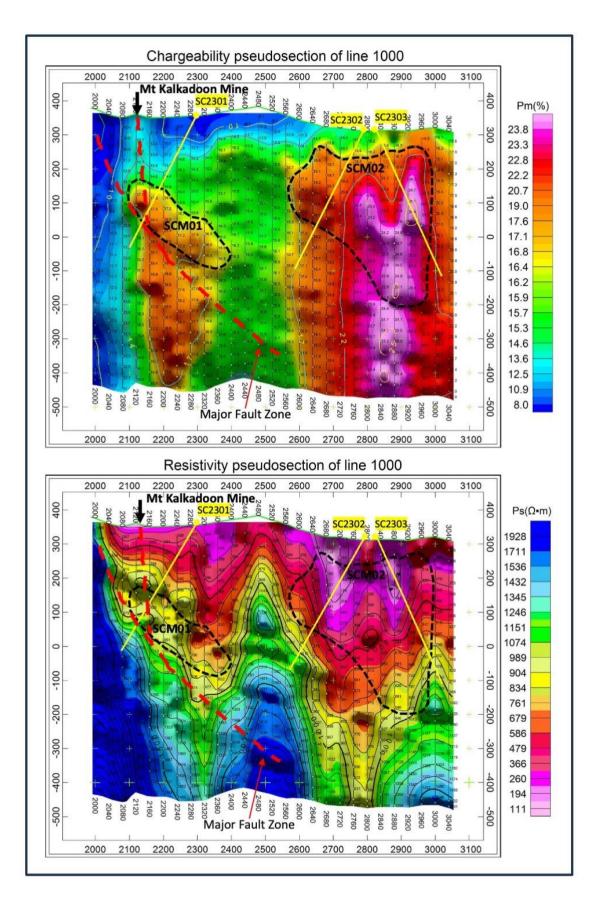


Figure 4. 2D chargeability pseudosection (top row) and resistivity pseudosection (bottom row) of three lines at Shuffleton Prospect.



**Figure 5.** 2D chargeability psedusection (top) and resistivity pseudosection (bottom) of Line 1000 over the Mt Kalkadoon Mine. Note that SCM01 is about 250m below the known ore zone but sits above a major fault zone.

Some significant results are reported by EVS:

- 1. The partially mined out ore zone at Mt Kalkadoon Mine does not display a high chargeability anomaly, with only a weak dyke shape anomaly extending downdip for about 200 m detected.
- 2. An evident chargeability anomaly (SCM01) was detected from around 250 m depth extending from the above weak anomaly. This chargeability anomaly dips to the northeast and poses a modest conductivity zone.
- 3. An additional larger chargeability anomaly (SCM02) with high conductivity zone lies 500m east of the Mt Kalkadoon Mine. This chargeability anomaly also dips steeply to the northeast.

The SCM01 and its upward weak anomaly at the Mt Kalkadoon Mine appear to fit well within our mineralisation model, being breccia zone hosted Iron-Sulphide Copper Gold (ISCG) systems controlled by major faults (Fig. 2 & 5a). The chargeability anomaly is not as strong but it is consistent with IP signatures of similar type of ore bodies in the Eastern Succession, Mount Isa Inlier.

The resistivity profile shows major contrast between Soldiers Cap Group and Stavely Formation (Fig. 2 & 5b). From a geological point of view, the boundary between Soldiers Cap Group and Staveley Formation can be interpreted to be a thrust contact. The chargeability anomaly lies above a major NE dipping thrust zone.

The SCM02 IP chargeability anomaly on the northeastern part of the survey line displays much high tenor Pm >22%, and low resistivity < 120  $\Omega$ .m. This anomaly needs to be further examined. Three holes (SCM2301, SCM2302 & SCM2303) to test these chargeability anomalies are proposed for the next quarter if the weather condition permits (Fig. 5).

# IP Sounding Survey at Foxtails Prospect

The Foxtails Prospect is located approximately 65km south of Cloncurry and is just 15km southwest of the Maronan Zn-Pb-Cu deposit, 65 km northeast of the Pegmont Pb-Zn-Ag deposit and about 90km north of Cannington Pb-Zn-Ag mine. The Foxtails Prospect is located geologically in the same mineralisation corridor.

Field mapping at Foxtails Prospect indicate the presence of a highly prospective strata and alteration system similar to those observed at the Maronan Zn-Cu deposit. Being part of the Iron-Sulphide Copper Gold (ISCG) system, ore zones are often located between the main stratiform horizons, and a steep plunging, pipe shaped, and silica-pyrrhotite rich; localisation of ore zones and are unexceptionally controlled by major fault structures.

Airborne geophysical data reviewing has identified a Geotem anomaly zone extending over 1.6 km at the Foxtails prospect. That Geotem anomaly was recorded in late channels and is steeply dipping. An IP Sounding survey consisting of two 3-line configurations, for a total of about 7.2-line kilometres, were completed (Fig. 6).

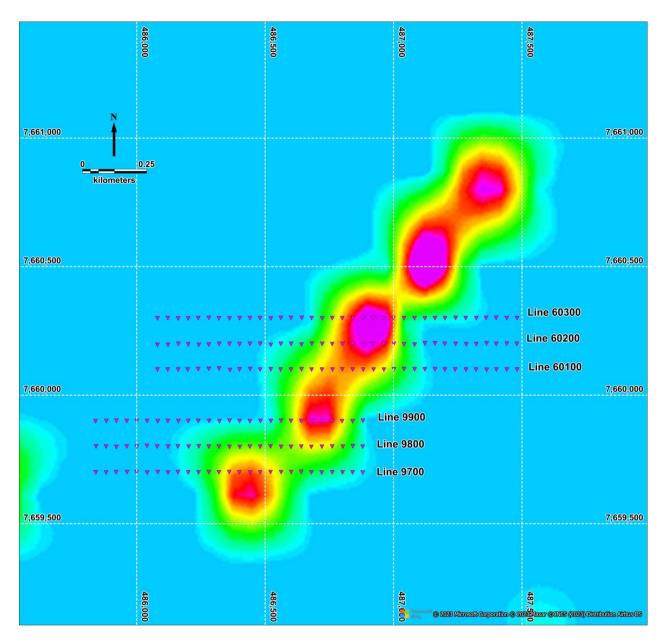


Figure 6. Location map of IP Sounding Survey lines over Geotem anomaly (clipped from Soldiers Cap 25Hz Geotem Survey 1995) at Foxtails Prospect

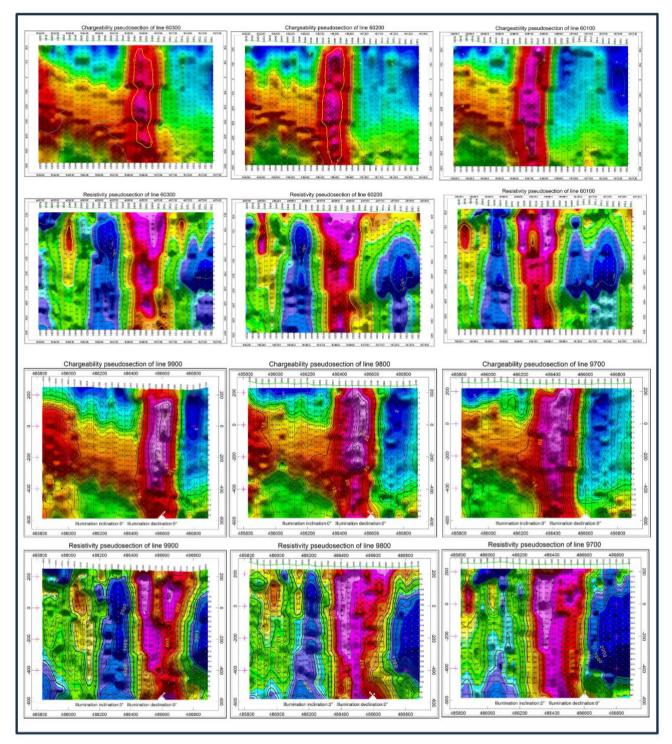


Figure 7. 2D chargeability pseudosections and resistivity pseudosections of surveyed lines at Foxtails Prospect.

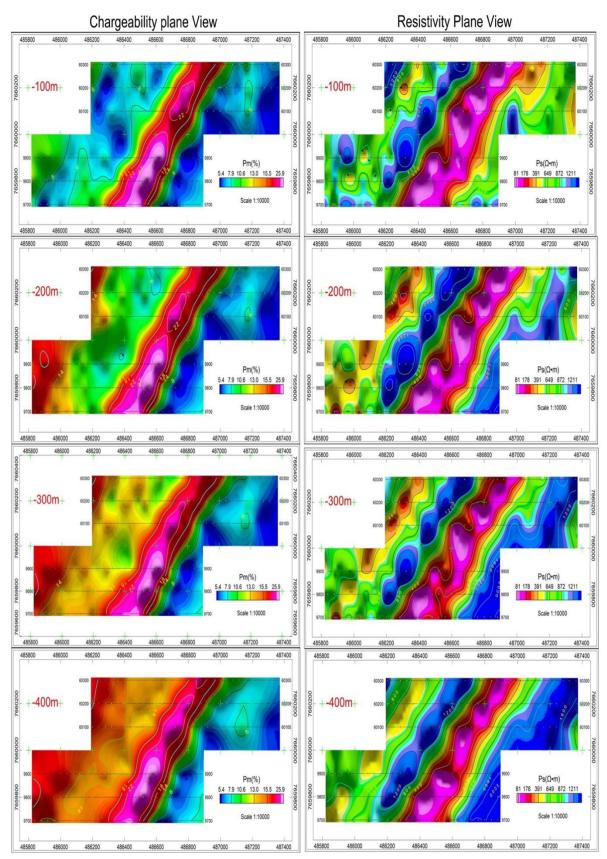
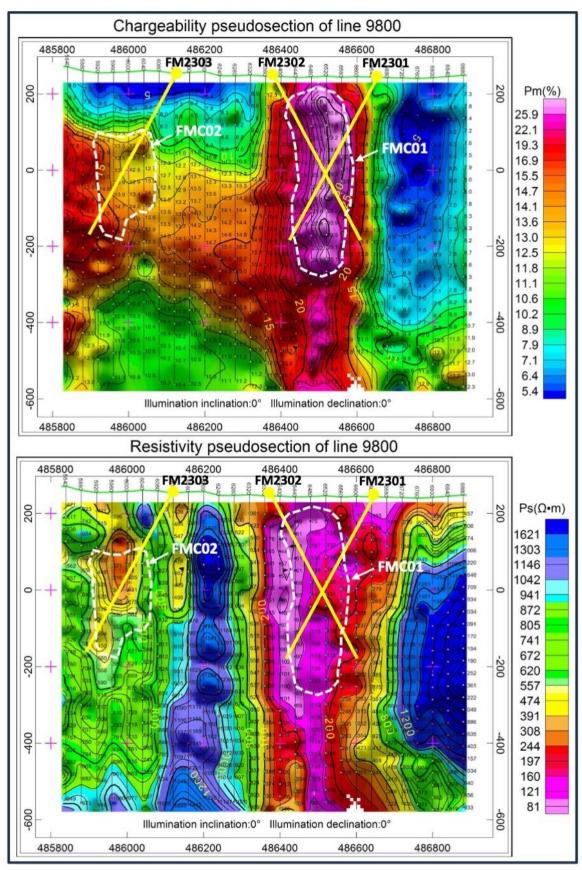


Figure 8. Plane view of Chargeability anomaly and Resistivity anomaly at various depth at Foxtails Prospect.



**Figure 9**. Two chargeability anomalies (FMC01 & FMC02) on 2D chargeability and resistivity pseudosections of the Line 9800. Note that those chargeability anomalies juxtapose low resistivity zones (bottom); and proposed test holes.

Significant results of this IP survey include:

- Two IP chargeability anomalies (FMC01 and FMC02) were detected on all six survey lines (Fig. 7, 8). The dominant anomaly, FMC01, lies at the east, trending to the northeast (Fig. 8). It displays as a 150 m wide, laterally extensive, steeply dipping zone (Fig. 7 & 9). The highest values with a tenor > 24% appear to be coincident with a low resistivity zone (Fig 7 & 8).
- The relatively modest chargeability anomaly FMC02 also strikes to the northeast, and dips steeply to the northwest (Fig. 7 & 8).
- Both chargeability anomalies appear to be shallow sourced from about 75 m beneath a thin layer of alluvial sediments.

The 2D chargeability and resistivity sections for Line 9800N are shown in Figure 9. High chargeability anomaly along with low resistivity strongly indicates the presence of high sulphur mineral zone at the surveyed area. Three holes to test those chargeability anomalies are proposed (Fig. 9, FM2301, FM2302 & FM2303).

A comprehensive review of IP data, with historic copper zinc geochemical data and geological models is currently underway, which involves amassing the historical data, validating and enhancing previously reported mineralisation models. The Company will follow up and rank targets after new drilling data becomes available in the short term.

Authorised for and on behalf of the Board.

# For further information please contact

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END

#### Competent Persons Statement

The information in this announcement that relates to Exploration Potentials is based on information compiled by Dr. Wanfu Huang, who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM), Member Number 333030. Dr. Huang has sufficient experience which is relevant to the style of mineralisation under consideration and to the activities undertaken 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'. Dr. Huang is a full-time employee to Coppermoly and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### JORC Code, 2012 Edition – Table 1

# 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.	Not applicable.
	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.	
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
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable
	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.	

Criteria	JORC Code explanation	Commentary
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.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
and sample preparation	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.	

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.	Not applicable.
	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 (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Not applicable.
	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.	
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.	Not applicable.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the	Not relevant as no boreholes has been completed to test those IP anomalies.
	degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The IP survey parameters were designed to give depth penetration to 800m and the orientation to give control in discriminating conductivity changes.
	Whether sample compositing has been applied.	A Mineral Resource is not being reported.
		No sample compositing has been applied, but assay results are reported on a length weighted average.
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.	Not applicable.
	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.	
Sample security	The measures taken to ensure sample security.	Not applicable.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been completed given the early stage of the project

#### Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	Tenements EPM 27835 and EPM27836. Held by CopperQuest Australia Pty Ltd a 100% owned subsidiary of Coppermoly Limited. The tenements are in good standing, with a native title agreement in place.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	Various parties explored this area, but not on the targets where current IP survey were carried out.
Geology	• Deposit type, geological setting and style of mineralisation.	It is still at early stage, but both targets display typical geological/geophysical features of SCG system.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	Not applicable.

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.
	• 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.	
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results.	Not applicable.
	• 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').	
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.	Appropriate maps and tabulations are presented 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.	All significant and relevant intercepts have been highlighted and key elements have been reported in all tested intervals.

Criteria	JORC Code explanation	Commentary
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.	IP sounding techniques have been utilised
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Short term future work plans are detailed in the body of this announcement. Exploration is at an early stage, and longer-term future work will be results driven