ASX Announcement | ASX: CPM

17 November 2022

New Ardmore Tenement delivers high grade rock chip results

Cooper Metals Limited (ASX: CPM) is pleased to provide an exploration update for the Mount Isa East Cu-Au Project

Highlights

- **Reconnaissance geochemical sampling on Cooper's new Ardmore Tenement[1] (EPM19125) returns assays up to 17.3% Cu and 0.4g/t Au (MER098) from a north-easterly trending shear zone in the prospective Corella Formation rocks**
- **In the southern portion of EPM19125 approximately 5.5km northeast of Carnaby's (ASX:CNB) Mt Hope prospect, new rock chip sampling identifies a prospective 1.8km north trending shear zone developed along the contact between mafic rocks and the Corella Formation, with assays up to 17.25% Cu and 0.3g/t Au (Sample MER096). Other rock chips samples from the same shear zone include;**
    - **4.69% Cu and 0.15 g/t Au (MER094)**
    - **3.78% Cu and 0.04 g/t Au (MER095)**
    - **1.86% Cu and 0.84 g/t Au (MER097)**
- **Follow-up soil sampling is planned at Ardmore to better define the strength and extent of copper mineralisation prior to geophysical surveys, ahead of any drill testing in 2023**
- **7.1% Cu returned from a rock chip taken from remnant stockpiled mineralised rock at historical Sylvia May mine**

Managing Director Ian Warland, commented:

"Cooper is continuing to build a pipeline of quality cooper-gold targets at the Mt Isa East Project. Initial geochemical sampling on the new Ardmore tenement just north of Carnaby's Mt Hope prospect has delivered some highly encouraging copper and gold results. Copper mineralisation identified at surface along a north trending shear zone in the southern portion of the tenure indicates the high prospectivity of the Ardmore tenement for Cu-Au deposits. On ground work will continue to define areas for potential geophysical surveys ahead of drill testing in 2023. We look forward to updating the market as more results come to hand."

Cooper Metals Limited (ASX: CPM) ("CPM" or "the Company") is pleased to provide results of reconnaissance geochemical sampling on the new Ardmore tenement and at Sylvia May within the Mt Isa East Copper Gold Project in northwestern Queensland (**Figure 1**).

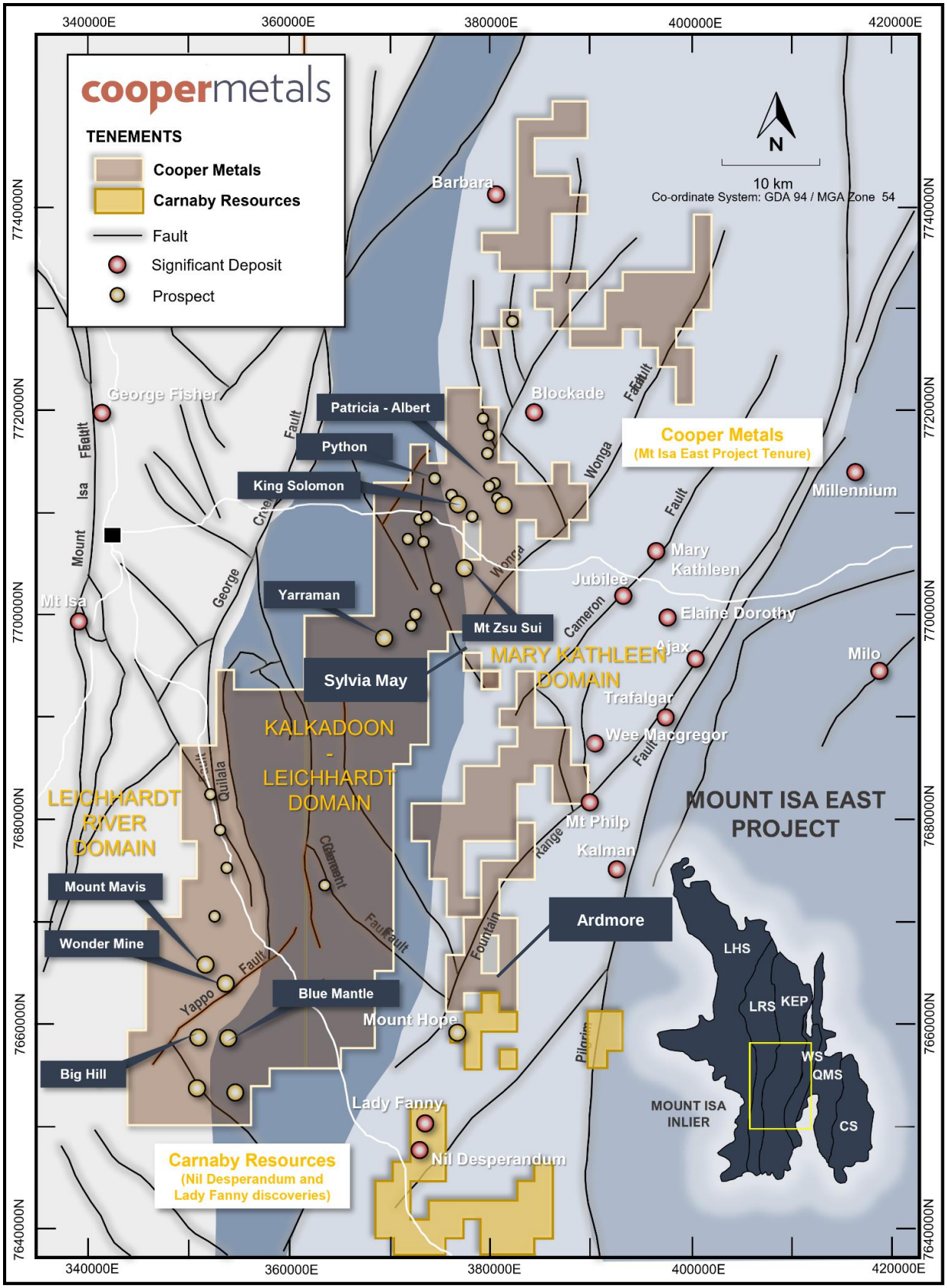

Figure 1: Mt Isa East Project Location Plan

Ardmore EPM19125 Reconnaissance Sampling

In October 2022, Cooper acquired 100% of the Ardmore tenement EPM19125[1]. EPM19125 adjoins Cooper's existing tenement EPM27782, expanding the Company's coverage of the Mary Kathleen Domain, a highly prospective structural domain for copper-gold (Cu-Au) deposits as highlighted by Carnaby Resources' (ASX: CNB) recent discoveries at Nil Desperandum, Lady Fanny and Mt Hope just to the south of Cooper's existing tenure (Figure 1). Interestingly, Carnaby's interpreted IOCG corridor defined by the position of Nil Desperandum, Lady Fanny and Mt Hope appears to extend towards the southern end of EPM19125 (Figure 2).

The new tenement also provides significant exposure to the highly prospective Fountain Range Fault (and subsidiary structures) that have demonstrated large volumes of hydrothermal fluid flow, mineralisation and currently the focus of significant exploration to the northeast of EPM19125 at Hammer Metals (ASX: HMX) Ajax and Trafalgar Cu-Au prospects [1].

In October, Cooper geologists visited the new Ardmore tenement and completed initial geochemical sampling.

Plate 1: Shaft at MER099

Field reconnaissance of historical workings in the northern part of the tenure and sheared lithological contacts between the prospective Corella Formation and mafic rocks delivered several high grade copper results. Copper mineralisation was dominated by malachite, a copper oxide mineral.

In the north, small prospecting pits returned samples up to **17.3% Cu and 0.4 g/t Au from MER098 and 2.41% Cu and 0.26 g/t Au from MER099** (Figure 2).

Plate 3: MER099 (2.4% Cu, 0.26 g/t Au)

Plate 2: MER098 (17.3% Cu, 0.4g/t Au)

In the southern part of EPM19125, just 5.5 km to the northeast of Carnaby's Mt Hope prospect, initial sampling along a sheared contact zone between the prospective Corella Formation and mafic rocks returned four anomalous rock chip samples with grades up to **17.25% Cu and 0.3g/t Au (MER096)**. The copper mineralisation is hosted in the Corella Formation and associated with strong quartz carbonate alteration in a shear zone similar to what we are drilling at King Solomon to the north. The sheared contact extends for around 1.8km in EPM19125.

Both the eastern and western sides of the mafic rocks in contact with the Corella Formation show evidence of copper mineralisation at surface. The government database (GeoResGlobe) indicates no prior drilling in this area.

Next steps in this area include a soil sampling program to identify the extent and strength of copper anomalism ahead of any geophysical surveys and drill testing.

Plate 4: MERO94 Gossan

Plate 5: MER096 (17.25% Cu & 0.3g/t Au)

Plate 6: MER094 (4.69 % Cu & 0.15 g/t Au)

Table 1: Rock Chip Summary Table

Sample_id	Prospect	Cu_%	Au_ppm	Easting	Northing	Comments
MER094	Ardmore	4.69	0.15	379332	7663789	iron oxide quartz breccia , strong magnetite , 1.5m w ide
MER095	Ardmore	3.78	0.04	379789	7663701	iron oxide gossan , malachite , carbonate alt in dolerite
MER096	Ardmore	17.25	0.30	379951	7663516	iron oxide gossan , malachite , carbonate alteration in Corella Fm
MER097	Ardmore	1.86	0.84	379949	7664022	quartz-carbonate vein betw een dolerite and Corella Fm , narrow malachite vein
MER098	Ardmore	17.30	0.42	383367	7675643	malachite in quartz carbonate vein , small w orking in tw o shallow pits
MER099	Ardmore	2.41	0.26	383500	7675790	small pit 2m deep . Ironstone
MER100	Regional	0.01	0.00	376792	7699681	Mafic ridge, minor carbonate alteration
MER102	Sylvia May	7.10	0.05	377857	7698919	Stock pile sample - Weathered schist w ith malachite , minor chalcocite and pyrite

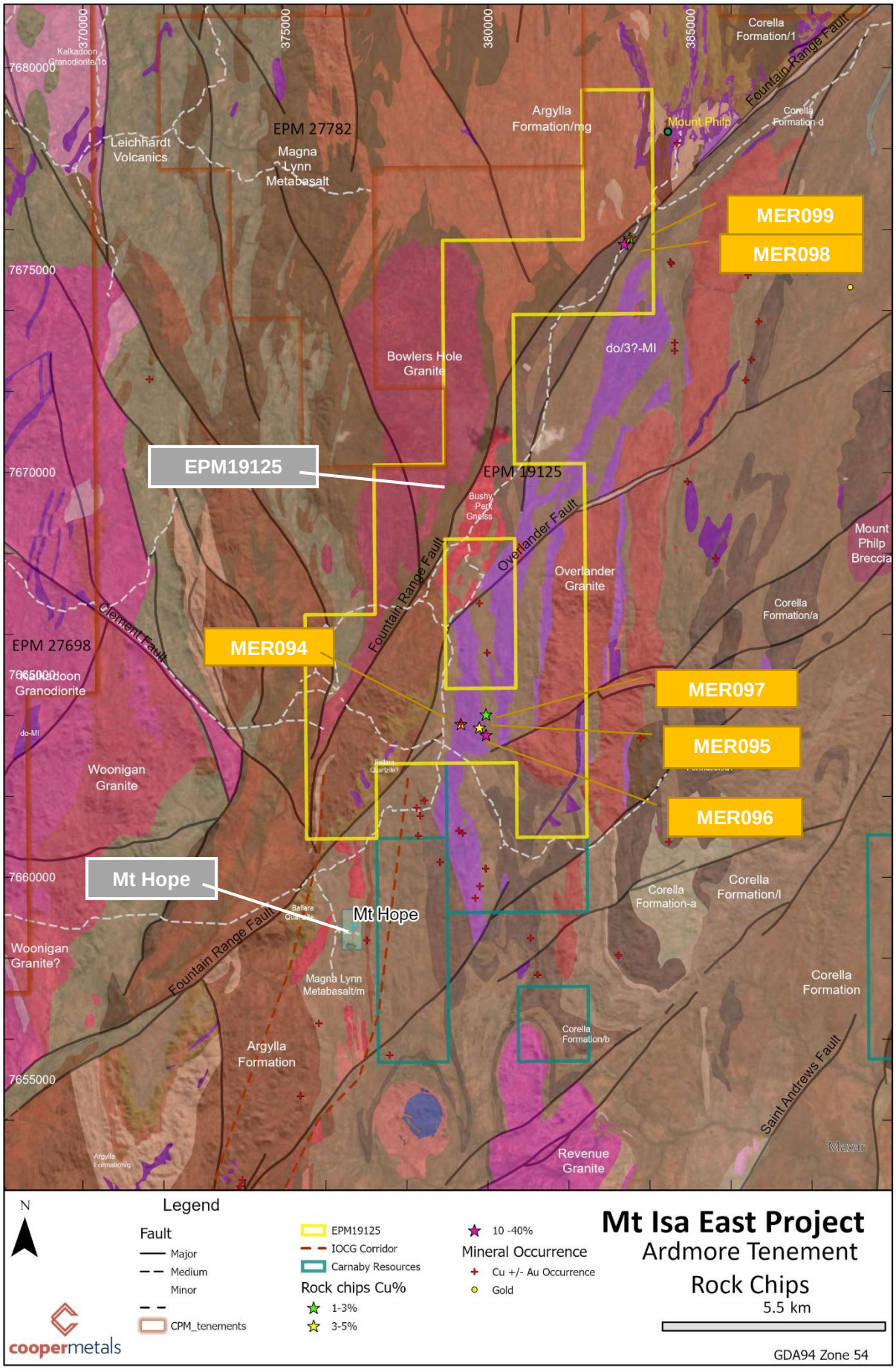

Figure 2: Rock Chip Location Map EPM19125 (Ardmore)

Sylvia May Workings (378204 E, 7698477N)

Since announcing the initial rock chip results at Sylvia May prospect last month[2], Cooper geologists have been back to the area to sample remnant historical ore stockpile at Sylvia May. Sylvia May is located approximately 12km south of King Solomon prospect. There are two historical open pits at Sylvia May which were mined for copper during the middle of last century.

Minimal exploration has been completed in the area although there is evidence of one historical drill hole into the northern pit. The southern pit (Little Sylvia) is approximately 20m deep, 20m long and 4m wide, with quartz veining, and minor malachite staining. The rocks are mapped as Argylla formation and rock chip sample **MER087 returned 1.45% Cu and 0.05ppm Au** from mineralisation in the pit wall[2]. The mineralisation appears to be on a north westerly trending shear zone.

The main Sylvia May pit is approximately 190m to the north northwest of Little Sylvia. The pit is in poor condition with steep walls, and an adit in the eastern side. Rock chip sample **MER088 taken from a small digging just north of the pit assayed 0.95% Cu and 0.036 ppm Au[2].**

New rock chip sample MER102 taken from the small stockpile at Sylvia May (**Plate**) returned **7.10% Cu and anomalous gold of 0.05g/t Au (Figure 3).**

The John Bull prospect is approximately 700m to the southeast along what appears to be the same shear zone that hosts Sylvia May, possibly indicating potential for a more extensive mineralised structure. Follow up geochemical sampling is planned for 2023 ahead of any geophysical surveys and drilling.

Plate 7: Copper mineralised stockpile

Plate 8: Little Sylvia Pit sampling

Next steps and ongoing Geochemical Reconnaissance

- Cooper is currently drilling at King Solomon and Python prospects and due to finish in late November
- Soil sampling at the Ardmore tenement
- Reconnaissance sampling is also planned to continue following-up VTEM anomalies and other targets identified by Cooper's team

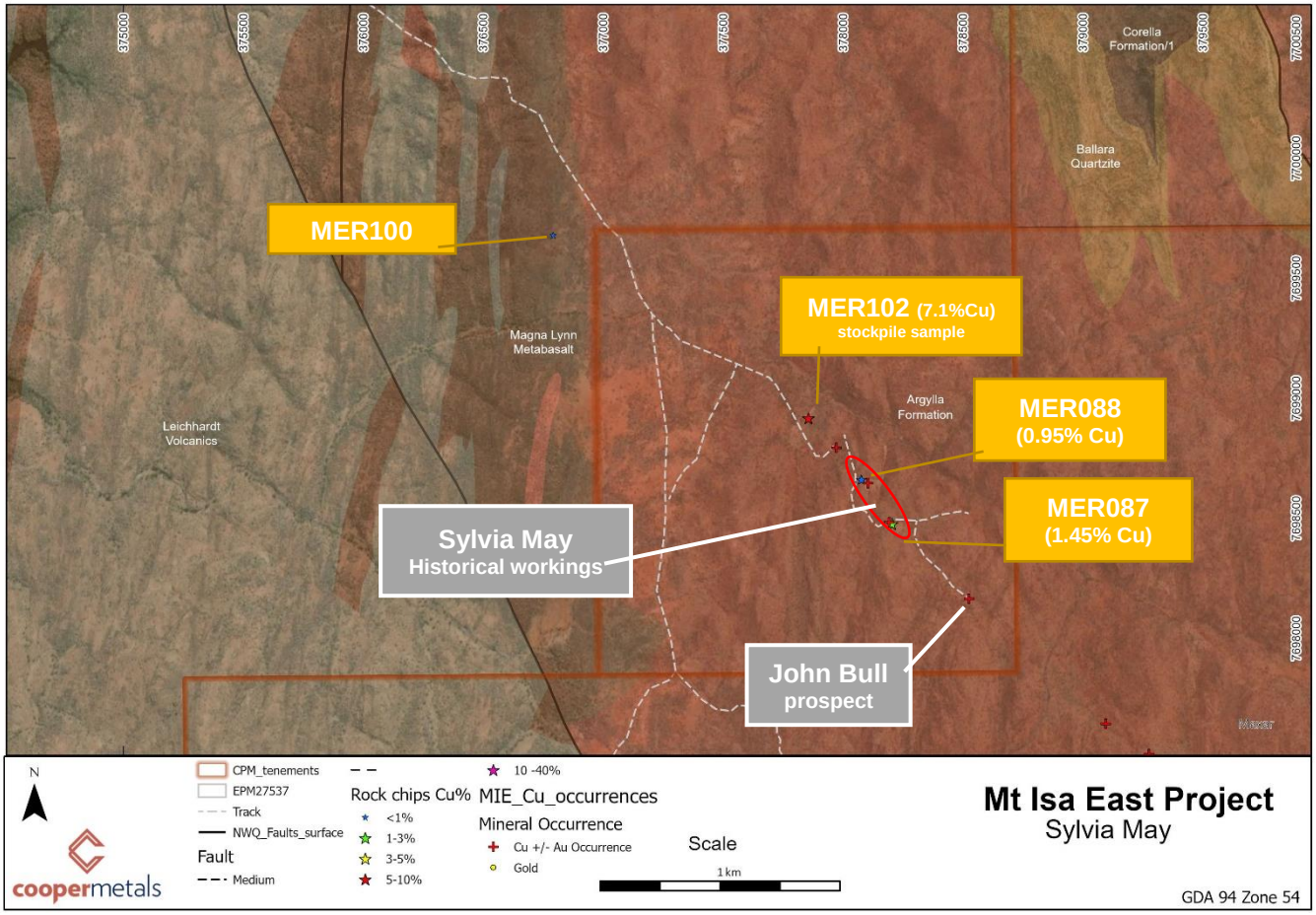

Figure 3: Sylvia May sample location summary diagram

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 Australasian Institute of Mining and Metallurgy. 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: 18 October 2022: Cooper continues to grow the Mt Isa East Project
2. ASX CPM: 27 October 2022: Exploration Update - Drilling preparation underway at Python and King Solomon, while continuing to build a pipeline of Cu-Au targets

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 ~1300 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.

Yamarna Gold Project (WA)

The Yamarna Gold Project located along strike from Gold Roads 6.16 Mozz world class Gruyere Gold Deposit (ASX: GOR) has an extensive length of untested Dorothy Hills Shear Zone that was important in the formation of Gruyere gold deposit located ~10 km to the southeast of Cooper's tenements.

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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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	• 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.	• Cooper Metals Ltd (ASX: CPM) is reporting a new geochemistry survey completed at the Company's Mt Isa East Project. • CPM Rock chip samples were collected predominantly on selective outcrop where there were signs of mineralisation or alteration of interest. • All samples were submitted to ALS Laboratory in Mount Isa for sample preparation and then forwarded to ALS Laboratory in Brisbane for analysis. • Rock samples preparation completed by ALS using method CRU-21 crush of 70% passing 6mm, then PUL-23 pulverise to nominal 85% passing 75 microns. • Samples were analysed using method ME-ICP61 for 33 element four acid ICP-AES. Au was analysed by 50g charge ICP-AES finish code a-Au-ICP22. • Ore Grade Elements were assayed using four acid digest and MEOG62. Ore Grade Cu was assayed using Cu-OG62
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).	• No new drilling is reported in this release
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.	• No new drilling is reported in this release
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.	• CPM rocks have been described in detail and photographed.
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• All field descriptions are qualitative in nature.
	• The total length and percentage of the relevant intersections logged.	• No drilling reported in this release

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• 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.	• CPM rocks - sample preparation was appropriate for the level of reporting. No duplicates were submitted. • CPM rock chips were taken by geologist to be representative of the subcrop or outcrop sampled. • CPM rock samples of ~1kg are appropriate for style of mineralisation and regional exploration.
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 (ie lack of bias) and precision have been established.	• CPM Rock chips - No duplicates, standards or blanks were submitted with rock chip samples. The laboratory has its own QAQC system for standards, repeats and duplicates.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• Due to the early stage of exploration no verification of significant results has been completed at this time.
	• The use of twinned holes.	• No twinned holes encountered.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• All data is digitally recorded in exploration report to Qld government.
	• Discuss any adjustment to assay data.	• No adjustments to the 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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• CPM rock chips - Location of samples by handheld Garmin GPS to +/- 5m accuracy, GDA94 Zone 50.
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	• 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. • CPM rock chips - Rock Chips samples were collected based on variable rock distribution.
	• 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.	• 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
	• Whether sample compositing has been applied.	• No sample compositing applied.
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.	• CPM - Rock chips were taken from selected outcrops, and may not be representative of the whole outcrop. The sample selection was based on outcrop distributions, and the link with geological structures has not been defined at this time. • No new drilling reported
Sample security	• The measures taken to ensure sample security.	• Sample security, due care and chain of custody are expected to have followed leading practice at the time of each drilling campaign, in the review of the available historical open-source information the competent person has encountered no reason to have questioned this assumption. • CPM rock chips are collected in individually numbered calico bags and loaded into polyweave bags and cable tied. • Samples were collected and stored at a secure location and transported to the Mt Isa laboratory by CPM personnel along with appropriate identification and paperwork
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or reviews undertaken.

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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 tenements (specifically EPM 27700) referred to in this release are held by Revolution Minerals Pty Ltd, Cooper Minerals Ltd acquired 85% of the tenements and the tenements are in the process of being transferred to Cooper Minerals Ltd name.
	• 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 tenements are secure under Qld legislation.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• 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". • Nine RC holes were completed at the Mt Zsu Sui prospect and details of this drilling can be found within the CPM Prospectus September 2021.
Geology	• Deposit type, geological setting and style of mineralisation.	• 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	• 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.	• No new drilling reported in this release
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	• Unless stated otherwise in the announcement all grades were reported as certified by the laboratory for the sample length as taken in the field.
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No metal equivalents used.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	• No new drilling reported in this release,
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.	• See main body of this release.
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 avoiding misleading reporting of Exploration Results.	• Rock chip samples are reconnaissance in nature from selected sites to demonstrate the prospectivity of the area. The reporting is considered balanced
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.	• Considerable historical work was completed with mapping sampling and geophysics This work needs further review.
Further work	• The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).	• 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.
	• 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 figures in this report.