

ASX Announcement | **ASX: CPM**

9 December 2021

Further strong assay results from Mt Isa East Cu-Au Project

Highlights

- Rock chip assays have been received from the southwest of Mt Isa East Project building on the previously announced results from the northeast, which included assays up to 35.3% Cu and 7.96 g/t Au¹
- New rock chip assays up to 15.75% Cu (MER028) from hydrothermal breccia at the historical Wonder mine
- Wonder Mine has evidence of fresh sulphides mined at depth, assaying up to 7.33% Cu (MER031) with old workings extending over 100m strike length along extensive north-south shear zone, which remains open along strike
- Rock chips up to 10.95% Cu, 0.26g/t Au and 2.8g/t Ag (MER032) returned from the Blue Mantle historical open cut, which also has evidence of fresh sulphides mined at depth, including 1.58% Cu from rock chip (MER033)
- Confirmation of significant historical workings at Big Hill Mine with ~140m long open-pit development, with 2.23% Cu in rock chips (MER034) taken from spoil material
- Numerous Cu +/- Au occurrences at Mt Isa East suggest strong potential for multiple favourable structural and or lithological settings to host significant Cu-Au mineralisation
- Ground EM and further geochemical sampling planned for King Solomon and Python prospects

Cooper Metals Managing Director Ian Warland, commented:

The exciting results from Cooper's initial field work at the Mt Isa East Project, reaffirms the Company's strong belief in the potential for the Project to host significant new copper-gold discoveries. Evidence of fresh sulphide rich rocks at some of the historical mines, containing visible chalcopyrite and pyrite is encouraging evidence for the presence of potentially significant primary mineralisation under the supergene ore and the added confidence that modern geophysics should provide an excellent tool for optimising drill targets. These latest results, along with those reported by Cooper in early December, are providing early areas of focus for our initial exploration efforts. Cooper is planning further field work including geophysics and geochemistry, as a priority to better define drill targets at the Mt Isa East Project. I look forward to updating the market with the Project progress in the coming weeks.





Cooper Metals Limited (ASX: CPM) ("CPM" or "the Company") is pleased to report the remainder of the assay results, from the initial reconnaissance rock chip geochemical sampling program, carried out at the Mt Isa East Project in northwest Queensland (Figure 1).

Exploration Strategy and Initial Field Survey Results

Cooper is targeting Cu-Au mineralisation in the highly prospective Mt Isa Inlier. Forty-two rock chip samples were collected from historical workings and/or selected outcrops, which contained visual evidence of Cu mineralisation or appeared gossanous in nature. The reconnaissance field trip focussed on two main areas in the northeast and southwest of the Project (**Figure 2**). Results for the northeast were released to the ASX in early December with rock chip results up to 35.3% Cu and 7.96g/t Au¹.

Geochemical results for the southwest Project area have now been received and processed with significant Cu +/- Au mineralisation returned in rock chip sampling from several of the priority prospects. The southwest Project area includes several old Cu - Au workings including the Wonder Mine, Mount Mavis, Blue Mantle Mine and the Big Hill Mine. Most of the prospects are located on significant faults and shear zones developed along the contact between lithological units. The recent results continue to highlight the high prospectivity of the Mt Isa East Project for Cu-Au deposit potential. A summary of key results appears below.

Wonder Mine

The Wonder Mine comprises three vertical shafts approximately 90m apart with a shallow open cut between the shafts. Mineralisation consists of iron oxide gossan over supergene copper mineralisation, with evidence of a sulphide rich zone at depth.

This mineralisation is associated with a north–northeast striking shear zone containing narrow, steeply dipping quartz veins over 1–2 m, but locally to 8 m (as patchy, thin veins) in a zone that has visible Cu for 170 m of strike. The shear zone has developed near the contact of granite gneiss to the west and metadacitic volcanics of the Bottletree Formation to the east. Importantly the sheared contact continues north for several kilometres, while it is truncated approximately 500m to the south against the Yappo Fault (Figure 3).

Cooper geologists collected four rock chip samples from the Wonder Mine area with Cu assays up to 15.75%, 0.25g/t Au and Ag 8.4g/t Ag (MER028). MER028 was from shaft three in the south. Of interest was a sample from a small stockpile of sulphide rich fresh sheared metavolcanic rock contained 7.33% Cu, 8.9g/t Ag (MER031). The presence of sulphide rich rock containing visible chalcopyrite and pyrite, strongly suggests the mineralisation could be amenable to detection and resolution with appropriate ground geophysics prior to drill testing.

Significantly, the Qld governments GeoResGlobe database does not record any historical drilling at Wonder Mine, nor was there any evidence on the ground for historical drill collars.





Figure 1: Wonder Mine Shaft above, and sulphide rich rock with 7.33% Cu (MER031) below



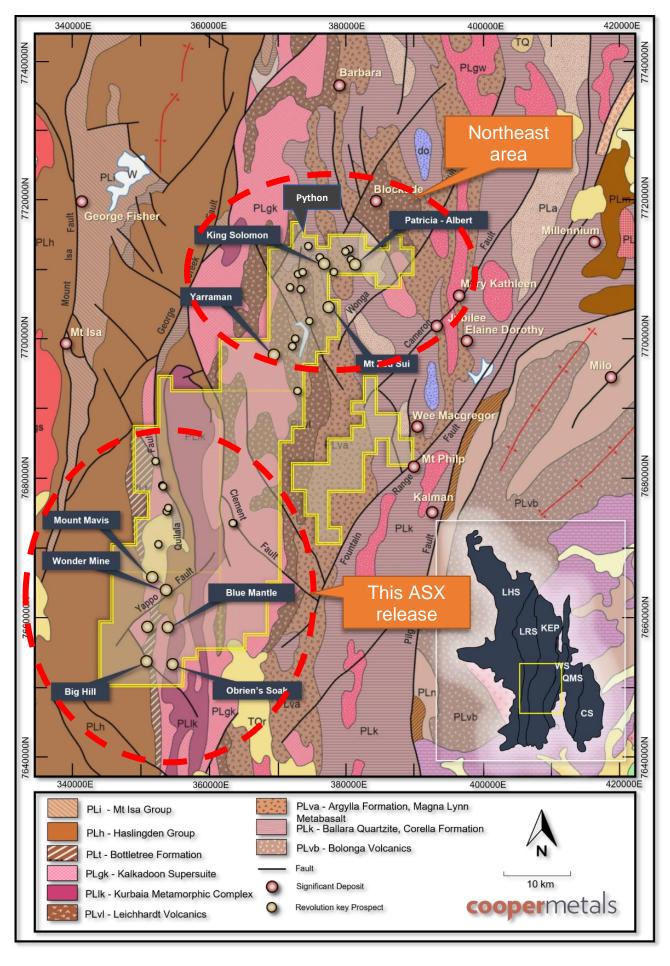


Figure 2: Mt Isa East Project over regional geology and main prospects (source: CPM Prospectus)



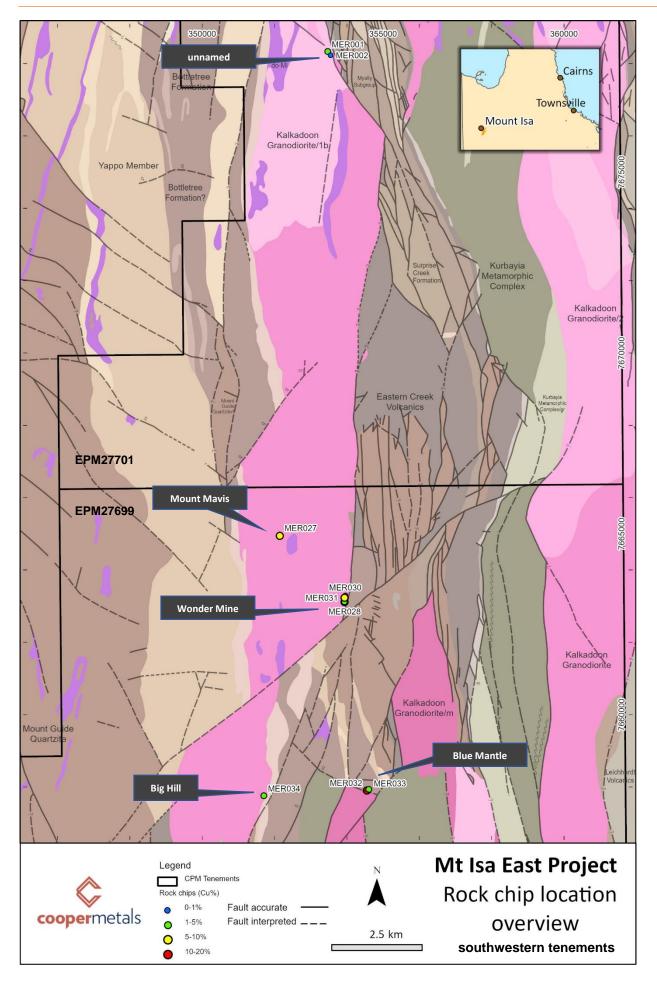


Figure 3: Detailed geology and key prospects of the southwestern tenements

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Mount Mavis Prospect

Mount Mavis prospect is located approximately 2.5 km to the northwest of Wonder mine and consists of a single shaft sunk into sheared schistose rock, possibly a metadolerite. A grab sample taken near the shaft (MER027) assayed 9.71% Cu and significantly 76.4g/t Ag with anomalous Au (0.18g/t Au) returned. The metadolerite appears to be a mafic intrusive into granodiorite rock and the extent of the dolerite is unknown as it is concealed by cover sequences.





Figure 4: Mount Mavis shaft right and rock chip sample MER027 above

Blue Mantle Prospect

The Blue Mantle prospect is a historical mine with open cut workings located approximately 5 km south of Wonder Mine. The workings extend about 66 m long by 16 m wide and 15 m deep. A mine shaft is centrally located within the pit. The deposit is a hydrothermal breccia hosted within a shear zone within Palaeoproterozoic Kalkadoon Granodiorite and Palaeoproterozoic Bottletree Formation sediments and volcanics. Mineralisation comprises malachite, azurite, chalcopyrite, pyrite, arsenopyrite occurring in quartz as vugh infill, disseminated sulphides, nodular sulphides and vein fill.

Cooper geologists collected two samples from the area including a grab sample from the open cut, that assayed 10.95% Cu, 0.26g/t Au and 2.8g/t Ag (MER032) and a sample from a small stockpile of fresh sulphide rich schistose rock containing 1.58% Cu, 0.27g/t Au and 0.8g/t Ag (MER033). Pyrite and chalcopyrite were visible in the stockpile, again indicating a sulphide rich mineralisation potentially detectable by geophysical methods.



Figure 5: Blue Mantle shaft above and copper sulphide mineralisation (MER033) right





Big Hill Prospect

The Big Hill prospect has the largest mine workings on the tenement and comprises a narrow open cut (Figure 7), excavated to a depth of about 15 m and extending over 140 m Previous workers note chalcopyrite, pyrite and malachite mineralisation associated with quartz veining in a north-south strikina shear zone within amphibolites (metabasalts precursor). The amphibolites are mapped as being up to 70 m in width, but the shear zone would appear to be much wider. To the west of the amphibolite, strongly foliated metapsammites are found, while to the east, variably foliated feldspar metadacitic volcanics are located, all of which are part of the Bottletree Formation (Figure 8).



Figure 6: MER034

The strike extent of the main veined zone is about 375 m; the strike continuation to the north is unknown due to poor outcrop exposure. The floor of the open pit is now obscured beneath recent loose fill, which has limited exposure of mineralised material that is readily available for sampling. Cooper geologists took one rock chip sample from a small stockpile adjacent to the pit which assayed 2.23% Cu, 0.09g/t Au and 2.2g/t Ag (MER034) (Figure 6).

Historical reports record gossanous ironstone extending well north of the open cut, and Cu in soil anomalism for at least 100m north of the open cut (Figure 8).



Figure 7: Big Hill historical opencut looking towards the south



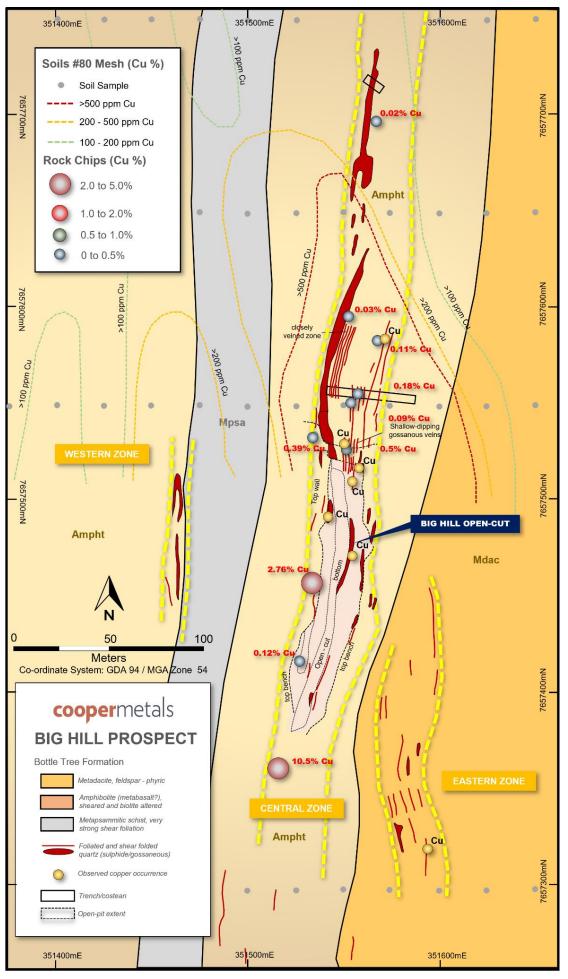


Figure 8: Big Hill prospect geology and historical geochemistry results (source CPM Prospectus)



Next Steps

Multiple mineralised Cu +/- Au occurrences within the tenure suggest there is potential for multiple structural and or lithological settings to host significant Cu-Au (±Ag) deposits. reconnaissance field program has highlighted the prospectivity of the Mt Isa East Project. Encouraging confirmation of several prospects potential will now shift focus on defining the full extent of these systems through expanding the geochemical program and utilising geophysical methods to start defining this system. Systematic exploration is now required to rank all of the prospects and explore new areas ahead of drill testing. Follow up work in the short to medium term includes:

- continued compilation and integration of historical exploration results from the project area,
- extending the ground geochemical programs; and
- ground electromagnetic survey at King Solomon and Python Prospects to delineate any sulphide conductors for drill testing.

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: 1 December 2021: Early Fieldwork programs at Mt Isa East return rock chip assays up to 35.3% Cu and 7.96 g/t Au
- 2. Cooper Minerals Ltd Prospectus September 20, 2021

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 (QId)

Cooper Metal's flag ship Mt Isa East Cu-Au Project covers ~1300 sg.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 Moz 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: Rock Chip Samples Mt Isa East Project (southwest area)

Note

Prospect	Sample ID	Easting	Northing	Cu (%)	Au (ppm)	Ag (ppm)	Sample Method
unnamed	MER001	353465	7678331	2.59	0.03	11.7	Rock Chip
unnamed	MER002	353551	7678227	0.30	0.01	3.8	Rock Chip
Mt Mavis	MER027	352146	7664947	9.71	0.18	76.4	grab
Wonder Mine	MER028	353936	7663117	15.75	0.25	8.4	Rock Chip
Wonder Mine	MER029	353935	7663121	1.38	0.06	1.3	Rock Chip
Wonder Mine	MER030	353955	7663292	0.20	0.01	0.5	Rock Chip
Wonder Mine	MER031	353935	7663229	7.33	0.06	8.9	Grab
Blue Mantle Mine	MER032	354551	7657901	10.95	0.26	2.8	Grab
Blue Mantle Mine	MER033	354600	7657937	1.58	0.27	0.8	grab
Big Hill	MER034	351702	7657761	2.23	0.09	2.2	grab

(coordinates are in GDA94, Zone 54)



APPENDIX 2: 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 in October 2021 at the Company's Mt Isa East Project. A total of 42 rock chip samples were collected by CPM with the results of 32 discussed in this document. 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 MEICP61 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 Refer to CPM Prospectus September 2021 for information on historical drilling.
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 Refer to CPM Prospectus September 2021 for information on historical drilling.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in	 CPM rocks have been described in detail and photographed. All field descriptions are qualitative in
	nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	No drilling reported in this release, refer to CPM Prospectus for information.



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 subsampling 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. 	No geophysical tools were encountered in the reports. 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	The verification of significant intersections by either independent or alternative company	Due to the early stage of exploration no verification of significant results has been
and assaying	personnel. The use of twinned holes.	completed at this time.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. 	 The drillhole information for the historical exploration results is sourced from historical tenure reports available on the Qld GeoResGlobe. The Competent Person considers the level of error 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 the mineralisation prospectivity for the mineral tenements. 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.



Criteria	JORC Code explanation	Commentary
	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.
	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, refer to CPM Prospectus for historical information results.
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.



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:	No new drilling reported in this release, refer to CPM Prospectus September 2021 for information on historical drilling.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail The assumptions used for any reporting of 	Unless stated otherwise in the announcement all grades were reported as certified by the laboratory for the sample length as taken in the field. No metal equivalents used.
	metal equivalent values should be clearly stated.	



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, refer to CPM Prospectus September 2021 for information on historical drilling
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.