ASX Announcement

02 November 2023

EXPLORATION UPDATE FOR DALMAS AND HIVER LITHIUM PROJECTS IN QUEBEC

Lightning Minerals (L1M or the Company) is pleased to announce that it has completed its initial exploration program at its Dalmas and Hiver Projects in the James Bay region of Quebec, Canada. The program has confirmed historical reports of outcropping pegmatitic lithologies at both the Dalmas and Hiver project areas.

HIGHLIGHTS

- **First pass ground reconnaissance works are now successfully complete for the Dalmas and Hiver projects prior to the onset of the Canadian winter. Multiple samples taken for analysis**

- **Preliminary indications from the field reconnaissance have confirmed the presence of multiple pegmatites within both the Dalmas and Hiver projects. These pegmatites are broadly coincident with targets identified during recent Multispectral analysis[1]**

- **Follow up exploration programs are now being developed with a focus on reviewing existing geophysical data across the project areas and defining target areas for further exploration targeting Lithium-Caesium-Tantalum (LCT) mineralisation**

Following the execution of a binding agreement to acquire the Dalmas and Hiver Projects[2], the Company has now rapidly completed its first reconnaissance phase exploration prior to the onset of the Canadian winter.

As outlined in ASX announcement 30 August 2023, 165 multispectral targets were identified over the company's Dalmas and Hiver projects, with 113 targets at Dalmas and 52 targets at Hiver. The reconnaissance field program focussing on these areas and has successfully identified multiple instances of pegmatite outcrop, as well as pegmatite boulders at surface.

Lightning Minerals' Managing Director Alex Biggs said, "Confirmation of pegmatite lithologies at both Dalmas and Hiver is a positive indicator for our future exploration in Canada. It is important that the Company has taken its first step quickly and effectively by confirming the target areas that have been previously identified. We know the James Bay region is prolific as a lithium district and initial indications at Dalmas and Hiver suggest that potential for LCT mineralisation exists. Our next step will be to evaluate existing geophysical surveys that may define geological trends of sub-cropping pegmatite structures across both projects. The Company continues to employ a diligent and structured approach to its exploration across all its projects with a view to defining drill targets for potential

Note 1: **The geochemical nature of the pegmatitic geological outcrop is currently unknown and the presence of pegmatitic lithologies does not necessarily indicate the presence of lithium, tantalum or caesium mineralisation. Only laboratory chemical assays can determine the presence and grade of any mineralisation.**

[1]ASX Announcement 30 August 2023, [2]ASX Announcement 29 September 2023

discovery. Having projects in two of the most prospective lithium regions globally significantly increases our chances of that. We look forward to keeping you updated on our progress".

RECONNAISSANCE WORK PROGRAM AND TARGETS

The Dalmas and Hiver Projects are located in the James Bay region of Quebec; approximately 150km to the east of Patriot Battery Metals' (ASX: PMT) Corvette lithium project and 45km to the east of Winsome Resources' (ASX: WR1) Adina lithium project. Recent satellite multispectral analysis identified multiple target signatures[1] which are thought to represent geochemically suitable sites for LCT pegmatite emplacement, as they have a similar spectral character to LCT pegmatite occurrences in the region.

Of the 165 multispectral targets, 113 are located within the Dalmas project and the remaining 52 targets within the Hiver Project. These targets formed seven clustered areas across the two projects that required follow up field investigation. Additionally, historic Quebec Geological Survey records report outcrop mapping information that claimed outcropping pegmatitic lithologies may occur at three of the four priority clustered target areas.

A reconnaissance mapping and rock sampling program was then developed and conducted during late October. The program was managed by the experienced Quebec-based company IOS Geosciences (IOS). Preliminary indications from the field reconnaissance have confirmed the presence of pegmatites within both the Dalmas and Hiver projects. Figure 1 and 2 display field locations where both pegmatitic outcrop and pegmatite boulders have been recorded; initial visual assessment by field geologists suggest the mineral assemblages present are commonly quartz-feldspar-biotite. The geochemistry of these pegmatites is yet to be quantified via laboratory analysis of 32 samples taken across the project areas.

Figure 1: Pegmatite outcrop and boulders mapped within the Dalmas Project (NAD 83/UTM Z18N)

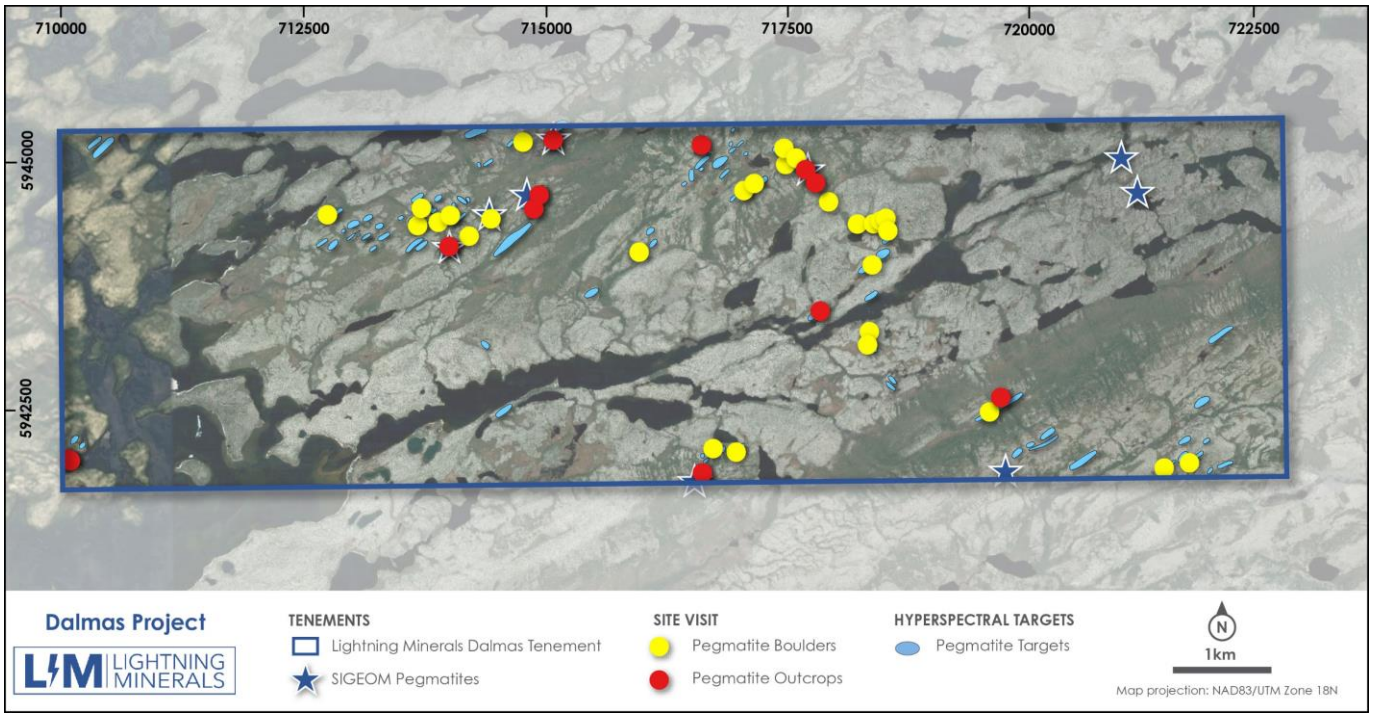


Figure 2: Pegmatite outcrop and boulders mapped within the Hiver Project (NAD 83/UTM Z18N)

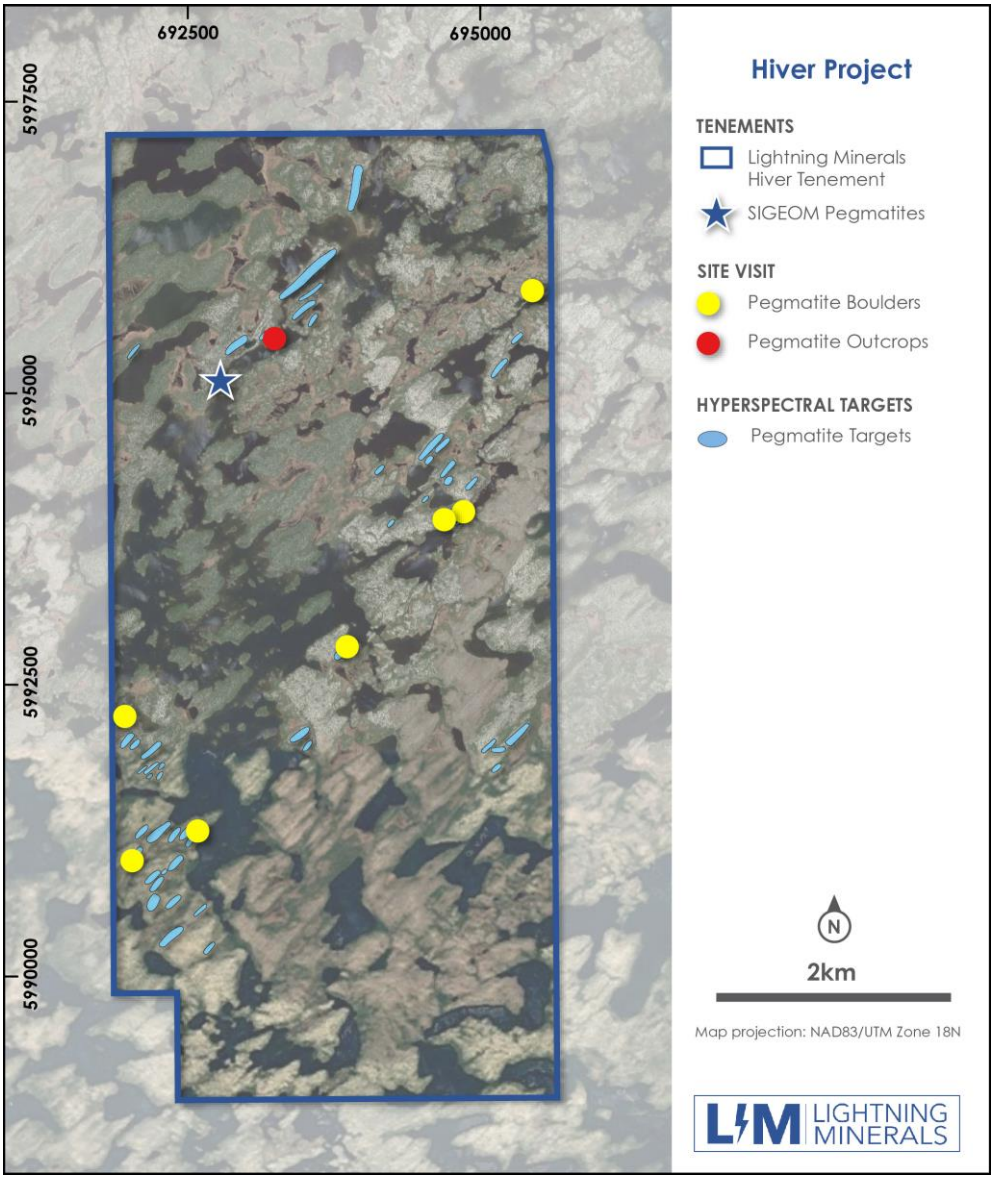


Figure 3 and 4: Left: Pegmatite outcrop within the Dalmas Project (317026mE, 5943450mN, WGS 84/UTMZ19N), and Right: Large Quartz Feldspar Biotite Pegmatite Boulder located at 319995mE, 5940922mN, WGS 84/UTMZ19N.

Figure 5 and 6: Left: Pegmatite containing potential beryl (±Apatite?) mineral within Dalmas project (Pen lid for scale, 316859mE, 5943604mN, WGS 84/UTMZ19N), Right: Quartz Feldspathic pegmatite sample taken from Hiver project (302519mE, 5995547mN, WGS 84/UTMZ19N)

The field team have identified potential Beryllium bearing minerals in outcropping pegmatites, (Green mineral shown in red circle in Figure 5) which is considered a positive exploration indicator. Beryllium rich pegmatites are relevant as they can indicate that the parental melt may be elevated in the required elements to increase prospectivity for fractionated LCT conditions.

A total of 32 rock chip samples have been collected over the course of the program. Mineralogical descriptions of each sample remain pending and are expected with delivery of the final field report. Samples have been submitted for analysis for a full suite of elements through Activation Laboratories Ltd. Upon receipt of the results the geochemical signature of the pegmatites at Dalmas and Hiver these results can then be scrutinised and appropriate elemental ratios useful in exploration for LCT pegmatites be determined. This data will prove crucial in understanding the most prospective areas to concentrate future exploration for future follow up field activities.

The early multispectral targets generated from desktop analysis have proven to be a valuable means for the initial targeting of pegmatites at the Dalmas and Hiver projects. The successful completion of the reconnaissance program and the confirmation of pegmatites prior to the onset of winter is considered a significant step in exploration progress. The focus over the coming months will be a review of all previous geological and geophysical data available for the area that may further accelerate exploration efforts.

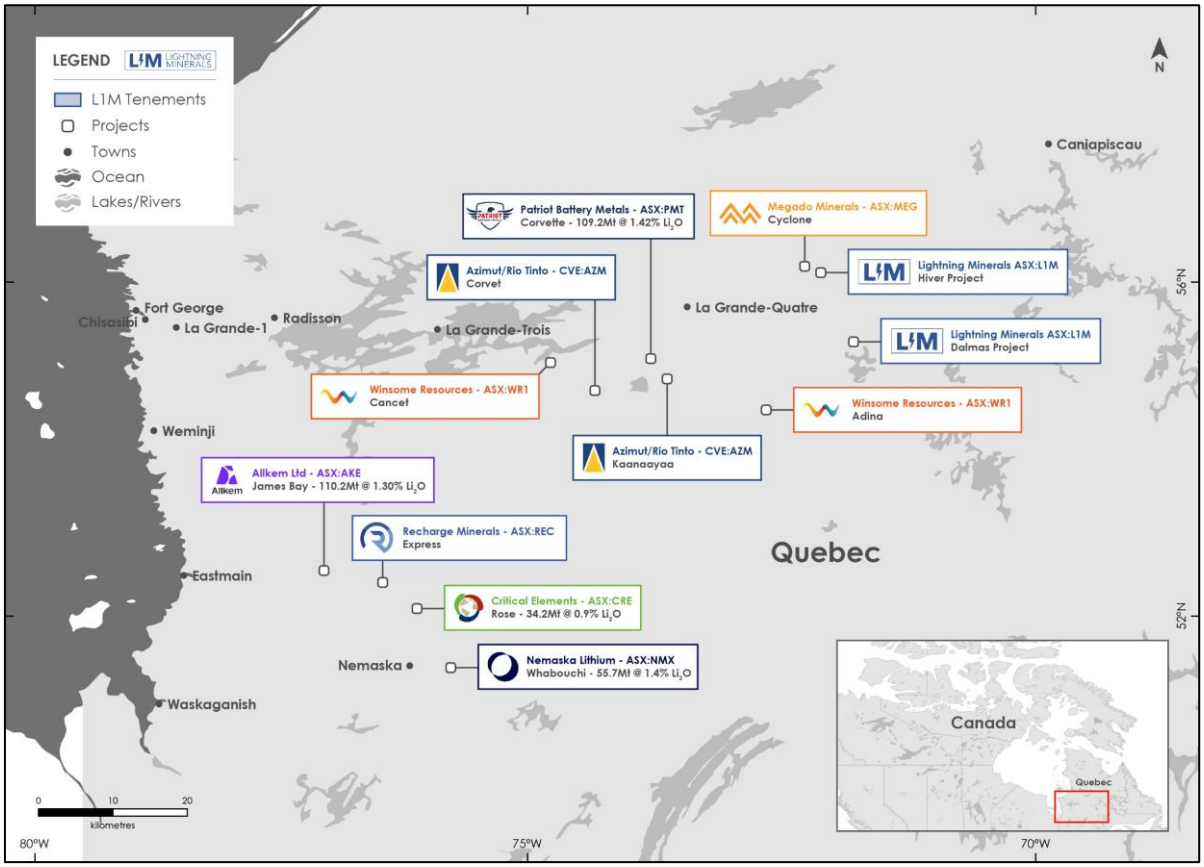
ABOUT THE PROJECTS AND QUEBEC AS A SIGNIFICANT LITHIUM REGION

Quebec is quickly becoming one of the world's leading lithium regions, particularly the James Bay district which hosts multiple large scale lithium projects including:

- Patriot Battery Metals' (ASX: PMT) Corvette lithium project[3] consisting of 109.2Mt @ 1.42% Li20 Inferred
- Nemaska Lithium's (TSX: NMX) Whabouchi lithium project[4] with 55.7Mt @ 1.4% Li_20 consisting of 38.5Mt @ 1.45% Li_20 Measured and Indicated and 17.2Mt @ 1.29% Li_20 Inferred
- Critical Elements' (TSX.V: CRE) Rose lithium project[5] with 34.2Mt @ 0.9% Li_20 consisting of 31.5Mt @ 0.91% Li_20 Indicated and 2.7Mt @ 0.77% Li_20 Inferred

- Sayona Mining's (ASX: SYA) Moblan lithium project[6] with 51.4Mt @ 1.30% Li_20 Measured, Indicated and Inferred
- Allkem's (ASX: AKE) James Bay lithium project[7] with 54.3Mt @ 1.30% Li_20 Indicated and 55.9Mt @ 1.29% Li_20 Inferred
- Winsome Resources' (ASX: WR1)[8] who are exploring multiple lithium projects in the region

Figure 7: Dalmas and Hiver project locations, James Bay, Quebec



REFERENCES

[1]*ASX Announcement 30 August 2023*
[2]*ASX Announcement 29 September 2023*
[3]Patriot Battery Metals (PMT) ASX Announcement 31 July 2023
[4]Nemaska Lithium's TSX Announcement 09 August 2019
[5]Critical Element's TSX.V Announcement 27 July 2022
[6]Sayona Mining's ASX Announcement 17 April 2023
[7]Allkem's ASX Announcement 11 August 2023
[8]Winsome Resources (WR1) ASX Announcement 01 August 2023

This announcement has been approved for release by the Board of Directors.
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ABOUT LIGHTNING MINERALS

Lightning Minerals is a mineral exploration company, listed on the Australian Stock Exchange (ASX:L1M) and focused on the exploration of critical minerals and lithium at its tenements across Western Australia. The Company's flagship Dundas project is located in the prolific Dundas region of Western Australia. The Company also has other projects in Western Australia, Mt Jewell, Mt Bartle and Mailman Hill prospective for base metals and critical minerals.

FORWARD LOOKING STATEMENTS

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

COMPETENT PERSONS STATEMENT

The information contained herein that relates to exploration results is based on information compiled or reviewed by Mr Jarrad Woodland, who is a Competent Person and a member of the Australasian Institute of Mining and Metallurgy. Mr Woodland is a full-time employee of the company. Mr Woodland has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Woodland consents to the inclusion of his name in the matters based on the information in the form and context in which it appears. Mr Woodland holds options in Lightning Minerals.

Lightning Minerals engaged IOS Geosciences (IOS) to execute the prospecting and exploration work described in this news release. IOS has an experienced team of explorers based in Saguenay and is managing several projects in the James Bay region. This report contains information related to exploration results and is based on preliminary information and data compiled or reviewed by IOS under the supervision of Mr. Hugues Longuepee, who is classified as a Professional Geoscientist (P. Geo) with the respective professional regulatory body, the Order of Geologists of Quebec. Mr. Longuepee has also reviewed this new release.

REFERENCES TO PREVIOUS ANNOUNCEMENTS

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters have not materially changed. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

APPENDIX 1: JORC CODE 2012 TABLE 1 CRITERIA

The Table below summarises the assessment and reporting criteria used for exploration results for the Dalmas and Hiver Exploration Projects and reflects the guidelines in Table 1 of The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC 2012 Code).

SECTION 1 - SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code 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 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 (eg submarine nodules) may warrant disclosure of detailed information.*	• Rock chip sampling is associated with the reconnaissance mapping and sampling program which aimed to confirm historical pegmatite reports, by both locating both previous and sampling pegmatite outcrops or boulders. • Work described in the release has involved review of the publicly available datasets which are available through the 'Geomining Information System of Quebec' - sigeom.mines.gouv.qc.ca • Ministère des Resources Naturelles et des Forêts (MERN), the Quebec geological survey (QGS), documents historical mapping over the Hiver and Dalmas Project areas; and surrounding region with rock descriptions publicly available. • No assay data is available for MERN samples/mapping points.
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).*	• No drilling is reported.
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.*	• No drill samples have been taken.
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.*	• No drilling completed. • Geological observations are both preliminary and qualitative. The information contained within describes only dominant outcrop lithologies at discreet locations, and minerals of interest. • All data is stored in digital format for use in GIS software packages.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	• Sampling is at the discretion of field geologists undertaking the geological reconnaissance activities. • At this early stage of exploration discretionary grab samples are considered appropriate.

	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.*	• No QAQC processes have been utilised at this early stage of exploration.
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 (ie lack of bias) and precision have been established.*	• No assay data or laboratory test work is reported.
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.*	• No data verification has occurred. • The company has verified the presence of historically reported outcrop lithologies during the reconnaissance phase of exploration works.
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 geological maps utilising NAD83 / UTM zone 18N are sufficiently annotated. • All geological locations utilising WGS84 / UTM zone 19N are sufficiently annotated. • All reported locations are assumed to have a +/- 10m accuracy via use of handheld GPS instruments.
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 applied.*	• Data points are guided by field outcrops instead of regular spacing. • Exploration data contained within is not appropriate for calculating Mineral Resources. Insufficient exploration has been completed at this stage to warrant such calculations. • No compositing of results has been reported in this announcement.
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.*	• Field observation points are guided by outcrop location instead of specific orientation. • No relationship between outcrop mapping sites is known.

Sample security	*The measures taken to ensure sample security.*	• Field samples have been collected and stored by IOS Geosciences, under the supervision of Mr. Hugues Longuepee P.Geo.. Mr. Longuepee, is QP and a Member of the Ordre des geologues du Quebec.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been undertaken.

SECTION 2 - REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code 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 Hiver and Dalmas projects are located in the James Bay Region of Quebec, Canada. • The Hiver and Dalmas projects are centered at approximately 54°03'20"N, 72°01'57"W, and 53°36'01"N, 71°43'18"W respectively. • The Hiver and Dalmas Project are 100% owned by Lithium Rabbit Quebec Pty Ltd. • Lightning Minerals Ltd signed a binding letter of intent on 11th August 2023 to acquire two project areas, Dalmas and Hiver in the James Bay region of Quebec, Canada. • The Dalmas project is comprised of 92 mining claims totaling 4,707Ha • The Hiver project is comprised of 62 mining claims totaling 3137Ha • Lithium Rabbit Quebec Pty Ltd retains a 2.0% Net Smelter Royalty, of which 1.0% may be bought back by the Company at any time for A$1.0 million. The NSR is applicable across both projects. • All tenements are in good standing and are presented in this announcement.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• Geological datasets were sourced from Ministère des Resources Naturelles et des Forêts (MERN), the Quebec geological survey. • No other data by prior explorers is known to the company.
Geology	*Deposit type, geological setting and style of mineralisation.*	• The mineralisation sought at the Dalmas and Hiver Project is hosted by a Lithium-Caesium-Tantalum (LCT) type pegmatite. The host rocks are composted of Archean metasedimentary, and greenstone as described in the text.
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.*	• No drillholes are reported.

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.*	• No exploration results have been reported.
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').*	• No drill results are reported.
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.*	• Appropriate two-dimensional plans have been included in the body of this 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 practiced to avoid misleading reporting of Exploration Results.*	• No exploration results are reported. • Lightning Minerals is committed to accurately detailing the results from any exploration activities, and reporting results in a balanced manner.
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.*	• Lightning Minerals Ltd engaged IOS Geosciences during October 2023. • IOS Geosciences have completed field reconnaissance as planned and reported preliminary results as contained herein. • All pegmatite lithologies mapped within the project areas require geochemical analysis to ascertain if a relationship to LCT relevant mineralisation processes are present. The presence of pegmatites in outcrop and boulders alone is not sufficient to assume the presence of LCT mineralisation.
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.*	• As detailed in text. • Exploration efforts will continue with a consolidation and review of all previous geological and geophysical data available for the project areas.