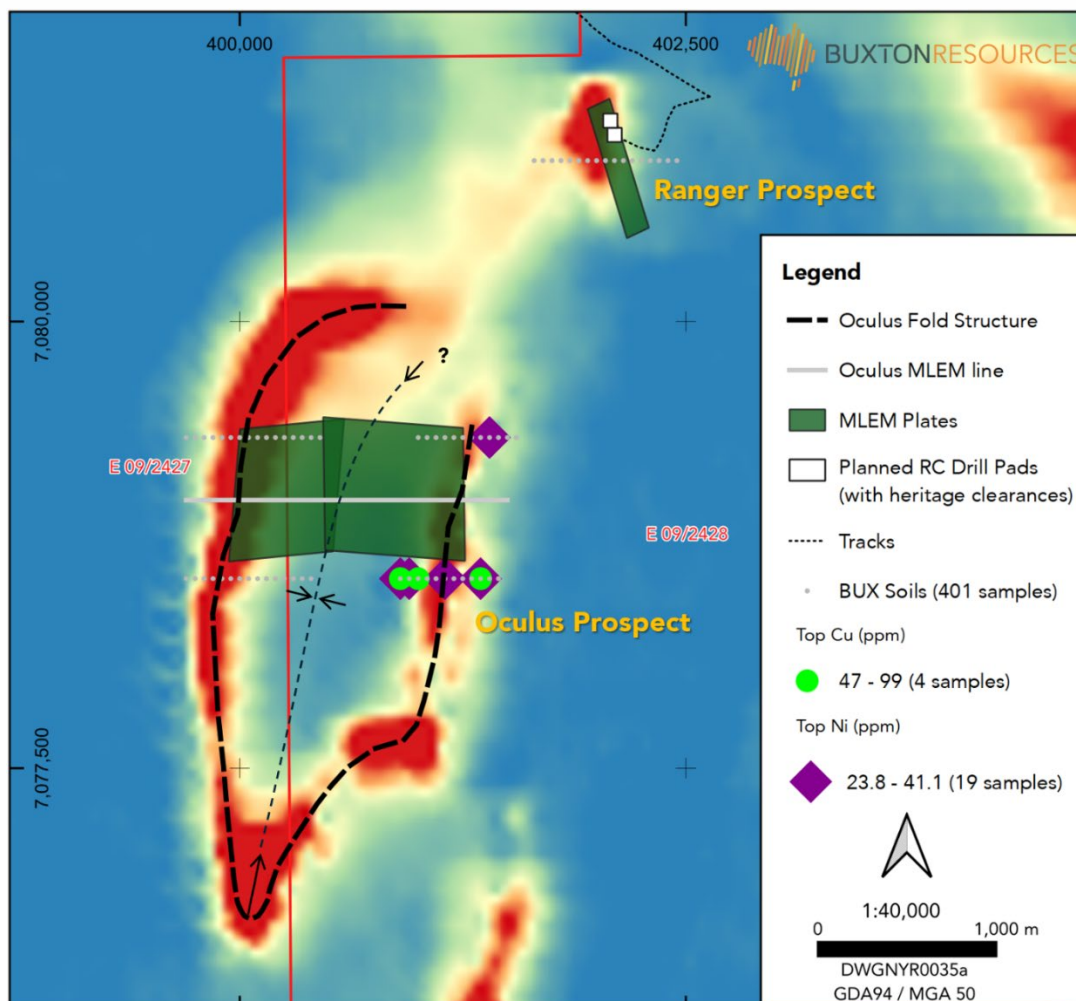


## Narryer Project (100% BUX) High Conductance Ground EM Plates Modelled at Ranger & Oculus Prospects

- Ground EM surveys identify three high conductance EM plates
- Extremely high conductance of plates indicates presence of either iron bearing copper/nickel sulphides or graphite
- Planning underway for maiden drilling of Ranger Prospect

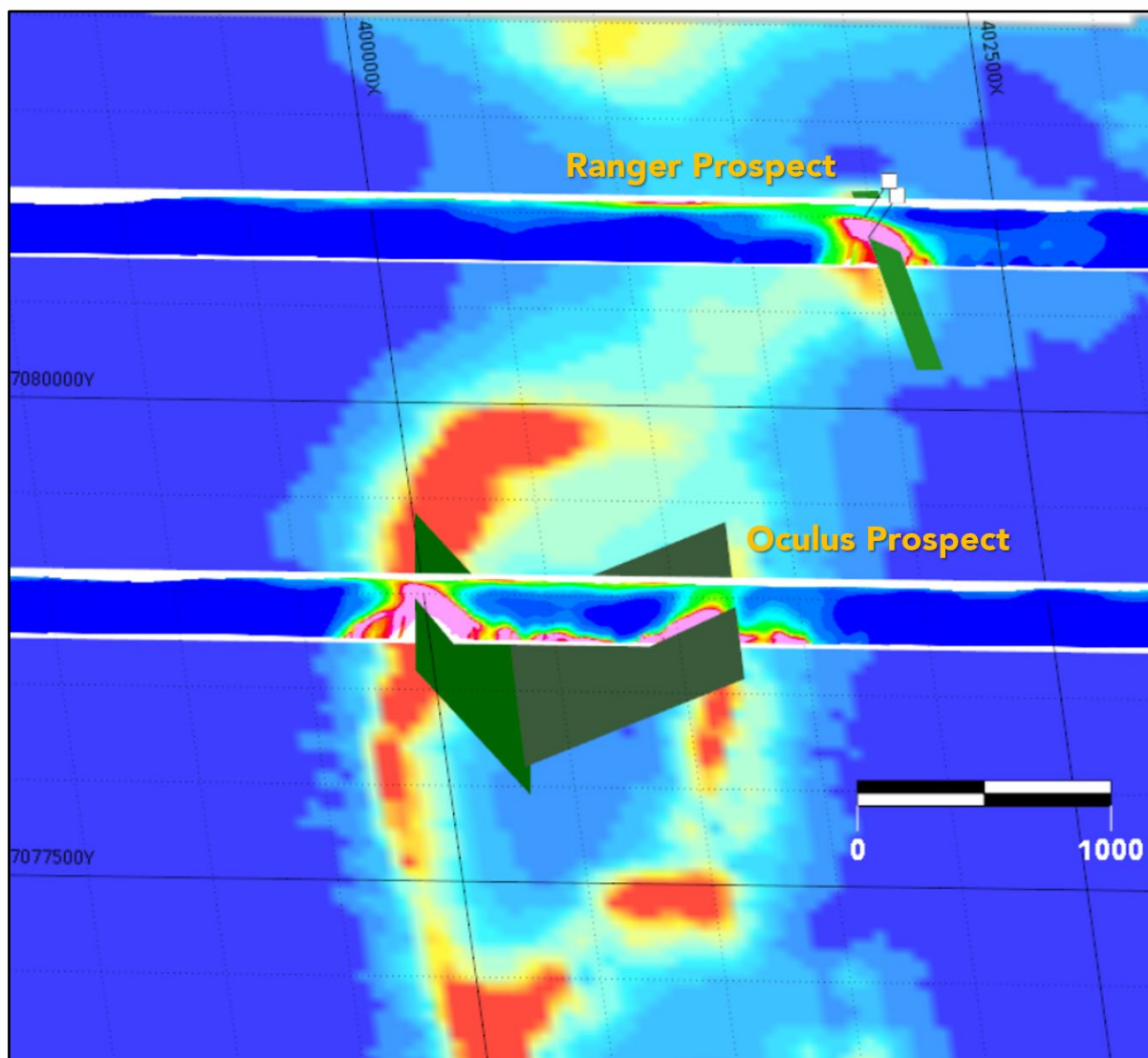
Buxton Resources Ltd ('Buxton'; ASX:BUX) is pleased to update shareholders that results from a second ground Moving Loop Electro-Magnetic (MLEM) survey recently completed at the Narryer Project have defined several new EM plates with conductance levels up to 10,000 Siemens (Figure 1, Table 1).



**Figure 1:** Ranger Prospect EM and geochemistry with HeliTEM2 background image (channel z15). A single line of MLEM was run at the Oculus Prospect over coincident Ni + Cu in soil samples.

The recent MLEM survey followed-up nickel & copper soil geochemical anomalies ~2 km south from the Ranger Prospect, where [IGO had previously undertaken a MLEM survey](#). Soil anomalies at both Ranger and Oculus are subdued by a strong transported component, and hence metal levels are low. Nevertheless, the Oculus results represent the most coherent and anomalous nickel and copper levels from over 400 samples collected to date.

Modelling of the new Oculus Prospect MLEM data has identified two additional plates with conductance values between 5,000 – 10,000 Siemens (Table 1).



**Figure 2:** Perspective 3D view showing new MLEM plates, airborne EM channel 15 image and inversion cross sections along selected flight-lines. The conductivity imagery & MLEM models define a synformal structure at Oculus. The planned drillholes with PoW approvals & heritage clearances at Ranger are also shown. Heritage surveying has not been undertaken at the Oculus Prospect.

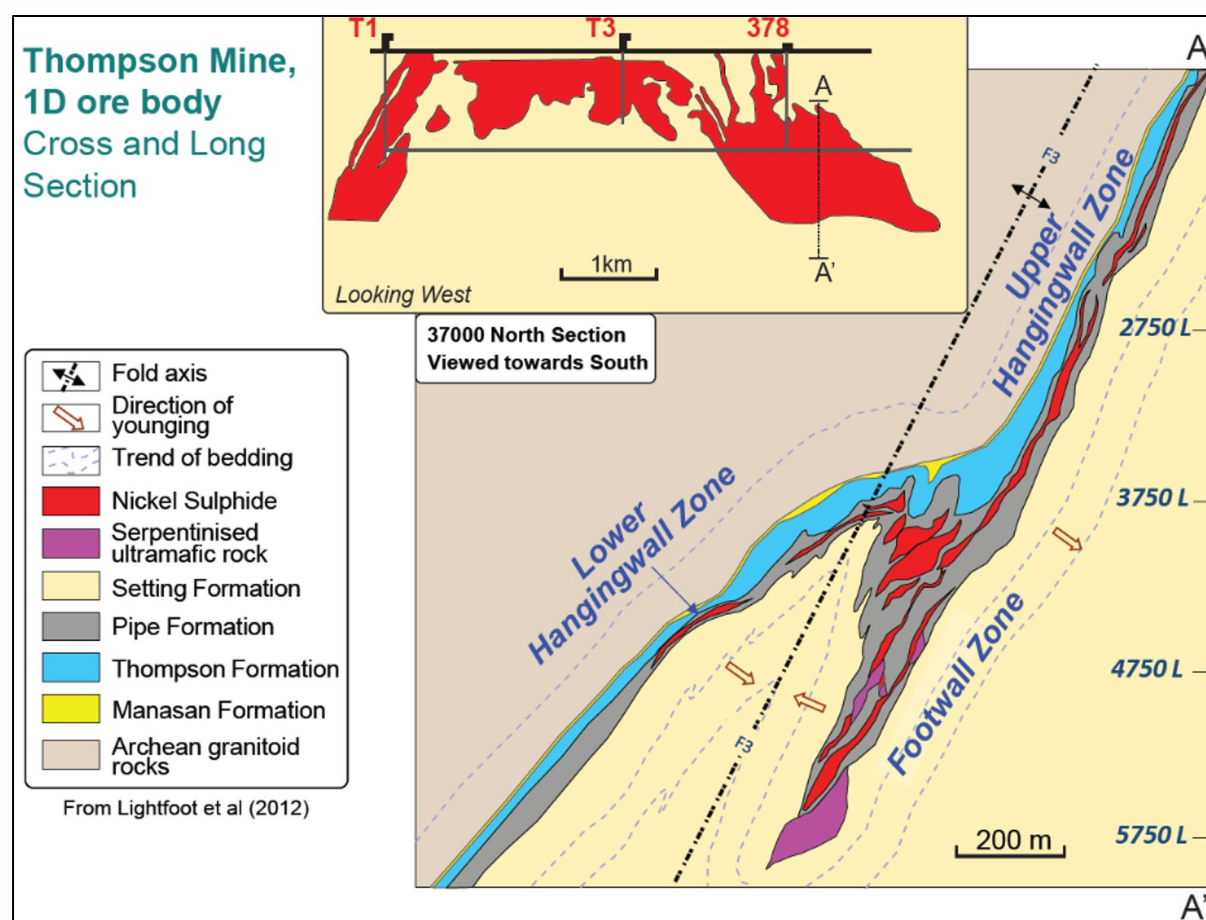
Reinterpretation of the 2023 Ranger MLEM survey has defined a 6,000 Siemen plate only slightly smaller than the [plate modelled by IGO at 2,100 Siemens](#).

**Table 1:** MLEM Modelling Results (re-interpretation of 2023 Ranger survey plus new line at Oculus)

Locality	Estimated Size of EM Plate	Dip / Dip Direction	Conductance (Siemens)
Ranger	150 m strike, 800 m down plunge, 195 m depth (to top)	-20 / 160	6,000
Oculus_1	750 m strike, 1000 m down plunge, 100 m depth (to top)	-38 / 274	10,000
Oculus_2	750 m strike, 1000 m down plunge, 100 m depth (to top)	-54 / 85	5,000

The extremely high conductance of the EM models indicates the presence of either iron (+/- nickel & copper) bearing sulphides or graphite.

Buxton interprets the geological setting at Ranger and Oculus to be similar to the nickel deposits of the Thompson Nickel Belt in Canada and that the large conductive synformal feature at Oculus potentially represents an excellent trap for nickel introduced by small ultramafic intrusions (Figure 3).



**Figure 3:** Cross sections showing the Thompson Nickel Mine where orebodies lie within hinges and along limbs of fold structures where Pipe Formation sulfidic meta-sediments have trapped nickel introduced by small, lens-like ultramafic intrusions.

Buxton has commenced planning a maiden exploration drill program to confirm presence of Ni-Cu sulfide mineralisation at Ranger. Programme of Work and Heritage Clearance survey approvals have been received to undertake that work. Extension Moving Loop EM surveys are now being planned, along with extending PoW and Heritage approvals to cover the Oculus Prospect.

Buxton looks forward updating shareholders on progress from this exciting project.

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This announcement is authorised by the Board of Buxton Resources Ltd.

For further information, please contact:

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### **About the Narryer Project**

The Narryer Terrane forms part of the Archean Yilgarn Craton margin which hosts the recently discovered, world-class Julimar Ni-Cu-PGE Project. This new discovery by Chalice Mining Ltd and the presence of numerous Ni-Cu-PGE occurrences along a >1,000km strike length defines the West Yilgarn Ni-Cu-PGE Province - a highly prospective new exploration frontier now subject to intense exploration activity. Buxton has also now identified that the Narryer Project has potential for carbonatite-related Rare Earth Element (REE) style deposits in the Proterozoic Badgeradda Basin rocks which have been accreted to the Yilgarn Craton. The Narryer Project also has potential for regolith-hosted REE within both Proterozoic and Archean successions.

With the granting of E09/2722, Buxton now holds 1,918 km<sup>2</sup> in four granted ELs along the highly prospective Yilgarn Western Margin, including the adjoining ~30 km long tectonic sliver of the Proterozoic Badgeradda Basin which has been emplaced here along this craton margin.

During 2021 & 2022, Buxton completed ground reconnaissance, a regionally extensive 1-km spaced ground gravity survey and a highly targeted 2566.6-line km Airborne EM survey. Interpretation of the AEM data has identified multiple high priority anomalies, three of which warranted immediate follow-up by moving loop EM, which was completed at Bandito, Prodigy and Ranger Prospects in early 2023. Additional soil sampling was conducted over AEM targets in late 2003 which provided encouragement to extend the Ranger ground EM coverage.

In addition to well defined Ni-Cu-PGE prospectivity, the broad tectonic and geological setting is prospective for REE, with the Gascoyne region shaping up as next Australia's REE hotspot. REE projects nearby include Yangibana (under construction, ASX: HAS), Mangaroon (ASX: DRE), Mick Well (ASX: KFM), and Innouendy (ASX: DM1). The only REE operation in production in Australia is Mount Weld (ASX: LYC), near Laverton, WA.

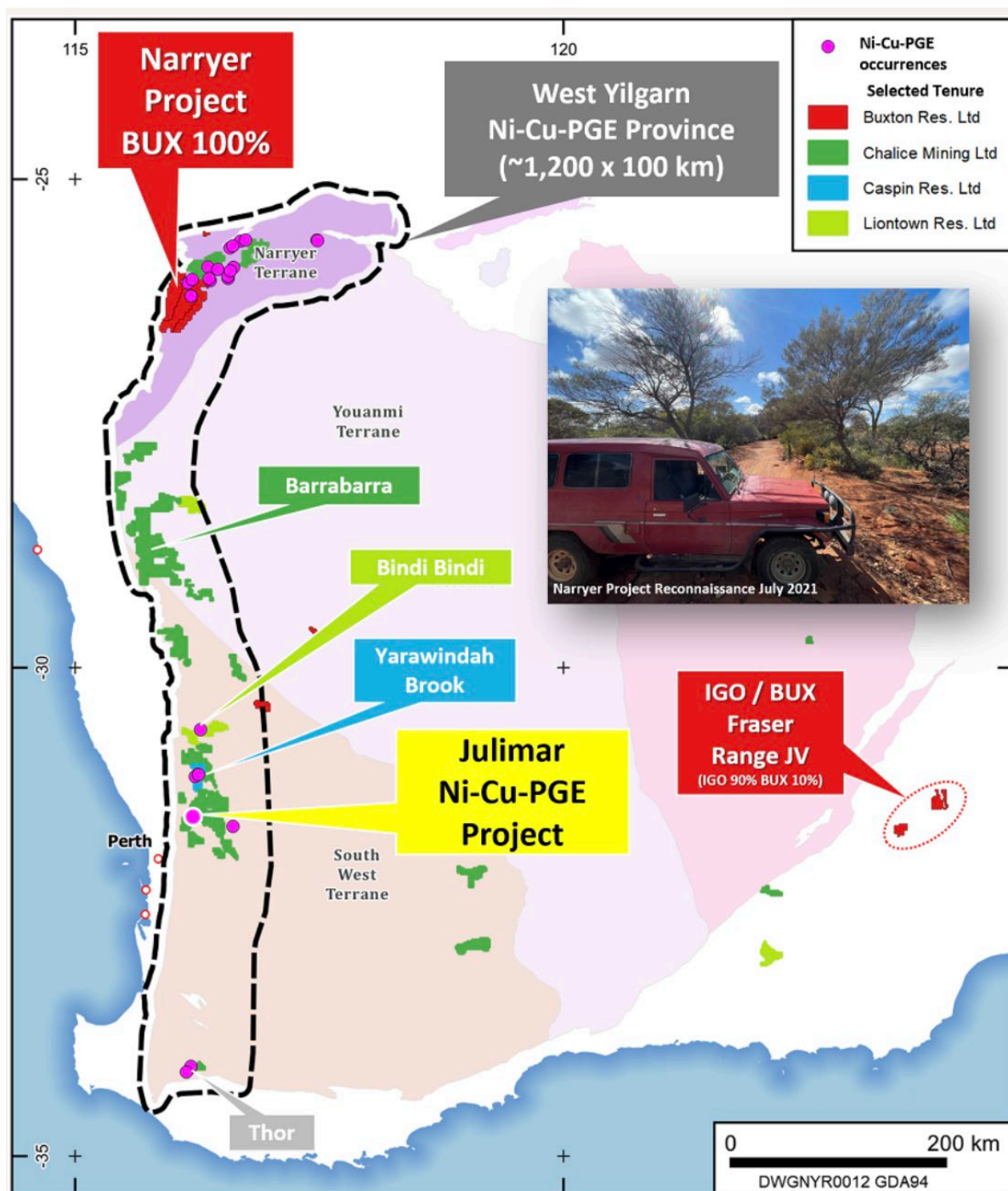


Figure 4: Narryer Project location map.

#### Competent Persons

The information in this report that relates to Exploration Results is based on information compiled by Mr Martin Moloney, Member of the Australian Institute of Geoscientists and Society of Economic Geologist. Mr Moloney is a full-time employee of Buxton Resources Ltd. Mr Moloney has sufficient experience which is relevant to the activity being undertaken to qualify as a "Competent Person" as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moloney consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information presented herein that relates to Exploration Results from analysis of the Ground Electromagnetic survey results is based on information compiled and reviewed by the Russell Mortimer, a Competent Person who is a Member of The Australian Institute of Geoscientists and fairly represents this information. Mr Mortimer has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Mortimer is an independent Consultant Geophysicist at Southern Geoscience Consultants Pty Ltd and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Previously Reported Information**

There is information in this announcement relating to exploration results previously announced on:

1. 13<sup>th</sup> October 2022 - [High priority AEM anomalies detected at Narryer Project](#)
2. 30<sup>th</sup> January 2023 - [Exploration Update - Narryer Project](#)
3. 2<sup>nd</sup> August 2023 - [Highly Anomalous REE in Rock Chip at Prodigy Prospect](#)
4. 24<sup>th</sup> August 2023 - [Narryer Soil Sampling Program Complete \(clarification\)](#)

### **Validity of Referenced Results**

Buxton confirms that it is not aware of any new information or data that materially affects the information from previous ASX announcements which has been referenced in this announcement.

### **Cautionary Note Regarding Forward-Looking Information**

This Announcement contains forward-looking statements and forward-looking information within the meaning of applicable Australian securities laws, which are based on expectations, estimates and projections as of the date of publication. This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing required to execute the Company's programs, and the length of time required to obtain permits, certifications and approvals.

Wherever possible, words such as "anticipate", "believe", "expect", "intend", "should", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-

looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time. Forward-looking information involves significant risks, uncertainties, assumptions, and other factors that could cause actual results, performance or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors, including, but not limited to, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully.

Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information. Although the forward-looking information contained on in this Announcement is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information.

The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law. No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this Announcement.

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	The Ground Electromagnetic (EM) survey was undertaken by Wireline Services Group using GeoResults DRTX TX4 high power transmitter (~90 Amps), highly sensitive EMIT Fluxgate B-field sensors and single-turn 16 mm copper cable. The SMTFluxgate B-field receiver used an In-loop Position. The moving loop EM used a 200m square loop.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	

	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Soil samples were taken from a shallow & wide hole dug with a mattock. 250g -4mm sample into paper geochemi bags using a large aluminium spoon & sieve.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	Not applicable, the announcement does not pertain to drill hole results.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Not applicable, the announcement does not pertain to drill hole results.
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.	The regolith regime was interpreted by a qualified geologist for all soil samples.
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.	Entire 4kg samples are submitted to the laboratory for sample preparation and analysis. Sample sizes are considered appropriate to the grainsize and mineralisation observed.
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.	Australian Laboratory Services (Perth) – "ALS" prepares each sample by oven drying the entire sample for 12 hours at 100°C (DRY-21). Samples are then crushed in a jaw-crusher to 70% passing 6 mm (CRU-21). The entire sample is then pulverized in LM5 grinding robotic mills with low Cr-steel pulverising bowls (particle size distribution (PSD) target of 85% passing 75 m; PUL-23). A 300g master pulp is collected for analysis, with the remaining "reject" pulp being retained in storage.  ALS laboratories, Perth complete pulveriser size checks every 50th sample to ensure particle size distribution compliance as part of routine internal quality procedures to ensure the target PSD of 85% passing 75 µm is achieved.

		<p>Laboratory quality control processes include the use of internal lab standards using certified reference materials (CRMs) and duplicates. Quality control procedures involve insertion of certified reference materials, blanks, and collection of duplicates at the pulverisation stage. Results were within acceptable limits of certified reported values. Company CRMs were not used</p> <p>Soil samples were analysed using a four-acid digestion, with ICP-AES finish (ME-ICP61) for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, and Zn.</p>
	<i>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.</i>	<p>The EM survey was undertaken by Wireline Services Group using the following key components:</p> <ul style="list-style-type: none"> <li>- EMIT SMARTem 24 Receiver</li> <li>- EMIT SMARTem Fluxgate</li> <li>- GeoResults DRTX TX4 Transmitter - 100 Amp / 250 Voltage output</li> <li>- EMIT Tx controller</li> </ul>
	<i>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.</i>	<p>EM data is recorded digitally and displayed live in the field, enabling operators to review the raw data for live data quality assessment.</p> <p>EM data was reviewed daily by an experienced independent geophysicist.</p> <p>The field data collection contractor Wireline Services Group operates under the following accredited systems:</p> <ul style="list-style-type: none"> <li>- ISO 14001:2015 Environmental Management Systems</li> <li>- ISO 45001:2018 Occupational Health &amp; Safety Management Systems</li> <li>- ISO 9001:2008 Quality Management Systems</li> </ul> <p>EM data was reviewed daily by an experienced independent geophysicist.</p>
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable, the announcement does not pertain to assay intersections.
	<i>The use of twinned holes.</i>	Not applicable, the announcement does not pertain to drill hole results.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	<p>MLEM data was recorded digitally using EMIT SMARTem 24 Receiver. The digital data was backed-up via email from the field camp to head office and the consulting geophysicist.</p> <p>Soil sampling data was recorded onto hardcopy in the field, with a redundant location record in the GPS system.</p>
	<i>Discuss any adjustment to assay data.</i>	Not applicable for geophysics.
<i>Location of data points</i>	<i>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.</i>	Positional control for the MLEM survey and soil sampling was via handheld GPS (+/-5m).
	<i>Specification of the grid system used.</i>	All coordinates are based on Map Grid Australia Zone 50, Geodetic Datum of Australia 1994

	<i>Quality and adequacy of topographic control.</i>	The MLEM crew used handheld Garmin GPS units for topographic control. The estimated accuracy of this system is 1-2m which is deemed sufficient for this type of survey.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	The MLEM survey consisted of 200m spaced lines with 100m spaced acquisition centres. This survey density is deemed sufficient by the CPs for first pass exploration screening of greenfields nickel prospects.
	<i>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.</i>	
	<i>Whether sample compositing has been applied.</i>	
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The MLEM survey achieves an unbiased sampling of the EM field by constantly moving the transmitter loop. The Oculus MLEM and soil surveys lines were designed to cross the geological structure at approximately 90 degrees to minimise sampling bias due to geological structure.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	The EM data was maintained on secure servers managed by WSG and the independent contractor. Final data as received by Buxton is also stored on a secure network.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Data was reviewed by a independent qualified geophysicist (CP Russell Mortimer) and determined to have been collected and processed in a satisfactory manner.

## JORC Table: Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	BUX have a 100% interest in Live exploration licenses E09/2427, E09/2428, E09/2429 and E09/2722. No material issues with land access are known at this stage.  A Subscription Agreement, Option Agreement and Earn-In and Joint Venture Agreement on the Narryer Project was executed with IGO Limited as detailed in ASX Announcement 22 October 2022, this agreement expired on June 19 2023 without IGO Limited taking up their option on the project.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	The tenement is in good standing with DMIRS and there are no known impediments for exploration on this tenement.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Numerous exploration parties have held portions of the area covered by BUX tenure previously. Buxton has undertaken a detailed review of 140 previous exploration reports as held in the DMIRS WAMEX system, along with a compilation of other relevant open file data.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	The primary target mineralisation style in the Project area is interpreted to be primary orthomagmatic intrusion related Ni-Cu-Co-PGE sulphide type.  The Project covers regions of the Narryer Terrane in the Yilgarn Craton, which includes reworked remnants of Archean greenstone sequences and layered mafic-ultramafic complexes that are prospective for intrusion-hosted Ni-Cu-(Co)-(PGEs). The Project also covers a sliver of Badgeradda Basin – a poorly characterised sequence of volcanics and sedimentary rocks which may be Neoproterozoic – Mesoproterozoic in age.

		The Project is situated on the (NW) margin of the Yilgarn Craton which - a deep-seated structural configuration that is favourable for the focussing of magmatic intrusions and related sulphide deposits.
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:	Not applicable, the announcement does not pertain to drill hole results.
	o easting and northing of the drill hole collar	
	o elevation or RL (Reduced Level – 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 (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable, the announcement does not pertain to assay results.
	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.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Not applicable, the announcement does not discuss or postulate thickness or width of mineralisation.
	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').	
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.	See text and figures in body of release.
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.	Reporting of BUX's rock chip is limited areas of outcrop or subcrop, float samples have been omitted for clarity. This is not deemed to misrepresent the indicated prospectivity of the tenement package.
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.	Not applicable.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	See text and figures in body of release.

	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	See figures in body of release.
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