ASX Code: "THR"

15 August 2019

THOR MINING PLC

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Key Projects:

- **Tungsten**
  Molyhil NT
  Pilot Mountain USA
- **Copper**
  Kapunda & Moonta SA

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SUBSTANTIAL INITIAL COPPER RESOURCE – MOONTA PROJECT

INFERRED ISR COPPER RESOURCE OF 114,000 TONNES CONTAINED COPPER

The Board of Thor Mining Plc ("Thor" or the "Company") (AIM, ASX: THR), is pleased to announce an initial Mineral Resource Estimate (MRE) containing 114,000 tonnes of copper, considered amenable to In Situ Recovery techniques ("In Situ Recovery" or "ISR"), released 15 August 2019 by EnviroCopper Ltd. ("ECL").

Thor, as announced on 6 March 2019, is acquiring up to a 30% interest in EnviroCopper, which in turn is earning from Andromeda Metals Limited (ASX: ADN) up to a 75% interest in the mineral rights and claims over the northern portion of the Moonta exploration licence area (EL5984) in South Australia.

EnviroCopper Ltd are also earning, from Terramin Australia Limited (ASX:TZN), up to a 75% interest in the mineral rights and claims over the portion of the historic Kapunda copper mine in South Australia recoverable by way of in situ recovery techniques

Subject to full earn in Thor would therefore hold an effective 22.5% interest in each of the Moonta and Kapunda copper projects.

Highlights:

- An Inferred Resource estimate of 66.1 million tonnes (MT) grading 0.17% copper (Cu), containing 114,000 tonnes of contained copper, at a cutoff grade of 0.05%Cu;
- At a higher cutoff grade of 0.1% Cu the resource stands at 35.4 MT grading 0.26% copper (Cu), containing 93,000 tonnes of contained copper,
- The EnviroCopper managed resource inventory when included with the Mineral Resource Estimate for the Kapunda Copper Project, now stands at 233,000 tonnes of copper;
- The resource estimate is considered preliminary, with an additional 308 drill holes over Wombat, Bruce, and Larwood deposits to be included in the resource modelling once scheduled quality assurance processes are complete.
- ISR processes are not burdened by the normally high capital and operating cost activities of mining, crushing, grinding, and often flotation associated with conventional mining and processing operations. Subject to testwork and feasibility study outcomes at Moonta, there is therefore an expectation that copper production from deposits amenable to ISR techniques may be at relatively low cost.

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- Further work is required to advance a range of areas prior to commercial development including ongoing local government and community engagement, continuing technical assessment, and various environmental and regulatory issues.

Mick Billing, Executive Chairman, commented:
"An Inferred Resource estimate containing 114,000 tonnes of copper is outstanding news for our investors, and we look forward to further upgrades to this estimate as additional historical drillholes are validated".

This builds upon the EnviroCopper Kapunda resource of 119,000 tonnes contained Cu, (refer AIM announcement of 10 February 2016 and ASX announcement of 12 February 2018), with copper emerging as a very significant component of the Thor Mining project portfolio.

"Global copper pricing outlook, despite some recent falls, remains firm. At the date of this announcement of approximately US$5,700 per tonne, this Inferred Resource demonstrates that the project has considerable potential value."

"Thor holds a 25% interest in EnviroCopper, with rights to increase that equity to 30%, and is therefore very well placed with its interest in this strategically significant project, at a time when new copper opportunities in safe jurisdictions are at a premium."

"The advancements in ISR and lixiviant technologies offer new methods to extract copper. The ISR method is considered to be a viable method of extracting the copper in this location with minimal disturbance to the existing surface profile."

Thor and EnviroCopper are committed to ongoing community engagement being fundamental in the development of the Moonta project, and we will engage widely through review and feedback of our plans and processes as we advance this important opportunity".

"We look forward to updating investors regularly as news on this project becomes available."

On 5 March 2019, Thor announced it had signed a Memorandum of Understanding (MOU) for the vending of its interest in the Kapunda Copper Project into a new copper focused Company, EnviroCopper Limited ("EnviroCopper"), to include an interest in the Moonta project, subject to due diligence processes, and execution of a binding Farm-In and Joint Venture Agreement. The due diligence portion of that work is complete, and the parties are proceeding with documentation of the binding Farm-In and Joint Venture Agreement.

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Figure 1. Moonta & Kapunda Location Map

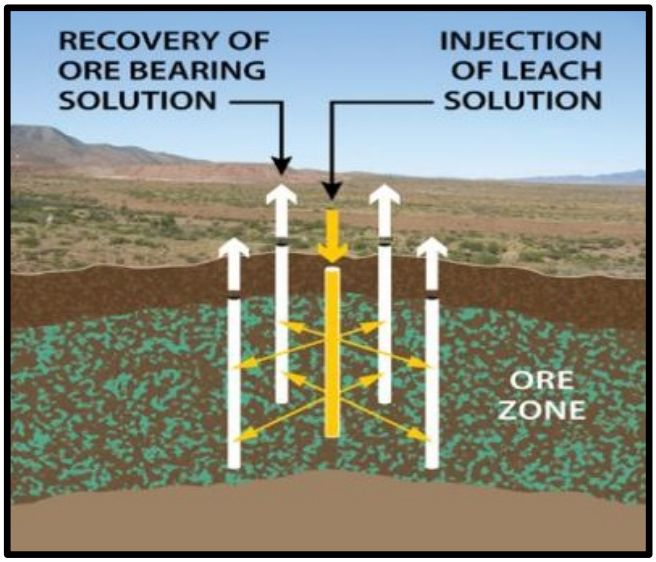

Figure 2. Schematic of Insitu Recovery process

Resource Estimate

Following a review of both historical mining records, historical drilling reports and drill core an update of the geological model has been prepared upon which mining consultants, Mining Plus, have prepared for EnviroCopper an Inferred Resource Estimate for the Moonta Copper Deposit assessed as being potentially amenable to Insitu Recovery.

Table A: Moonta Copper Mineral Resource Estimate JORC 2012

Resource Classification	COG (Cu %)	Deposit	Volume (Mm3)	Tonnes (Mt)	Cu (%)	Cu (metal Kt)	Au (g/t)	Au (kOz)
INFERRED	0.05	Wombat	20.91	46.5	0.17	80		
		Bruce	5.51	11.8	0.19	22		
		Larwood	3.48	7.8	0.15	12	0.04	10
Total			**29.9**	**66.1**	**0.17**	**114**		

Notes:

- *Figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.*
- *EnviroCopper are earning a 75% interest in this resource, and Thor have investment rights for up to 30% of EnviroCopper.*
- *Cut-off grade used of 0.05% Cu*

Exploration Target

An ISR amenable Exploration Target for the Moonta Project was published on 6 March 2019 (https://www.asx.com.au/asxpdf/20190306/pdf/4437wcrytk0qmr.pdf) of between 238 Mt and 310 Mt at a grade range of 0.18% to 0.23% Copper (between 428,000 and 713,000 tonnes of contained copper).

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The Mineral Resource Estimate sits within, and forms part of, that Exploration Target. Exploration Targets are conceptual in nature and there has been insufficient exploration to define a Mineral Resource under the JORC Code and it is uncertain if further exploration will result in the determination of a Mineral Resource.

Further Information

The Wombat, Bruce and Larwood deposits fall on freehold land used for cereal cropping. Native Title is extinguished on freehold land.

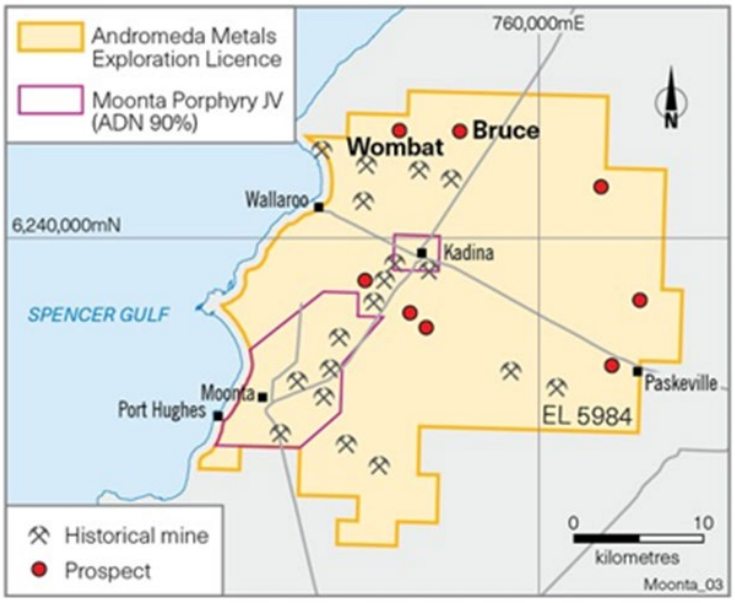

Figure 3 – Tenement map of the Moonta Project area

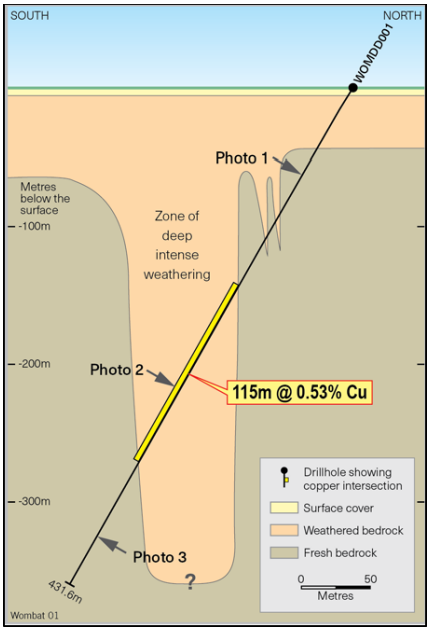

Figure 4 - Wombat section showing weathering trough

Copper minerals observed in the weathering troughs include those typically seen in the weathered profile of copper sulphide deposits, including chalcocite (Cu_2S), native copper, rare copper carbonates, and a black oxide phase tentatively identified as tenorite (CuO). Chalcopyrite is present but rare.

All three deposits remain open along strike or at depth, presenting opportunities to find further mineralisation in the trough extensions. The hydrological characteristics of the troughs are positive, with the mineralised material identified as being porous and likely permeable. The troughs are bounded laterally by fresh and impermeable bedrock that form natural aquacludes.

Preliminary metallurgical testwork confirms that copper is present in phases amenable to leaching, with improved recoveries anticipated with leachant optimisation. Non-copper bearing minerals that might consume ISR leachant, such as carbonates, have not been observed in the weathering trough hosted mineralisation.

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The supplied drilling database consists of 164 drillholes for 18,485 m of drilling. Drill methods undertaken at Moonta include, Diamond Drilling (DD), Reverse Circulation (RC), Air Core (AC), Rotary Air Blast (RAB) and also Auger drilling. ECR has also supplied survey, assay and logged geology data for the project area.

As the ISR process is more effective in heavily oxidised rocks, EnviroCopper have supplied a 3-D surface representative of the deeply weathered trough that hosts the deposits. Mining Plus have reviewed these wireframes to verify that they are suitable for Mineral Resource Estimation (MRE) work. The copper mineralisation above and below these weathered surfaces has then been modelled to ensure that they represent unique and consistent mineralised domains.

The drillhole assays have been composited to 3 m lengths, with the composites inside the mineralisation domains analysed to ensure that they represent a single grade population, with no need for additional sub-domaining. The presence of extreme values inside each of the mineralised domains has been assessed using a combination of statistical measures and cumulative log probability and log histogram plots. Where extreme values have been identified, top-cuts have been applied to reduce their influence during the geostatistical analysis and grade estimation. Variographic analysis has been undertaken on the top-cut composite data within each mineralised domain.

Quantitative Kriging Neighbourhood Analysis (QKNA) has been undertaken on the main mineralised domains at both Bruce and Wombat to determine the optimal block size and interpolation parameters for the deposits. The optimal parameters derived from data at Bruce have been used for the Larwood deposit.

Separate block models have been created for the Bruce, Larwood and Wombat deposits. Bruce and Larwood have utilised a parent block size of 60 m (X) by 20 m (Y) by 10 m and sub-blocks to 6 m (X) by 2 m (Y) by 1 m (Z). The Wombat block model has a parent block size of 50 m (X) by 20 m (Y) by 10 m and sub-blocks to 2.5 m (X) by 2.5 m (Y) by 1.0 m (Z). The sub-blocks have been estimated at the parent block scale. The block size selected is considered appropriate for the drillhole spacing defining the majority of the mineralisation within all three deposits.

Copper grades at Bruce and Wombat have been estimated using Ordinary Kriging inside the mineralised domains and surrounding waste using three interpolation passes, with the domains used as hard boundaries during the estimation. The search parameters and ranges have been defined from the modelled variography and QKNA. The small number of samples within Larwood has resulted in an inability to generate meaningful variograms. Therefore, an Inverse Distance weighted to the power of two interpolation method has been utilised for copper and gold. Grades have been estimated for Bruce and Wombat with:

- Pass 1 search ellipse set at one third the variogram range with a minimum of four and a maximum of 12 samples required to fill each block,
- Pass 2 search ellipse set at two thirds the variogram range with the same minimum and maximum samples as Pass 1,

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- Pass 3 is set at the variogram range with the minimum number of samples required reduced to two.

Estimation parameters for Larwood have been defined in the same way as Bruce and Wombat, but with a different interpolation method.

Oxidised low-grade material has been assigned a bulk density of 2.35 t/m^3. Oxidised high-grade material has been assigned a bulk density of 1.82 t/m^3. All fresh material below the supplied wireframe surfaces has been assigned a bulk density of 2.65 t/m^3.

The Mineral Resource estimate has been validated using visual and statistical methods, including checking of the block model grades against the de-clustered input composite grades, use of swath plots on northings, easting and RL's and visual comparison of the block model grades versus the drillhole grades. The estimated grades for the main mineralised domains within the oxidised channel validate well compared to the de-clustered composite grades. However, the low-grade domains have been generally underestimated in the block model as a result of the low sample populations informing large areas of the block model in these domains. Given the extraction of copper is concentrating on the oxidised channel, Mining Plus concludes that the block model is an accurate representation of the input samples at a global scale.

Classification of the Bruce, Larwood and Wombat Mineral Resource Estimates are in keeping with the "Australasian Code for Reporting of Mineral Resources and Ore Reserves" (the JORC Code as prepared by the Joint Ore Reserve Committee of the AusIMM, AIG and MCA and updated in December 2012). All classifications and terminologies have been adhered to. All directions and recommendations have been followed, in keeping with the spirit of the code. The resource classification has been applied to the MREs based on the drilling data spacing, grade and geological continuity, and data integrity.

Due to the relatively widely spaced drilling density, no blocks have met the requirements to be classified as Measured or Indicated Mineral Resources. Mining Plus has classified the areas within the deposit where the estimated grade has been interpolated between drillhole intercepts as Inferred Mineral Resources, with the areas where extrapolation of grade has been identified, remaining as Unclassified. The results reflect the Competent Person's view of the deposits.

For further information, please contact:

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Competent Person's Reports

Exploration Results

The information in this report that relates to exploration results is based on information compiled by Leon Faulkner, who holds a BSc in geology and who is a Member of The Australasian Institute of Geoscientists. Mr Faulkner is an employee of Environmental Metals Recovery Pty Ltd. He 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'. Leon Faulkner consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources

The information in this release that relates to the Estimation and Reporting of Mineral Resources has been compiled by Mr. David Coventry BSc (Hons). Mr. Coventry is a full-time employee of Mining Plus Pty Ltd and has acted as an independent consultant on the Moonta Deposit Mineral Resource estimations. Mr. Coventry is a Member of the Australasian Institute of Mining and Metallurgists and has sufficient experience with the style of mineralisation, deposit type under consideration and to the activities 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 (The JORC Code). Mr. Coventry consents to the inclusion in this report of the contained technical information relating the Mineral Resource Estimation in the form and context in which it appears.

Updates on the Company's activities are regularly posted on Thor's website www.thormining.com, which includes a facility to register to receive these updates by email, and on the Company's twitter page @ThorMining.

About Thor Mining PLC

Thor Mining PLC (AIM, ASX: THR) is a resources company quoted on the AIM Market of the London Stock Exchange and on ASX in Australia.

Thor holds 100% of the advanced Molyhil tungsten project in the Northern Territory of Australia, for which an updated feasibility study in August 2018[1] suggested attractive returns.

Adjacent Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including an Inferred resource for the Bonya copper deposit[2].

Thor also holds 100% of the Pilot Mountain tungsten project in Nevada USA which has a JORC 2012 Indicated and Inferred Resources Estimate[3] on 2 of the 4 known deposits. The US Department of the Interior has confirmed that tungsten, the primary resource mineral at Pilot Mountain, has been included in the final list of Critical Minerals [6]2018.

Thor is also acquiring up to a 30% interest Australian copper development company EnviroCopper Limited, which in turn holds rights to earn up to a 75% interest in the mineral rights and claims over the resource on the

portion of the historic Kapunda copper mine in South Australia recoverable by way of in situ recovery[4], and also holds rights to earn a 75% interest in portion of the Moonta Copper project also in South Australia, and is considered amenable to recovery by way of in situ recovery[5].

Thor has an interest in Hawkstone Mining Limited, an Australian ASX listed company with a 100% Interest in a Lithium project in Arizona, USA.

Finally, Thor also holds a production royalty entitlement from the Spring Hill Gold project[6] of:

- *A$6 per ounce of gold produced from the Spring Hill tenements, sold for up to A$1,500 per ounce; and*
- *A$14 per ounce of gold produced from the Spring Hill tenements, sold for amounts over A$1,500 per ounce.*

Notes

[1] Refer ASX and AIM announcement of 23 August 2018

[2] Refer ASX and AIM announcement of 26 November 2018

[3] Refer AIM announcement of 13 December 2018 and ASX announcement of 14 December 2018

[4] Refer AIM announcement of 10 February 2016 and ASX announcement of 12 February 2018

[5] Refer AIM announcement of 5 March 2019 and ASX announcement of 6 March 2019

[6] Refer AIM announcement of 26 February 2016 and ASX announcement of 29 February 2016

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APPENDIX A JORC TABLE 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. '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, reverse circulation and aircore drilling was used to obtain samples which were pulverised to produce sub samples for lab assay for metals including copper.
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).*	• Drill methods included diamond coring, reverse circulation and aircore. • Hole diameters varied for methods. • Some diamond core was triple tubed. • Face sampling hammers were used for RC holes.
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.*	• Qualitative assessment of sample recovery and moisture content of all ADN drill samples was recorded. • Sample recoveries for other company holes variably recorded. • No relationship is known to exist between sample recovery and grade.
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.*	• All holes were geologically logged by on-site geologists, with lithological, mineralogical, weathering, alteration, mineralisation and veining information recorded. The holes have not been geotechnically logged. • Geological logging is qualitative. • Chip trays containing geological sub-samples are photographed at the completion of the drilling program. • 100% of any reported intersections have been geologically logged.
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.*	• Diamond samples collected by sawing core in half. • RC samples collected using splitter under cyclone if dry or by grab sample if wet. • Aircore samples collected from bulk sample using a trowel. • The majority of drill samples were wet. • Laboratory sample preparation includes drying and pulverising of submitted sample to target of P80 at 75um. • No ADN samples checked for size after pulverising failed to meet sizing target in the sample batches relevant to the

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	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	report. • Duplicate and standard samples were introduced into ADN sample, while the laboratory completed double assays on many samples. QAQC measures undertaken by other companies not generally known. • Both ADN and laboratory introduced QAQC samples indicate acceptable analytical accuracy. • Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed.
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.*	• For ADN samples standard laboratory analyses completed for copper (4 acid digest with ICP-AES) and over range (>1%) copper (4 acid digest with AA finish). • The laboratory analytical methods are considered to be total. • For laboratory samples ADN introduced QA/QC samples at a ratio of one QA/QC sample for every 24 drill samples. The laboratory additionally introduced QA/QC samples (blanks, standards, checks) at a ratio of greater than 1 QA/QC sample for every 5 drill samples. • Both the Company introduced and laboratory introduced QA/QC samples indicate acceptable levels of accuracy and precision have been established
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.*	• A sub-set of these intersections have been checked by the Competent Person. • No twinned holes were drilled in the program the subject of the report. • No adjustments have been made to the laboratory assay 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.*	• Drillhole collars for ADN and PD/RM holes were pegged using GPS or DGPS with an accuracy of +/- 5.0m and +/- 0.5m respectively. • WMC/NBH, Amalg and MIM holes appear to have been pegged by surveyor using a local grid. • Downhole surveys were completed on all RC and diamond holes using compass based instruments. • GDA94 (Zone 53) • Collar RLs are estimates based upon a high resolution DTM acquired as part of an historical airborne geophysical survey. • Historical collar locations have been digitised from reports.
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.*	• At Wombat most holes are drilled on 100m spaced lines at 25 metre intervals. At Bruce and Larwood holes were drilled on 50m spaced lines at 25 metre intervakls. The data spacing is considered sufficient to allow confident interpretation of the weathering troughs. • Most material has been sampled in-field at 1 metre intervals, with some samples composited at intervals varying between 2m to 5m.
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.*	• At Bruce and Larwood the drill lines are oriented north-south, orthogonal to the strike of these two deposits. • At Wombat the drill lines are oriented approximately NW-SE, orthogonal to the deposit strike. • At both deposits the majority of holes were drilled towards grid South at inclinations of ~60° from the horizontal. • The orientation of the drilling is considered optimal for deposit disposition, and is considered unlikely to result in any sampling bias.
Sample security	• *The measures taken to ensure sample security.*	• Measures for non ADN drilled holes unknown. • ADN samples were transported and delivered to the laboratory by Company staff.

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Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audits completed

Section 2 Reporting of Exploration Results

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.*	• The area the subject of this report falls within EL 5984, which is 100% owned by Peninsula Resources limited, a wholly owned subsidiary of Andromeda Metals Limited. • There are no non govt royalties, historical sites or environmental issues. Underlying land title is Freehold land which extinguishes native title. • EL 5984 is in good standing
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The general area that forms the subject of this report has been explored in the past by various companies including Western Mining Corporation, North Broken Hill, Amalg Resources, MIM, Phelps Dodge/Red Metal, and Andromeda Metals. The Company has reviewed past exploration data generated by these companies.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Deposits in the general region are considered to be of Iron Oxide Copper Gold affinity, related to the 1590Ma Hiltaba/GRV tectonothermal event. Cu-Au-Mo-Co-Pb mineralisation is structurally controlled and associated with significant metasomatic alteration of host rocks.
Drillhole 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 exploration results have been reported
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*	• No metal equivalents are reported.
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')..*	No new exploration results have been reported
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should*	No new exploration results have been reported

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	include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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.*	No new exploration results have been reported
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..*	No new exploration results have been reported
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.*	Further work may involve further technical studies including lixiviant optimisation, permeability studies, possibility of recovering cobalt and gold etc.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Available drill core and drill chips have been re-inspected to confirm weathered zone boundaries. Data that was manually entered was verified against original log sheets and original lab sheets where available by geologist doing the data entry. Modern assay results were transferred electronically from spreadsheets. Historic data was stored originally in excel spreadsheets, then transferred into a Micromine database. This database was stored securely on an Andromeda Metals server at its Adelaide office site. Software data validation for incorrect/overlapping intervals carried out during importation and weathering trough surface modelling, plotting of drill hole plans and cross sections to ensure down hole survey data is correct.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	*The Competent person has visited the site twice in the last 24 months and viewed all three prospects and it was not deemed necessary for Mining Plus competent person to visit the site*
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	ECR developed mineralised weathering surfaces for use in the MRE. These surfaces are generated from drillholes at each deposit. The base of the weathering channels is defined by a small number of drillholes at present. Previous MRE interpretations focussed on open pit mining methods, the current interpretation is designed around ISR extraction. Weathering surfaces form the base of mineralised material The extent of the weathering surface forms the mineralised boundary
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and*	*The Bruce mineralisation has been modelled at 600m along strike and 125m across strike, and extends approximately 300m below surface at its deepest point.*

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	lower limits of the Mineral Resource	*The Larwood mineralisation has been modelled at 600m along strike and 200m across strike, and extends approximately 150m below surface at its deepest point.* *The Wombat deposit has been modelled as 1000m along strike and 300m across strike, and extends approximately 350m below surface at its deepest point.*
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.* •	*The estimation has been undertaken using Ordinary Kriging Interpolation methods at Bruce and Wombat. The Larwood estimation has been undertaken using Inverse distance weighted to the power of two interpolation methods.* *The drillhole assays have been composited to 3 m lengths, with the composites inside the mineralisation domains analysed to ensure that they represent a single grade population, with no need for additional sub-domaining. The presence of extreme values inside each of the mineralised domains has been assessed using a combination of statistical measures and cumulative log probability and log histogram plots. Where extreme values have been identified, top-cuts have been applied to reduce their influence during the geostatistical analysis and grade estimation.* *Variographic analysis has been undertaken on the top-cut composite data within each mineralised domain.* *Grade estimation has been carried out on copper only at Bruce and Wombat. Grade estimation has been carried out on copper and gold at Larwood.* *Quantitative Kriging Neighbourhood Analysis (QKNA) has been undertaken on the main mineralised domains at both Bruce and Wombat to determine the optimal block size and interpolation parameters for the deposits. The block size chosen at Bruce has been applied for Larwood given the close proximity and similar drill spacing.* *Separate block models have created for the Bruce, Larwood and Wombat deposits. Bruce and Larwood have utilised a parent block size of 60 m (X) by 20 m (Y) by 10 m and sub-blocks to 6 m (X) by 2.0 m (Y) by 1.0 m (Z) used for both deposits. The Wombat block model has a parent cell block size of 50 m (X) by 20 m (Y) by 10 m and sub-blocks to 2.5 m (X) by 2.5 m (Y) by 1.0 m (Z). The sub-blocks have been estimated at the parent block scale. The block size selected is considered appropriate for the drillhole spacing defining the majority of the mineralisation within all three deposits.* *Copper grades at Bruce and Wombat have been estimated using Ordinary Kriging inside the mineralised domains and surrounding waste using three interpolation passes, with the domains used as hard boundaries during the estimation. The search parameters and ranges have been defined from the modelled variography and QKNA with:* • *Pass 1 search ellipse set at one third the variogram range with a minimum of four and a maximum of 12 samples required to fill each block,* • *Pass 2 search ellipse set at two thirds the variogram range with the same minimum and maximum samples as Pass 1,* • *Pass 3 is set at the variogram range with the minimum number of samples required reduced to two.* *At Larwood, the small disparate data set has led to the use of Inverse distance weighted to the power of two interpolation method for copper and gold. Estimation parameters are defined in the same way as Bruce and Wombat, but with a different interpolation method*
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	*Tonnages are estimated on a dry tonnes basis.*
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied*	*The Mineral Resource is reported at 0.05% Cu, which is in accordance with Industry standard for ISR copper recovery.*
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the*	*ECR plan to develop the deposits for extraction of the copper metal via in-situ recovery (ISR) which is a production process used to recover minerals using a fluid circulated via drilled wells. During the process a leaching solution (or "lixiviant") is injected into the rock mass via a borehole, passes through the deposit leaching the target commodity, and is returned to the surface via a second borehole where the dissolved metal is extracted from solution by SXEW or ion exchange in a processing plant*

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	assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	*No metallurgical factors or assumptions have been included in the Mineral Resource*
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made*	*No environmental factors or assumptions have been included in the Mineral Resource*
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	*Bulk density has been assigned based on data sourced from WOMDD002 and WOMDD001. A total of 33 samples have been used to derive the bulk density values for all rock and weathering types within the deposits. The data has been assigned based on intersection with the supplied weathering channel wireframe at Wombat.*
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	*Mining Plus has reviewed all of the input data thoroughly in order optimise the classification of the Mineral Resource. Given the current understanding, additional hydrological studies, leach testing and bulk density measurements are required before any portion of the Mineral Resource can be classified at a higher confidence category then Inferred.* *After review of the SWATH plots, Mining Plus chose Easting, Northing and elevation extents to define the boundary of composite interpolation and extrapolation within the mineralised weathering channel. All blocks that have been estimated that fall within the boundary wireframes have been classified as Inferred. All other blocks within the block models remain unclassified.*

Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	*The Mineral Resource estimates have not been audited or reviewed*
Discussion of relative accuracy/confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available*	*This MRE is a global representation of the mineral endowment that may be extracted at some time in the future. This global estimate is currently unable to be used for any detailed mining studies until additional uniform close spaced drilling can be undertaken at all three deposits.*

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