

#### **Base Metal Potential Identified at Penny South**

Aurum Resources Limited (Äurum" or "the Company") is pleased to announce that its investigation into the base metal potential at the Penny South Project (E57/1045) has confirmed prospectivity for nickel and potential for both Zinc and Silver.

Exploration on Penny South licence E57/1045 has predominantly been focussed on gold exploration with a model similar to Penny West characterised by low tonnage and high-grade style gold mineralisation, despite other mineralisation styles found in the area. On the Penny South licence nickel bearing gossanous fragments were found in the southeast (hole PWAC179 8m @ 0.44% Ni from 32m, Lach Drummond 2004), see Figures 1 & 2.

VHMS base metal mineralisation also occurs in the broader area at Pincher Hill 13km north and Freddie Well (Manindi). Historical records report Pincher Hill and Well (BHP and WMC) as a large volcanogenic massive sulphide mineral system over 5km in strike with Zn and Ag associated with pyrite - pyrrhotite - sphalerite. Venus Metals has a non-JORC "Exploration Target" of 15-25Mt@2-8% Zn and 3-4g/t Ag (ASX VMC 28/10/22) at Pincher Well. The VMS mineralisation at Manindi is located 16km to the NW and reports as 1.06Mt @6.52% Zn, 0.26% Cu, 3.19g/t Ag (JORC ASX MLS).

Empire Resources' *Just Deserts* copper-gold deposit lies 31km to the north-northeast and is also described as a polymetallic VMS deposit with JORC 2012 resource of 2.52Mt @ 1.31% Cu, 0.49g/t Au and 1.76g/t Ag (ASX:ERL 17/5/2016). Ni-Cu mineralisation occurs 6km to the NW at Currans Well (10m @ 1.34% Ni and 0.71% Cu GSWA MINDEX), and a Ni occurrence has been recorded in the eastern part of Aurum's E57/1045.

The assessment is using historical geochemical analyses and logs to identify areas of potential base metal mineralisation. The available pulps from RC and Aircore drilling will be correlated with target areas and will be selectively recovered for resubmission for base metal suite, as only Au was only analysed previously. Results will be reported as they become available and will assist in shaping the ongoing exploration program for E57/1045.

#### **Penny South Background**

The project sits on the same shear structure that the high-grade Penny West (1990's open pit **121,000t** at **21.8g/t** Au for **85,000oz**) and the more recently discovered adjacent Penny North (2020 – underground **569,000t** at **16.8g/t** Au for **306,800oz**). Penny West lies just 510m north of Aurum's Penny South licence and the Penny West N-S Shear continues through the licence for a strike length of 2.5km.

High grade mineralisation is associated with the sheared contacts between mafic and granodiorite(felsic) rocks and quartz veining (often associated with sulphides). Similar contacts are seen in Penny South and drilling to date has produced some hits, **2m at 33.89g/t Au from 38m** (historic hole 95PSR0673 AUE 25/3/2022), **4m at 2.1g/t Au from 92m** (APSRC015 AUE 25/3/2022) highlighting the potential of the area. The high-grade mineralisation at Penny West and Penny North are narrow high-grade zones so targeting has to be highly focused. While the Penny south area has been extensive drilled with 652 holes, these are generally shallow, with the average around 40m, so if a Penny North deposit, where the mineralisation starts at 80m and continues to 320m, was in the area it would likely be missed. So, the focus has been combining high resolution ground magnetics available drilling information for a detailed structural interpretation.



Aurum contracted Richard Hill, who worked on the Penny North deposit for Spectrum, and Margie Hawke (Hazina Geoscience) to define targets along the structurally complex shear system. Ramelius Resources (ASX:RMS), to the North, have released a JORC Mineral Resource and ore reserve for enlarging the Penny West pit and planned a decline to Penny North from the open pit with 620,000t at 15.0g/t Au for 300,000oz (2g/t cut off).

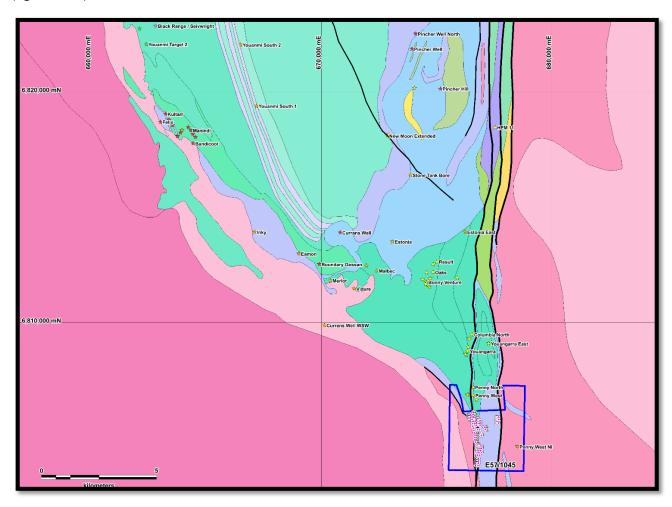


Figure 1: Penny South licence and drill hole samples available on Youanmi geology and MINDEX mineral occurrences.



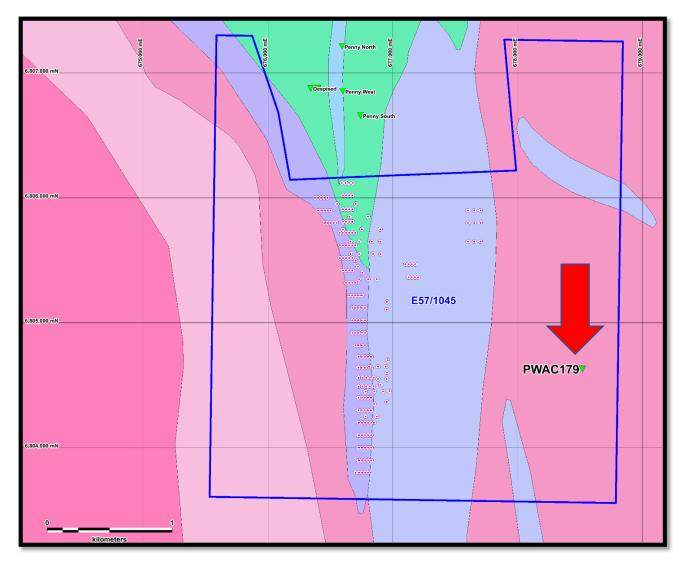


Figure 2: Zoomed in image of Figure 1 showing Aurum's Penny South licence E557/1045 and drill hole samples(circles) available on Youanmi geology and Lach Drummond PWAC179 drill hole location, shown by the red arrow. Location taken from the Mines Department MINDEX mineral occurrences (Penny West Ni).

## **END**

### **About Aurum Resources Limited**

Aurum Resources Ltd is an ASX-listed (*ASX:AUE*) mineral exploration and development company. Aurum has a collection of gold focused projects from early-stage reconnaissance to advanced exploration projects all located in Western Australia. The Company's flagship project is the Penny South Project, highly prospective for gold mineralisation and located adjacent to and on the same structure as Ramelius's Penny West & Penny North gold mine. The Company's other project is Ryans Find, another high prospective project adjacent to known gold deposits.

This Announcement has been approved for release by the Board of Aurum Resources Ltd





#### Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Aurum operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward- looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by several factors and subject to various uncertainties and contingencies, many of which will be outside Aurum's control. Aurum does not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of Aurum, its directors, employees, advisors, or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

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In relying on the above mentioned ASX announcements and pursuant to ASX Listing Rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the above-mentioned announcements.

## **Competent Persons Statement**

The information in this announcement that relates to exploration data and results derived from open file reports and information supplied by Aldoro Resources Limited (ASX: ARN and has been previously released) and prepared in accordance with the 2012 Edition of the Australian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC). The data was reviewed and compiled by Mr Mark Mitchell, an employee with Aurum Resources Ltd. Mr Mitchell is a Registered Professional Geoscientist (No.10049) with the Australian Institute of Geoscientists and 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 Mitchell consents to the inclusion in the release of the statements based on his information in the form and context in which it appears.





# **Annexure 1: Drill Hole Table**

Taken from Lach Drummond open file Mines Department report (WAMEX) A48426 with Ni reported at 32-40m averaging 0.44%Ni

Hole	Easting(mE)	Northing(mN)	RL(m)	Datum	Dip	AZM	ЕОН	Down hole Width	From
			Not						
PWAC179	678450	6804700	Reported	AGD84/50	-60	270	42m	8m	32m



# **JORC Code, 2012 Edition – Table 1**

# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
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>Lach Drummond's aircore drilling was done with 1m interval sample pans which were composited to 4m intervals (approximately 3kg) using a scoop for Au but individual 1m intervals for Ni-Cu. The Ni-Cu samples were collected under the supervision of JV partner WMC. This is not and ideal sampling but was the industry standard in 2004.</li> <li>The technique is not considered representative by today's standards.</li> <li>It is unknown what techniques were conducted on the samples other than they were collected from the pans by WMC specifically for base metal suite analysis.</li> <li>It was not reported that if standards, blanks and repeats were used for quality control purposes.</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>Drillwest were contracted for the drilling using their KL150 aircore rig, no other details were provided by Lach Drummond on rod size, bit used etc.</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> <li>Whether a relationship exists between sample recovery and grade</li> </ul>	<ul> <li>Lach Drummond did not report on any drill sample recoveries or methods of assessment.</li> <li>Lach Drummond did not report on and recovery measures</li> <li>Lach Drummond did not report on how representative the samples were</li> </ul>



Criteria	JORC Code explanation	Commentary
	and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
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>Holes were logged at 1 metre with only the mines department geology template available where intervals were grouped based on lithology interested. (see open file report A4486)</li> <li>The aircore chips have been interpreted as being logged on a 1 metre basis.</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 sub-sampling 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>No core collected, only aircore chips</li> <li>Lach Drummond did not report on any splitting techniques.</li> <li>The 1m interval sample pans which were composited to 4m intervals (approximately 3kg) using a scoop is not ideal sampling but was the industry standard in 2004.</li> <li>Lach Drummond did not report on any quality control procedures.</li> <li>It is unknown whether Lach Drummond took any measures to ensure the sampling was representative.</li> <li>It is not known whether grain size is a consideration in the subsampling technique as no size screening has been conducted.</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</li> </ul>	<ul> <li>Samples were assayed at Ultratrace Laboratory Services in Perth under the guidance of WMC for 24 element analysis using assay codes XRF202 (%), LOI1000, FA002, FA003, NFS01 (later used ICPOES or ICPMS finish to get ppm).</li> <li>No geophysical or pXRF tools used</li> <li>It is unknown if blanks and/or standards if used produced acceptable levels of accuracy and precision.</li> </ul>



Criteria	JORC Code explanation	Commentary
	of accuracy (ie lack of bias) and precision have been established.	
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>It is unknown if any verification techniques were used as none were reported.</li> <li>No twinned holes were drilled, probably due to being a first pass exploration drill programme.</li> <li>It is unknown what logging techniques were used.</li> <li>It has been interpreted that no adjustments were made on the basis none were reported, and it is not a practice used in first pass exploration.</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>The hole collars were located using a hand held GPS, make, model and accuracy were not provided.</li> <li>The datum used AGD84 zone 50</li> <li>No topographic information was provided.</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 drill hole placement appears not to be gridded but targeted on surface soil geochemistry and historical drill holes.</li> <li>The holes were exploration in nature and not defining a resource.</li> <li>From the available information sample compositing has not been applied.</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 reported if material.</li> </ul>	<ul> <li>The holes are drilled at 270 azimuth and -60 degrees dip, which is approximately perpendicular to the strike of the lithology which steeply dips to the east. There is no quantitative information regarding the orientation of mineralised structures and the relationship between drilling orientation and the orientation of key mineralised structures is not known</li> <li>No sampling bias is considered to have been introduced however there is currently insufficient information to confirm this.</li> </ul>



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Sample security	The measures taken to ensure sample security.	<ul> <li>It is unknown what security measures were in place, if any. The samples were collected by WMC in a due diligence exercise, so some sample security could be interpretated.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>It is unknown whether any sampling techniques or data have been independently audited but considered unlikely given the age of the sampling and early stage reconnaissance.</li> </ul>

# **Section 2 Reporting of Exploration Results**

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>Tenement E57/1045 (4 graticular blocks) is currently in the name of Altilium Metals Limited and is 100% owned and operated by Aurum Resources Limited. The transfer documents have been lodged, but as yet, these have not been actioned by the Mines Department.</li> <li>The licence is in the process of being transferred to Aurum Resources Limited.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Gold Mines of Australia (GMA) undertook extensive exploration in the period 1989 -1996 with extensive soil sampling returning disappointing results and angled RAB drilling generating some encouraging results in the regolith. Two anomalous intercepts of 2 m @33.98g/t Au (95PSR0673;38-40m) and 1m @ 1.04 g/t Au (PSR0100;28-29m) were tested by very limited RC drilling however the majority regolith anomalies were untested.</li> <li>Lach Drummond Resources (2002-2004); Follow-up aircore drilling of the GMA generated regolith anomalies with better results including 6m @ 1.27 g/t Au (PWAC062; 29-35m) and 1m @ 1.04 g/t Au (PWAC092; 33-34m) and PWAC179 8m@0.44%Ni from 32m. Note this Ni occurrence in referenced in the Mines Department MINDEX</li> </ul>



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		https://minedex.dmirs.wa.gov.au/Web/sites/details/cd422ac6- 2a31-4a61-826f-7f640f9a022c, on the WA state mineralisation  Map https://geoview.dmp.wa.gov.au/GeoView/Index.html?Viewer=Ge oVIEW&extent=118.765426,-28.938700,118.895426,- 28.808700&layerTheme=4 and reported by Lach Drummond (ASX:LDR 16/6/2004). The open file report is A48426  Beacon Minerals (2014-15); 34 angled aircore holes totalling 1820m were undertaken to test the historical regolith anomalies. Results were moderate with follow up RC drilling proposed for significant aircore results.  Aldoro Resources (2016-2021) Conducted a detailed ground magnetic survey and interpreted in conjunction with lithological information contained within historic drill logs and incorporating the Penny West and Penny North mineralisation styles. The interpretation identified 7 targets based on structural interpretation and historical mineralisation. Aircore drilling successfully highlighted the inferred extension of the Penny West Shear and granodiorite-mafic contact, with two target areas showing coincident factors of sulphidic quartz veining. RC drilling at the Southern Target within the tenement area identified a mineralised structure over 400m of strike with gold intersections of up to 6.7g/t Au. A 2021 review of all the exploration activity across the tenement found that the drilling had not been deep enough to intersect the structures and contacts hosting the mineralisation.
Geology	Deposit type, geological setting and style of mineralisation.	The Penny South Project is located at the southern end of the Youanmi greenstone belt, dominated by metamorphosed mafic extrusives and intrusives, minor BIF, intrusive felsic porphyries and



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		<ul> <li>some felsic volcanic rocks. The Youanmi intrusive complex is made up of layered mafic and ultramafic rocks and occurs to the immediate west of the main greenstone sequence.</li> <li>Anomalous gold occurs in a favourable structural setting close to the Youanmi Fault, a major structure known to host or control gold mineralisation in the district. Gold is often, but not exclusively, associated with sulphides usually within alteration zones.</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>The Lach Drummond Ni hole PWAC179</li> <li>Easting 678450mE</li> <li>Northing 6804700mN</li> <li>No RL given</li> <li>Datum AGD84/50</li> <li>Dip -60 and Azimuth 270</li> <li>42m EOH, Ni intercept 32-40m at 0.44%Ni.</li> <li>Only PWAC179 Ni intersection was considered relevant in the base metal search within E57/1045 and no other historical drill holes were sighted.</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>	<ul> <li>Lach Drummond do not report on weighted averaging techniques or truncations having been applied to their data.</li> <li>Lach Drummond do not report on data aggregation methods for their Ni-Cu sampling programme</li> <li>Lach Drummond do not report on metal equivalents.</li> </ul>



Criteria	JORC Code explanation	Commentary
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>Lach Drummond do not report on any relationships between mineralisation intercept lengths correlated with any widths from other holes.</li> <li>No geometry of the mineralisation has been reported</li> <li>All mineralisation is reported from down hole inclined depths, no intervals have been converted to true widths as the geometry of the hosts have not been formally defined.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>No cross sections or diagrams have been constructed as they are not relevant for a single hole reconnaissance interval. A location map has been supplied.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Only a single hole with elevated Nickel values is reported to show that elevated Ni does exist within the tenement. The single hole report is not misleading, it simply shows that consideration has been given to other metals in the licence other than gold and not to report this, given it is widely available from the Mines Department and ASX, would be negligent.</li> </ul>
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 other substantive base metal exploration data is available at this stage.
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>The future work programme, as stated, involves looking at the available pulps for other commodities, in particular base metal potential.</li> <li>Not enough information is available yet to make interpretations on areas of potential extensions to the elevated Nickel site</li> </ul>



Criteria	JORC Code explanation	Commentary
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	No cut-off parameters are required at this stage of early exploration.
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 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.	No mining factors or assumptions have been considered for this exploration stage as these are considered outside the scope at this level of exploration.
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 considered at this stage as these are considered outside the scope of this stage of exploration
Environmen- tal factors or assumptions	<ul> <li>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.</li> </ul>	<ul> <li>No environmental factors or assumptions have been considered for this exploration stage as these are considered outside the scope of this stage of exploration.</li> </ul>
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the	No bulk density sampling has been considered at this stage of



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	<ul> <li>frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	exploration
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie 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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	No Mineral resource is considered, at this stage as the project is purely an exploration play.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	No Mineral Resource defined
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> </ul>	No Mineral Resource defined



Criteria	JORC Code explanation	Commentary
	<ul> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	No Mineral Resource defined
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	No Mineral Resource defined
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	No Mineral Resource defined



Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	No Mineral Resource defined
Environmen- tal	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	No Mineral Resource defined
Infrastructure		No Mineral Resource defined
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> </ul>	No Mineral Resource defined



Criteria	JORC Code explanation	Commentary
	<ul> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	No Mineral Resource defined
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	No Mineral Resource defined
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	No Mineral Resource defined
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	No Mineral Resource defined
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be</li> </ul>	No Mineral Resource defined



Criteria	JORC Code explanation	Commentary
	received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	No Mineral Resource defined
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	No Mineral Resource defined
Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local</li> </ul>	No Mineral Resource defined
	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.	
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	
	<ul> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence</li> </ul>	



Criteria	JORC Code explanation	Commentary	
	of the estimate should be compared with production data, where	9	
	available.		