

8 December 2017

## EXPLORATION UPDATE

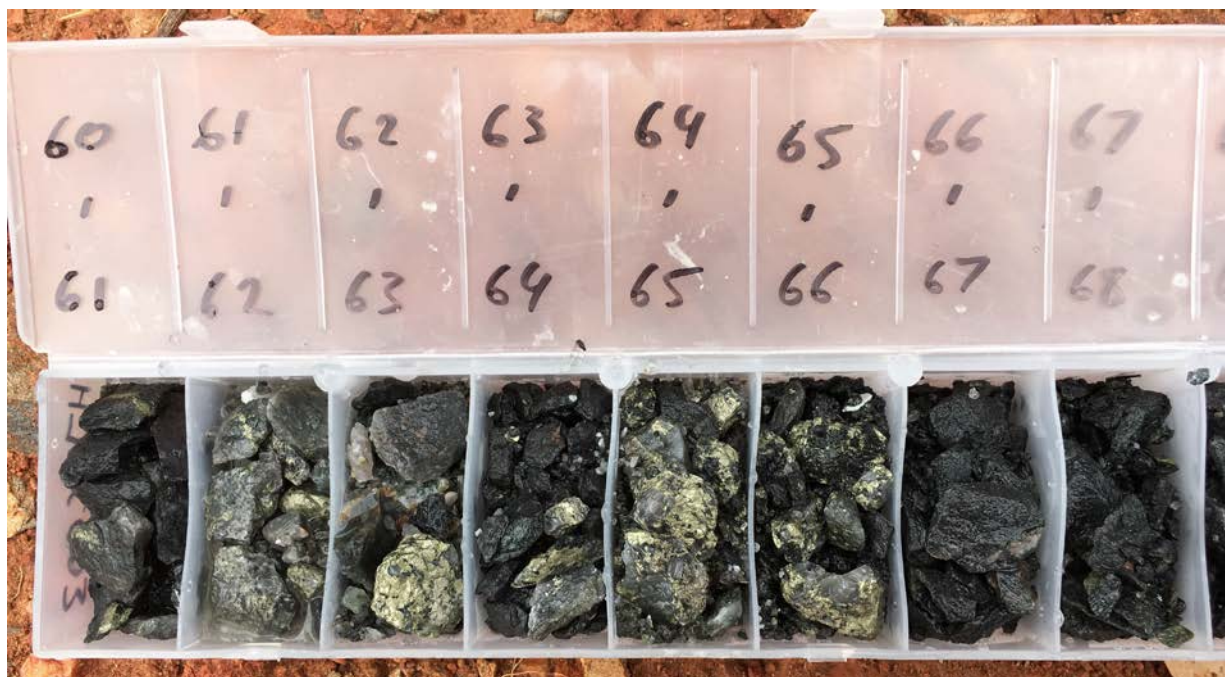
### Copper Sulphides Intersected at Mount Frosty JV

**Hammer Metals Limited** (Hammer or the Company) (**ASX: HMX**) is pleased to advise that 9 RC holes of the phase 1 program have now been drilled at the Jubilee copper-gold target. Several of the intersections display visible sulphide mineralisation from shallow depths including the copper sulphide chalcopyrite. Refer to the photographs of drill chips from HJRC004 and HJRC009. Jubilee is located within the Mt Frosty Joint Venture with Mount Isa Mines Limited.

The Company notes that assay results from the Jubilee drilling, which will determine the significance of the visible mineralisation seen to date, are expected to be available in approximately 3 to 4 weeks. Once received, full details for each of the completed holes will be reported. The drilling rig will now shift to the Millennium cobalt-copper project area for up to three drill holes before returning to Jubilee for further drilling before year end if weather and time permits.

The Mt Frosty JV over EPM 14467 is located adjacent to the Mary Kathleen Uranium Mine, 60km east of Mount Isa and covers the Mary Kathleen Shear Zone that hosts several copper-gold, uranium and REE prospects including Jubilee, Koppany and Blue Caesar.

Under the terms of the Joint Venture Agreement with Mount Isa Mines Limited (MIM - a 100% owned subsidiary of Glencore PLC) each Party to the Joint Venture will contribute exploration expenditure according to their participating interest (HMX - 51% / MIM - 49%). Hammer is managing the exploration activities.



**HJRC 004 60 – 68 metres with visible pyrite, pyrrhotite and chalcopyrite**



**HJRC 009 33 – 40 metres with visible pyrite, pyrrhotite and chalcopyrite**

**Hammer Metals Limited** (ASX: HMX) Hammer Metals holds a strategic tenement position covering approximately 3000km<sup>2</sup> 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, the Millennium (Cu-Co-Au) deposit as well as the recently acquired Elaine-Dorothy (Cu-Au) deposit. 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.

For further information, please contact:

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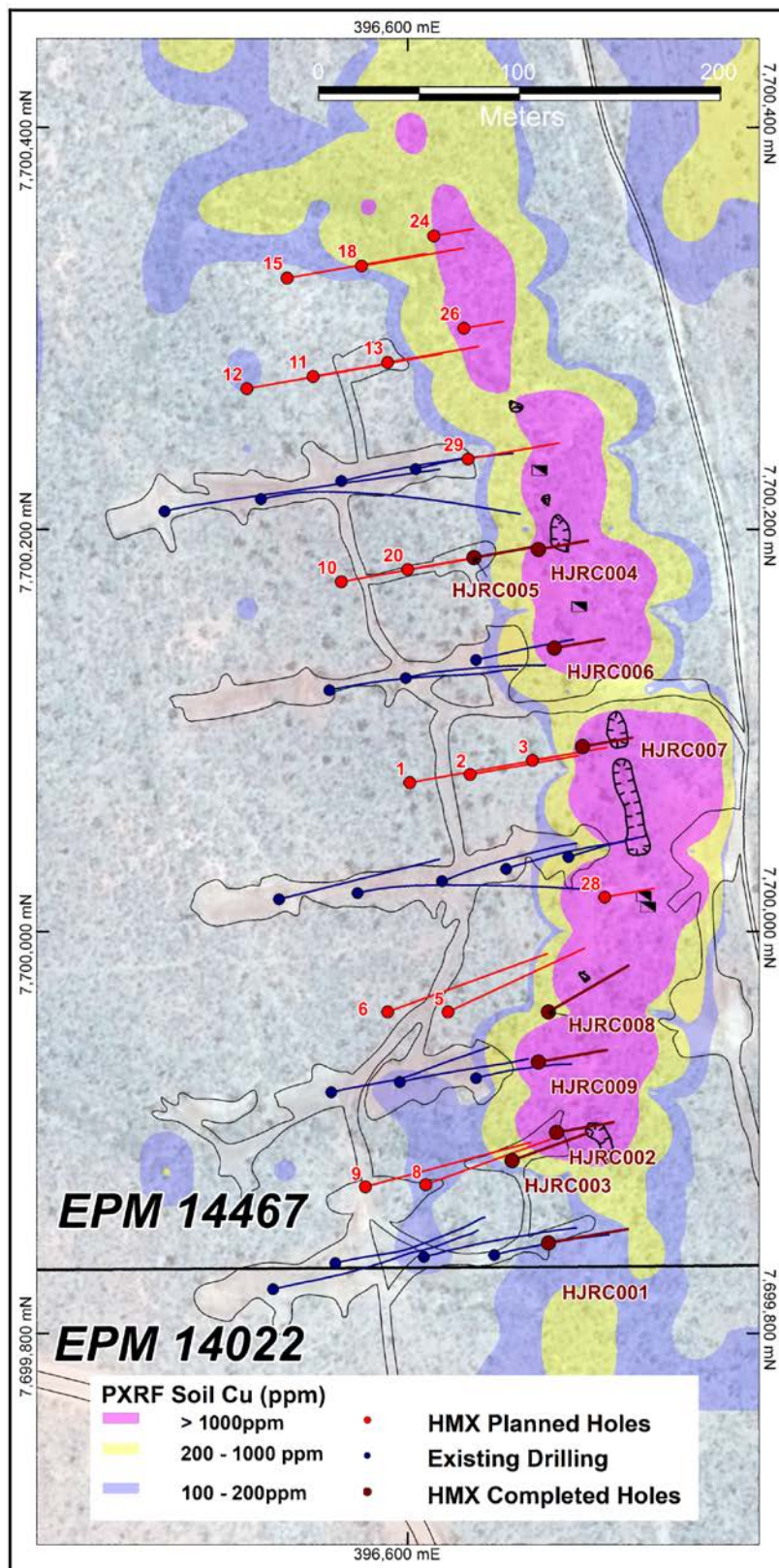
Russell Davis | Executive Chairman  
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### **Competent Person's Statement:**

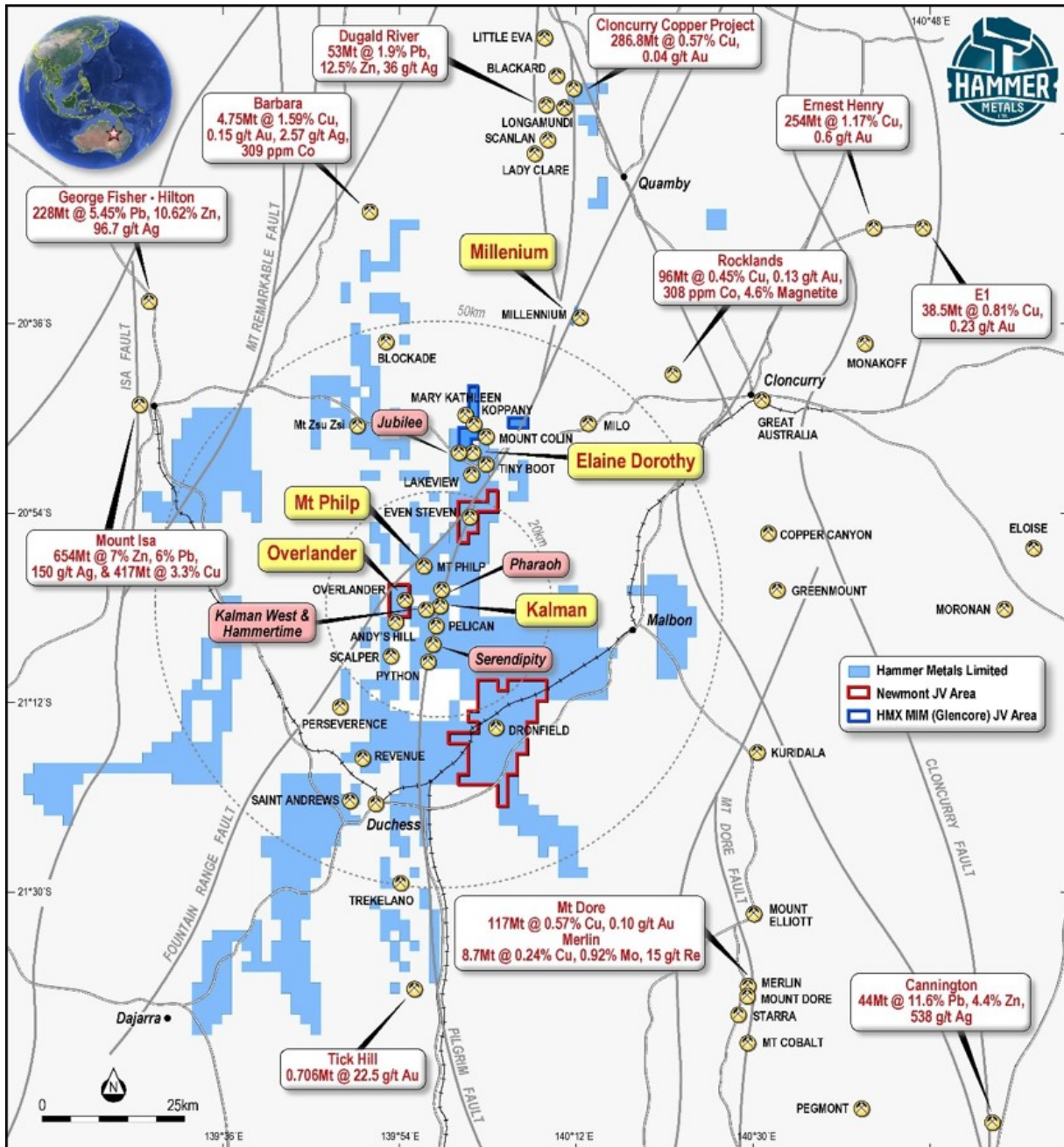
#### **Exploration Results**

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.





Jubilee Prospect with planned and completed drillhole positions



## Mount Isa Project



## JORC Code, 2012 Edition

### Table 1 report – Mt Frosty Joint Venture Drilling Update

- This table is to accompany an ASX release notifying the market that copper sulphide mineralisation has been intersected in RC drilling at the Mt Frosty (EPM14467) joint venture with Mount Isa Mines Limited.
- The drilling is being conducted by Hammer Metals Limited on behalf of the Joint Venture and has not been reported previously to the market.

#### 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	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<p>DRILLING HJRC001-HJRC009</p> <ul style="list-style-type: none"> <li>• Reverse circulation (RC) drill chip samples were taken at four metre intervals but where significant mineralisation was encountered the sample length was reduced to 1m.</li> <li>• All samples to be submitted for assay underwent a fine crush with 1kg riffled off for pulverising to 75 micron.</li> <li>• Samples will be submitted for 4 acid digest followed by AAS assay for gold and ICP (MS and OES) analysis for a multi-element suite including copper, silver, cobalt and molybdenum. The samples will also analysed for rare earth elements.</li> <li>• No assay results have been received.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast,</i></li> </ul>	<ul style="list-style-type: none"> <li>• Holes were drilled by Overland Drilling utilising a UDR1200 truck-</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>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).</i>	<p>mounted rig.</p> <ul style="list-style-type: none"> <li>Holes were drilling using reverse circulation technique with a face sampling hammer.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sample recoveries were generally in excess of 90%. Exceptions being in the shallow portion of holes where recoveries could drop over short distances.</li> <li>No sample recovery bias was noted.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All drill chips were geologically logged in detail by Hammer Metals Limited Geologists.</li> <li>Samples were collected for every metre, stored in chip trays and photographed.</li> <li>Every drilled metre was qualitatively logged for geology and quantitatively logged using a PXRF instrument and magnetic susceptibility meter.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Samples consist of RC drill chips.</li> <li>Sample collection methodology and size is considered appropriate to the target-style, and appropriate laboratory analytical methods were employed.</li> <li>Standard reference samples and blanks were each inserted into the laboratory submissions at a rate of 1 per 25 samples.</li> <li>Two duplicate samples (a 1m sample and a 4m composite sample) were taken from each drillhole and inserted at the end of the drillhole sample sequence.</li> <li>The sample sizes submitted for analysis were appropriate for the style of mineralisation sought and for the sampled grain size.</li> </ul>
<i>Quality of assay data</i>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and</li> </ul>	<ul style="list-style-type: none"> <li>All drilling samples will be analysed by ALS for a range of elements by ICP</li> </ul>

Criteria	JORC Code explanation	Commentary
and laboratory tests	<p><i>laboratory procedures used and whether the technique is considered partial or total.</i></p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<p>(OES and MS) after a 4-acid digest. Gold was analysed via flame AAS. No assay results from Jubilee have been received to date.</p> <ul style="list-style-type: none"> <li>Standard reference samples and blanks were inserted at 25 sample intervals. ALS also maintained a comprehensive QAQC regime, including check samples, duplicates, standard reference samples, blanks and calibration standards.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No results have been received hence no results have been checked by alternative company personnel.</li> <li>These holes have not been twinned.</li> <li>All field logging will be checked and entered into the company database.</li> <li>Assay files will be received electronically from the laboratory.</li> <li>As no assays have been received, no alterations were made to primary assay data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole collars were measured using a hand-held GPS unit with an estimated positional accuracy of approximately 5 metres.</li> <li>Datum used is UTM GDA 94 Zone 54.</li> <li>RL's for the drill hole collars are initially captured by GPS and subsequently adjusted using local digital elevation models (DEM). A sub-metre laser survey has been conducted and drillhole RL's will be reconciled to the new DEM.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>It is not known at this stage whether the drill density will be sufficient to establish grade continuity.</li> <li>Assays were taken on 1 and 4m sample lengths. 1m length was preferred in areas of increased</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>applied.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	mineralisation.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill holes were oriented as close to perpendicular as possible to the interpreted orientation of the geophysical targets and surface geological features.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Pre-numbered bags were used and sample were transported to ALS laboratory in Mt Isa by company personnel.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of this dataset have yet been undertaken.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<p>DRILLING (HJRC001- HJRC009)</p> <ul style="list-style-type: none"> <li>This drilling occurred on granted EPM14467 - owned by Mount Isa Mines Limited (49%) and Mulga Mining Limited (51%). Mulga Mining is a 100% owned subsidiary of Hammer Metals Limited</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration, including RC drilling, has previously been carried out by Chinalco Yunnan Copper, now AuKing Mining Limited</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drillholes are located within altered sediments of the Corella Formation on the western limb of the Mary Kathleen syncline.</li> <li>The style of copper-gold mineralisation at Jubilee is shear-hosted. This style of mineralisation is</li> </ul>



Criteria	JORC Code explanation	Commentary
		common in the Mount Isa region.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>See the attached tables.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No intervals quoted in this release.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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’).</li> </ul>	<ul style="list-style-type: none"> <li>In plan, most drill-holes are 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.</li> <li>The drilling is not yet at a sufficient density to enable any grade continuity to be established. The true width of any quoted intercept is not known with any certainty.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>See attached figures</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No intersections quoted.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Refer to the release.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Following completion of the drilling program and receipt of the assay results the prospect will be subject to detailed data compilation and review potentially resulting in further drilling.</li> </ul>