



MetalsGrove
MINING LIMITED

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ASX Code

MGA

Shares on Issue

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PHASE 1 DRILLING PROGRAMME COMPLETE UPPER COONDINA LITHIUM PROJECT

Highlights:

- **4,200m Phase 1 drilling programme completed at the Chola, Happy Go Lucky and Shaw River Lithium Prospects - on time and on budget**
- **High priority Chola Prospect is a pegmatite corridor measuring approx. 4.0 km x 2.0 km**
- **Previously completed first pass soil sampling assay results at Chola Prospect confirm strong lithium and tantalum potential**
- **Deep Ground Penetrating Radar (DGPR) survey has identified 23 new potential pegmatite structures conjugate with existing known mineralised pegmatites within Chola Prospect**
- **DGPR is proven to be highly effective for identifying pegmatites in previous known pegmatite outcrops**
- **First drilling assays are expected to be reported in late February**

Critical metals exploration and development company **MetalsGrove Mining Limited** (ASX: **MGA**), ("**MetalsGrove**" "**MGA**" or the "**Company**"), is pleased to announce that it has completed its maiden 4,200m Reverse Circulation ("RC") drilling programme at the Upper Coondina Lithium Project, located 80 km south of Marble Bar.

This maiden drilling programme was designed to test the priority lithium targets at the recently discovered Chola Prospect in the south-east of the main Upper Coondina Project area (see Figure 1 and Figure 2 below). The Company can report that drilling has successfully intersected the main target zone at Chola with first assays expected to be reported in Q1 2023.

MGA is also pleased to confirm the completion of a DGPR survey at Upper Coondina. DGPR is proven technique for identifying additional pegmatites and establishing a more detailed understanding of subsurface mineralisation.

Commenting on the completion of the maiden drilling programme at Upper Coondina, MetalsGrove's Managing Director, Sean Sivasamy said:

"We are delighted to have completed our maiden RC drilling programme at the Chola Prospect on time and on budget before the end of the year. Chola is an exciting structure with soil sampling already confirming the strong lithium and tantalum potential in the region. Our first drilling programme was designed to confirm the width, tenure and mineralisation profile of the pegmatites, down from 60 to 120m plus depths, and we are confident these initial objectives have been achieved.

Our DGPR survey has also highlighted a host of new potential pegmatite structures nearby to the Chola Prospect which is highly encouraging.

MetalsGrove is well positioned to hit the ground running in early 2023 with a busy pipeline of activity planned across the portfolio. We look forward to providing further updates as initial assays from Upper Coondina come to hand early in the New Year."



Figure 1 – Inaugural Drilling at Upper Coondina

Deep Ground Penetrating Radar (DGPR) survey

Ultramag Geophysics was engaged by the Company to undertake a DGPR survey to identify pegmatites and investigate subsurface potential for the known, mapped and sampled at the Upper Coondina lithium project.

Excellent signal quality from depths of 30m to 100m was recorded and a total of 28.5 km of line-data at 50m to 150m spacing was completed.

The DGPR survey has identified 23 new potential pegmatite structures conjugate with existing known mineralised pegmatites within the Chola Prospect.

During the first phase drilling programme, MGA tested approximately 50% of the DGPR anomaly, and the untested anomaly will be drilled during the next phase of drilling programme.

DGPR is a geophysical technique similar to seismic that emits very short pulses of electromagnetic (EM) radiation into the ground via a transmitter, measuring the reflected energy in a receiver to produce profiles of subsurface resistivity.

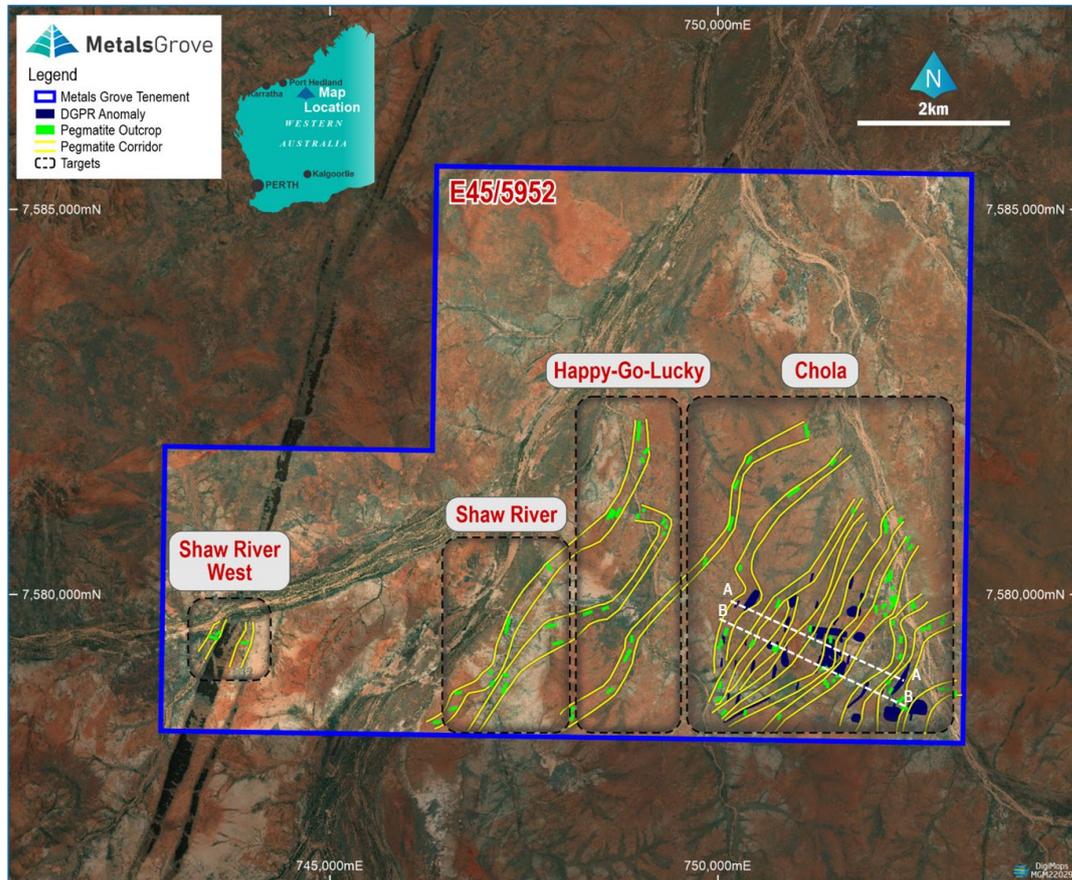


Figure 2- Showing mapped pegmatites with DGPR interpreted pegmatites at the Chola Prospect.

The DGPR survey was planned to test the extensions at depth of existing surface-mapped, known lithium-rich pegmatites; and potential to identify additional blind pegmatites.

The new interpreted pegmatites, shown in green in Figure 2, appear to be much wider than the mapped and sampled pegmatites at Chola. They are also interpreted to start below the surface and extend slightly deeper; orientation is correlated with the known surface outcrop pegmatite.

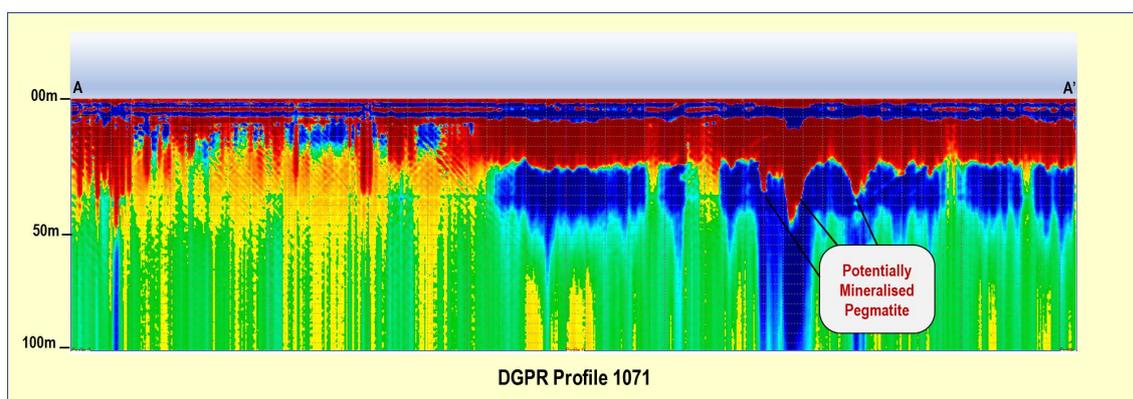


Figure 3: Section Through A-A' from Figure 1 DGPR Survey interpretation at Chola

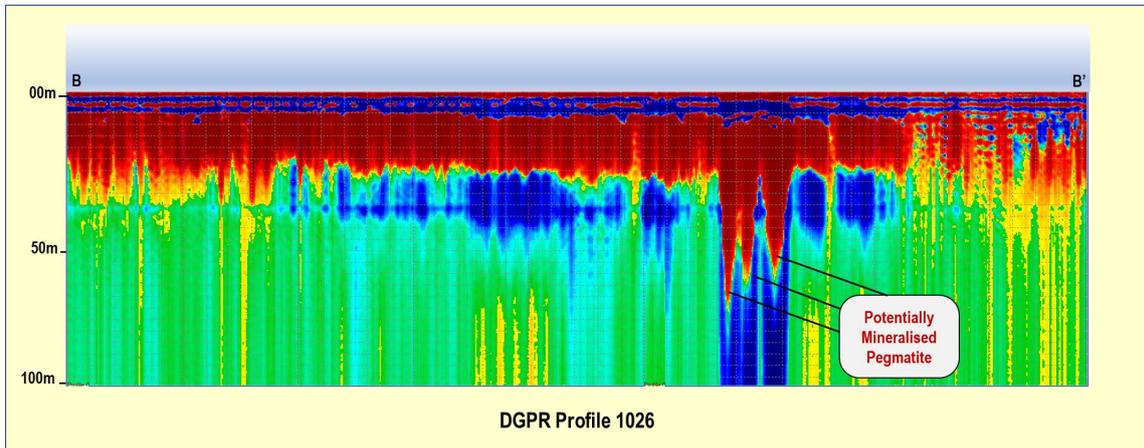


Figure 4: Section Through B-B' from Figure 1 DGPR Survey interpretation at Chola

Next steps

- RC Drill samples have been sent to the laboratory for analysis.
- Continue detailed field mapping in the areas north of Chola, Happy Go Lucky and Shaw River Prospects to further enhance the geological modelling.
- Continue DGPR survey in the areas north of Chola, Happy Go Lucky and Shaw River Prospects to identify potential extensions of the undercover pegmatites.
- Planning for follow-up programmes once assay results have been received and interpreted.
- Commence planning for heritage surveys prior to drill programmes.
- Planning underway for surface field mapping and sampling.

Upper Coondina Project Background

The Upper Coondina Project is located approximately halfway between the major mining regional service centres of Port Hedland and Newman - approximately 200 km northwest and 180 km south-southeast of the project, respectively.

The Project comprises a single granted Exploration Licence. The tenement covers an area of approximately 6,363 ha and the maximum distance across the project is about 11 km east-west and 8 km north-south. Nearby lithium mines include Wodgina (MinRes ASX: MIN), Pilbara Minerals (ASX: PLS) and recent lithium developer Global Lithium (ASX: GL1).

Historical Exploration Summary

The Greater Shaw Tin Field has attracted exploration interest since the discovery of tin in 1890. However, most of the exploration and subsequent mining of tin and tantalum has been on the small scale. The Shaw Tin Field, has historically produced more than 6,500 t of tin concentrate.

In 1968, Marble Bar Nickel carried out a rock chip sampling programme covering tenement E45/3699 of the current Hillside CRG (A1714). A 1972 stream sediment sampling programme by Anglo American Services Limited targeting Ni-Cu mineralisation identified a copper anomaly in ultramafic and pillow basalts and another in altered gabbro. Both were subsequently found to be insignificant.

In early 1968, the field was largely abandoned after the shallow deposits were soon exhausted. Towards the end of 1968, a local resident discovered further cassiterite mineralisation in cemented alluvium within a largely concealed tertiary drainage channel. In 1983, CSR Limited explored for economic secondary concentrations of tin and tantalum in the area. Their exploration programme included follow-up on radiometric anomalies, stream sediment sampling and geological mapping. No discrete localities of anomalous tin could be identified. CSR Limited identified simple pegmatite veins as the sources of the tin.

No dedicated Li-focused exploration has been carried out within the project area. However, given historical surface geochemical sampling has returned anomalous values up to 253 ppm LiO₂, MetalsGrove considers that this untested magnetic anomaly warrants follow-up exploration to determine its source.

The exploration results that are referred to above were included in MetalsGrove's IPO prospectus dated 13 May 2022 (**Prospectus**). MetalsGrove is not aware of any new information in respect of these results, and confirms that full details with respect to these results are included in the Prospectus.

About MetalsGrove

MetalsGrove Mining Limited (ASX: MGA) is an Australian-based exploration and development company, focused on the exploration and development of its portfolio of high-quality lithium, rare earth, copper-gold, manganese and base metal projects in Western Australia and the Northern Territory.

MGA is committed to green metal exploration and development to meet the growing demand from the battery storage and renewable energy markets in the transition to a de-carbonised world.

Competent Person Statement – Exploration Strategy

The information in this announcement that relates to exploration strategy has been developed by Sean Sivasamy. All assay results have been compiled by Mr Sivasamy who is a member of Australasian Institute of Mining and Metallurgy. Mr Sivasamy is Managing Director and CEO of MetalsGrove Mining Limited.

Mr Sivasamy has sufficient experience which is relevant to the style of mineralisation and exploration processes as reported herein 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 Sivasamy consents to the inclusion in this announcement of the information contained herein, in the form and context in which it appears.

Forward looking statements

This announcement may contain certain "forward looking statements" which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis.

However, forward looking statements are subject to risks, uncertainties, assumptions, and other factors which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Such risks include, but are not limited to exploration risk, mineral resource risk, metal price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries



and states in which we sell our product to, and government regulation and judicial outcomes.

For more detailed discussion of such risks and other factors, see the Company's Prospectus, as well as the Company's other filings. Readers should not place undue reliance on forward looking information. The Company does not undertake any obligation to release publicly any revisions to any "forward looking statement" to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

Authorised for release by the MetalsGrove Mining Limited Board of Directors,

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JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<ul style="list-style-type: none">• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.• Aspects of the determination of mineralisation that are Material to the Public Report.	<ul style="list-style-type: none">• Deep Ground Penetrating Radar survey results.• No assay reported in this release.
Drilling Techniques	<ul style="list-style-type: none">• 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 The samples were rock chip samples, no drill samples were collected.	<ul style="list-style-type: none">• No drilling results are included in this release.
Drill Sample Recovery	<ul style="list-style-type: none">• Method of recording and assessing core and chip sample recoveries and results assessed.• Measures taken to maximize 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.	<ul style="list-style-type: none">• No drilling results are included in this release.
Logging	<ul style="list-style-type: none">• Whether core and chip samples have been geologically and geotechnically logged to a level of	<ul style="list-style-type: none">• No sampling result in this release.

Criteria	JORC Code Explanation	Commentary
	<p>detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p> <ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling Techniques and Sample Preparation	<ul style="list-style-type: none"> 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 maximize 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. 	<ul style="list-style-type: none"> No drilling results are included in this release.
Quality of Assay Data and Laboratory Tests	<ul style="list-style-type: none"> 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of 	<ul style="list-style-type: none"> No assay reported in this release.

Criteria	JORC Code Explanation	Commentary
	<i>accuracy (i.e. lack of bias) and precision have been established.</i>	
Verification of Sampling and Assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> No drilling results are included in this release.
Location of Data Points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> The transmitting and receiving antennas were laid on the ground in a co-linear manner. Location of the two antennas during data acquisition was recorded using handheld GPS (~3 to ~4m accuracy).
Data Spacing and Distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <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> 	<ul style="list-style-type: none"> No mineral resource reported in this release.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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> <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> 	<ul style="list-style-type: none"> Survey lines were designed to provide a section across and perpendicular to the previously identified mineralised pegmatites.

Criteria	JORC Code Explanation	Commentary
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> No sampling results reported in this release.
Audits or Reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No external audits or reviews of the sampling techniques and data has been conducted.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The DGPR survey were completed from tenement E45/5952. There are no third-party arrangements or royalties etc. to impede exploration on the tenure. There are no reserves or national parks to impede exploration on the tenure. Ownership – 100% MetalsGrove Mining Ltd.
Exploration Done by Other Parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> All historical work referenced in this report has been undertaken by previous project explorers. Whilst it could be expected that work and reporting practices were of an adequate standard, this cannot be confirmed.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The tenement lies within what is generally referred to as the Shaw Tin Field (Blockley, 1980), owing to the numerous alluvial tin and tantalum deposits in the area. The tin (mainly cassiterite) and tantalum (mainly tantalite) mineralisation were derived from albite pegmatites intruded along the margins of the post-tectonic Cooglegong and Spear Hill Monzogranites, which belong to the Split Rock Supersuite. Practically all of the tin

Criteria	JORC Code Explanation	Commentary
		concentrate produced from 1965–1968 came from shallow alluvial deposits following small, first or second order tributaries of the Shaw River. Tin-bearing gravels are restricted to the upper parts of the streams (Blockley, 1980).
Drill hole Information	<ul style="list-style-type: none"> • A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: • easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole • down hole length and interception depth hole length. 	<ul style="list-style-type: none"> • No drilling results are included in this release.
Data Aggregation Methods	<ul style="list-style-type: none"> • 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. • 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. 	<ul style="list-style-type: none"> • No data aggregation.
Relationship Between Mineralisation Widths and Intercept Lengths	<ul style="list-style-type: none"> • If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. 	<ul style="list-style-type: none"> • No mineralisation reported in this release.

Criteria	JORC Code Explanation	Commentary
Diagrams	<ul style="list-style-type: none"> 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 drillhole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> See maps in the body of the report.
Balanced Reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> All exploration data and results conducted by MetalsGrove to date have been reported.
Other Substantive Exploration Data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Deep Ground Penetrating Radar data. Ground Penetrating Radar (GPR) is a geophysical technique similar to seismic that emits very short pulses of electromagnetic (EM) radiation into the ground via a transmitter, measuring the reflected energy in a receiver to produce profiles of subsurface resistivity. A total of 28.5km of line-data at 100 and 50m spacing was completed over the Upper Coondina lithium project. The level of energy, timing of pulses and speed of displacement of the radar at surface were calibrated to image precisely the top 50m of subsurface. Data quality was deemed excellent by the acquisition team and interpretation was possible to depths greater than 50m below surface.
Further Work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, 	<ul style="list-style-type: none"> Additional sampling and surface mapping and DGPR survey is planned for the coming months. Drilling will be planned subject to results.

Criteria	JORC Code Explanation	Commentary
	<i>including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	<ul style="list-style-type: none">• The images included show the location of the current areas of interest.