



15 August 2024

ASX ANNOUNCEMENT

NEW PEGMATITE TARGETS IDENTIFIED AT THE MIRIAM LITHIUM PROJECT

Highlights

- Geophysical review of the Miriam Project identifies 13 new pegmatite targets across the 6-kilometre tenement strike.
- Targets include five discrete structures coincident with 1.6-kilometre soil anomaly and outcropping spodumene-bearing pegmatite.
- Structures are interpreted to be analogous to the Big Red pegmatite at KHLP, approximately 2 kilometres south, which returned 31m at 1.13% Li₂O from 86m (KHRC116)¹
- Follow-up surface sampling is set to commence to refine target generation with results expected in October 2024 ahead of an initial drilling programme.
- Application submitted for a Western Australian Government Exploration Incentive Scheme (EIS) grant to co-fund the initial drill programme at Miriam.
- Outcome of EIS application expected in October 2024 ahead of the commencement of drilling scheduled for H1 CY2025.

Future Battery Minerals Ltd (ASX: FBM) (FBM or the **Company**) is pleased to announce outcomes from a review and reinterpretation of geophysical data from its Miriam Lithium Project (**Miriam**, or the **Miriam Project**) located immediately north of the Kangaroo Hills Lithium Project (**KHLP**).

FBM Managing Director and CEO, Nick Rathjen, commented:

"Armed with existing geological knowledge of our adjacent Kangaroo Hills Project, we were able to kick off analysis and target-generation activities at the Miriam Project prior to acquisition completion. Southern Geoscience's review is now complete and has delivered promising results, with 13 new pegmatite targets identified across the tenement area. Particularly noteworthy are the five discrete structures coinciding with a significant soil anomaly and an outcropping spodumene-bearing pegmatite, which bear striking similarities to the Big Red pegmatite at KHLP."

"These targets have us excited for the considerable lithium potential of the Miriam Project, and we are eager to commence follow-up surface sampling to further refine our targets. We are currently conducting a wide-spaced extensional soil sampling programme to test for potential blind, subsurface pegmatites, including in the northern area of the tenure. Once this is complete and following successful acceptance of our EIS application for co-funding for the initial drilling programme at Miriam, we plan to commence drilling in the first half of CY2024."

¹ Refer to FBM ASX announcement 15 May 2024, "Big Red Extended with Best Intercept to Date and New Potoroo Discovery".



Background

FBM's strategic acquisition of an 85% interest in the Miriam Project was completed in May 2024, expanding its regional position to the north of the KHLP². Historic rock chip sampling on the tenement had returned up to 1.85% Li₂O, with further rock-chip sampling of the original reported spodumene-bearing outcrop returning 2.0% Li₂O^{3,4}.

A subsequent detailed geochemical soil sampling programme revealing a primary lithium target of approximately 1.6 kilometres in strike length, along with a second trend spanning approximately 600 metres, linking the main pegmatite trend⁵. This large lithium soil anomaly, extending from the weathered (depleted) outcrop of spodumene-rich pegmatite, suggests a further potential trend of spodumene-bearing pegmatites under cover.

In May 2024, Southern Geoscience was engaged to undertake a detailed review and reinterpretation of the existing airborne magnetic and radiometric data over the Miriam Project. The review has enabled the development of a new litho-magnetic interpretation of bedrock geology at a detailed 1:10,000 scale.

Outcomes

The review has identified 13 discrete targets characterised by significant east-west structures that crosscut the underlying greenstone lithologies. These structures have been found to be analogous to the Big Red pegmatite at KHLP, approximately 2 kilometres south, and are associated with coincident resistivity and gravity low anomalies. Notably, five of these structures have aligned with a 1.6 kilometre north-south strike soil anomaly and outcropping spodumene-bearing pegmatite, suggesting potential for an extensive shallow pegmatite system at the southern end of Miriam.

² Refer to FBM ASX announcement 24 May 2024, "Completion of Miriam Li Project Acquisition and Placement".

³ Refer to Corazon ASX announcement 17 January 2023, "High Grade Lithium at Miriam Project Western Australia".

⁴ Refer to FBM ASX announcement dated 23 April 2024, "Key Target Generation Advancing at Miriam Lithium Project".

⁵ Refer to Corazon ASX announcement 29 March 2023, "Corazon Expands Lithium Footprint at Miriam Project in Western Australia".

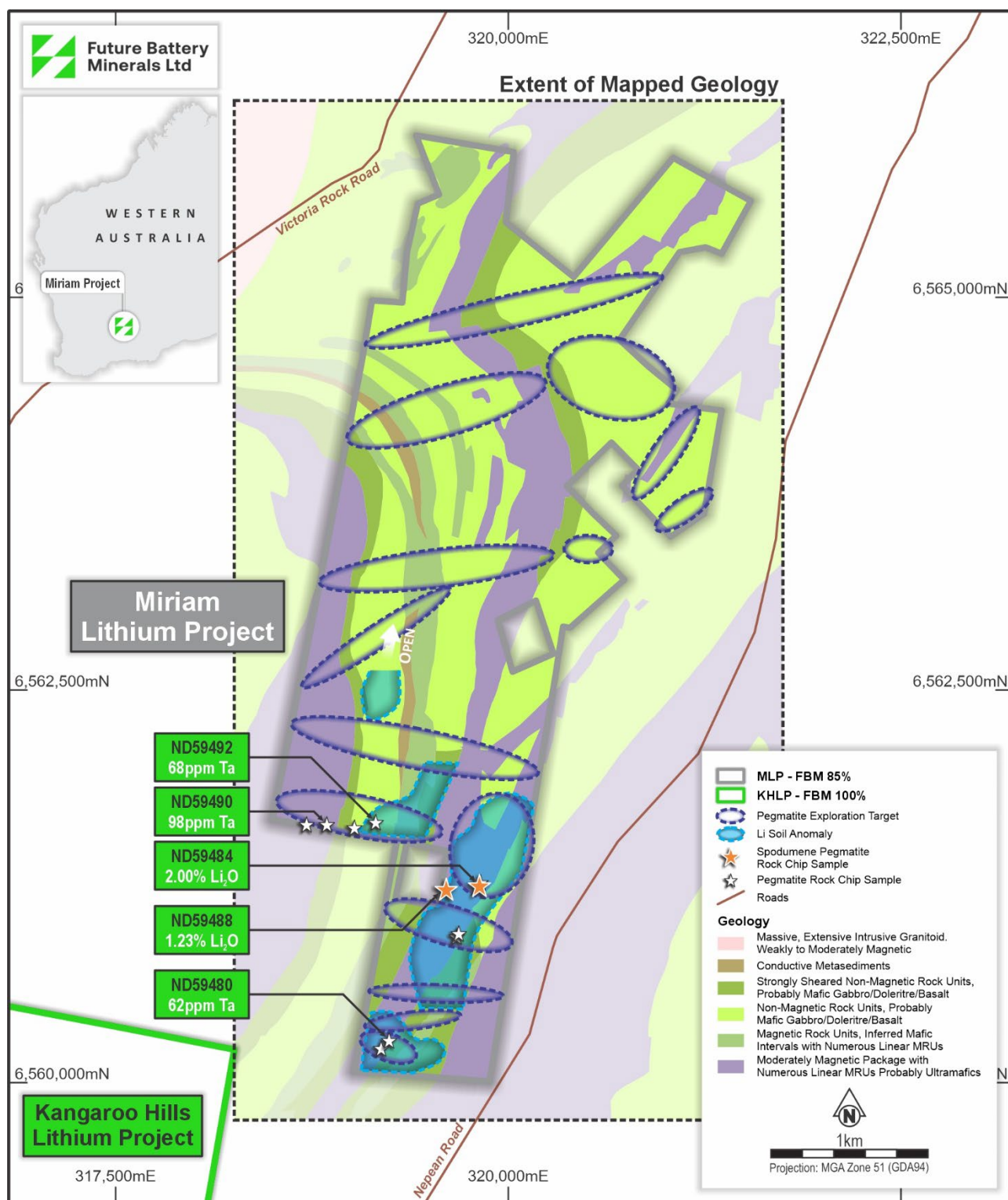


Figure 1: Miriam Project reinterpreted geology and target areas

The presence of these host structures in the northern part of the project area has indicated further exploration potential, particularly in regions where limited geochemical data has existed. The geophysical review has reprocessed existing public-domain airborne magnetic and radiometric data (50 metre spacing), identifying demagnetisation or breaks in the serpentinised basalt and ultra-mafic lithologies where pegmatites, which have a lower magnetic response, may have intruded. This approach has previously been successful in the KHLP project and has the potential to yield similar results at Miriam.

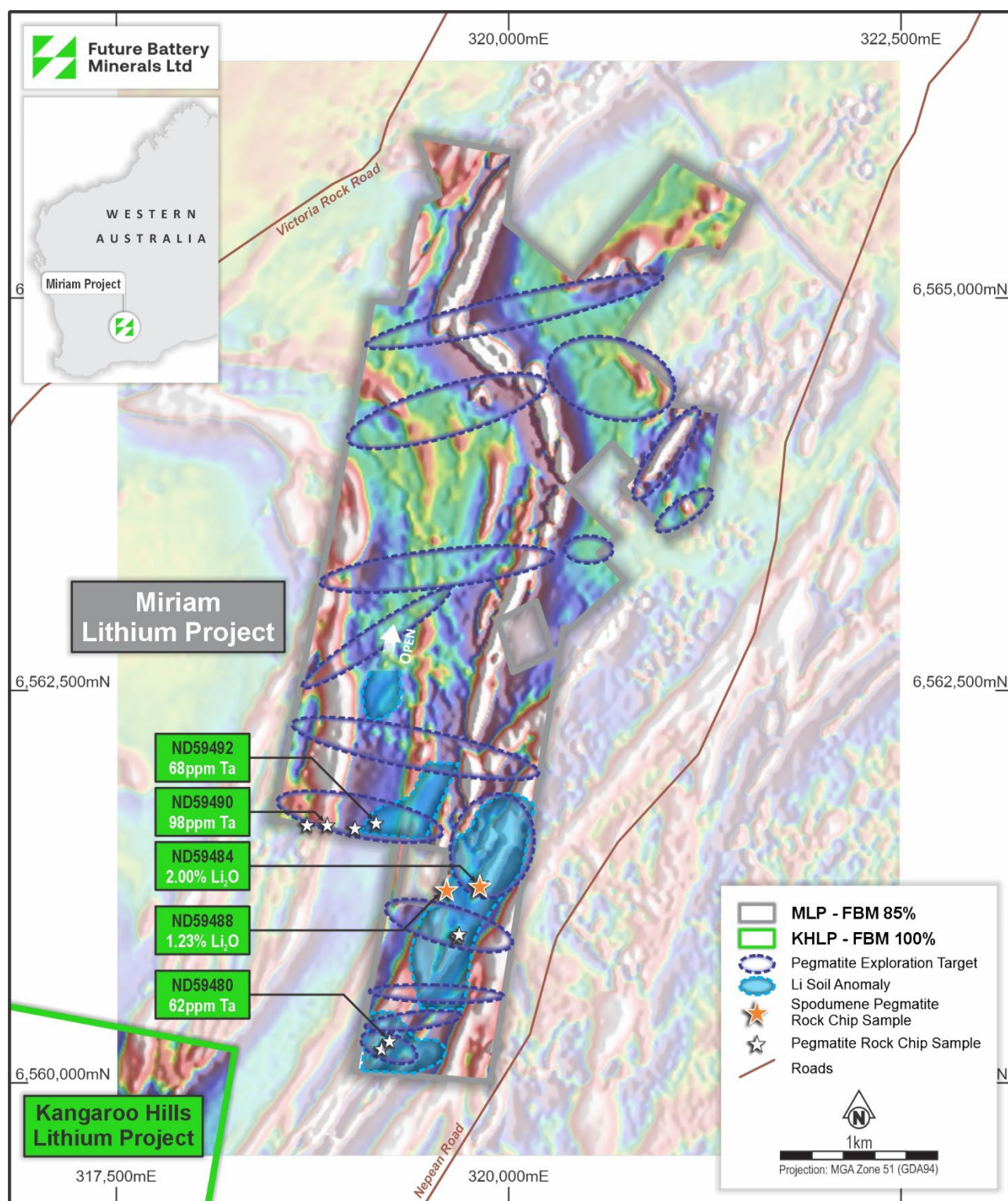


Figure 2: Miriam Project magnetics with soil targets and high-grade rock chip sample results

Next steps

The Company intends to further advance exploration at Miriam with an extended soil sampling programme in the northern half of the tenement area, where, to date, no LCT surface geochemistry has been obtained. Soil sampling is a low cost and rapid method of defining broad geochemical anomalies for immediate drill testing or further target refinement. It is particularly effective in terrains such as the Kangaroo Hills and Miriam Projects, where there is substantial in-situ regolith and little-to-no transported alluvium, producing a more dependable surface geochemical data set. Results returned from soil sampling will be used to guide the geophysical surveys, allowing for better allocation of costs and target refinement. Outcomes from the programme are expected to be available in October 2024.

Ground gravity surveys may then be trialled on new or existing geochemical targets, with the results integrated with current geophysical data to prioritise exploration targets.

FBM has applied for Western Australian Government support for the initial drill programme at Miriam via the EIS, which offers up to a 50% refund for innovative exploration drilling projects. The EIS aims to stimulate greenfield resource exploration to increase knowledge of Western Australia's geology and resources, boost employment opportunities, and generate new mineral and energy discoveries to meet the demand for critical minerals. The absence of historic drilling for lithium at the Miriam Project positions it well for a successful funding application. The Company is targeting Miriam's initial drill programme in H1 CY2025, contingent on the successful acceptance of the EIS application.

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

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For further information visit www.futurebatteryminerals.com or contact:

Nicholas Rathjen

CEO & Managing Director

E: nrathjen@futurebatteryminerals.com.au

Robin Cox

Technical Director

E: rcox@futurebatteryminerals.com.au

Competent Persons Statement

The information in this announcement that relates to exploration results is based on and fairly represents information compiled by Mr Robin Cox BSc (E.Geol), a Competent Person, who is a Member of the Australian Institute of Mining and Metallurgy. Mr Cox is the Company's Chief Geologist and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Cox consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Geophysical Results is based on and fairly represents information compiled by Mr Matthew Hutchens (BSc. Hons. (Geophysics) Principal Geophysicist at Southern Geoscience, a Competent Person, who is a Member of the Australian Society of Economic Geophysicists (ASEG). Mr Hutchens is a consultant to the company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Hutchens consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Future Battery Minerals Limited's planned exploration programme and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential", "should," and similar expressions are forward-looking statements. Although Future Battery Minerals Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Previously Reported Results

The information in this announcement that relates to Exploration Results is extracted from the ASX announcements (Original Announcements), as referenced, which are available at www.futurebatteryminerals.com.au. FBM confirms that it is not aware of any new information or data that materially affects the information included in the Original Announcements and, that all material assumptions and technical parameters underpinning the estimates in the Original Announcements continue to apply and have not materially changed. FBM confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original announcement.



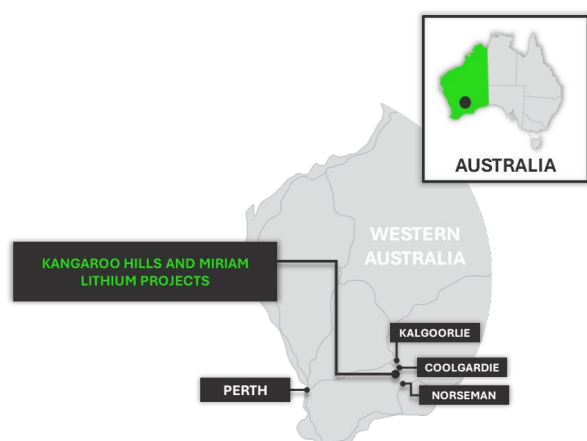
About Future Battery Minerals (ASX: FBM)

Future Battery Minerals (ASX: FBM) is a future-facing minerals exploration and development company focused on rapidly advancing its two new world-class lithium discoveries.

Our flagship asset is the 100%-owned Kangaroo Hills Lithium Project (KHLP). The KHLP is located in the Goldfields of Western Australia, approximately 17km south of the major township of Coolgardie, and hosts the exciting Big Red, Rocky and Potoroo hard rock lithium discoveries. Immediately north and contiguous to the KHLP is the Miriam Project, the recent acquisition of which doubled our regional footprint. Miriam is located immediately along strike from the KHLP and holds a large historic lithium soil anomaly extending from an outcropping spodumene-rich pegmatite, providing a significant opportunity for future discovery success. These project areas are being rapidly advanced in parallel by FBM's experienced team, focusing on resource growth, metallurgical test work and development readiness.

The Goldfields are a lithium endowed province of Western Australia, with numerous operating and developing Lithium projects. Notably, the KHLP is only 30km's west of the Mt Marrion Lithium Mine operated by Mineral Resources Ltd (ASX: MIN). KHLP and Miriam are accessible via a sealed road leading south from Coolgardie, ensuring the Company has continuous access all year-round.

Our other key portfolio asset is the Nevada Lithium Project (NLP). A large-scale, high-grade maiden lithium claystone Mineral Resource Estimate (MRE) was recently declared for the Lone Mountain deposit within the NLP, with this MRE being delivered less than 12 months from discovery. The business is evaluating a range of potential commercialisation routes for the NLP.

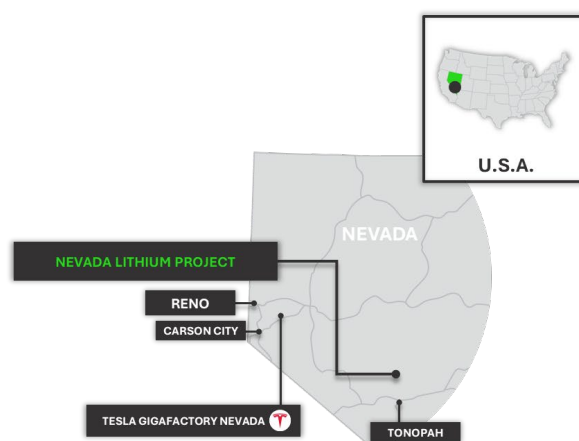


KANGAROO HILLS AND MIRIAM LITHIUM PROJECTS

High-grade LCT pegmatite discovery

31m at 1.13% Li_2O , including 20m at 1.43% Li_2O

Refer to FBM ASX announcements on 15 May 2024 and 15 April 2024



NEVADA LITHIUM PROJECT

Large-scale initial Mineral Resource Estimate

1.5 Bt at 783 ppm Li for 6.2 Mt LCE

About Lithium

Lithium is a soft silvery-white metal which is highly reactive and does not occur in nature in its elemental form. In nature it occurs as compounds within hard rock deposits, salt brines and claystone. Lithium and its chemical compounds have a wide range of industrial applications resulting in numerous chemical and technical uses. Lithium has the highest electrochemical potential of all metals, a key property in its role in lithium-ion batteries.

JORC Code, 2012 Edition, Table 1 (Kangaroo Hills Lithium Project)

Section 1: Sampling Techniques and Data

CRITERIA	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 1m samples from which 3kg was pulverised to produce a 30g 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.	- FBM - Rock Chip samples are collected from out crop, sub crop and mullock piles in the field. - Spodumene observations were determined by competent geologists and examined with ultraviolet light for mineral fluorescence and identification - Only geochemical assay results are considered a definitive indication of grade - Corazon Rock and Soil Sampling – - A total of 636 soil samples were collected - Soil sampling was conducted on a 100mx40m grid - Results of the Corazon soil programme were announced by Corazon Mining on 29th of March 2023 - Results of the Corazon rock chips were announced on the 17th of January 2023
Drilling techniques	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).	N/A
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.	N/A
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.	- Rock chips are lithologically logged by Geologists in the field - Logging is qualitative, recording rock type and mineral species.

CRITERIA	EXPLANATION	COMMENTARY
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.	• N/A
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 (i.e. lack of bias) and precision have been established.	• Rock Chip samples for Lithium Investigation have been fused with Na₂O₂ and digested in hydrochloric acid, the solution is analysed by ICP by ALS Minerals Laboratories ME-MS81 ICP-AES, ME-MS91. The method is considered a whole rock analysis. • A stoichiometric conversion of Li to Li₂O is applied consisting of a factor 2.153.
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, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• All primary paper data is held on site, digitised data is held in a managed database off site. • No adjustments to assays have occurred.
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.	• All location data and maps are represented in UTM GDA94 Zone 51
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	• N/A

CRITERIA	EXPLANATION	COMMENTARY
	applied.	
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.	N/A
Sample security	The measures taken to ensure sample security.	N/A
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No independent audit or review has been undertaken.

Section 2: Reporting of Exploration Results

CRITERIA	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 known impediments to obtaining a licence to operate in the area.	- The Miriam Project consists of 5 prospecting leases. - Granted leases are P15/6136, P15/6137, P15/6138 and P15/6139. P15/6135 remains in application - Leases P15/6136-6139 are held by Coolgardie Nickel Pty Ltd, now a 100% subsidiary of Future Battery Minerals Ltd. P15/6135 is held by Limelight Industries Pty Ltd until time of grant - A 2% NSR is held by Limelight Industries Pty Ltd over all Miriam tenure. - The tenements are located in the Kangaroo Hills Timber Reserve, an approved Conservation Management Plan provides conditional access to the tenure and exploration work including drilling - The tenements are in good standing and no known impediments exist. - The Kangaroo Hill Lithium Project consists of 8 prospecting leases. - P15/5740, P15/5741, P15/5742, P15/5743, P15/5749, P15/5750, P15/5963, P15/5965, M15/1887 (in application), P15/6681 (in application), P15/6813 (in application) - All KHLPT leases are held by Eastern Coolgardie Goldfields Pty Ltd (ECG), a 100% subsidiary of FBM - No known royalties exist on the leases. - There are no material issues with regard to access. - The tenement is in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Soil and Rock chip sampling have been conducted by Corazon Mining, FBM has reviewed the results and sample procedures which are inline with current industry standards

CRITERIA	EXPLANATION	COMMENTARY
Geology	Deposit type, geological setting and style of mineralisation.	Miriam Lithium Project is regarded as a Lithium Caesium Tantalum enriched pegmatite which intrudes older Archaean aged greenstone lithologies.
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: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - 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.	N/A
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.	N/A
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').	N/A
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.	Relevant diagrams have been included within the announcement.
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	All results related to mineralisation at Miriam have been previously reported

CRITERIA	EXPLANATION	COMMENTARY
	practiced to avoid misleading reporting of Exploration Results.	
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.	- Geophysical data from Londonderry airborne magnetic survey flown in 1996 by UTS Geophysics for Gold Mines of Coolgardie on 30m spaced east-west lines at ground clearance of 22m. Survey used magnetic base station for magnetic diurnal removal, GPS for location control and tie lines for magnetic levelling. - Geophysical data from Bouchers airborne magnetic and radiometric survey flown in 2000 by TAG for Spinifex Nickel Pty Ltd on 40m spaced east-west lines at a ground clearance of 35m. Survey used magnetic base station for magnetic diurnal removal, GPS for location control and tie lines for magnetic levelling, calibrated spectrometer and standard windows for radioelement ground concentrations. - Lithostructural interpretation of geophysical data by Southern Geoscience Consultants is qualitative in nature and based primarily on magnetic and radiometric survey data with input from various other supporting datasets including geological mapping and soil sampling. The interpretation has been performed at a scale of 1:10 000 - Geophysical targets are qualitative in nature and are generated based on the following criteria: interpretation of structural disruption from magnetic survey data, muted local magnetic field strength from magnetic survey data, mapped pegmatite outcrop from geological mapping, soil anomalism from soil sampling, potassium anomalism from radiometric survey data
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.	- Future Battery is currently reviewing the new targets with the aim of planning drill hole locations. If it is determined that drilling is required, the Company will announce such plans in due course. - Further surface sampling is planned. - Additional geophysical survey will be considered as part of future exploration programs.