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23 February 2023

Gnewing Bore HEM Review Complete

Highlights:

- **Review of helicopter electromagnetic survey (HEM) over Gnewing Bore Au-Ag/Ni-Cu Project completed by Southern Geoscience Consultants (SGC)**

- **Targets identified represent possible bedrock conductors requiring follow up field work, Figure 1**

Lycaon Resources Ltd (ASX:LYN) (**Lycaon** or the **Company**) is pleased to announce the results of a helicopter electromagnetic survey (HEM) covering 216 line-kms over the Gnewing Bore gold-silver and nickel-copper project (**Gnewing Bore Project**) in the Kimberley region of Western Australia, Figure 1.

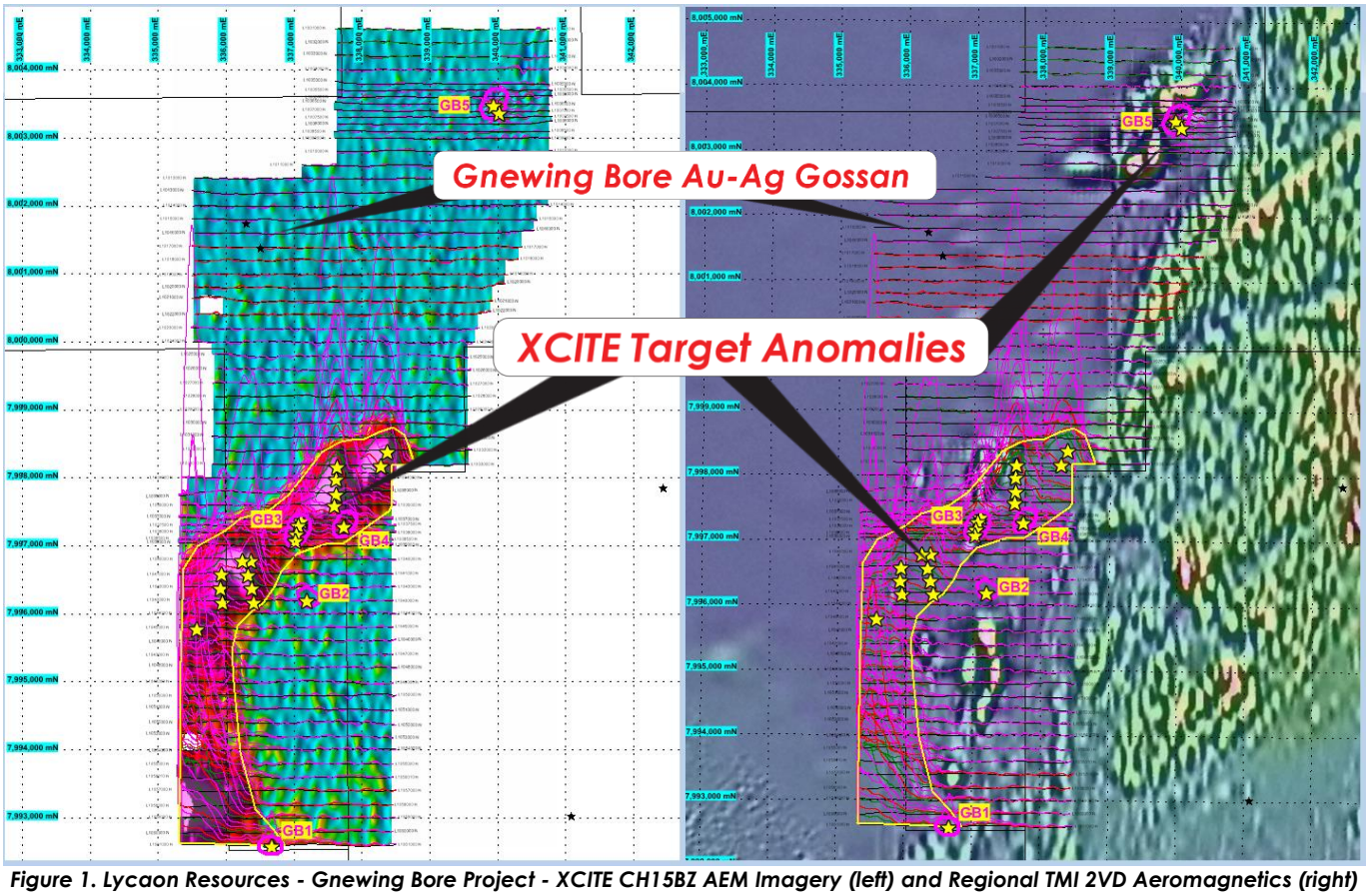

Figure 1. Lycaon Resources - Gnewing Bore Project - XCITE CH15BZ AEM Imagery (left) and Regional TMI 2VD Aeromagnetics (right)

Mr Thomas Langley, Technical Director commented "These latest EM results at Gnewing Bore highlight additional targets outside of the main gold-silver gossan that warrant follow up during this year's dry season. We anticipate a busy 2023 in the Kimberley with drill programs planned across the Gnewing Bore project, the high-grade nickel-copper Bow River project and the Stansmore niobium-rare earths project in the West Arunta."

Survey Details

The XCITE airborne electromagnetic survey was carried out by New Resolution Geophysics Australia Pty Ltd (NRG) on behalf of Lycaon over the central portion of the Gnewing Bore Project area (see Figure 1).

The primary objective of the survey was to explore for conductive, well developed sulphide bodies that may represent high grade, copper-gold mineralisation or Ni-Cu±PGE mineralisation.

The XCITE system was selected in order to provide higher resolution survey information to a depth of ~250-300m.

A total of 216 line kilometres of XCITE AEM survey data have been acquired over one contiguous block area within tenement E80/5508.

XCITE AEM surveying is believed to be an effective regional exploration tool for conductive, well developed sulphide mineralisation assuming that the near surface conductive cover conditions are limited.

At this stage five primary XCITE target anomalies have been identified - GB1, GB2, GB3, GB4 and GB5 (see Figure 1).

Next Steps

Lycaon will continue to review and assess the new survey results. The defined anomalies will be field checked and, if warranted, ground-based EM surveys and follow-up drill testing will be undertaken.

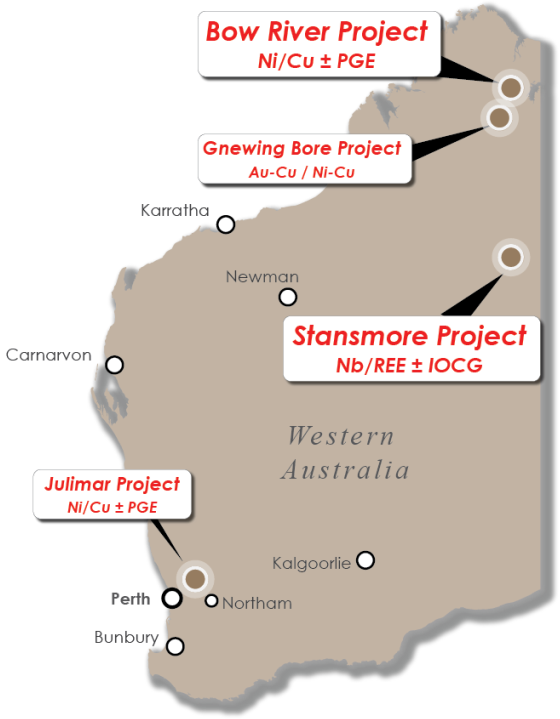

Figure 2. Lycaon Resources three major projects located in Western Australia.

Gnewing Bore Project *(Gold, Silver, Nickel, Copper)*[1]

The Gnewing Bore Project is approximately 28km to the northwest of the Halls Creek townsite, within the Kimberley Region of Western Australia. Halls Creek is situated 347km south of Kununurra and is readily accessible via the sealed Great Northern Highway. The Project has generally good outcrop and easy access via stations tracks on the Moola Bulla pastoral lease.

The Gnewing Bore Project has experienced limited exploration to date, with work focusing on the area surrounding a prominent north-northwest-trending, 50m long, significant gossanous outcrop consisting of brecciated quartz material and iron oxides after sulphides, Figure 4. Historical rock chip samples have returned up to 5.10 g/t Au and 105g/t Ag, Figure 5. A small historical drilling program returned a best result of 8m @ 0.52g/t Au from 12m from a hole drilled beneath the gossan, indicating a wide mineralisation system could be present. There remains significant potential down dip and along strike to test for high-grade mineralisation in fresh rock, which warrants further drilling.

The Gnewing Bore Project represents a hydrothermal/epithermal gold-silver target, containing some low-level copper anomalism which appears primarily shear controlled. Historic work highlights high-tenor gold grades plus supporting silver and copper grades in the rock chip samples, with a lack of decent exploration work to sufficiently test the target's potential.

Subject to regulatory approvals, the gold-silver-copper quartz outcrop at Gnewing Bore Prospect offers a drill-ready target for Lycaon. The drilling of the Gnewing Bore Prospect is the top priority followed by other nickel-copper targets identified in the remainder of the tenure during the ongoing geophysical, geochemical and geological review, Figure 6.

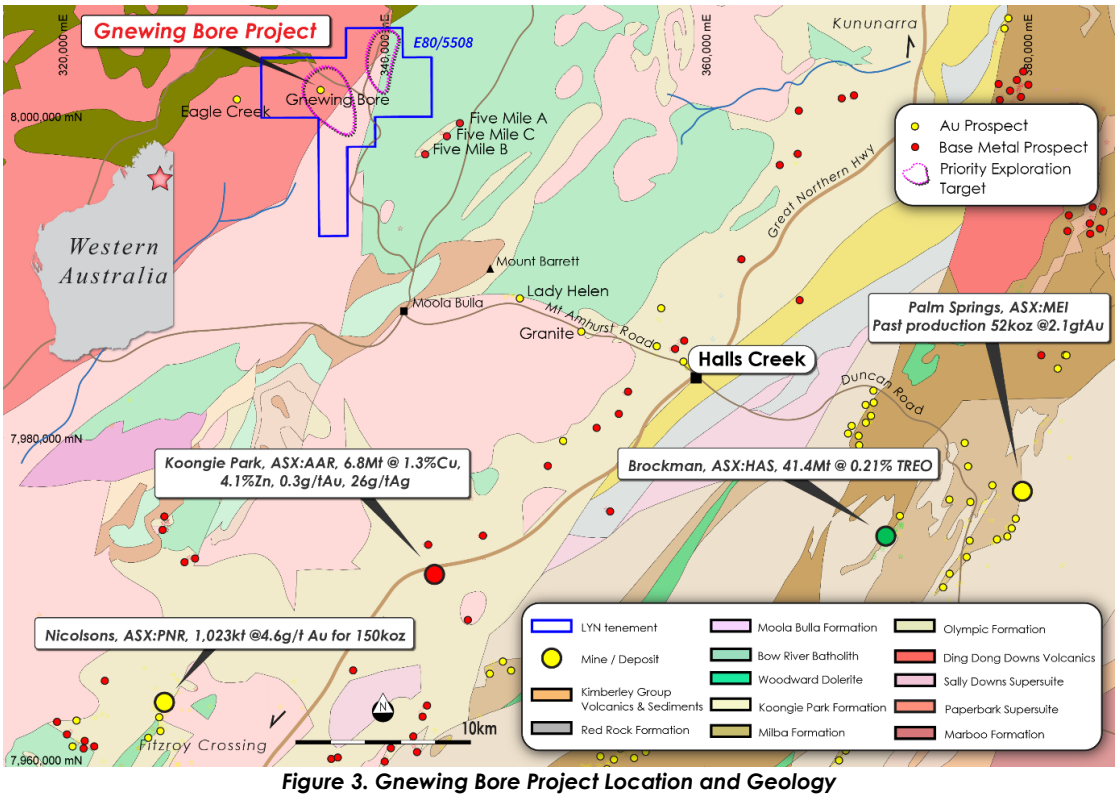

Figure 3. Gnewing Bore Project Location and Geology

Figure 4. View of the main quartz sulphide outcrops, looking northeast (from WAMEX Report A036766)

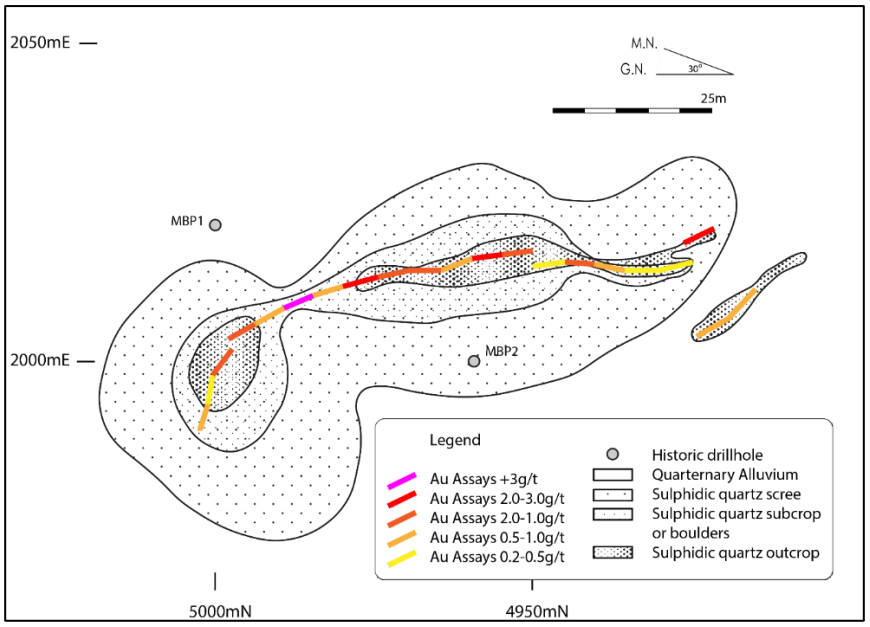

Figure 5: Gold results from semi-continuous rock chip sampling completed by Anglo Australian

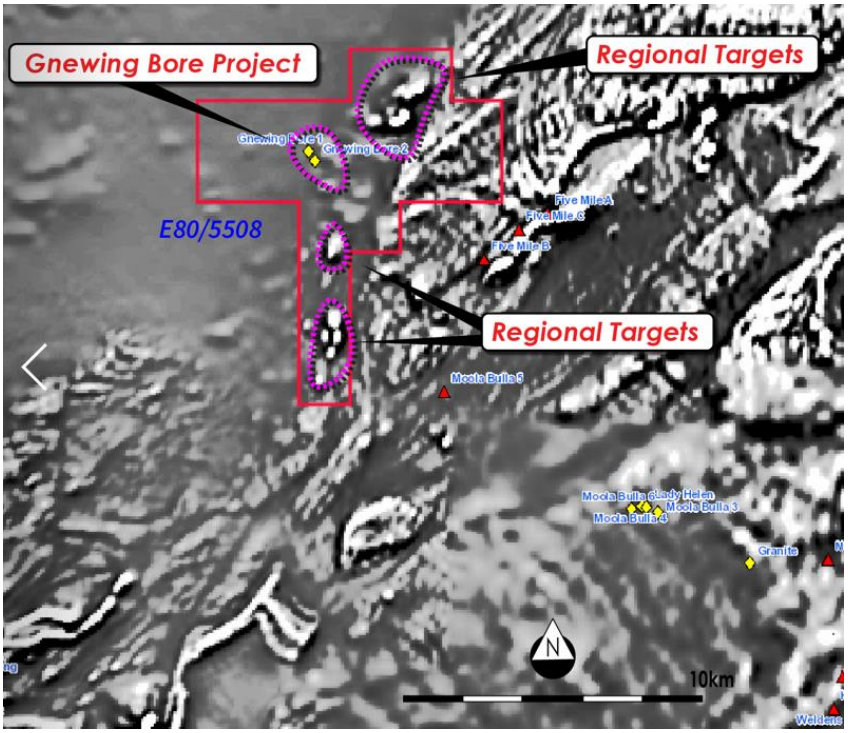

Figure 6. Gnewing Bore Project and priority Regional Targets (greyscale 1VD magnetics overlay)

For further information please refer to previous ASX announcements:

- *10 November 2022 EM Surveys Completed at Bow River and Gnewing Bore*
- *4 November 2022 Gnewing Bore HEM Survey*
- *22 November 2021 Significant Outcropping Gossan with High Grade Gold*

This announcement has been authorised for release by the Directors of the Company.

Thomas Langley - *Technical Director*

For additional information please visit our website at www.lycaonresources.com

Competent Person's Statement

The information in this release that relates to Geophysical Results and Interpretations is based on information compiled by Russell Mortimer, Consultant Geophysicist at Southern Geoscience Consultants. Russell Mortimer is a Member of the Australasian Institute of Geoscientists (AIG) 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'. Russell Mortimer consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Thomas Langley who is a member of the Australian Institute of Geoscientists (MAIG) and a member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr. Thomas Langley is a full-time employee of Lycaon Resources Limited, and is a shareholder, however Mr. Thomas Langley believes this shareholding does not create a

conflict of interest, and Mr. Langley 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. Langley consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the forma and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• No drilling was completed in this phase of works. • New Resolution Geophysics (NRG) was contracted to complete the electromagnetic and magnetic survey. • Survey data was collected with 200m line spacing. • All data was acquired with the Xcite™ system working at a base frequency of 25 Hz. • The Xcite™ system consisted of an 18.4 m diameter, four turn transmitter loop, energized with 280 A current pulses, providing a peak dipole moment of approximately 300000 NIA. • The Xcite™ system is a symmetric, in-loop type system with a concentric RX/TX geometry. • Single Sensor Scintrex CS3 magnetometer • Visual real time on-screen system monitoring / error messages to limit re-fights due to equipment failure

Criteria	JORC Code explanation	Commentary

Electromagnetic System	
Type	Xcite™
Sensor Configuration	Coincident Tx-Rx
Weight	~450kg
Structure	Fully inflatable frame
Aircraft Type	AS350B Series
Engine Type	Turbine
Fuel Type	JetA1
Transmitter	
Diameter	18.4m
Number of turns	4
Current	280A
Dipole Moment	300,000 NIA
Base Frequency	25Hz
Waveform	Nominal square wave – typically 5.4 mS ontime
Receiver	
Diameter	0.613m (effective) (X), 1.0m (Z)
Number of turns	200 (X), 100 (Z)
Orientation	X & Z axis
Configuration	Concentric to Tx
Recording	Digitally at 625 kbps
Time gates	Extracted from streamed data – Typically 24gates
Time gate windows	0.04ms to >11ms
Measurements	dB/dT & integrated B-field
Acquisition System	
Type	NRG RDAS II
CPU	Dual Core ARM 1.5Ghz
Operation Temperature	-10 to 65 Degrees C
Standard Sampling Rate	20 Hz (capable of >1kHz)
GPS Positioning	
Type	Novatel DL-V3L1L2
Differential Correction	Yes
Code Tracked	C/A
Number of Satellites	12
Recording Rate	20 Hz

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th colspan="2">Magnetometer Counter</th></tr>
<tr><td>Type</td><td>NRG RDAC II</td></tr>
<tr><td>Internal System Noise</td><td><0.0001 nT</td></tr>
<tr><td>Adc Inputs</td><td>24</td></tr>
<tr><td>Magnetometer Inputs</td><td>4</td></tr>
<tr><td>Recording Rate</td><td>20 Hz (capable of >1kHz)</td></tr>
<tr><th colspan="2">Magnetometer Sensor</th></tr>
<tr><td>Type</td><td>Single Sensor Scintrex CS3</td></tr>
<tr><td>Measurement Range</td><td>15 000 – 105 000 nT</td></tr>
<tr><td>Gradient Tolerance</td><td>40 000 nT/m</td></tr>
<tr><td>Operating Temperature</td><td>-40 to +50 Degrees C</td></tr>
<tr><td>Recording Rate</td><td>20 Hz (capable of >1kHz)</td></tr>
<tr><th colspan="2">Laser Altimeter</th></tr>
<tr><td>Type</td><td>SF11/C (Loop) and SF00(Helli)</td></tr>
<tr><td>Range</td><td>0 – 60 m and 0 – 250m</td></tr>
<tr><td>Resolution</td><td>1cm</td></tr>
<tr><td>Recording rate</td><td>20 Hz (capable of >1kHz)</td></tr>
<tr><th colspan="2">Base Station Magnetometer</th></tr>
<tr><td>Type</td><td>NRG VER 2</td></tr>
<tr><td>Manufacturer</td><td>NRG Engineering</td></tr>
<tr><td>Range</td><td>15 000 to 105 000nT</td></tr>
<tr><td>Sensitivity Recording Rate</td><td>0.0006 nT √Hz RMS 1Hz</td></tr>
<tr><th colspan="2">Field Data Verification System</th></tr>
<tr><td>Processing Software Platforms</td><td>Geosoft Oasis Montaj and Proprietary Software</td></tr>
</table>
Modelling and interpretation of the electromagnetic and magnetic data was undertaken by Southern Geoscience Consultants Pty Ltd
</td></tr>
<tr><td>Drilling techniques</td><td>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).</td><td>No drilling undertaken.</td></tr>
<tr><td>Drill sample recovery</td><td>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.</td><td>No drilling undertaken.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
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.*	No drilling undertaken.
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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	No drilling undertaken.
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.*	No drilling undertaken.
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,*	No drilling undertaken.

Criteria	JORC Code explanation	Commentary
	data storage (physical and electronic) protocols. • *Discuss any adjustment to 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.*	• No drilling undertaken. • GDA94 MGA Z50.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	The high-resolution HEM survey was completed to locate conductors that may be related to massive sulphide Ni-Cu-PGE mineralisation associated with mafic and ultramafic intrusions on the Halls Creek Orogenic Belt, analogous to Panoramic Resources (ASX.PAN) Savannah nickel mine.
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.*	No drilling undertaken.
Sample security	• *The measures taken to ensure sample security.*	Chain of Custody is managed by the Company's geophysical field contractor and geophysical consultants. The data is transferred daily and is QA/QC checked by a qualified geophysicist.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audits have been completed.

Section 2 Reporting of Exploration Results

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

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*	• The Gnewing Bore Project consists of 1 granted Exploration Licenses (E80/5508). • E80/5508 is 100% held by MatMetals Limited a 100% owned subsidiary of Lycaon Resources Limited. • The tenement is in good standing with no known impediments. • The Ngarrawanji People (WC1996/075 and WAD41/2019) Native Title Claim overlies E80/5508.

Criteria	JORC Code explanation	Commentary
	known impediments to obtaining a licence to operate in the area.	
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	The Gnewing Bore Project has experienced limited exploration to date, with work focusing on the area surrounding a prominent north-northwest-trending, 50m long, significant gossanous outcrop consisting of brecciated quartz material and iron oxides after sulphides. The Gnewing Bore gossan is located in the central portion of the Project. This is a north-northwest-trending, 50m long, gossanous outcrop consisting of brecciated quartz material and iron oxides after sulphides. Peak assays from the gossan include 5.1g/t Au, 105g/t Ag, 1223ppm Cu, 5650ppm Pb and 3125ppm Zn. The gossan follows the sub-regional structural orientation with a trend of 330° magnetic and appears to be related to brittle fracturing and sericitisation of the gneissic or granitic basement. Northwest to north-northwest trending faults and narrow quartz veins are mapped immediately to the northwest, which offer additional targets for exploration work. During 1992, Anglo Australian completed geological mapping, collected forty-nine (49) reconnaissance grid-based soils, twenty-six (26) composite grab, twenty-five (25) semi-continuous rockchip samples and completed two (2) angled holes. The geological mapping identified five distinct units (Quaternary alluvium, Cenozoic cover, Bow River Granite, McIntosh Gabbro and quartz sulphide pods ± veins). The quartz sulphide pods ± veins were noted to occur at the lithological contact between the granite and dolerite and were surmised to be related to a north-westerly trending structure. The semi-continuous rockchip sampling was undertaken over the main quartz sulphide occurrences, with sampling taken along lengths of predominately 5m. The total length of quartz occurrences samples was 108m. Results included 5m @ 3.31g/t Au from sample 34576.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Gnewing Bore Project is located in the Halls Creek Orogenic Belt. • The Gnewing Bore Project is considered prospective for polymetallic gold-silver mineralisation, and magmatic sulphide Ni-Cu-PGE associated with magmatic intrusives, analogous to Savannah nickel mine.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level –*	No drilling undertaken.

Criteria	JORC Code explanation	Commentary
	elevation above sea level in metres) of the drill hole collar o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No drilling undertaken.
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 drilling undertaken.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to figures within this report.
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.*	• The accompanying document is a balanced report with a suitable cautionary note.
Other substantive	• *Other exploration data, if meaningful and material, should be reported*	• Suitable commentary of the geology encountered are given within the text of this

Criteria	JORC Code explanation	Commentary
exploration data	*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.*	document.
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.*	• Field visit anomalies identified from the HEM survey, surface geochemistry and geophysical programs if warranted prior to drilling.