



Field Work Underway at the Cross Lake Lithium Project with Spodumene Bearing Pegmatites Confirmed

HIGHLIGHTS

- Field work has started at the Cross Lake Lithium Project.
- Leeuwin is conducting a focussed exploration program to define targets, using mapping, and geochemical sampling to pave the way for future drilling.
- Commencing field work marks a significant milestone following successful re-assaying of historical drill core for lithium which revealed high-grade lithium with multiple, shallow, significant intercepts of spodumene bearing pegmatites, reaching up to 1.75% Li₂O (ASX Releases dated 17 April 2023 and 21 August 2023).
- Assays for the final three historical drills holes are pending, with results anticipated in the coming weeks.
- Leeuwin holds the largest land area in the Cross Lake Greenstone Belt, with over 2,000 km² of tenure.

Managing Director, Christopher Piggott, commented:

"This marks a significant milestone for the Company as we begin on-site exploration. Our primary goal is to enhance our confidence in the geological model and refine additional targets within the trend.

We anticipate providing regular updates on our field activities at Cross Lake in the upcoming months. Our team is enthusiastic about exploring in this highly mineral-rich region. Collaborating with the Government and local First Nation communities, we are committed to executing comprehensive exploration programs across the region."



Figure 1 MD Chris Piggott standing on outcropping pegmatite along strike from historical drilling at the Cross Lake project where re-assays of historical drill core has returned 20.59m @ 1.23% Li₂O from 20.87m refer ASX on 17 April 2023.

Critical metals explorer **Leeuwin Metals Ltd (LMI or the Company)** (**ASX: LMI**) is pleased to announce the commencement of field activities at our 100% owned Cross Lake Lithium project (**Cross lake**) in Manitoba, Canada.

Commencement of Field Activities

The Company has commenced boots on ground exploration activities, focusing on additional rock chip and channel sampling, detailed geological mapping, and utilising remote sensing tools. This work will look to define the large-scale lithium opportunity in a region that has previously not been subject to systematic lithium exploration.

Initial field works will focus on the area of historical drilling and Spodumene Island (Figure 2) where historical mapping has identified highly fractionated outcropping pegmatites along the shoreline of the islands (refer to Figures 3 & 4). The aim of this work is to identify and further understand the potential scale of the pegmatite swarm present in the region. Already a key 3.6km corridor exists between historical drilling and a channel sample that returned 7m @ 1.45% Li₂O.

Results to date from resampling of drill holes and historical channel sampling is evidence of a potential regional opportunity within this underexplored belt. With the recent consolidation of the belt (Figure 5) the Company now has a footprint of over 2,000km², making it one of the largest lithium exploration projects within Canada, based on tenure size.

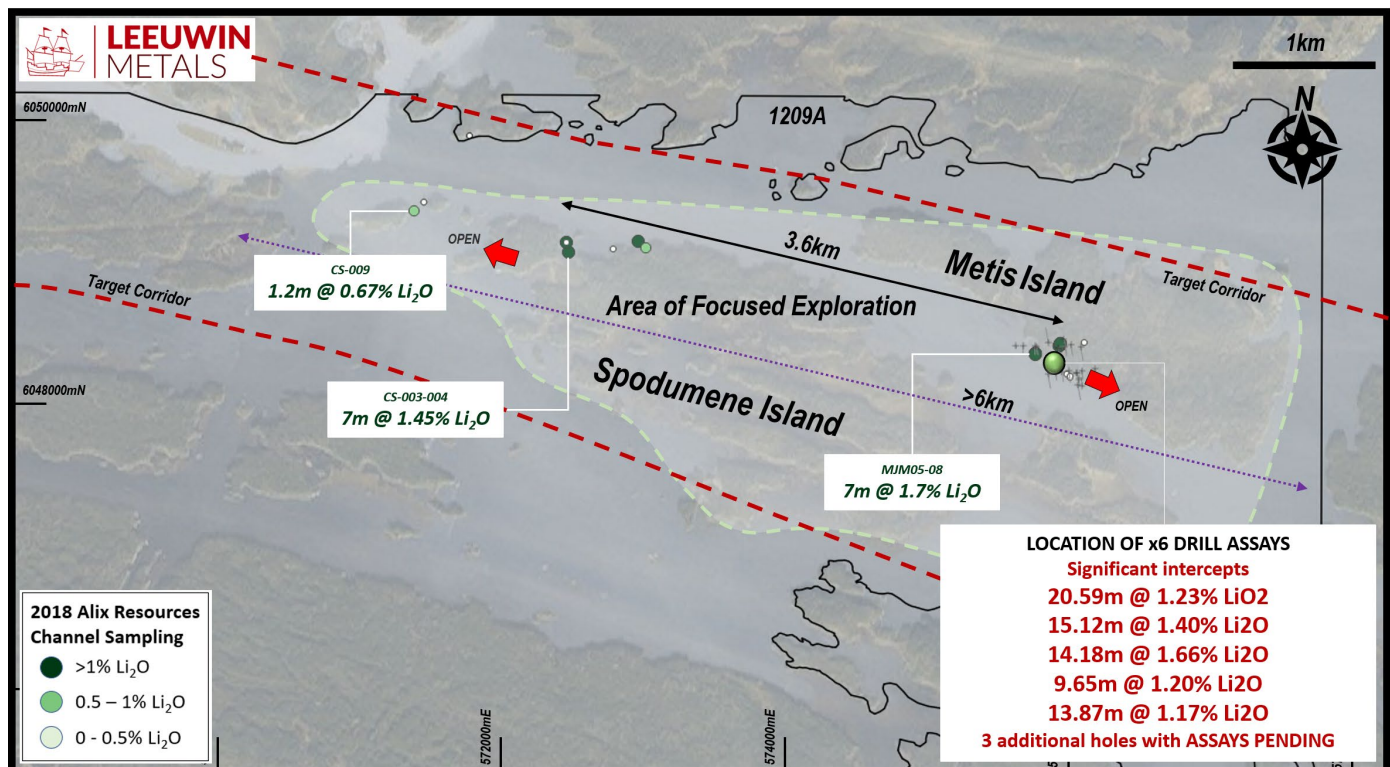


Figure 2 Local Geology of Spodumene Island Prospect area. For full details of historical drill results refer to ASX on 17 April 2023, 21 August 2023 and for further details of historical channel sampling refer to the ITAR in the Company's prospectus on the ASX 28 March 2023 (Coordinates in UTM NAD83 z14N).

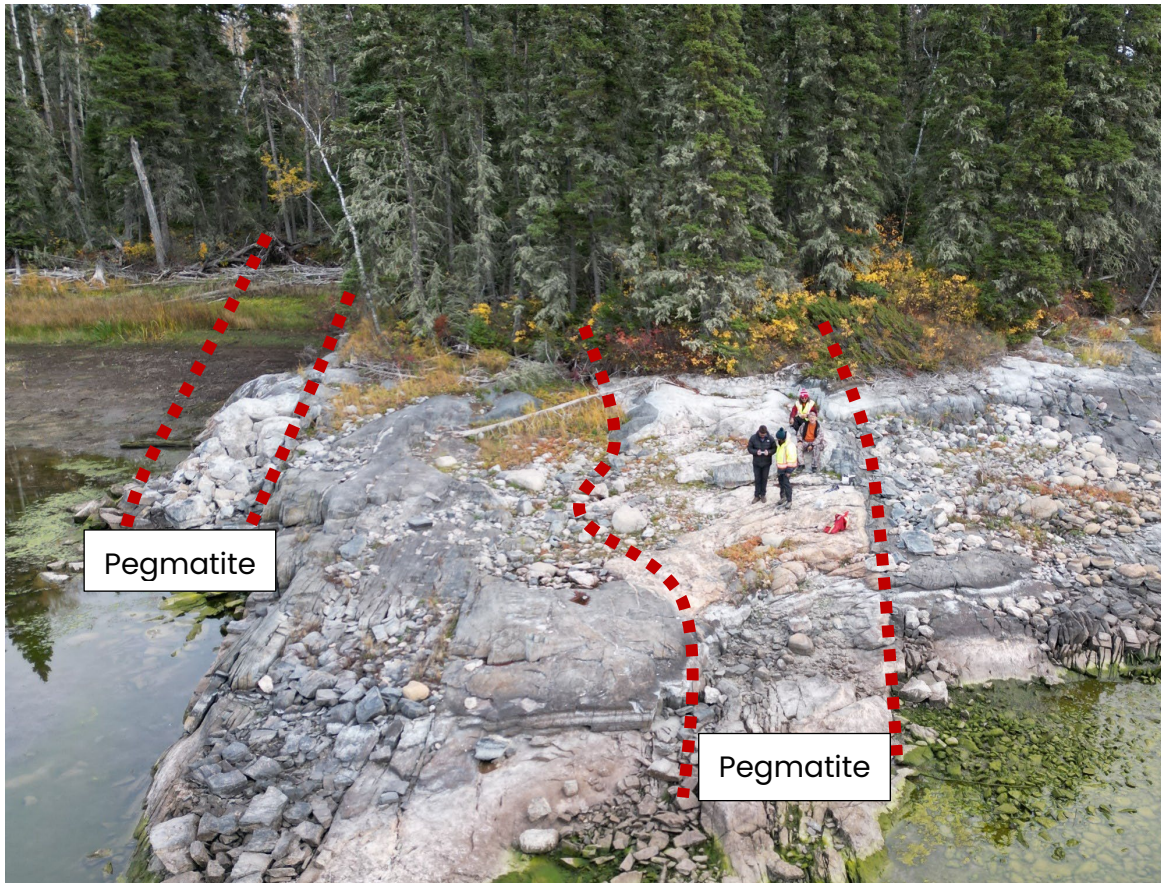


Figure 3 Outcropping spodumene bearing pegmatites near historical drilling.



Figure 4 Pegmatite sample with large spodumene crystals present in outcrop.

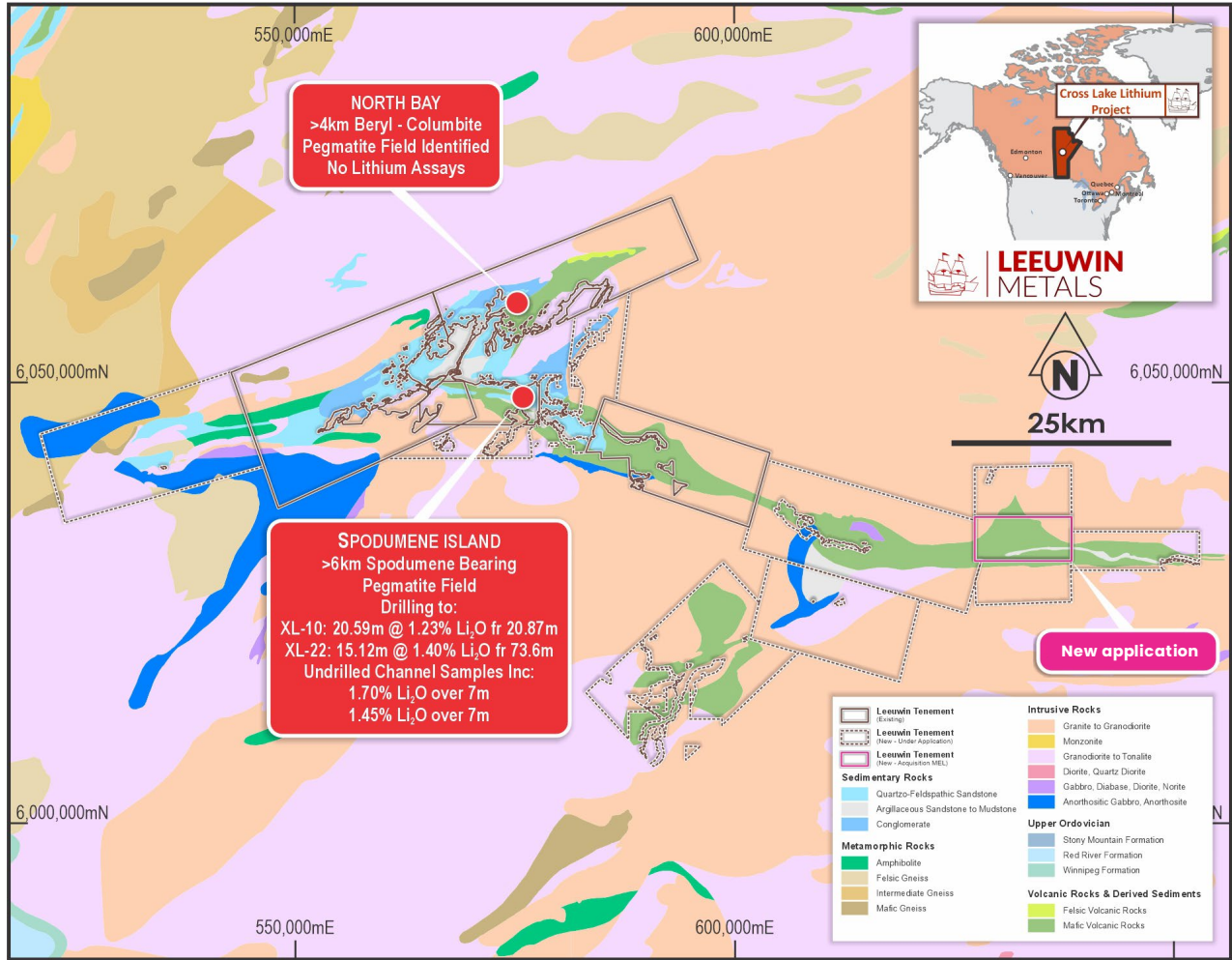


Figure 5 Regional Geology with the consolidated tenure over the Cross Lake Greenstone Belt.

Future Plans

The Company aims to complete field program with the results to be used to design future exploration activities with the aim to submit drill permits in the December quarter 2023.

Execution of the drill program is targeted for the first half of 2024. We expect to receive the final assay results from the re-sampling of historical core in the coming weeks, with three holes still pending.

Infrastructure and Location

The Cross Lake Lithium Project is located in the Canadian province of Manitoba, around 120km south of the major regional mining centre of Thompson. The project is accessed by Provincial Highway 6 and is well serviced by hydroelectric power station to the south.

The 100% owned Cross Lake Project consists of 2,002km² granted and pending Mineral Exploration Licences (refer to Figures 5 & 6).

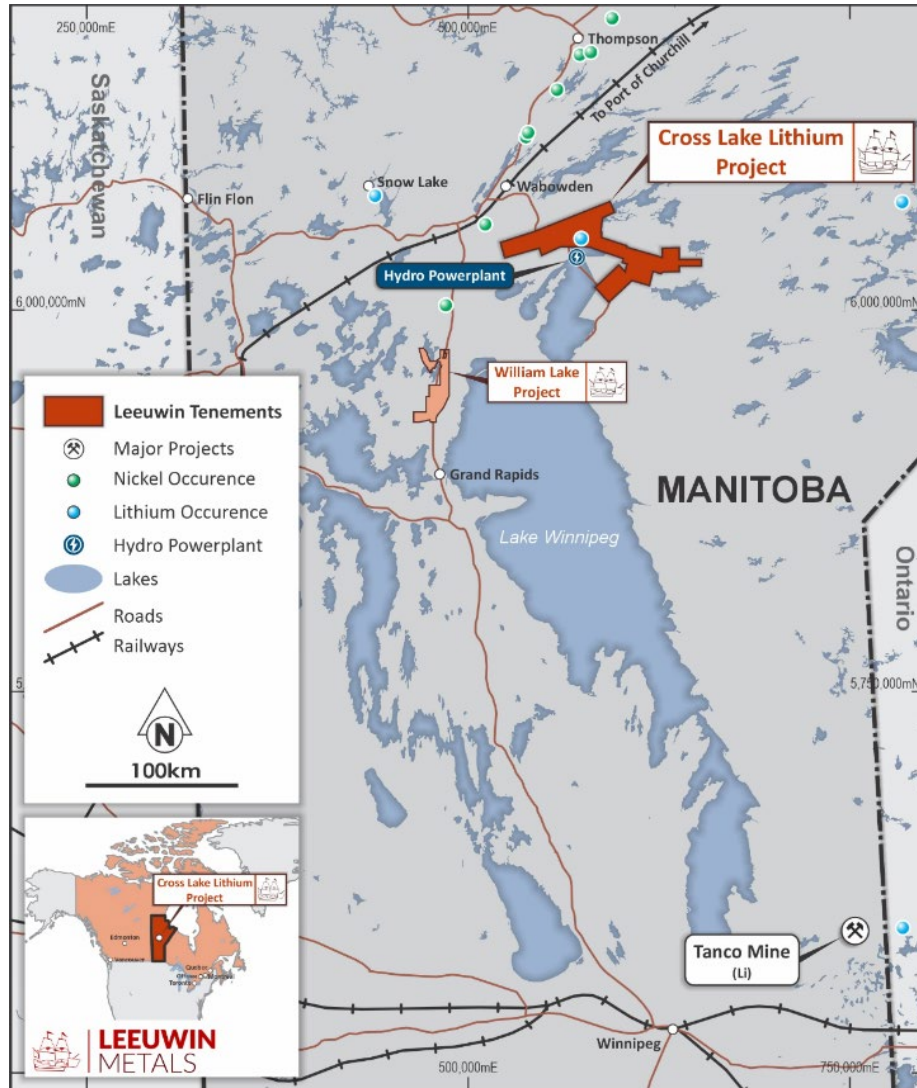


Figure 6 Location of the 100% owned Cross Lake Lithium Project.

KEY CONTACTS

Christopher Piggott

Managing Director

E info@leeuwinmetals.com T +61 8 6556 6427



About Us

Leeuwin Metals Ltd (Leeuwin) is a mineral explorer committed to securing critical metals vital for the advancement of electric vehicles and renewable energy.

Leeuwin has five projects, three located in Canada and two Western Australia which are highly prospective for Nickel, Copper, PGE, and Lithium.

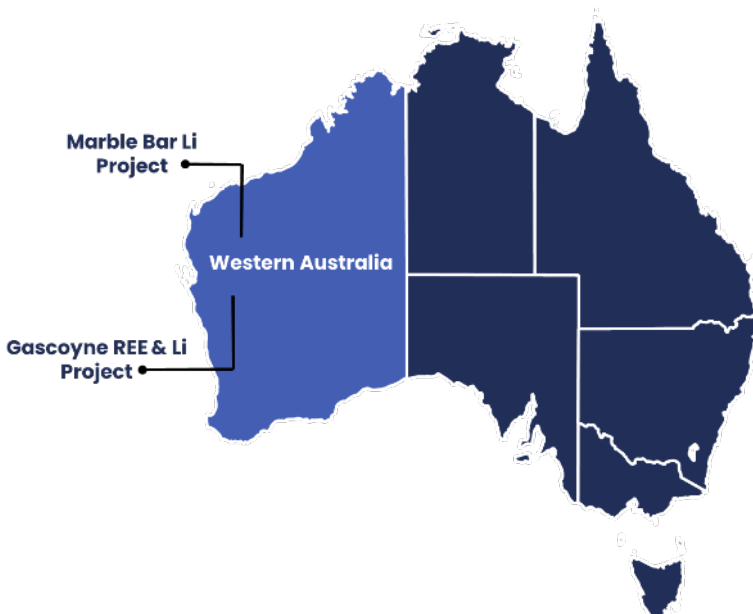
Our goal is to contribute to the global shift towards decarbonisation and electrification, working towards a greener future. Led by a skilled team with expertise in project generation, discovery, development, operations, and transactions.

William Lake Nickel Project is the flagship asset where the Company is exploring for high-grade Nickel, Copper and PGE mineralisation hosted in sulphides. The project is located in the Thompson Nickel Belt, this belt is highly fertile with several existing nickel mines currently in production.

Cross Lake Lithium Project is highly prospective for LCT type pegmatites. The project is located in the Cross Lake greenstone belt with previous drilling intercepting spodumene bearing pegmatites with grades of +1% Li₂O present.

Complimentary Projects located in Western Australia and Ontario targeting Lithium and REE's.

Australian Projects



Canadian Projects



APPENDIX A: IMPORTANT NOTICES

Cautionary Statement

In relation to the disclosure of visual occurrences of pegmatite and spodumene, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

No new information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

Competent Person Statement

The information in this report that relates to exploration results is based on and fairly represents information compiled by Mr Christopher Piggott, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and the Managing Director of the Company. Mr Piggott 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 Piggott consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

Various statements in this announcement constitute statements relating to intentions, future acts, and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events, and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance, or achievements expressed or implied in these forward-looking statements will be achieved.

Section 1: Sampling techniques and data

Criteria	JORC Code explanation	Commentary
Sampling techniques	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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	No recent samples results are being reported. The details of the rock chip samples will be provided once the relevant assay information has been reported.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	No recent samples results are being reported. The details of the rock chip samples will be provided once the relevant assay information has been reported.
	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.	No recent samples results are being reported. The details of the rock chip samples will be provided once the relevant assay information has been reported.
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 as no drilling has been undertaken.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable as no drilling has been undertaken.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable as no drilling has been undertaken.
	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 as no drilling has been undertaken.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a	No recent samples results are being reported. The details of the rock chip samples will be provided once the

Criteria	JORC Code explanation	Commentary
	level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	relevant assay information has been reported.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	No recent samples results are being reported. The details of the rock chip samples will be provided once the relevant assay information has been reported.
	The total length and percentage of the relevant intersections logged.	No recent samples results are being reported. The details of the rock chip samples will be provided once the relevant assay information has been reported.
Subsampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable as no new drilling or sampling is being reported.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not applicable as no new drilling or sampling is being reported.
	For all sample types, the nature, quality, and appropriateness of the sample preparation technique.	Not applicable as no new drilling or sampling is being reported.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Not applicable as no new drilling or sampling is being reported.
	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.	Not applicable as no new drilling or sampling is being reported.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable as no new drilling or sampling is being reported.
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.	Not applicable as no new drilling or sampling is being reported.
	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.	Not applicable as no new drilling or sampling is being reported.
	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.	Not applicable as no new drilling or sampling is being reported.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Not applicable as no new drilling or sampling is being reported.

Criteria	JORC Code explanation	Commentary
	The use of twinned holes.	Not applicable as no new drilling or sampling is being reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not applicable as no new drilling or sampling is being reported.
	Discuss any adjustment to assay data.	Not applicable as no new drilling or sampling is being reported.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Not applicable as no new drilling or sampling is being reported.
	Specification of the grid system used.	Any grid references are presented in UTM NAD 83 coordinate system Zone 14.
	Quality and adequacy of topographic control.	Topographic control is based on government topographic maps. This method of topographic control is deemed adequate at this exploration stage of the project.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Not applicable as no new drilling or sampling is being reported.
	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	Data spacing is not considered sufficient to establish geological and grade continuities for Mineral Resource estimation at this stage.
	Whether sample compositing has been applied.	No sample compositing has been 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.	Not applicable as no new drilling or sampling is being reported.
	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.	Not applicable as no new drilling or sampling is being reported.
Sample security	The measures taken to ensure sample security.	Not applicable as no new drilling or sampling is being reported.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable as no new drilling or sampling is being reported.

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	<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>The Cross Lake Project is comprised of eight granted and six Mineral Exploration Licence (MEL) applications covering a total area of 2,202km² surrounding the granted MEL1209A, 1229A, 1213A, 1212A, 1228A, 1214A, 1227A and 1230A licences for 1405.6km².</p> <p>All drilling and results reported in the body of this release are from within the granted MEL1209A licence.</p> <p>Leeuwin Metals has submitted applications based on the Manitoban Staking process and as such will have a 100% interest in the project areas.</p>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<p>The area covering the Cross Lake Project has been the subject of exploration since the 1950s, by XL Syndicate – 1958, Noranda Exploration Company (Noranda) – 1959 to 1968, Falconbridge – 1963, Guggenheim Exploration (1969), Tantalum Mining Corporation of Canada Ltd (TANCO) – 1970 to 1982, Cross Lake Indian Band (1988), Gossan Resources Ltd – 1994 to 1995, and Alix Resources (Alix) – 2016 to 2018.</p> <p>TANCO discovered tantalum and niobium oxide mineralisation in granitic pegmatites in the project area in 1979 and drilled 23 holes in 1980 but did not assay for Lithium. These holes are the subject of this release.</p>
Geology	Deposit type, geological setting and style of mineralisation.	<p>Pegmatites in the Cross Lake area are enriched in lithium, niobium, tantalum and may contain spodumene, tourmaline, muscovite, beryl and apatite.</p> <p>The Cross Lake area is underlain by rocks of the Archean Superior Province. The area is subdivided into the Molson Lake domain in the southern area and the Gods Lake domain in the northern area.</p> <p>The Moslon Lake domain is dominated by granodiorites, with widespread granitic rocks, granites, and pegmatites; monzodiorites and gabbroic dykes are also present.</p> <p>The Gods Lake domain is characterised by amphibolite facies mafic and ultramafic metavolcanics and metasedimentary rocks.</p> <p>Lithium mineralisation is associated with REE pegmatites and lithium-tin-tantalum pegmatites.</p>

Criteria	JORC Code explanation	Commentary
Drillhole information	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</p> <ul style="list-style-type: none"> • easting and northing of the drillhole collar • elevation or RL (elevation above sea level in metres) of the drillhole collar • dip and azimuth of the hole • downhole length and interception depth hole length. 	<p>No drilling activities are being reported.</p> <p>The general location of visual spodumene occurrences photographed have been provided, in Appendix B, Table 1.</p> <p>The co-ordinates of the rock chip samples will be provided once the relevant assay information has been received.</p>
Data aggregation methods	<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>No analytical results are being reported.</p>
Relationship between mineralisation widths and intercept lengths	<p>If the geometry of the mineralisation with respect to the drillhole 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., 'downhole length, true width not known').</p>	<p>No drilling activities are being reported.</p>
Diagrams	<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 drillhole collar locations and appropriate sectional views.</p>	<p>Exploration plans and further diagrams are included in the body of this release as deemed appropriate by the competent person.</p>
Balanced reporting	<p>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.</p>	<p>All relevant and material exploration data for the target areas discussed, has been reported or referenced.</p>
Other substantive exploration data	<p>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.</p>	<p>All relevant and material exploration data for the target areas discussed, has been reported or referenced. Pegmatites photographed range from 1 to 10m in width.</p>
Further work	<p>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</p>	<p>Please refer to the body of this release, noting further exploration is warranted across the Mineral Exploration Licence to improve the understanding of the mineralisation.</p>

Appendix B: PEGMATITE DESCRIPTIONS

Table 1 - Visual estimation of abundance of spodumene within pegmatite & locations

Figure	Easting	Northing	Lithology	Commentary
3	0575771	6048373	quartz, albite, spodumene, muscovite, microcline pegmatite.	Estimated 10-20% spodumene
4	0575764	6048357	quartz, albite, spodumene, muscovite, microcline pegmatite.	Estimated 10-20% spodumene