JUBILEE METALLURGY STUDY OBTAINS OUTSTANDING +98% COPPER RECOVERY TO CONCENTRATE

13 November 2018

ASX Code: HMX

CAPITAL STRUCTURE:

Share Price (12/11/18)	**$0.028**
Shares on Issue	**278m**
Market Cap	**$7.8m**
Options Listed	**165m**
Options Unlisted	**21m**

Significant Shareholders	
Deutsche Rohstoff	**13%**
Resource Capital Fund VI	**9.3%**
Management	**8.8%**

HAMMER METALS LTD:

ABN 87 095 092 158
Suite 1, 827 Beaufort Street
Mt Lawley WA 6052

T: +61 8 6369 1195
E: info@hammermetals.com.au
W: www.hammermetals.com.au

DIRECTORS / MANAGEMENT:

Russell Davis
Executive Chairman

Nader El Sayed
Non–Executive Director

Ziggy Lubieniecki
Non-Executive Director

Mark Pitts
Company Secretary

Mark Whittle
Chief Operating Officer

- Hammer Metals Limited is pleased to report the results of the first metallurgical program for the Jubilee Cu-Au Prospect. Jubilee is located within the Mt Frosty Joint Venture between Hammer Metals Limited (51% and operator) and Mount Isa Mines Limited (49%).

- The recently completed diamond drilling programme obtained significant results including **5.5 metres at 14.5g/t Au and 6.87% Cu** from 74 metres within **14 metres at 5.93g/t Au and 2.19% Cu** from 66 metres in HJDD003. (Refer to ASX release dated August 27th 2018)

- Testwork was conducted on a single composite sample sourced from the three recently completed diamond drillholes (HJDD001, HJDD002 and HJDD003). Optimum grind and reagent settings were obtained in Test 3 which resulted in a **peak copper recovery of 98% and gold recovery of 80% to a copper concentrate.**

- The maiden Mineral Resource Estimate for Jubilee is underway. It is anticipated the results will be released later in the quarter.

Copper rougher flotation test T3

Hammer's Executive Chairman, Russell Davis, said: "The positive test results bring Hammer one step closer to the commercialisation of Jubilee. This is set to continue with the release of the maiden Jubilee resource estimate in the near future"

FIRST STAGE METALLURGICAL PROGRAM

A single composite sample was sourced from a recently completed diamond drill program at Jubilee. (Refer to ASX release dated August 27th 2018.)

The aims of the ALS study were:
(1) determine copper, gold and cobalt recoveries via rougher flotation;
(2) determine preliminary comminution parameters; and
(3) determine the main copper minerals in concentrates.

Table 1 – Head grade assay for the Jubilee composite

Composite	Cu (%)	Au (g/t)	Co (%)	Ag (g/t)
Jubilee	2.85	2.77	0.024	<2

Six rougher flotation tests were undertaken on the composite using different grind and reagent settings. To investigate gold recovery, gravity separation tests were conducted in isolation and in combination with rougher flotation. It was concluded that the gold was fine and there was no benefit in the introduction of gravity separation. Both copper and cobalt concentrates were produced.

The conclusion was that Test T3 achieved optimal recoveries of both copper and gold using flotation without gravity concentration. As expected, the cobalt grade of the cobalt concentrate was not high enough to be a stand-alone product, however the additional gold recovered in the cobalt concentrate may be of commercial value.

The 19.4% copper grade from the T3 concentrate should increase through regrind and cleaner flotation test work. This will be undertaken in future metallurgical studies.

Comminution tests reported an SMC classification of "medium" for JK impact breakage parameters and an abrasion index classification of "slightly abrasive". Optical mineralogy indicated that that copper in the composite concentrate was exclusively present as chalcopyrite ($CuFeS_2$).

Table 2 – Optimal test results for the Jubilee composite

Test	Product	Cu		Au		Co	
		%	% Rec'y	ppm	% Rec'y	%	% Rec'y
T3	Cu Con	19.4	98.5	10.7	80.0	0.10	56.4
	Co Con	0.4	0.9	2.4	7.2	0.12	27.5
	Total Con		99.3		87.2		83.9

Table 3 – Rougher float test parameters

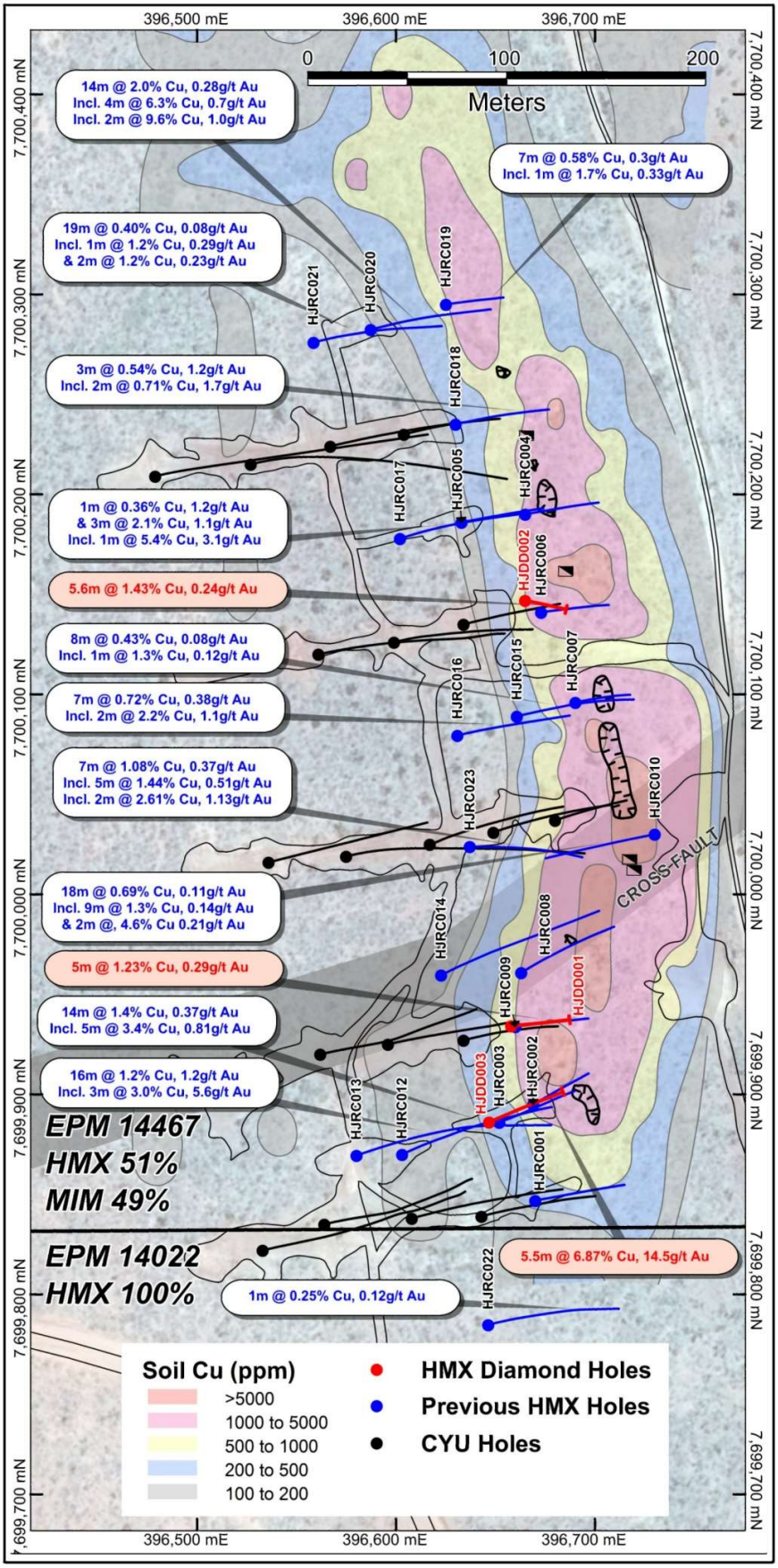
Float Parameters					
Test	Circuit	Float Time min	pH	Reagent Additions, g/t	
				Collector	Depressand / Activator
T3	Cu	3	8.55	Cytec A3894: 55	NaCN: 0
	Co	12	7.99	Cytec A3477: 10 SIBX: 80	CuSO4: 200

For further information contact:
Russell Davis | Executive Chairman
T: +61 8 6369 1195
info@hammermetals.com.au
www.hammermetals.com.au

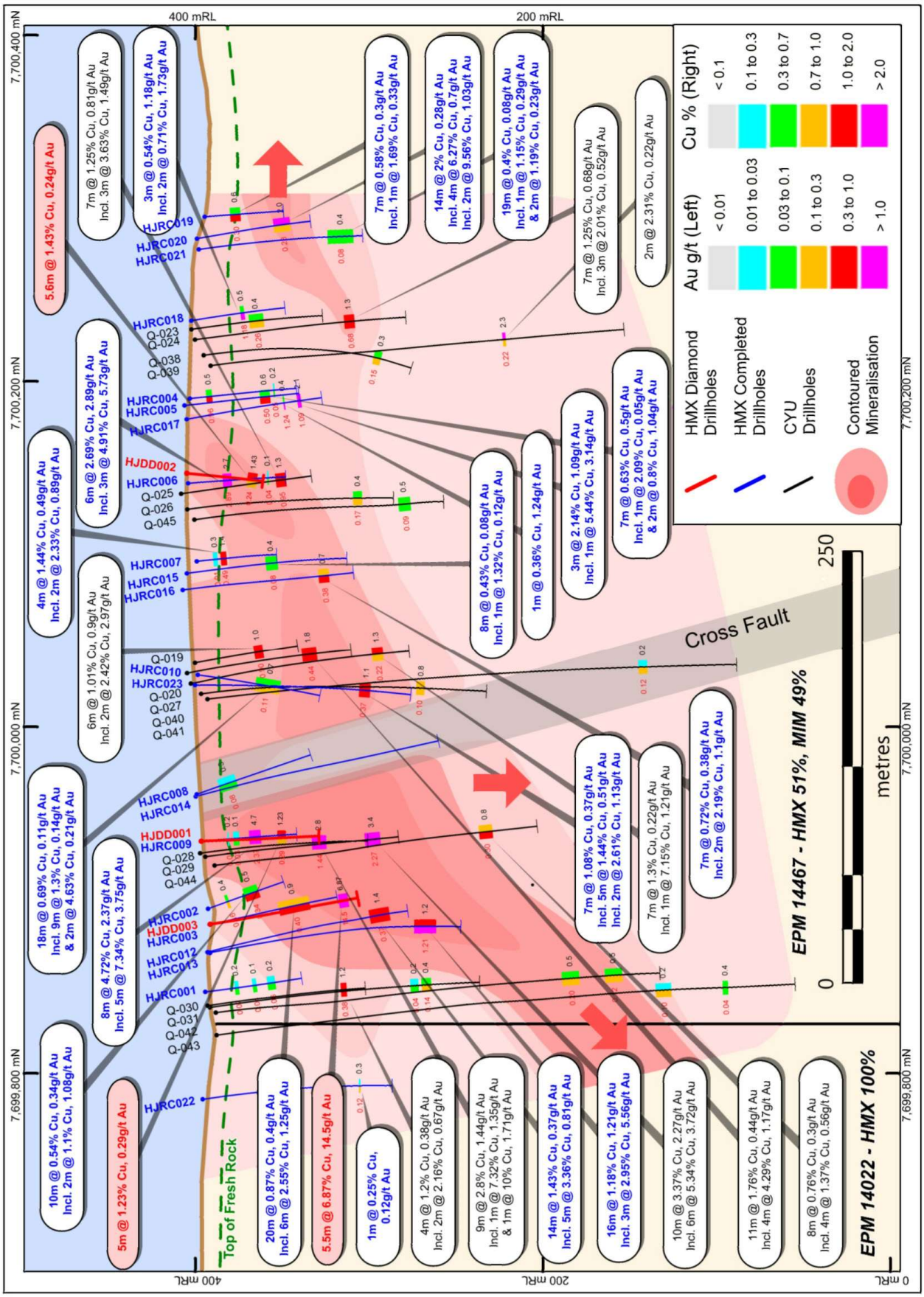
About Hammer Metals

Hammer Metals Limited (ASX: HMX) holds a strategic tenement position covering approximately 3000km² within the Mount Isa mining district, with 100% interests in the Kalman (Cu-Au-Mo-Re) deposit, the Overlander North and Overlander South (Cu-Co) deposits and the Elaine-Dorothy (Cu-Au) deposit. Hammer also has a 75% interest in the Millennium (Cu-Co-Au) deposit and a 51% interest in the emerging Jubilee (Cu-Au) project. Hammer is an

active mineral explorer, focused on discovering large copper-gold deposits of the Ernest Henry style and has a range of prospective targets at various stages of testing.



Drill Hole Location Plan with the three diamond holes identified by red call-outs

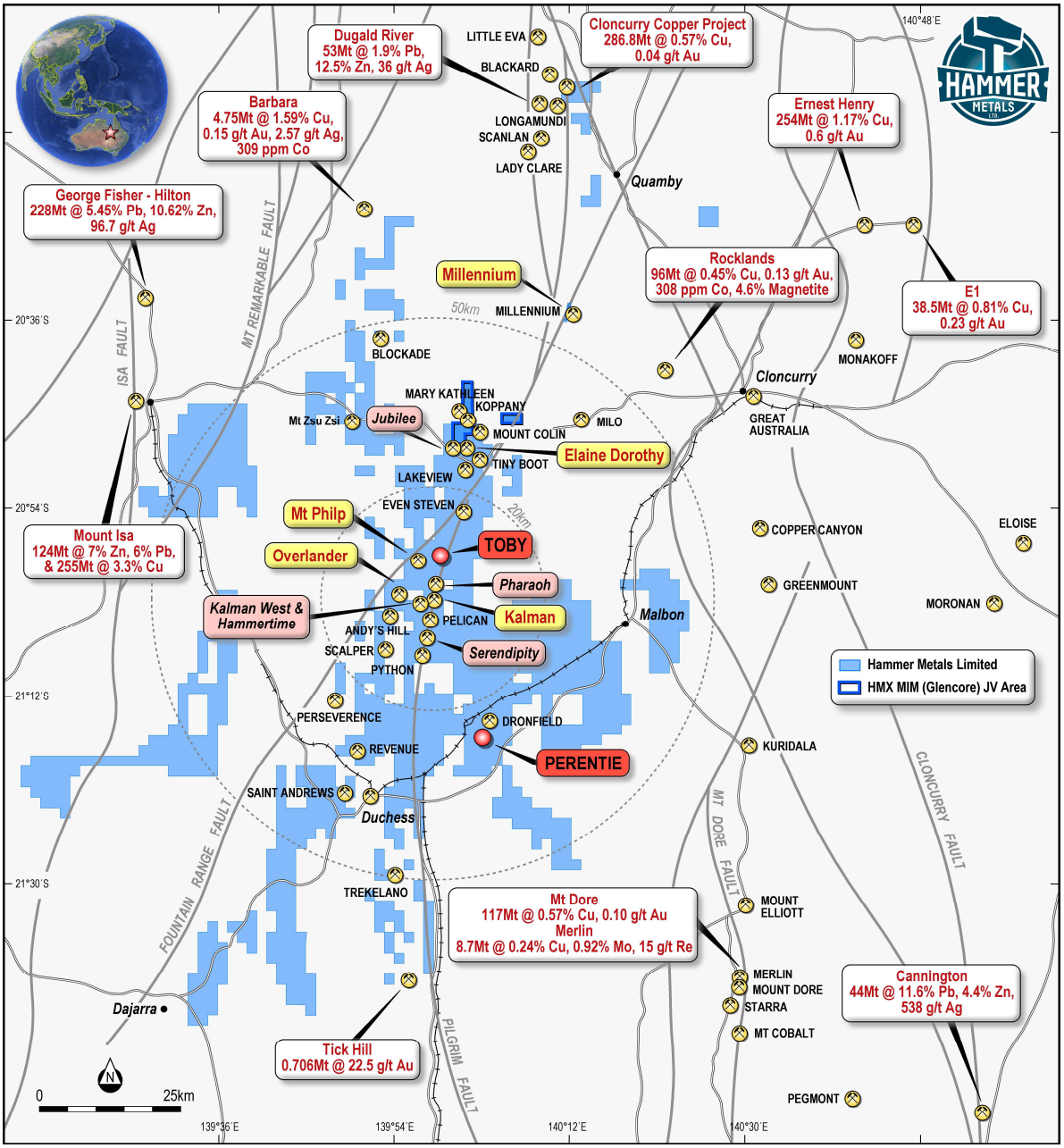


Long section of Jubilee (facing west) with the three diamond holes identified by red call-outs

Competent Person's Statement:

Exploration Results

The information in this report as it relates to exploration results and geology was compiled by Mr. Mark Whittle, who is a Member of the AusIMM and a consultant to the Company. Mr. Whittle who is a shareholder and option-holder, has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Whittle consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.



Hammer Metals Mount Isa Project area

JORC Code, 2012 Edition

Table 1 report – Exploration Update

- This table is to accompany an ASX release updating the market on metallurgical results from the Jubilee Cu-Au prospect.
- **Details relating to the metallurgical results are detailed in Section 2 "Other substantive exploration data"**
- **All information pertaining to the drilling from which the composite samples were sourced can be found in HMX releases dated August 27th.** Details of the drilling program are repeated below as the metallurgical composite sample was derived from HJDD001, HJDD002 and HJDD003.

Section 1 Sampling Techniques and Data

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

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.*	• Diamond drilling with samples taken at one or two metre intervals dependent on visual inspection of mineralisation. • All samples submitted for assay underwent a fine crush with 1kg riffled off for pulverising to 75 microns. • Samples were submitted for 4-acid digest followed by AAS assay for gold and ICP (OES) analysis for a multi-element suite including copper, silver, cobalt and molybdenum. .
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).*	• Holes were drilled by Drill North Pty Ltd utilising a small footprint diamond drill-rig. • Drilling type was HQ triple tube with a recovered core diameter of 61mm

Criteria	JORC Code explanation	Commentary
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.*	• For all runs drilled through the program the average recovery was 96%. Zones of core loss were encountered in the first 5m of each hole. In these first few runs, recoveries dropped to 50%. However, through mineralised zones recoveries were in excess of 95%. • To ensure no bias was introduced zones of core loss were assigned a zero grade in any calculations.
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 nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Samples consisted of quarter cut core with the remainder of the core stored in core trays within a refrigerated container. Recently a further ½ core sample has been taken for metallurgical feed stock. As a result, ¼ of the original core will remain in storage for future reference. • The core is qualitatively logged and quantitatively examined using an Olympus Vanta portable XRF instrument and magnetic susceptibility meter.
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 insitu 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.*	• Samples for assay consisted of ¼ HQ3 core. • Sample collection methodology and core diameter is considered appropriate to the target-style, and appropriate laboratory analytical methods were employed. • Standard reference samples and blanks were inserted into the laboratory submissions at a rate of 1 per 25 samples. • At least two duplicate samples consisting of quarter core were taken from each drillhole and inserted at the end of the drillhole sample sequence. • The sample sizes submitted for analysis are appropriate for the style of mineralisation sought.
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*	• All drilling samples were analysed by ALS for a range of elements by ICP (OES) after a 4-acid digest. Gold was analysed via flame AAS. • With drill samples standard reference samples and blanks were inserted at

Criteria	JORC Code explanation	Commentary
	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.*	25 sample intervals. ALS also maintained a comprehensive QAQC regime, including check samples, duplicates, standard reference samples, blanks and calibration standards. • High grade analyses in HJDD003 were subject to 2 repeat analyses to confirm gold tenor.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *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.*	• All intercepts have been verified by alternate company personnel • Holes have not been twinned. • All field logging is validated and entered into the company database. • Assay files were received electronically from the laboratory. • Intercepts which contain an analysis below the detection limit are calculated using an adjusted value which is half the listed detection.
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.*	• Drill hole collars were measured using a hand-held GPS unit with an estimated positional accuracy of approximately 5 metres. • Datum used is UTM GDA 94 Zone 54. • RL's for the drill hole collars are initially captured by GPS and will subsequently be adjusted utilising the best available digital terrain data. For Millennium this is a sub-metre laser DEM survey.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• The drill density relating to this program is sufficient to establish short range grade continuity. • Samples were taken at 1 and 2 metre interval lengths. The interval length is dependent on visual estimation of mineralisation.
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*	• Drill holes were oriented as close to perpendicular as possible to the interpreted orientation of the geophysical targets, surface and downhole geological features. • There is no indication that the hole angle has introduced a sampling bias.

Criteria	JORC Code explanation	Commentary
	if material.	
Sample security	• *The measures taken to ensure sample security.*	• Pre-numbered bags were used, and sample were transported to ALS laboratory in Mt Isa by company personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The dataset associated with this drilling has been subject to data import validation. • All assay data has been reviewed by two company personnel.

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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• This drilling occurred on granted EPM14467 - owned by Mount Isa Mines Limited (49%) and Mulga Mining Pty Ltd (51%). Mulga Mining Pty Ltd is a 100% owned subsidiary of Hammer Metals Limited
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• At Jubilee, exploration, including RC drilling, has previously been carried out by Chinalco Yunnan Copper, now AuKing Mining Limited.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Drillholes are located within altered sediments of the Corella Formation on the western limb of the Mary Kathleen syncline. • The style of copper-gold mineralisation at Jubilee is shear-hosted. This style of mineralisation is common in the Mount Isa region and the closest examples of this style of mineralisation would be the nearby Mt Colin Deposit operated by CopperChem Limited.
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*	• See the attached tables.

Criteria	JORC Code explanation	Commentary
	○ *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.*	
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 metal equivalent values should be clearly stated.*	• Intercepts are quoted at a 0.2% Copper cut-off with included intercepts highlighting zones of increased Copper and/or Gold Grade. .
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 (eg 'down hole length, true width not known').*	• In plan, most drill-holes were oriented perpendicular to the interpreted position of the modelled structural features. In section, the average angle between the drillholes and the modelled structural features is 55 degrees. • This drilling when used in combination with nearby existing drilling is at a sufficient density to enable some grade continuity to be established.
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 attached figures
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.*	• Intersections derived from laboratory analysis are reported at cut-off grades of 0.2% Copper. • The reader can therefore assume that any portions of a drillhole that are not quoted in the intercept tables contain grades less that the quoted cut-off.

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.*	• Refer to the release. • Copper contours are presented in the plan figure. These contours represent interpretation of soil samples analysed via portable XRF. The reader can assume that outside of these contoured areas the soil copper response is not considered significant. **<u>Jubilee metallurgical test work</u>** • One composite was sourced from HJDD001, HJDD002 and HJDD003. The samples were composed of half HQ core. • Composite head grades are tabulated in the body of this report. • The composite weight was between 50 and 60kg. • The work was conducted by ALS in South Australia. **Specific aims of the program were**. • Multielement head analysis • Optical microscopy augmented by XRD analysis • Bench scale rougher flotation tests • Comminution tests (SMC tests, abrasion index tests and bond ball mill work index tests). • Head grade and concentrate analyses were conducted by ALS utilising Fusion XRF, 4 acid digest ICP-OES and for gold fire assay with ICP_OES finish.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• An ore resource estimate is in progress.