

ASX Announcement | ASX: CPM

12 April 2024

Follow up RC Drilling commences on multiple Cu-Au prospects at Mt Isa East

Highlights

- The Company has commenced RC drilling on four regional Cu-Au prospects at the Mt Isa East Project including Raven, Mafic Sweats North, Mafic Sweats South and Yarraman
- In total, 14 holes for approximately 2,300m is planned following up highly encouraging results from the 2023 drilling at Raven, Mafic Sweats South and Yarraman and a maiden drilling program at Mafic Sweats North testing geophysical and geochemical targets
- At Mafic Sweats South, a significant thickness of copper oxide mineralisation including 65m @ 0.34% Cu from surface (23MERC014) was intersected in 2023⁴. This round of drilling will test underneath the thick oxide zone for a potential copper sulphide source
- At Raven, RC drilling will test for extensions to Cu-Au mineralisation intersected in 2023 and as evidenced by an electromagnetic conductor that is modelled as a plunging shoot extending for 100m to the SE of the nearest drill hole
- An induced polarisation survey (IP) completed at Yarraman earlier this year has identified a chargeability anomaly coincident with a copper soil geochemistry anomaly along strike from the 2023 RC drilling. Two RC holes are planned at Yarraman to test the coincident geochemical and IP anomaly
- This new round of RC drilling will take up to three weeks, with assay samples placed on priority through the Mt Isa laboratory

Cooper Metals Managing Director Ian Warland commented:

“Cooper is embarking on its third drill program for the year with this new program testing four exciting prospect areas including a maiden drilling program at Mafic Sweats North. The targets are a combination of geophysical and geochemical anomalies, proximal to major structures that are ripe for concentration of Cu-Au mineralisation. All up the drill program will take two to three weeks, with assays fast tracked through the laboratory. All these prospects are within 30km of Mt Isa township and easily accessible to infrastructure.”





Background

Following on from the significant RC drilling results from 2023¹, Cooper has commenced follow up RC drilling at four Cu-Au Prospects (Figure 1).

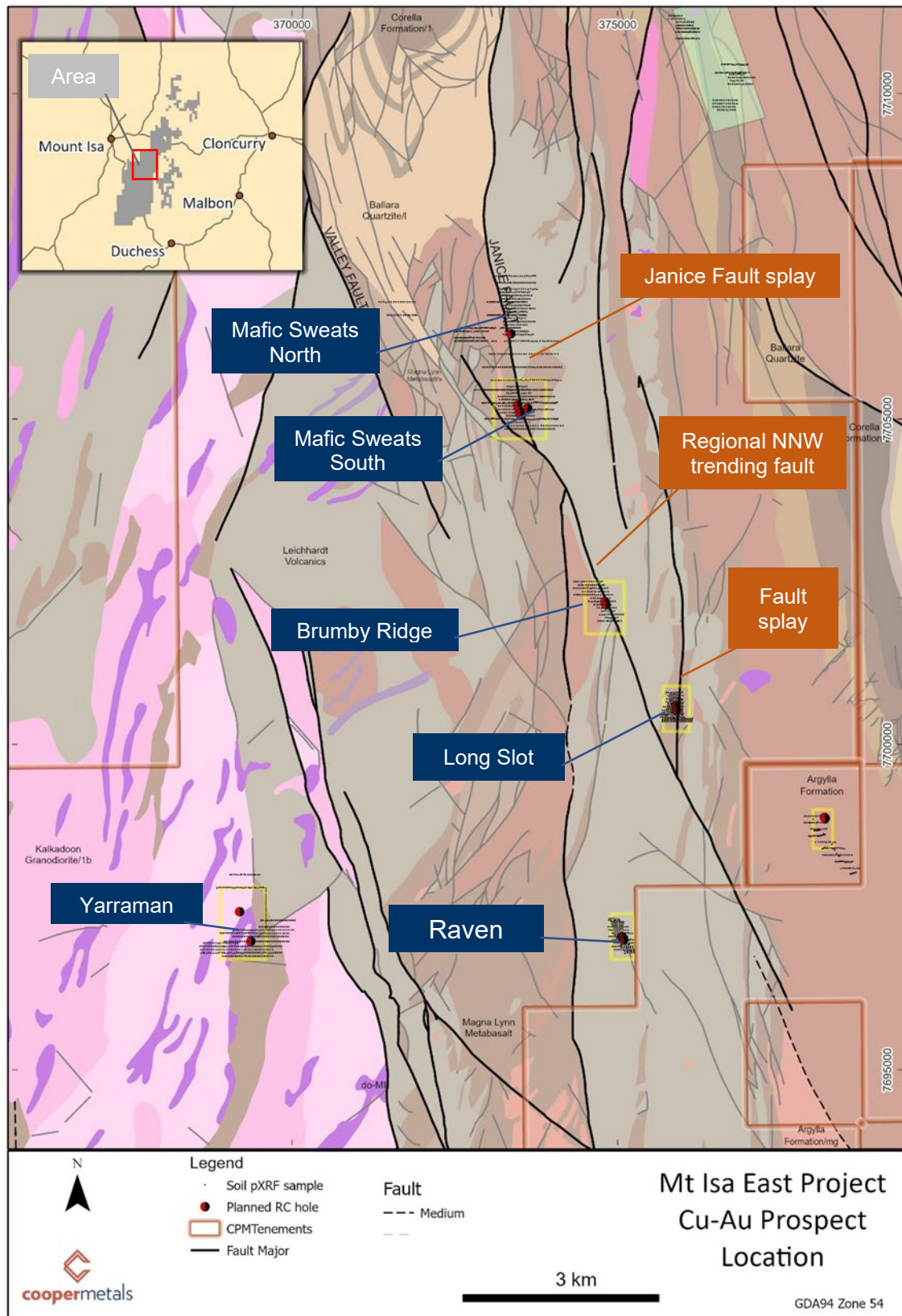


Figure 1: Prospect Location Map Mt Isa East Project



Raven Cu-Au Prospect

Planned RC Drilling

The Company has planned up to five holes for approximately 900m of RC drilling to extend the Cu-Au mineralisation at Raven Prospect as indicated by recent geophysical and geochemical surveys.

Background

At Raven, seven RC holes for 942m averaging around 135m in depth were completed in the October and November 2023 drilling programs². The mineralisation strikes for at least 100m in a NNW direction along a fault structure hosted within the Leichardt Volcanics. Initial interpretation of the drilling indicates a moderately SSE plunging shoot from surface, dipping steeply towards the west. The most southern of the drill holes 23MERC033 has two zones of mineralisation including:

- **8m @ 1.0% Cu & 0.08g/t Au from 85m including 1m @ 1.79% & 0.25g/t Au from 85m and 2m @ 2.96% & 0.16g/t Au from 91m (23MERC033)**
- **12m @ 0.81% Cu & 0.09g/t Au from 113m, including 8m @ 1.0% Cu & 0.11g/t Au from 113m, and 3m @ 1.68% & 0.21g/t Au (23MERC033)**

Other significant results at Raven from the 2023 RC drilling are shown in **Figure 2**. In December 2023, a down hole electromagnetic survey was completed in five of the RC drill holes (23MERC030 to 034) to look for extensions to the mineralisation identified in RC drilling¹.

The strongest conductive response was found in drillhole 23MERC033 at the southern end of Raven Prospect. The geophysical consultant has modelled several EM conductive plates, with plate C indicating a conductor continuing as a plunging shoot for approximately 100m along strike to the SSE (**Figure 2**). Importantly, the untested conductor plate C has a stronger response to plate B which has already been drill tested, potentially indicating a greater concentration of sulphides along strike from the known mineralisation.



Mafic Sweats South Cu-Au Prospect

Planned Drilling

Three follow-up RC drill holes are planned to test to the north of the current drilling and underneath the significant copper oxide mineralisation intersected in 2023.

Background

Mafic Sweats South Cu-Au Prospect comprises a series of shallow workings over a 300m strike length, hosted within the Magna Lynn Metabasalt and Argylla Formation rocks. The mineralisation is centered around a complex structural zone including the Janice Fault, a NNW trending fault that splays off a larger northwesterly trending regional fault (**Figure 1**).

A copper soil anomaly (pXRF) coincides with the modelled location of VTEM anomaly (1550b)⁸, a subtle anomaly modelled as a shallowly dipping conductor that projects to surface within the copper soil anomaly (**Figure 4**). Three RC holes drilled in 2023⁴ intersected a thick low grade oxide mineralisation from surface including:

- **65m @ 0.34% Cu from surface (23MERC014)**
- **66m @ 0.25% Cu from 6m (23MERC015), and**
- **60m @ 0.11% Cu from surface (23MERC016)**

Importantly, RC drill hole 23MERC014 was collared in mineralisation and ended in mineralisation at 65m due to drilling issue (**Figure 3**). The low-grade copper intercepts fit well with the modelled VTEM conductor, and the copper anomalism found in the pXRF soil survey. The copper oxide mineralisation over the significant Janice Fault may have formed as a result of weathering of copper sulphide mineralisation. The drilling will test for the presence of copper sulphides at depth.

Mafic Sweats North Cu-Au Prospect

Planned Drilling

Four holes for approximately 500m are planned to test a coincident copper anomaly in the soil and an electromagnetic anomaly from the 2022 Versatile Time Domain Electromagnetic (VTEM) Survey⁷.

Background

This is the maiden RC drilling program at Mafic Sweats North. A portable XRF (pXRF) copper soil grid completed in 2023⁵ delineated a copper geochemical anomaly approximately 900m long > 250ppm copper (**Figure 4**). The soil grid was completed on east west lines at a nominal 50m line spacing and 25m sample sites along the line. The highest copper grades were returned from an area around small historical working.

Rock chip samples taken from the working were up to 7.85% Cu and 0.45g/t Au (MER260). Importantly, the copper soil geochemical anomaly is adjacent to the significant Janice Fault that separates the Argylla Formation in the west and the Leichardt Volcanics to the east.

VTEM anomaly 1490 is approximately 200m long, gently dipping to the east and weakly conductive. The anomaly starts 40-50m below surface and is coincident with a copper soil anomaly (**Figure 4**).

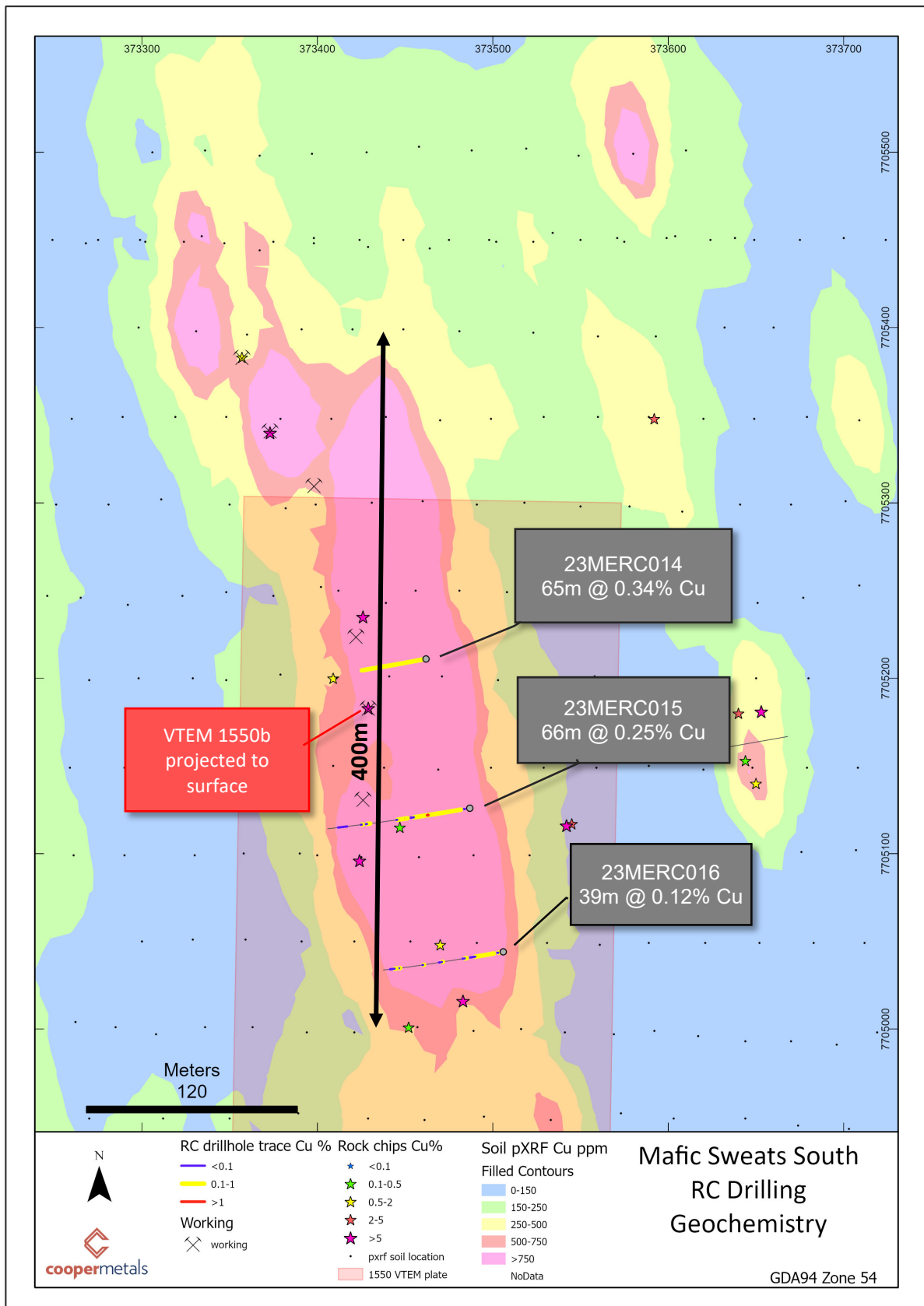


Figure 3: Mafic Sweats South Prospect over pXRF soil samples and rock chip locations

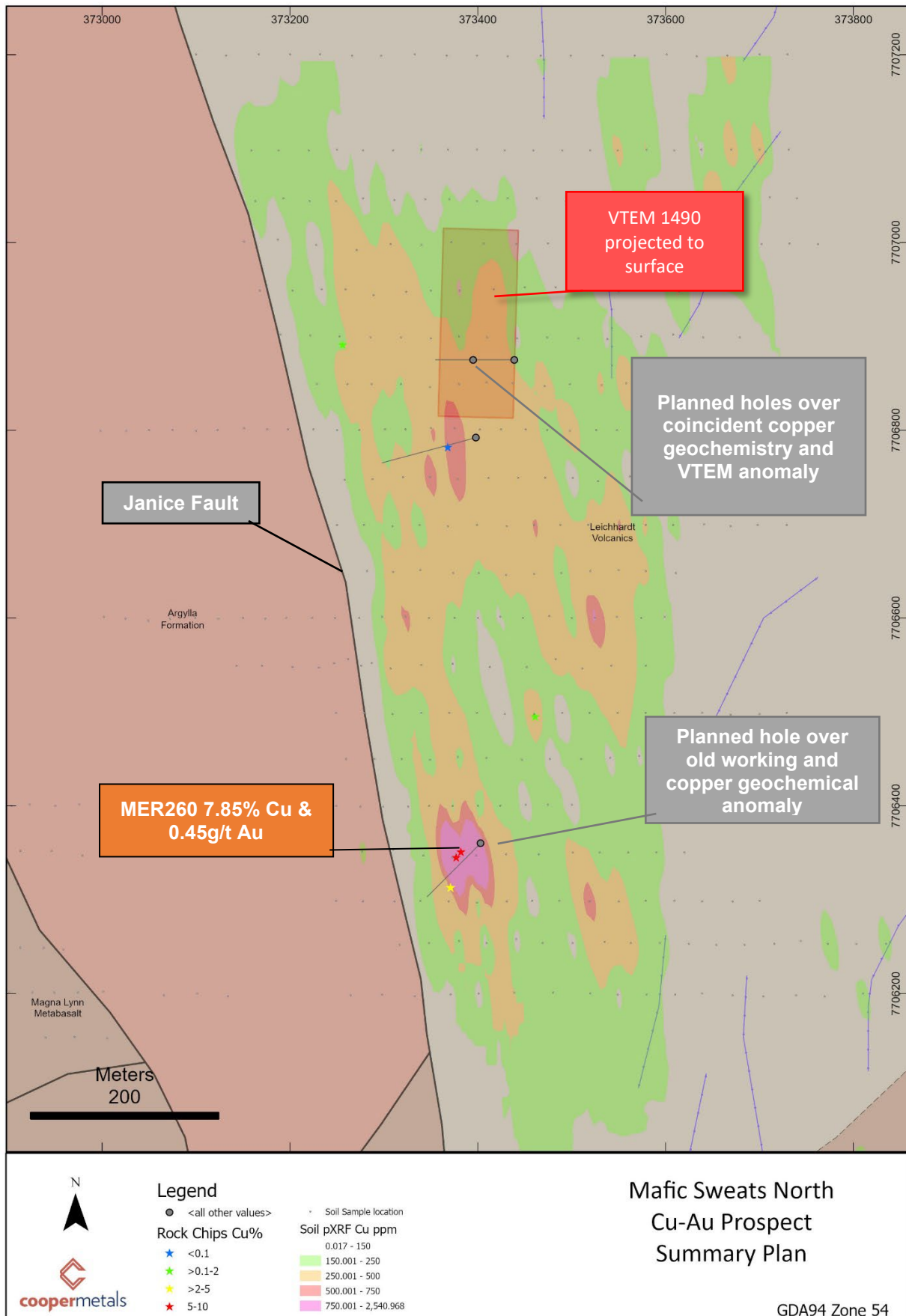


Figure 4: Mafic Sweats North Summary Plan with background geology and geochemistry



Yarraman Cu-Au Prospect

The Yarraman Cu-Au prospect is located approximately 5.5km west of the Raven prospect. RC drill hole 23MERC026 completed in late 2023 intersected 10m @ 0.55% Cu from 94m including 1m @ 2.05% Cu from 102m³ (**Figure 4**). This drill hole was testing a copper geochemical anomaly in the soil. Cooper completed a 2D induced polarisation (IP) traverse survey early this year, completing three lines over the stronger portion of the copper soil geochemical anomaly.

Encouragingly the IP lines traverses indicate a moderate chargeability response coincident with the copper soil anomaly. Importantly the IP chargeability response and copper anomaly are coincident with the NE trending lithology contact between dolerite in the west and Magna Lynn Metabasalt in the east. Two drill holes will be drilled initially to test this target.

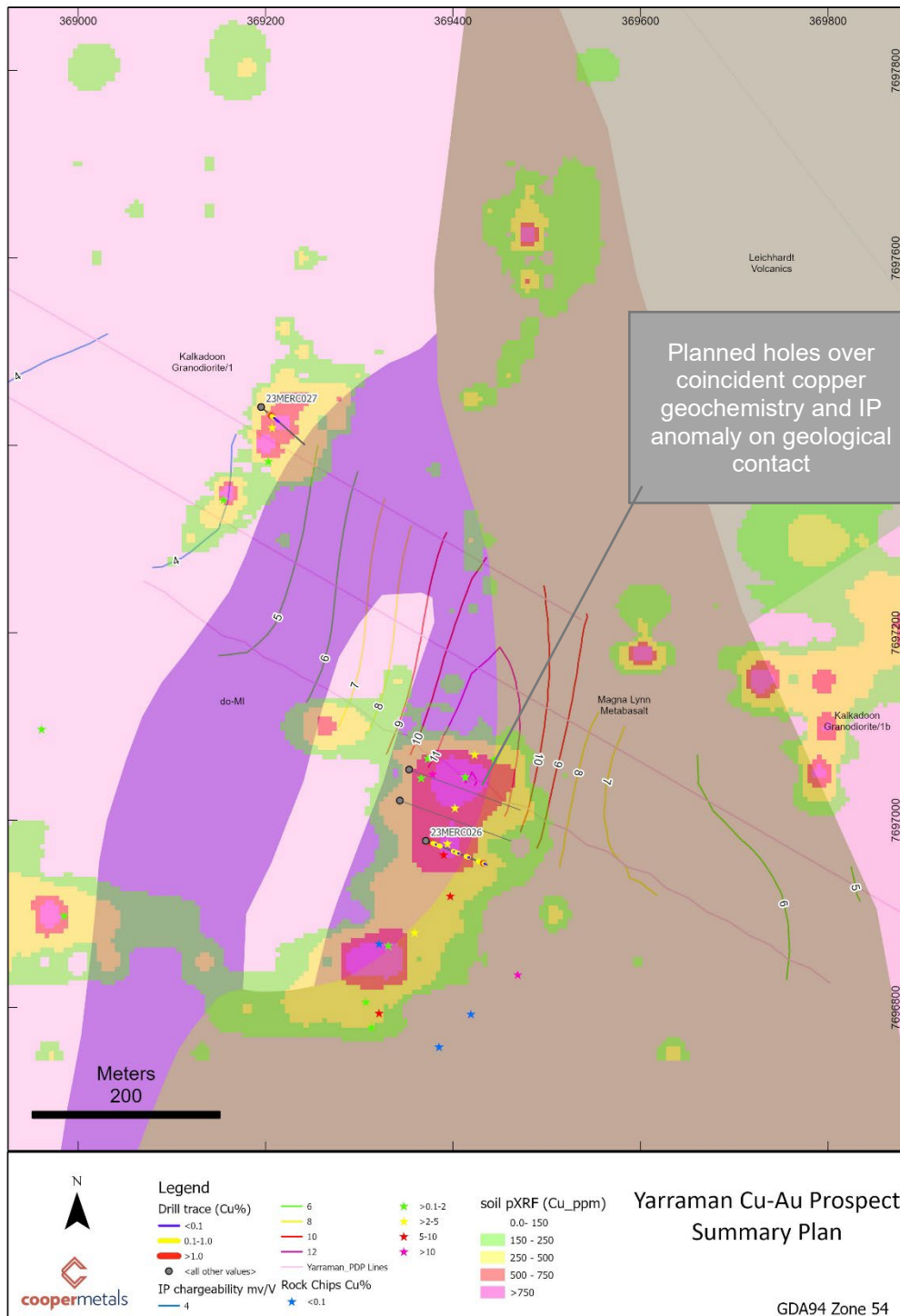


Figure 5: Yarraman Cu-Au prospect Summary Plan



Next Steps

- Complete this new phase of RC drilling on all four prospects
- Interpret assays and plan follow-up drilling
- Ongoing investigation into Brumby Ridge prospectivity

The Board of Cooper Metals Limited has approved this announcement and authorised its release on the ASX.

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COMPETENT PERSON'S STATEMENT:

The information in this report that relates to Geological Interpretation and Exploration Results is based on information compiled by Ian Warland, a Competent Person who is a Member of The Australian Institute of Geoscientists. Mr Warland is employed by Cooper Metals Limited. Mr Warland has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Mr Warland consents to the inclusion in the report of the matters based on his information and the form and context in which it appears.

Reference

1. ASX CPM: 23 January 2024: Raven Cu-Au Prospect potential improved by recent geochemistry and geophysics surveys
2. ASX: CPM: 12 December 2023: Raven Cu-Au prospect extended by recent RC drilling
3. ASX CPM: 14 November 2023: 50m @ 1.32% Cu intercept at Brumby Ridge Cu-Au Prospect, Mt Isa East Cu-Au Project
4. ASX: CPM: 2 November 2023: First holes into two previously untested prospects hit significant Cu-Au mineralisation
5. ASX: CPM: 24 August 2023: Geochemical sampling extends Cu-Au footprint on five prospects at the Mt Isa East Project
6. ASX: CPM: 12 July 2023: Reconnaissance sampling over VTEM/geochem anomalies identifies new copper-gold targets
7. ASX: CPM: 7 February 2022: Follow-up rock chip sampling continues to demonstrate wide-spread Cu and Au mineralisation at Mount Isa East
8. ASX: CPM: 30 June 2022: Multiple VTEM conductors identified at Mt Isa East Cu-Au Project

About Cooper Metals Limited

Cooper Metals Ltd (ASX: CPM) is an ASX-listed explorer with a focus on copper and gold exploration. CPM aims to build shareholder wealth through discovery of mineral deposits. The Company has three projects all in proven mineralised terrains with access to infrastructure. The Projects are detailed briefly below:

Mt Isa East Project (Qld)

Cooper Metal's flag ship Mt Isa East Cu-Au Project covers ~1600 sq.km of tenure with numerous historical Cu-Au workings and prospects already identified for immediate follow up exploration. The Mt Isa Inlier is highly prospective for iron oxide copper gold (IOCG), iron sulphide copper gold (ISCG) and shear hosted Cu +/- Au deposits.

Gooroo Project (WA)

Lastly the Gooroo Cu and or Au Project covers newly identified greenstone belt ~20 km from Silver Lakes (ASX: SLR) Deflector mine. The 26 km expanse of covered greenstone belt has had almost no exploration and was only added to government geology maps in 2020 after reinterpretation of geophysical data.

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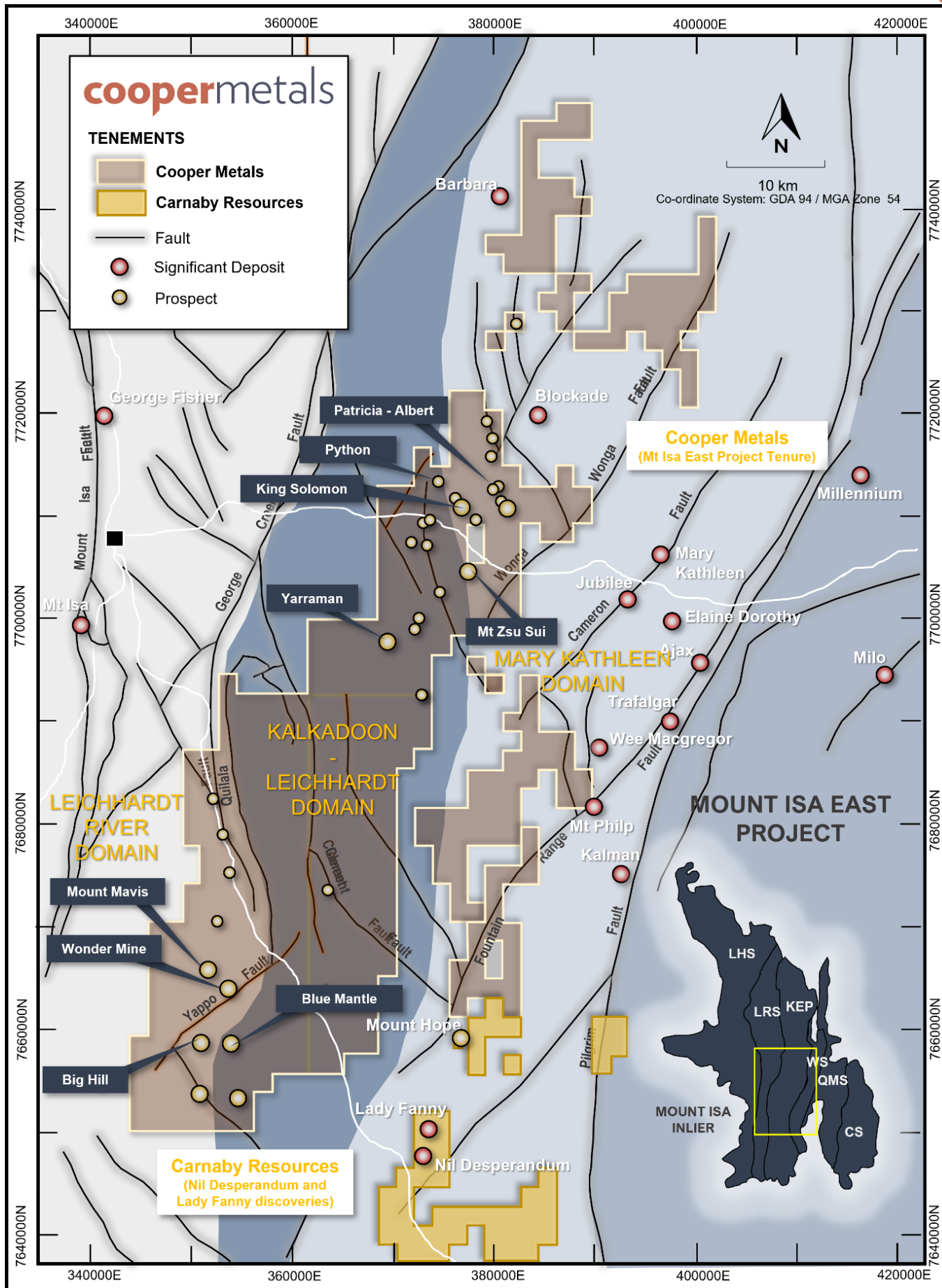


Figure 6: Mt Isa East Project Location, including new acquisition tenement over regional geology and main prospects



APPENDIX 1: The following tables are provided to ensure compliance with JORC Code (2012) requirements for exploration results for the Mt Isa East Project in Qld.

1.1. Section 1 Sampling Techniques and Data to update

1.2. (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<p>The Company is reporting new Induced Polarisation results for Yarraman in this release.</p> <p>Two induced polarisation lines were completed in September 2023 by Australian Geophysical Services Transmitter - GDD model Tx IV 20A/5000W/2400V Receiver - EMIT SMARTem24 Two Dipole-Dipole traverses orientated 120 degrees (UTM grid)</p> <ul style="list-style-type: none"> 50m Rx & Tx dipole length Chargeability Integration: 480 – 1680ms Typical Current: 1.2 - 4.7A <p>IP survey by Planetary Geophysics Pty Ltd March 2023. Transmitter - GDD model Tx IV 20A/5000W/2400V Receivers - Iris V Full Waveform 2 Chn One Pole - Dipole (PDP) traverse orientated 120 degrees (UTM grid).</p> <ul style="list-style-type: none"> Rx dipole length 50m Stations recorded in P-DP & DP-P mode simultaneously. Chargeability Integration: 480 - 1680ms Typical Current: 2.4 A
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> No new drilling is reported in this release
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No new drilling is reported in this release
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No new drilling is reported in this release
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	<ul style="list-style-type: none"> No new drilling is reported in this release
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> No drilling reported in this release



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core 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. 	<ul style="list-style-type: none"> • No new drilling is reported in this release
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • 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 (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> • No new assay of pXRF results reported in this release
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> • Due to the early stage of exploration no verification of significant results has been completed at this time.
	<ul style="list-style-type: none"> • The use of twinned holes. 	<ul style="list-style-type: none"> • No drilling reported
	<ul style="list-style-type: none"> • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> • All data is digitally recorded
	<ul style="list-style-type: none"> • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • No adjustments to the data.
Location of data points	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • IP locations were obtained using a Garmin GPS in UTM GDA94 MGA54S mode
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> • The competent person considers the level of accuracy associated with the borehole collar survey methods and the historical borehole spacing to be appropriate for the reporting of exploration results and as an indication of mineralization prospectivity for the mineral tenements.
	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • No mineral resources or reserves have been estimated, the competent person considers the results of further exploration, drilling, sampling and laboratory analysis, trenching for bulk samples, etc., would be required to establish the geological, grade continuity and an understanding of the metallurgical properties for each of the project areas.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	<ul style="list-style-type: none"> No new assay results reported.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No new drilling reported The DDIP and PDP lines orientated 120. This is approximately right angles to the geology.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> No new samples reported
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews undertaken.



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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The tenements (specifically EPM 27700) referred to in this release are held by
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The tenements are secure under Qld legislation.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The historical tenure reports indicated that several companies have explored the project area over the last 50 years. Exploration has mainly consisted of geochemical sampling of rock and soil. Geological mapping and acquisition of airborne magnetics. Limited historical drilling is recorded within the Qld Government database "GeoResGlobe".
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Mt Isa East Project is in the Mount Isa Inlier, which is prospective for IOCG, ISCG and shear hosted Cu-Au deposits. See body of this release for more information.
Drill hole Information	<ul style="list-style-type: none"> 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 style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No new drilling reported in this release
Data aggregation methods	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Unless stated otherwise in the announcement all grades were reported as certified by the laboratory for the sample length as taken in the field.
	<ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> No metal equivalents used.



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • 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'). 	<ul style="list-style-type: none"> • No new drilling reported in this release,
Diagrams	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • See main body of this release.
Balanced reporting	<ul style="list-style-type: none"> • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> • All available IP geophysical data for Yarraman is reported. The reporting is considered balanced
Other substantive exploration data	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Considerable historical work was completed with mapping sampling and geophysics. This work needs further review.
Further work	<ul style="list-style-type: none"> • The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> • Early-stage exploration and follow-up of identified Cu and Au anomalies including additional interpretation of geophysical data, reviews and assessments of regional targets and infill geochemical sampling of ranked anomalies in preparation for future drill testing. • RC drilling is in progress – see this ASX for details
	<ul style="list-style-type: none"> • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> • Refer to figures in this report.