Emu NL (**EMU** or the **Company**, ASX:EMU) has completed the field component of the firstpass auger geochemistry sampling programme at the Viper project, located near Jerramungup in the wheatbelt region of WA. This auger survey represents the first systematic geochemical sampling programme conducted across the historic Netty Copper Mine and environs, and is

EMU confirms:

Significant surface copper oxide mineralisation has been identified at the Viper project within tenement E70/5155. The mineralisation occurs as malachite (copper carbonate) associated with the host granite and intrusive mafic lithologies.

targeting primary copper (Cu), nickel (Ni) and platinum group element (PGE) mineralisation.

- 153 auger holes were completed along 400m spaced N-S lines at nominal 100m sample spacings. A total of four (4) mineralised rock chip samples collected from in-situ and float lithologies were also collected by the field crew and have been submitted for multi-element assay laboratory assessment. EMU has not reported any estimate on mineral abundances or grade with respect to the visual mineralisation observed in float samples and/or auger soil samples during the course of this planned field work.
- The auger soil sampling programme was undertaken by Sahara Operations (Australia) Pty Ltd (Sahara) utilising a 4WD mounted auger rig capable of drilling holes up to 30m in depth. The exploration program was overseen by Sahara's principal consultant and geologist, Mr Beau Nicholls.
- The wide-spaced auger geochemical programme was centred on the historic Netty Copper Mine, which reportedly produced more than 3 tonnes of contained copper from 30.5t of oxide and sulphide (chalcopyrite) ore. The auger sampling lines were completed over a 3.6km E-W strike extension of the host mafic intrusive, the Netty Proterozoic dyke.
- EMU's programme is the first modern-day systematic exploration programme, since 1987, to be conducted across the historical Netty copper workings and the greater Viper project area.
- The recent world class Julimar discovery by Chalice Gold Mines Limited (ASX:CHN) has demonstrated the undercover exploration potential of the South West Terrane of Western Australia for Ni-Cu-PGE mineralisation.
- The first-pass auger programme at EMU's Graceland project (Hyden) has been completed with 149 auger samples collected and submitted for multi-element analyses.
- The planned 160-hole auger sampling programme at the 8-Mile Dam project in Menzies has been suspended due to the recent wet weather. Resumption of the Sahara auger drilling programme is anticipated for Monday 15 March.

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Fig 1

Rock chip samples collected during the Viper project soil auger programme.

Sample Locations: ESS00159 (682,142mE/ 6,249,780mN)

ESS00160 (682,124mE/ 6,249,783mN)

ESS00161 (682,129mE/ 6,249,754mN)

ESS00162 (682,141mE/ 6,249,746mN)

Sample locations are shown plotted in Fig 3



Fig 2 – Sahara Operations Pty Ltd auger rig and field crew conducting sampling at the Viper Project



# **EXPLORATION STRATEGY**

EMU's near-term priority at Viper will be to follow-up the auger geochemistry with infill geochemistry, mapping and geophysics which may lead to drill testing of significant targets.

The project encompasses the historic Netty Copper Mine, exploited between 1907-1969. It was reported that 3.13t of contained copper was recovered from 30.5t of oxide (malachite, azurite) and sulphide (chalcopyrite) material. A channel sampling programme of the underground mine workings over a strike length of 40m by Audax Resources Limited in 1987 returned copper values in the range of 3% to 10%, with a peak value of 14.1% from a total of 52 samples. Nickel results were mostly over 1,000 ppm, with a peak value of 0.51% (refer to ASX announcement dated 28 September 2020 "EMU Secures Highly Prospective Exploration Portfolio in WA").

EMU believes that the Proterozoic dyke emplacement (mafic intrusion) has provided a suitable heat engine to generate large-scale circulation of fluids in convection cells with resultant mineral scavenging from adjacent mafic and granitic rock types. Mineral deposition along the granite-dolerite lithological contact and suitable (dilational) fault zones is typical in this setting and will be further tested by EMU over an aerial extent of over 4km in future programmes.

EMU's ongoing exploration programmes will target primary copper and nickel mineralisation along strike and at depth, as directed by the resultant geochemical and geophysical surveys. Mr Nicholls was **upbeat with the initial auger geochemical programme**, being able to collect insitu soil/ regolith samples from below the upper (disturbed) soil horizons subjected to farming practices and successfully trace the dolerite dyke under the cover of farmland either side of the Netty historical mine workings. Mr Nicholls concluded that there was no evidence of any significant modern-day exploration over the project and suggests that the historical mining may have ceased due to the hardness of the host rock. Local farmers reported to Mr Nicholls that chalcopyrite commonly appeared when drilling fence post holes.

Whilst no chalcopyrite was intersected in any of the auger drilling (for which assays are pending), the quantum of historical data, mining production figures and anecdotal information from farmers support the Company's contention the project is highly prospective for primary copper and nickel mineralisation.



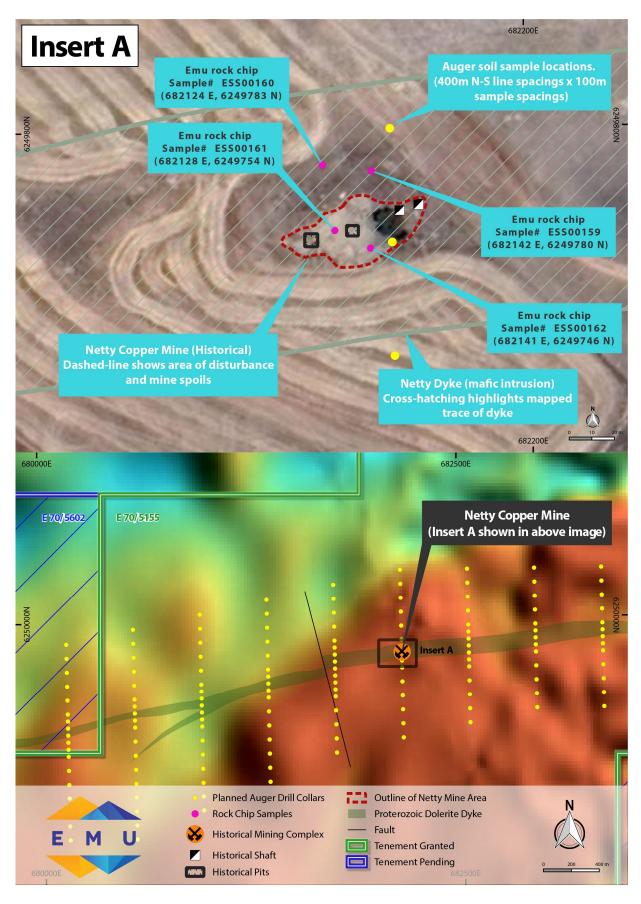
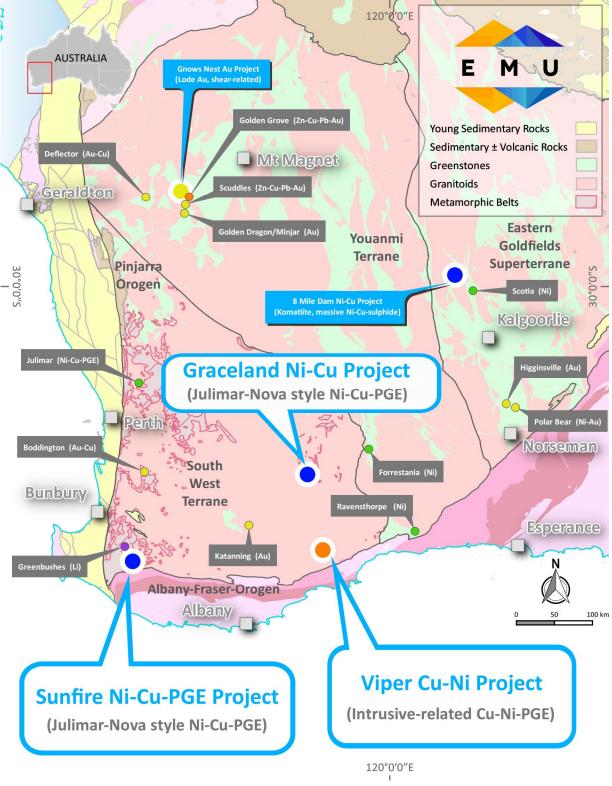


Fig 3 – Upper Image (Insert A): Detail of the Netty historic copper mine showing distribution of surface rock chip and auger





Lower Image: Auger soil programme overlain over TMI Aeromagnetics. Note "Insert A" area

Fig 4 – Location map of EMU's projects in WA overlain on geology



## **General Meeting**

The Company has despatched a Notice of Meeting to convene a general meeting of shareholders to consider approving the issue of shares and performance rights under the contract announcements via ASX on 28 September 2020 (as supplemented by releases made via ASX 14 January 2021 "Shareholder Update – Gnows Nest Project Commencement of Drilling", 31 January 2021 "December 2020 Quarterly Activities Report" and 22 February 2021 "EMU's Maiden Drilling Programme Confirms High Grade Gold at the Gnows Nest Project – Gold Results of Up To 89.57 g/t"), for the acquisition of various Western Australian assets.

The latest date under the Coruscant SPA by which necessary Shareholder approvals must be obtained was extended to 7 April 2021 upon payment of \$100,000 to the vendors (to be credited against the amount payable at completion; balance now \$900,000).

# **RELEASE AUTHORISED BY DOUG GREWAR, CEO**

Contact Details: Doug Grewar - Office: +61 8 9226 4266; Mobile: 0419 833 604



#### Emu NL

ABN 50 127 291 927

### ASX Codes: EMU and EMUCA

10 Walker Ave West Perth, WA 6005

T +61 8 9226 4266 E <u>info@emunl.com.au</u>

PO Box 1112 West Perth, WA 6872

#### Fully paid shares (listed)

433,657,342 (including 18.6m which EMU can buy back for nil consideration)

#### **Contributing Shares (listed)**

40,485,069 paid to \$0.03, \$0.03 to pay, no call before 31/12/2023

#### **Options (unlisted)**

38,625,953 options to acquire fully paid shares, exercisable at \$0.15 each, on or before 23 August 2021

22,000,000 options to acquire partly paid shares, exercisable at \$0.03 each, on or before 21 December 2021

#### **Directors:**

**Peter Thomas** Non-Executive Chairman

**Terry Streeter** Non-Executive Director

#### **Gavin Rutherford** Non-Executive Director

**Tim Staermose** Non-Executive Director

Investor enquiries:

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## **COMPETENT PERSON'S STATEMENT**

The information in this report that relates to exploration results from the Viper Project is based on, and fairly represents information and supporting documentation prepared by Beau Nicholls, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Nicholls is a contractor employed by Emu NL and has sufficient experience in 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 Nichols consents to the inclusion herein of the matters based upon his information in the form and context in which it appears.

## FORWARD LOOKING STATEMENTS

As a result of a variety of risks, uncertainties and other factors, actual events and results may differ materially from any forward looking and other statements herein not purporting to be of historical fact. Any statements concerning mining reserves, resources and exploration results are forward looking in that they involve estimates based on assumptions. Forward looking statements are based on management's beliefs, opinions and estimates as of the respective dates they are made. The Company does not assume any obligation to update forward looking statements even where beliefs, opinions and estimates change or should do so given changed circumstances and developments.

## **NEW INFORMATION OR DATA**

EMU confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, which all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.



Criteria	JORC Code explanation	Commentary
Criteria Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Soil (regolith) samples are collected on a 400m x 100m nominal grid pattern centered on the historical Netty Copper Mine and extracted via a mechanized auger. Samples constitute a standard 1m unscreened composite sample collected from in-situ weathered regolith below the level of farming activity or near-surface disturbances (usually 1-2m below surface although extending up to 6m depth at Viper). The samples are collected from a standard 1m interval on the open-auger flight, collected in a plastic bucket by the technician and sampled with a plastic scoop. The sample is maintained around 2kg representing ~15-20% of the mass of the 1m interval.</li> <li>Rock samples and rock chip samples are either large pieces of rock or a collection of chips collected from in-situ outcrops or float (transported). Samples are collected for this report comprise dolerites, granitic gneiss and oxidized gossanous mafics containing visible malachite (copper carbonate mineralisation), as shown in Fig 1.</li> <li>All samples are placed into individual prenumbered calico bags and thence into larger polyweave sacks ready for transport to ALS Geochemistry laboratories in Malaga, WA.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Mechanized auger drilling using an open- flight 4" (100mm) open-blade auger. All drilling conducted by Sahara Operations Pty Ltd (contractors) using a 2014 model, WA- made S10 Power Auger. This compact rig is mounted on a Toyota Landcruiser and has specifications of 1t weight, 1t pull-back and 30m depth capacity.</li> </ul>
Drill sample recovery	<ul> <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> </ul>	• All assessment and recording of samples completed by supervising on-site geologist. The geologist completes a full sample log including GPS coordinate, sample number,

# JORC 2012 Table – Section 1: Sampling Techniques and Data



Criteria	JORC Code explanation	Commentary
	• 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.	<ul> <li>from-to sample intervals, regolith landform, sample lithology, colour and visible mineralisation.</li> <li>Sampling is considered unbiased.</li> </ul>
Logging	<ul> <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> <li>Auger soil (regolith) logging of all samples to a level appropriate to the sampling medium (depth, level of weathering and alteration). Hydrochloric acid (HCl) testing of the sample indicative of calcrete development.</li> <li>Regolith landform, lithology and mineralisation are logged for each sample along with any additional geological comments.</li> <li>The supervising geologist ensures that a representative 1m composite sample is collected during the auger drilling process.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <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 subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Auger regolith (soil) samples are taken from a standard 1m section of the auger drill hole and thoroughly mixed in a 20l plastic bucket. A composite (representative) 2kg sample is collected with the aid of a plastic scoop from the thoroughly homogenised (mixed) total sample.</li> <li>The 1m samples are prepared for analysis by standard laboratory procedures.</li> <li>The samples collected are representative of the in-situ material.</li> <li>The sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The sampling and sample preparation techniques are considered appropriate for the sample type.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <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>	<ul> <li>All samples (auger samples and surface rock chip samples) undergo sample preparation and analyses at the ALS Geochemistry Malaga WA facilities.</li> <li>Sample preparation is by standard package PREP-31Y which includes oven drying, crushing to 2mm, a rotary split of 250g and complete pulverisation with QC specifications of 85% &lt; -75um</li> <li>Sample analyses is by the lowest detection limit, multi-element super-trace method ME-MS41L considered ideal for grass-roots soils and sediments. A 0.5g sample split is digested in aqua regia and analysed via ICP-MS and ICP-AES for 53 elements including Au.</li> <li>The super-trace aqua regia digest is considered appropriate given the nature of the sample (oxidised, weathered, near-</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>surface auger soils and rock chips) and the stage of the exploration programme (grassroots). Detection limits are appropriate for the early-stage exploration undertaken.</li> <li>The 2kg sample size is considered appropriate for the mineralisation style, application and analytical techniques utilised.</li> <li>Geostats QA/QC certified reference samples were routinely inserted into the sample run at a rate of 1:20</li> </ul>
Verification of sampling and assaying	<ul> <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> <li>No drilling assay results at this time.</li> <li>No twinned holes.</li> <li>Field data is collected on-site by the geologist and entered by hand into a set of standard logging templates.</li> <li>All geochemical and geological data is loaded into a company database managed by an independent third-party entity for verification, QA/QC and storage. Assay data is not adjusted.</li> </ul>
Location of data points	<ul> <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> <li>All auger drill collar positions, soil samples and rock chip samples are located using a hand-held Garmin GPS accurate to &lt;5m</li> <li>The grid system used is the Geocentric Datum of Australia (GDA94) Zone 50 (MGA94 projection). Height elevations are recorded in Australian Height Datum (AHD). All reported coordinates are referenced to this grid.</li> </ul>
Data spacing and distribution	<ul> <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 applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The auger soil (regolith) samples are collected on a nominal 400m (N-S grid line) x 100m sample spacings. The spacing is infilled to 400m x 50m over the projected trace of the Netty Dyke.</li> <li>Rock chip samples are collected from the geological point source and are not gridbased.</li> <li>No mineral resources are being reported.</li> <li>No sample compositing has been applied. All auger samples are representative of a standard 1m interval.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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</li> </ul>	• The controls on mineralisation are unknown at this time. Nevertheless, auger soil lines have been designed on a N-S orientation crossing the Netty Dyke and the mafic- granite lithological contact, following best- practices with the knowledge at hand.



Criteria	JORC Code explanation	Commentary
	reported if material.	
Sample security	• The measures taken to ensure sample security.	<ul> <li>The chain of custody was managed by Sahara Operations Pty Ltd contracting for Emu NL. All samples were placed into pre- numbered calico bags under the supervision of the site geologist and thence into polyweave sacks for shipment to Perth by Toll transport (commercial freight) to the Emu Perth office.</li> <li>The complete sample submission documentation and coordination with ALS Geochemistry was conducted by Emu geologists, including sample drop-off.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audit reviews completed at this early stage in the exploration.

# JORC 2012 Table – Section 2: Reporting of Exploration Reports

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The E70/5155 tenement hosting the Netty Copper Mine and surroundings on which the auger soil programme was conducted is owned 100% by Emu Resources Pty Ltd, a wholly owned subsidiary of Emu NL.</li> <li>EMU Resources Pty Ltd also hold the tenement application E70/5602 which partially surrounds the E70/5155 tenement. The tenements are all in good standing. No known issues exist with the tenure.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous exploration around the Netty Copper Mine has been limited to underground sampling over a portion(?) of the collapsed underground workings by Audax Resources in 1988. Limited sampling along fence lines, and public access tracks was also conducted by Southern Mineral Resources Pty Ltd over the period 2013- 2016</li> <li>No systematic surface exploration of the Netty Copper Mine or extensions of the Netty Dyke (Proterozoic mafic intrusion) have been undertaken prior to Emu. Pancontinental Mining Corporation Pty Ltd conducted E-W soil traverses in the far- eastern portions of the tenement over the period 2007 – 2010.</li> </ul>



Criteria	JORC Code explanation	Commentary
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The project is a green fields exploration project, and whilst the source of surface evidence of mineralisation can only be speculation at this stage, it is likely to be similar to other copper targets on the margins of Proterozoic Dykes in the southwest of WA.</li> <li>The tenement lies within the Lake Grace Terrane and is part of the larger Western Gneiss Terrane and the southwest Yilgarn Province. Granite, felsic to mafic granulite, dolerite and gneiss occur as scattered outcrops and subcrops throughout the tenement. The majority of the E70/5155 tenement and region is regolith covered.</li> </ul>
Drill hole Information	<ul> <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> <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> <li>No conventional drill holes at this time. Auger soil sample locations are shown within this announcement in Fig 3.</li> </ul>
Data aggregation methods	<ul> <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>	No drill assays at this time.
Relationship between mineralisatio n widths and intercept lengths	<ul> <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> <li>The project is at an early stage of exploration and any conclusions at this stage would be speculation.</li> </ul>
Diagrams	• Appropriate maps and sections (with scales) and	• Auger collar positions are shown in Fig 3



Criteria	JORC Code explanation	Commentary
	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.	and described in the announcement as appropriate.
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.	• N/A
Other substantive exploration data	<ul> <li>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.</li> </ul>	• No other meaningful data to report.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Emu will be focusing on a staged follow-up programme of project exploration including follow-up auger soil geochemistry, surface geological mapping and prospecting, geophysical prospecting leading to drill targeting and drill testing.</li> <li>Diagrams included in the announcement.</li> </ul>

- END -