

# Rock Chips Confirm Lithium-caesium-tantalum (LCT) Pegmatite Prospectivity – Lake Johnston Project

## HIGHLIGHTS

- Rock chip results highly anomalous in suite of elements characteristic of Lithium-caesium-tantalum (LCT) pegmatites, alongside indicator mineralogy and mineral texture.
- Roundbottom prospect pegmatites in area of generally poor bedrock exposure:
  - **LJRK002 – 403 ppm Li<sub>2</sub>O, 774 ppm Rb, 228 ppm Nb, 18.2 ppm Ta, 62.7 ppm Sn, and 9.6 ppm W.**
- Several sub-linear, parallel pegmatites identified at the Pegasus prospect dipping under recent alluvial cover with anomalous pathfinder elements.
  - **LJRK009 – 0.13% Rb, 25.2 ppm Nb, 30.8 ppm Cs, 11.8 ppm Be**
- These prospects have historically been overlooked, with no previously reported or mapped pegmatites in these areas.
- New tenement under application

## Lake Johnston Exploration – What's Coming Up?

- Detailed geological mapping over prospect area
- Sample preparation and analysis of soil samples collected during this excursion
- Planning underway for regional auger soil sampling programme
- Delineation of drilling targets

Bryah Resources Limited (ASX: BYH, “Bryah” or “the Company”) is pleased to announce promising rock chip results from its wholly owned Lake Johnston Project, prospective for lithium and nickel. These results are a product of reconnaissance sampling and mapping completed in July 2023.

Commenting on the results, Bryah CEO Ashley Jones said: *“These initial results from pegmatites outcropping at the Lake Johnston Project are promising and confirm the LCT pegmatite prospectivity of our tenure. These rock chip samples are anomalous in lithium, as well as several other key elements distinctive of LCT pegmatites.*

*These areas have been historically overlooked, with no previously reported pegmatite outcrops. With additional geological mapping, rock chip sampling, and soil sampling, we have the potential to identify some exciting drill targets.*



*Our neighbours have so far been very successful, particularly at Charger Metal’s Lake Medcalf Prospect and TG Metals Burmeister Project. This is in addition to the nearby, world-class Mt Holland lithium mine. We are in the right postcode, and these rock chip samples confirm that we are searching in the correct areas.”*

The Lake Johnston Project consists of eight granted exploration licenses and one licence under application. Six of these licences, covering 569 km<sup>2</sup>, are held Bryah Resources, whilst a further three licences are held by West Coast Minerals Pty Ltd. West Coast Minerals’ three exploration licences cover approximately 225km<sup>2</sup>.

The exploration ground extends to within 10 kilometres east of the world class Mount Holland Lithium mine and concentrator being developed under the Wesfarmers Limited/SQM Australia Pty Ltd joint venture. The Mount Holland Lithium project includes the Earl Grey Lithium deposit with a reported Mineral Resource<sup>1</sup> of 189 million tonnes grading 1.5% Li<sub>2</sub>O, making it a globally significant high-grade hard rock lithium deposit.

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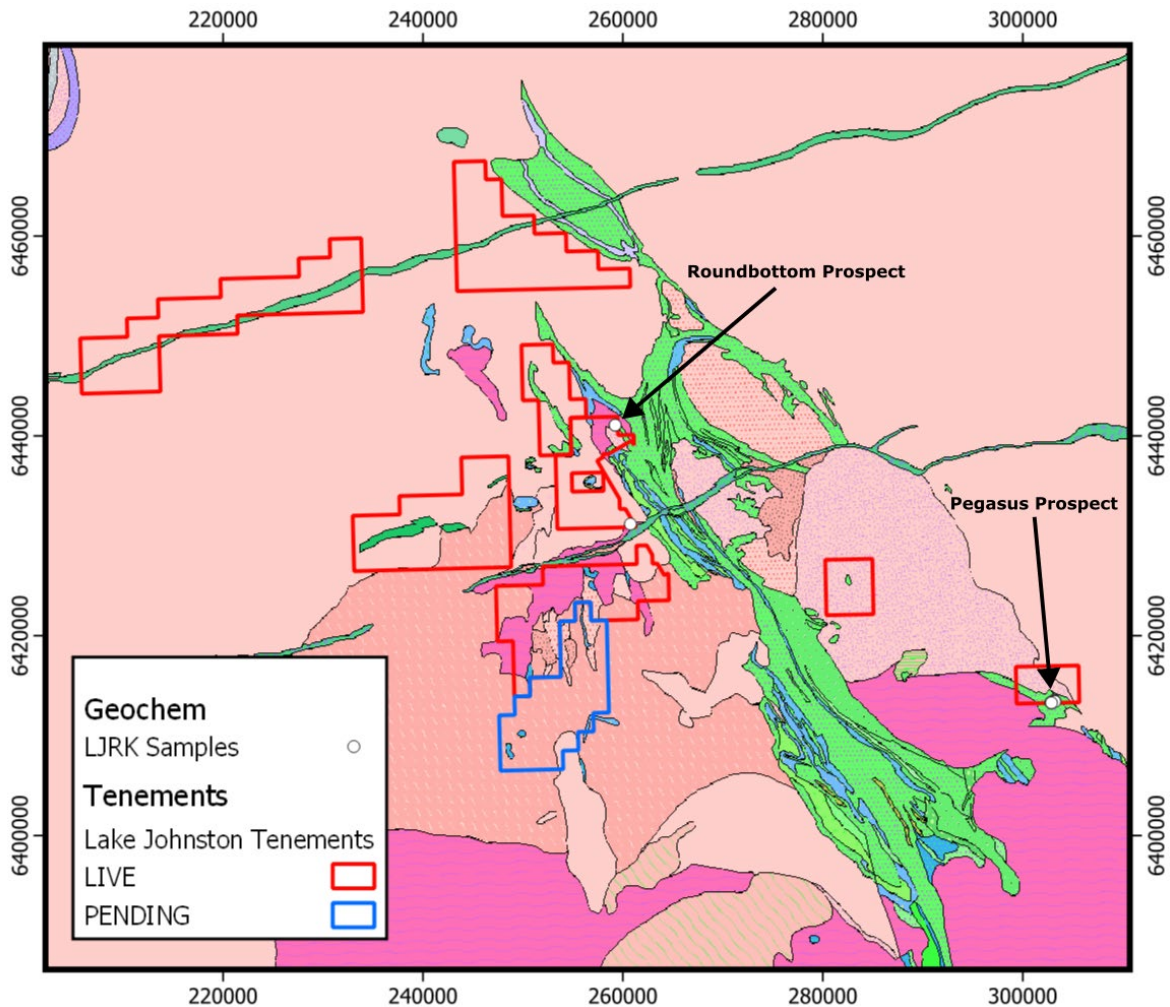


Figure 1 Geological map of the Lake Johnston area showing Bryah Resources live (granted) and pending tenement holdings. Rock chip samples collected during this trip are shown in white.

<sup>1</sup> See KDR ASX announcement dated 19<sup>th</sup> March 2018 for further details

### Pegasus Prospect

The Pegasus prospect (Figure 2) is an area of mixed colluvium and aeolian sands with very poor outcrop. Bedrock geology is interpreted to consist of amphibolite, Banded Iron Formation (BIF) and olivine komatiite within a sliver of the Younami Terrane greenstone unit east of Lake Johnston. The area has previously been evaluated for komatiite-hosted nickel, analogous to the nearby Maggie-Hays and Emily-Anne deposits.

At the Pegasus prospect, several outcropping pegmatites were observed at the southern end of the tenement striking ~north-west before dipping under cover, hosted in a sheared amphibolite. These coarse to very coarse pegmatites contain key indicator minerals (garnet and tourmaline) as well as mineral growth textures (graphic quartz-feldspar texture) characteristic of LCT pegmatite deposits.

Despite no direct detection of anomalous lithium, the exceptionally anomalous Rb and subsequent low K/Rb ratio, as well as anomalism in Nb, Cs and Be, is encouraging. These anomalous pegmatites are not widely exposed in the area and no clear pegmatite zoning is therefore observed. Further work is required to resolve the true thickness of pegmatites and define lithium-rich zones.

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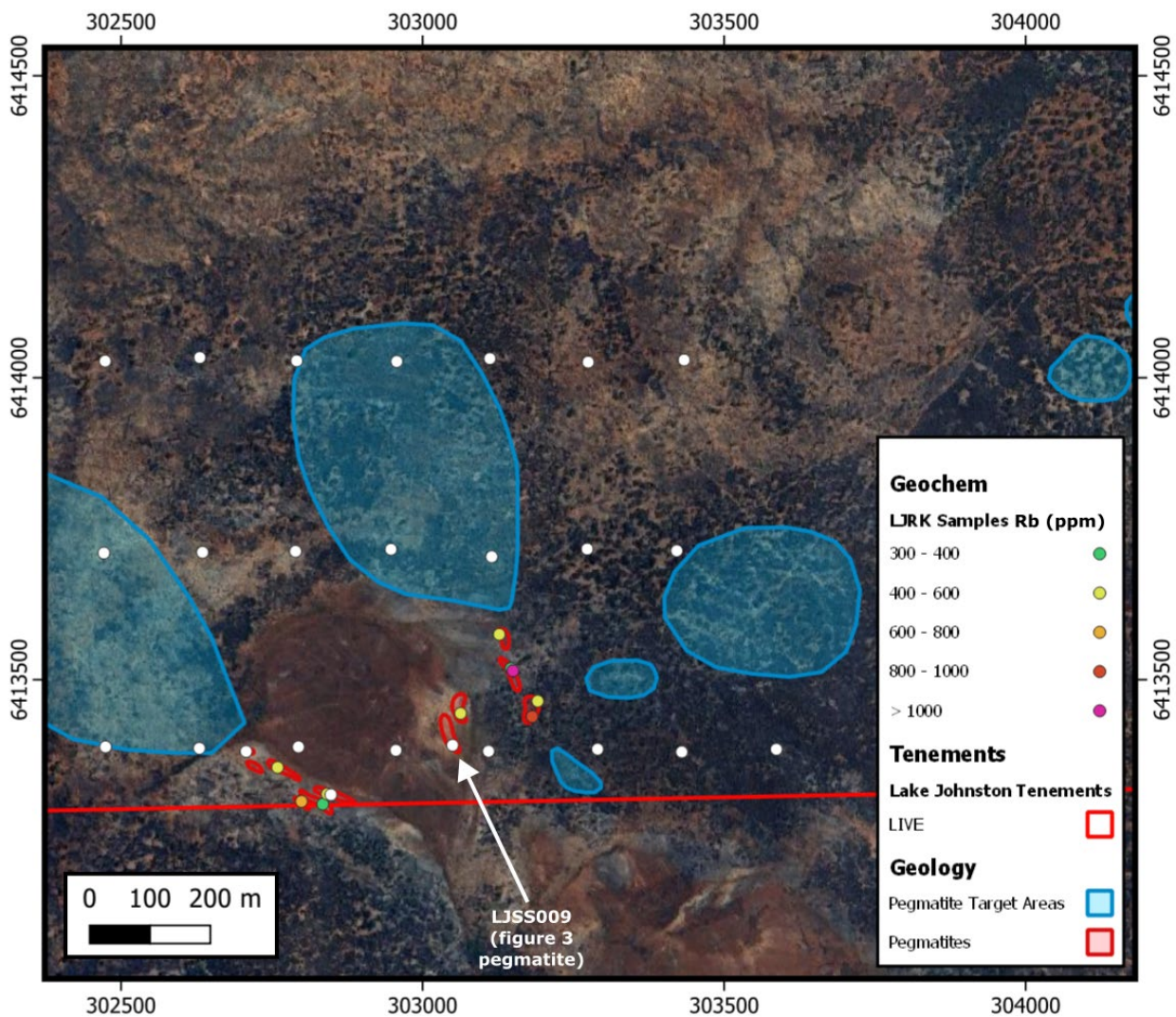


Figure 2 Overview of the Pegasus prospect with rock chip samples coloured to Rb content. Soil sample locations are shown, but currently un-assayed.





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*Figure 3 Outcropping very coarse pegmatite adjacent to soil sample LISS009 with distinctive graphic quartz-feldspar texture.*



### Roundbottom Prospect

The Roundbottom Prospect (Figure 4), located ~3km north of Roundtop Hill, is characterised by expansive sheetwash material with very rare outcropping amphibolite. The bedrock geology is inferred to consist of Youanmi Greenstone Terrane amphibolites and komatiites folded around an Archaean granite contact.

Among the limited outcrop, two localities included some pegmatoidal rocks with a quartz-muscovite-feldspar-garnet mineralogy. Some trace tourmaline was also observed in the LJRK002 pegmatite.

These samples collected from the Roundbottom Prospect returned very encouraging results, being highly anomalous in  $\text{Li}_2\text{O}$  (48-403 ppm), Rb (402-774 ppm), Nb (26.1-228 ppm), Ta (4.9-18.2 ppm) and Sn (3.2-62.7 ppm). These pegmatites are very poorly exposed, and their true thickness and strike length is unclear. Encouragingly, the Mt Day lithium-bearing pegmatite field is only 4km to the east with several rock chip sample results from WAMEX report A131330 >3%  $\text{Li}_2\text{O}$ .

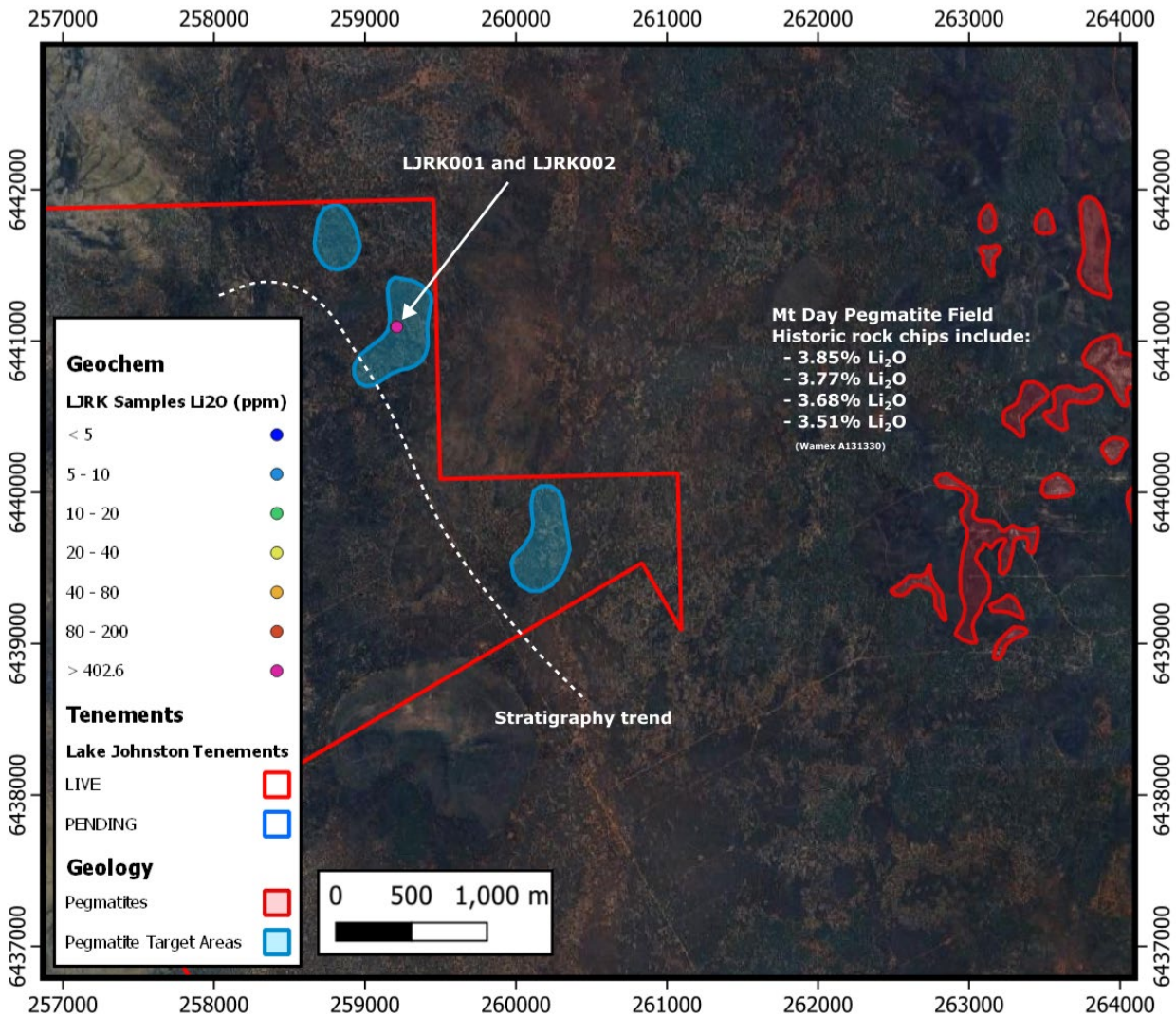


Figure 4 Overview of the Roundbottom Prospect showing the Mt Day lithium pegmatite to the field to the east.

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### Future Work

Follow up work is planned to evaluate the potential of these areas to host economic LCT pegmatite mineralisation:

- Soil samples were collected during this brief reconnaissance trip. These are to be dried, sieved and analysed.
- Regional auger soil sampling, particularly focussed around the Pegasus and Roundbottom areas with subsequent multi-element assay to be completed.
- Detailed geological mapping and rock chip sampling at the Pegasus and Roundbottom prospects including re-establishing historic access tracks.
- Establishment of drilling targets.

For further information, please contact:

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*This announcement has been produced in accordance with the Company's published continuous disclosure policy and has been approved by the Board.*

## ABOUT BRYAH RESOURCES

Bryah's assets are all located in Western Australia, a Tier One global mining and exploration jurisdiction. Strategically the Projects are energy metals focused, or able to exploit synergies of geological knowledge, locality and exploration.

The prospective Bryah Basin licences cover 1,048km<sup>2</sup> and have a potential new Volcanogenic Massive Sulphide (VMS) 'Horseshoe Lights type' mine analogue at the Windalah prospect, and multiple other similar untested targets. The area also contains extensive outcroppings of manganese, the subject of a substantial \$7M joint venture with ASX listed OM Holdings Limited (ASX: OMH). OMH is a vertically integrated manganese producer and refiner with a market capitalisation of ~\$400m. Bryah and OMH have an excellent working relationship, with OMH having already spent over \$3.5 million to earn-in to the Manganese Rights of the Project.

Gabanintha, near Meekatharra, has a JORC 2012 Mineral Resource for Cu, Ni, Co<sup>2</sup> and additional structural gold potential. The copper nickel resource and identified gold mineralisation at Gabanintha will be the subject of further drill definition and a prefeasibility study to integrate the project with the Australian Vanadium Project (ASX: AVL). The resource has been defined by the drilling efforts of AVL in the development of its vanadium project and enabled Bryah to define a base metal resources inventory.

Bryah's base metals inventory at Gabanintha and manganese JV in the Bryah Basin have a clear pathway to production, which will be significantly advanced in 2023 by the commencement and completion of metallurgical feasibility studies at both projects.

The Lake Johnston tenements are prospective for battery metals lithium and nickel. The corridor near Lake Johnston contains significant mines and discoveries of nickel and lithium, including the Mount Holland Lithium Mine and the historical Maggie Hays/Emily Ann nickel deposits.

Bryah holds 18.43% of gold focused Star Minerals (ASX:SMS). Star has a Mineral Resource at Tumblegum South and exploration prospects in the West Bryah Basin.

## Forward Looking Statements

This report 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. 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 report, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

## COMPETENT PERSON STATEMENT – EXPLORATION RESULTS AND EXPLORATION TARGETS

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Tony Standish, who is a Member of the Australian Institute of Geoscientists. Mr Standish is a consultant to Bryah Resources Limited (“the Company”). Tony Standish 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’. Tony Standish consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Where the Company refers to Exploration Results in this announcement (referencing previous releases made to the ASX), the Company is not aware of any new information or data that materially affects the information included in the relevant market announcements.



Appendix 1

**Rock Chip Locations**

Table 1 Table of rock chip results for key elements. BDL = below detection limit.

Sample ID	Grid ID	Easting	Northing	Be (ppm)	Cs (ppm)	Li2O (ppm)	Nb (ppm)	Rb (ppm)	Sn (ppm)	Ta (ppm)	W (ppm)
LJRK001	MGA2020_51	259206	6441100	2.3	7.4	48.2	26.1	402	3.2	4.9	0.7
LJRK002	MGA2020_51	259212	6441096	5.9	14.5	403	228	774	62.7	18.2	9.6
LJRK003	MGA2020_51	302835	6413296	4.0	3.1	35.3	42.0	355	4.2	8.5	0.6
LJRK004	MGA2020_51	302800	6413300	2.0	5.2	57.7	23.6	781	5.0	5.1	0.7
LJRK005	MGA2020_51	302760	6413357	1.7	1.5	97.3	48.6	409	7.7	4.1	0.5
LJRK006	MGA2020_51	303064	6413446	5.5	29.9	6.7	49.8	573	2.2	14.0	0.7
LJRK007	MGA2020_51	303128	6413577	5.4	5.4	18.9	30.0	494	0.3	8.9	0.3
LJRK008	MGA2020_51	303147	6413520	9.4	9.4	14.6	45.6	377	1.3	9.8	0.7
LJRK009	MGA2020_51	303150	6413517	11.8	30.8	8.6	25.2	1282	BDL	8.3	0.1
LJRK010	MGA2020_51	303192	6413466	4.1	25.6	16.6	5.3	516	BDL	2.1	0.3
LJRK011	MGA2020_51	303182	6413441	2.6	26.3	3.4	4.3	937	BDL	1.7	BDL
LJRK012	MGA2020_51	302843	6413313	2.2	3.5	16.8	57.8	522	6.0	8.7	0.9
LJRK013	MGA2020_51	260740	6431194	1.0	1.0	5.8	5.9	127	0.3	0.3	0.2

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JORC Code, 2012 Edition – Table 1 Exploration Results

Section 1 Sampling Techniques and Data

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Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p>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.</p> <p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report.</p> <p>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.</p>	<p>Rock chip sampling was undertaken of selected outcrop on a visual basis to confirm geological interpretation. A 2-3kg sample was collected at each site and as such may have bias towards mineralisation.</p> <p>Samples were submitted to Intertek Genalysis for drying, crushing and pulverising.</p> <p>Sample preparation at the lab was succeeded by a four-acid digestion follow by ICP-MS analysis</p>
<b>Drilling techniques</b>	<p>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).</p>	No drilling was undertaken
<b>Drill sample recovery</b>	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>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.</p>	No drilling was undertaken

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Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<p>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.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	<p>No drilling was undertaken</p>
<b>Sub-sampling techniques and sample preparation</b>	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>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.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>No drilling was undertaken</p> <p>Sampling was undertaken on surface sample outcrops and is considered representative and appropriate for this stage of exploration</p> <ul style="list-style-type: none"> <li>○</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>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.</p> <p>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</p>	<p>Four acid digestion with ICP-MS finish is suitable for the total analysis of a range of geological ores and is appropriate for analysis of lithium and a range of other elements</p> <p>No duplicates, blanks, and Certified Reference Material standards were submitted by Bryah Resources. The lab undertook regular pulp checks and CRM checks.</p> <p>No geophysical tools were used in quantitative determination of element concentration.</p>



Criteria	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes.</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p> <p>Discuss any adjustment to assay data.</p>	<p>No drilling undertaken.</p> <p>The Competent Person has visited the site and supervised the sampling processes in the field.</p> <p>All primary data related to logging and sampling are captured using laptops into point of capture validation LogChief templates.</p> <p>All data is sent to Perth and stored in the centralised SQL Server database with a Data Shed front end which is managed by professional database consultants.</p> <p>No adjustments or calibrations have been made to any assay data, apart from resetting below detection values to half positive detection.</p>
<b>Location of data points</b>	<p>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.</p> <p>Specification of the grid system used.</p> <p>Quality and adequacy of topographic control.</p>	<p>All sample locations have currently been surveyed with a handheld GPS by Bryah staff. The digital data has been loaded directly to the company SQL Server database.</p> <p>No drilling undertaken.</p> <p>The grid system for the Lake Johnston Project is MGA_GDA2020 Zone 51.</p> <p>Topographic control not relevant</p>
<b>Data spacing and distribution</b>	<p>Data spacing for reporting of Exploration Results.</p> <p>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.</p> <p>Whether sample compositing has been applied.</p>	<p>Rock chip sample collection was from outcrops with data density directed by the presence of useful outcrop.</p> <p>Additional rock chip sampling may be appropriate to tighten sample spacing on outcropping pegmatites.</p> <p>No sample compositing has been undertaken.</p>
<b>Orientation of data in relation to geological structure</b>	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	<p>During early reconnaissance exploration and with limited outcrop, the orientation of geology and individual pegmatites is poorly resolved.</p> <p>This rock chip sampling has not been impacted by any sampling bias.</p>

Criteria	JORC Code explanation	Commentary
<b>Sample Security</b>	The measures taken to ensure sample security.	<p>The calico samples collected were placed in polyweave sacks by company staff, before being transported to the relevant Perth laboratory by company staff.</p> <p>Sample security is not considered a significant risk.</p>
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	<p>The Company database has been compiled from primary data by independent database consultants and was based on original assay data and historical database compilations.</p> <p>A regular review of the data and sampling techniques is carried out internally.</p>

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<p>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.</p> <p>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.</p>	<p>Rock chip sampling on E63/2134 and E63/2159 is 100% owned by Bryah Resources Limited.</p> <p>These tenements are located ~150km east of Hyden, adjacent to the Hyden-Norseman Road, near the historic Maggie-Hays and Emily-Anne mining areas.</p> <p>At the time of reporting, there are no known impediments to obtaining a licence to operate in the area and the tenements are in good standing.</p>
<b>Exploration done by other parties</b>	<p>Acknowledgment and appraisal of exploration by other parties.</p>	<p>Previous historical work by other parties has been focussed on realising the komatiite-hosted nickel and orogenic gold prospectivity of these areas.</p> <p>Work completed in the area includes various phases of surface sampling, surface/airborne geophysical surveys, and percussion drilling.</p> <p>Notable previous explorers include: LionOre Australia Ltd.; Poseiden Nickel Ltd.; White Cliff Nickel Ltd.; Hannans Reward Ltd.; Lithium Australia NL.; Goldfields Exploration Pty Ltd; and Lake Johnston Pty Ltd.</p>
<b>Geology</b>	<p>Deposit type, geological setting, and style of mineralisation.</p>	<p>Exploration in the Lake Johnston Project is focussed on discovering Lithium-Caesium-Tantalum (LCT) type pegmatite deposits analogous to the nearby Mt Holland Lithium Mine, the successful Lake Medcalf Prospect (Charger Metals), and the Mt Day / Mt Percy pegmatite swarms.</p> <p>No detailed geological information is known about the sampled pegmatites. At this stage, they are inferred to be geochemically similar to other LCT pegmatites</p>

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Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<p>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:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in m) 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> <p>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.</p>	No drilling completed
<b>Data aggregation methods</b>	<p>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.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>No high-grade cuts have been applied to the reporting of exploration results.</p> <p>No metal equivalent values have been used.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., ‘down hole length, true width not known’).</p>	<p>no drilling completed</p> <p>The sample spacing and orientation relative to each other is not resemblant of the geometry of any undiscovered mineralisation.</p>
<b>Diagrams</b>	<p>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.</p>	See attached figures within this announcement.

Criteria	JORC Code explanation	Commentary
<b>Balanced reporting</b>	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 reporting of exploration results within this announcement is appropriate for this stage of exploration. This includes the reporting of lithium as well as other 'pathfinder' elements.  Geochemical assay for all selected elements, for all samples have been provided.  Refer to Appendix 1 of this announcement.
<b>Other substantive exploration data</b>	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 exploration data available.
<b>Further work</b>	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, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work is discussed in the main body of text.  Work proposed will be undertaken over the subsequent 12 months, subject to project priorities and staffing availability.

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