5 October 2023

Extensive field of fractionated pegmatite dykes discovered over 3km in length at the Aero Property – James Bay, Canada

Highlights:

- **Over 20 additional pegmatite dykes discovered at JBY's Aero Property as part of the ongoing maiden exploration campaign.**
- **The pegmatite swarm extends over a corridor of ~3km from east to west and ~350m north to south at the Aero Property, which forms part of JBY's La Grande Project portfolio in James Bay, Quebec, Canada.**
- **All pegmatite dykes display fractionation indicators and accessory minerals associated with Lithium-Caesium-Tantalum (LCT) pegmatites.**
- **Systematic grab sampling, rock sawing and channel sampling continues across the property.**
- **Discovery is near a 4-season gravel road & power lines, facilitating efficient access and potential future operations.**
- **The Aero Property is a prospective lithium property located along trend from Winsome Resources' (ASX: WR1) Cancet Lithium Project and Patriot Battery Metals' (ASX: PMT) world-class CV5 deposit.**

James Bay Minerals (ASX: **JBY**) ("**James Bay Minerals**" or "**the Company**") is pleased to report further significant developments with its maiden field exploration program at the highly prospective Aero Property, which forms part of the Company's La Grande Project, located in the prolific Eeyou Istchee-James Bay district in Quebec, Canada.

The Company recently commenced its inaugural field exploration campaign, with a large continuous pegmatite outcrop identified in the first week of exploration activity. Following on from this, field crews have continued exploration activities within the area and have now uncovered over 20 additional pegmatites to the west and east of the previously discovered Avro pegmatite (refer ASX release, 28 September 2023). The pegmatite field now covers a corridor ~3km long and ~350m wide.

The field program continues to focus on the south-eastern portion of the property, where a 4-season gravel road runs through the property.

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The pegmatite dykes observed are generally white in colour and clearly stand out as ridges several metres above the surrounding brown coloured biotite schist that it is injected into (Figures 2 to 5). All dip steeply to the north, sub-parallel to the foliation planes of the biotite schist. All pegmatite dykes consist of coarse-grained, well-developed crystals of plagioclase (albite), quartz, tourmaline and muscovite.

Breakaway Exploration (BXM) personnel are continuing to systematically select grab samples and rock saw channel sampling is ongoing.

Details of the pegmatites discovered and mapped to date are provided in Table 1 below:

Number	Pegmatite Name	Approximate pegmatite Length (m)	Approximate Max width exposed (m)
1	Armstrong	292	10
2	Avro	400	20
3	Brewster	133	10
4	Bristol	102	5
5	Corsair	276	10
6	Curtiss	324	5
7	Fairey	152	5
8	Fury	97	10
9	Gauntlet	175	10
10	Havoc	59	5
11	Hawker	560	20
12	Hellcat	450	31
13	Lightning	60	10
14	Marauder	60	6
15	Meteor	50	10
16	Mustang	286	22
17	Spitfire	86	15
18	Thunderbolt	591	10
19	Warhawk	180	10
20	Wildcat	87	5
21	Gloster	72	5

Table 1 - Outlines and exposed area of all pegmatite dykes discovered at Aero property forming the field of pegmatites.

As the field team are continuing to uncover more pegmatite dykes, the full extent and understanding of mineralisation remain in its early stages.

Continued observations of tourmaline – a common accessory mineral in rare-metal pegmatites – is being used as an indicator for fractionation and vectoring, with the current interpretation being that it is a fractionated pegmatite derived from a nearby fertile granite.

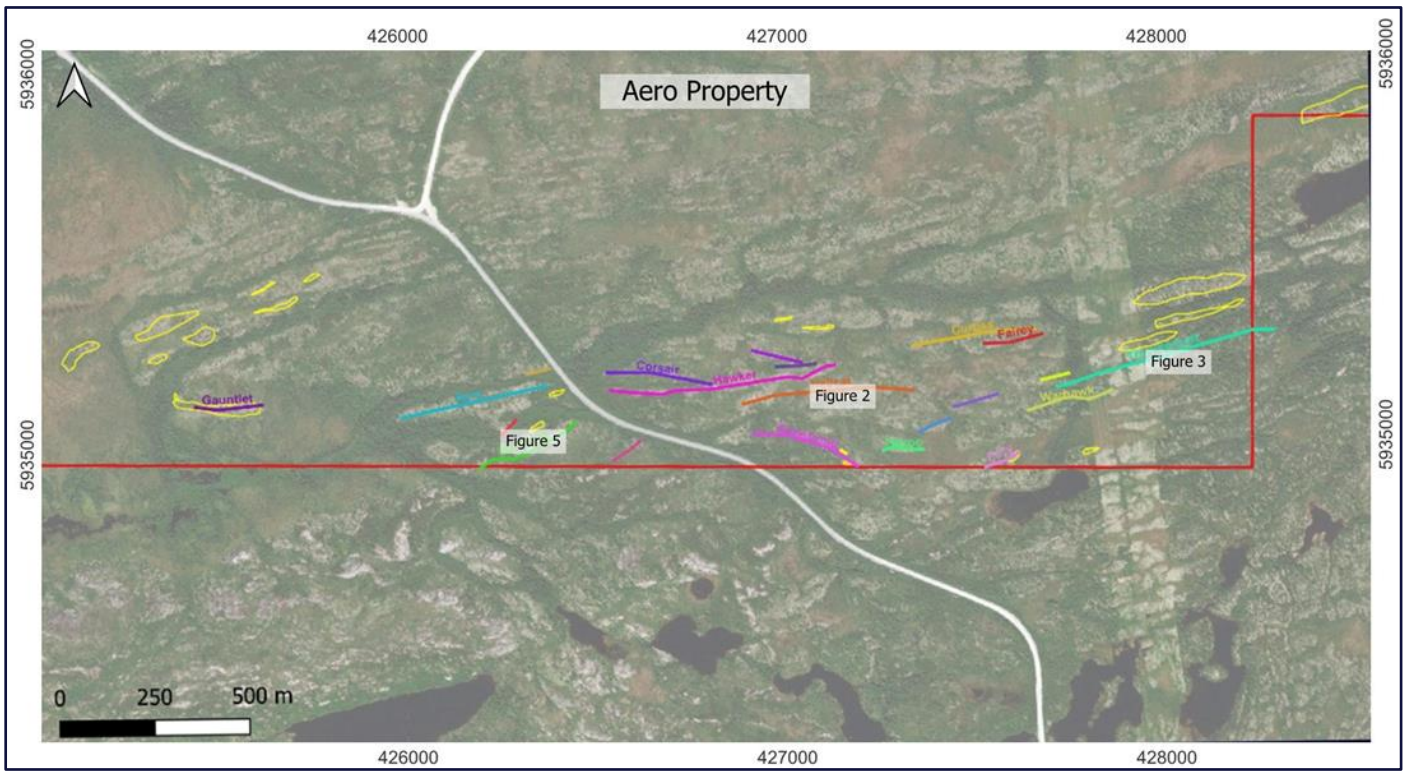

Figure 1 – Pegmatite field Aero property

Figure 2 – Hellcat pegmatite looking from east to west.

Figure 3 – Thunderbolt pegmatite looking east to west.

Figure 4 – Bristol pegmatite looking east to west.

Figure 5 – Mustang pegmatite looking east to west.

Figure 6 – Spitfire looking east to west.

An important field observation of the pegmatite dykes discovered to date is that they all plunge under cover, trending to the north within the Aero Property. Field work is continuing to focus throughout this part of the property considering the discovery of the pegmatite field, road access and general ease of accessibility due to recent fires clearing ground cover and making outcrops easily visible.

James Bay Executive Director, Andrew Dornan, commented:

"The team's continued rapid pace of discovery at our Aero Property has been fantastic. We are three weeks into our maiden exploration program and have already uncovered a field of fractionated pegmatites over a corridor of roughly 3,000m by 350m. The field team has done an exceptional job and we look forward to the continued success over the coming weeks."

About the Aero Property

The Aero Prospect consists of 89 continuous claims covering an area of 4,365 hectares. The Aero Property has approximately 12km of deformation zones which are considered highly prospective for Lithium-Caesium-Tantalum (LCT) Pegmatites. The nearby Cancet (Winsome) and Corvette (Patriot) properties both have deformation zones running through their properties and both Winsome and Patriot have had significant exploration success along these zones.

A field program being undertaken by five personnel has been designed to map targeted areas of the Aero Property along with the collection of rock chips and completion of channel samples for analysis. The field program has commenced and will continue until first snow fall arrives (expected mid-October 2023).

Established infrastructure, in particular the sealed roads which run through the Property, allows for easy access.

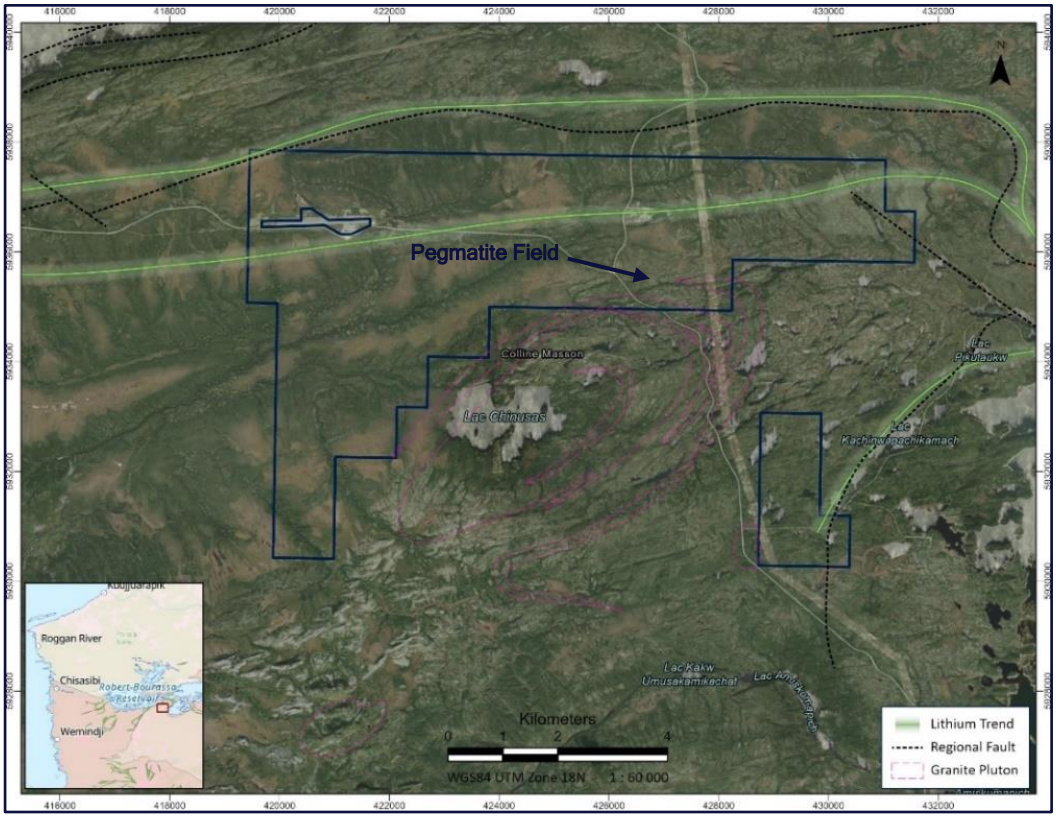

Figure 7 - Aero Property Satellite Imagery.

Background on James Bay Minerals

James Bay has acquired a 100% interest in one of the largest lithium exploration portfolios in the James Bay region, covering an area of 22,438Ha or 224km^2. The Joule, Aero and Aqua properties are located in the La Grande sub province along trend from the Corvette deposit, where Patriot Battery Metals (ASX: PMT) recently reported a maiden Inferred Mineral Resource Estimate of 109.2Mt at 1.42% Li_2O and 160ppm Ta_2O_5 (0.40% Li_2O cut-off grade).[1]

The Troilus Project is located further to the south sitting only 5km to the north of Sayona's Moblan Lithium Project and proximity to Winsome Resources' Sirmac-Clappier Project.

[1] *See Patriot Battery Metals Announcement dated 31 July 2023: "Patriot Announces the Largest Lithium Pegmatite Resource in the Americas at CV5, Corvette Property, Quebec, Canada*"

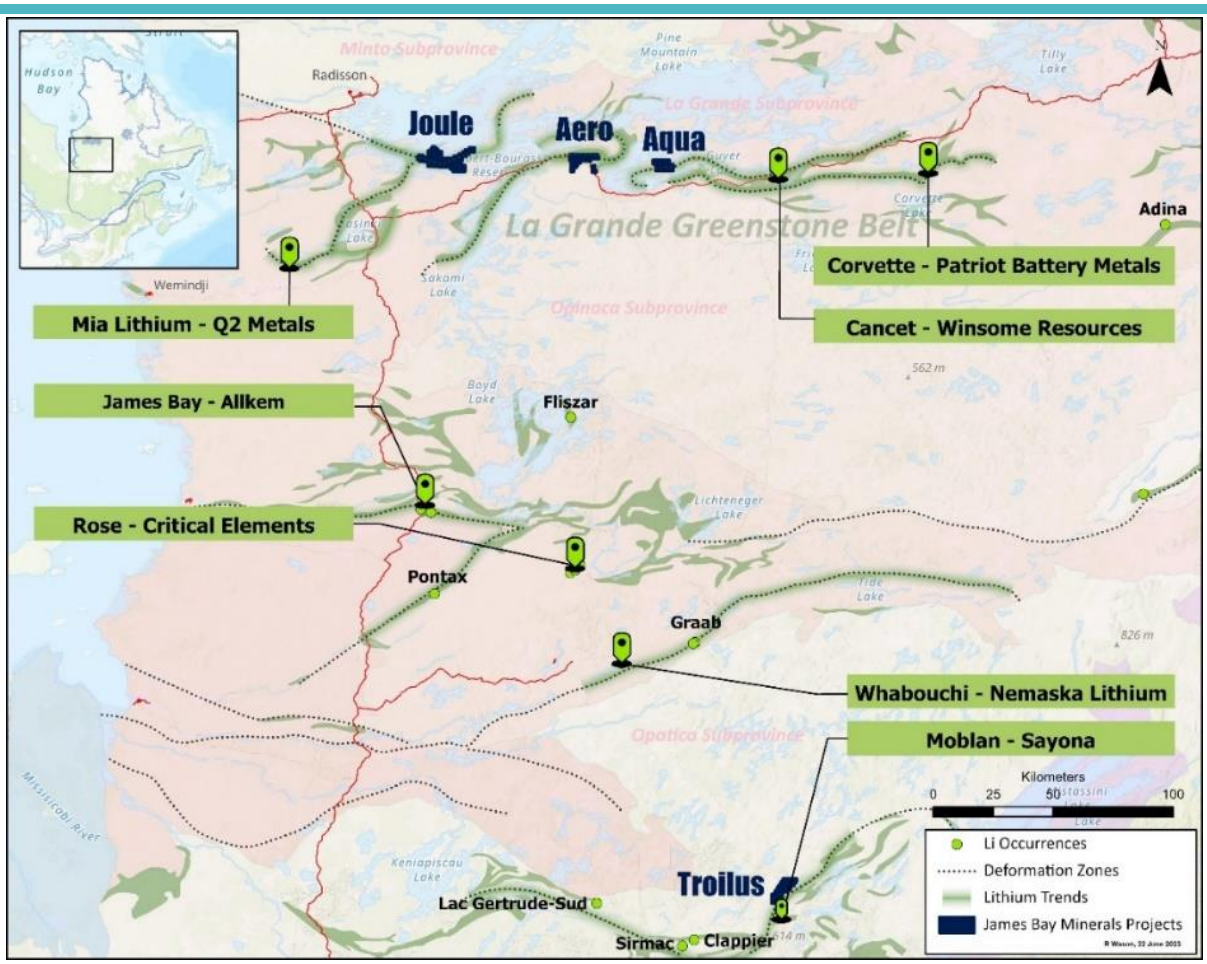

Figure 8 - James Bay Minerals' key lithium project locations in Quebec, Canada.

The flagship Joule Property encompasses a ~24km long prospective deformation zone along a regional fault which has been subject to minimal historical exploration. The eastern segment of the deformation zone extends for 14km and fan tails to reach a width up to 1.5km.

The Aero Prospect contains approximately 12km of deformation zones which are considered highly prospective for LCT pegmatites. Of note, the nearby Cancet (Winsome Resources Ltd) and Corvette (Patriot Battery Metals) properties both exhibit deformation zones upon which significant exploration success has occured[1].

All the properties have the three key ingredients required to host massive lithium-caesium-tantalum (LCT) pegmatites:

- Neo Archaean rocks;
- Placement along major regional faults; and
- Lying on greenstone belts in proximity to granites.

This announcement is authorised for ASX lodgement by the Board of Directors of James Bay Minerals Ltd.

ENDS

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Forward-looking statements

This announcement may contain certain forward-looking statements, guidance, forecasts, estimates or projections in relation to future matters (Forward Statements) that involve risks and uncertainties, and which are provided as a general guide only. Forward Statements can generally be identified by the use of forward-looking words such as "anticipate", "estimate", "will", "should", "could", "may", "expects", "plans", "forecast", "target" or similar expressions and include, but are not limited to, indications of, or guidance or outlook on, future earnings or financial position or performance of the Company. The Company can give no assurance that these expectations will prove to be correct. You are cautioned not to place undue reliance on any forward-looking statements. None of the Company, its directors, employees, agents or advisers represent or warrant that such Forward Statements will be achieved or prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this announcement. Actual results may differ materially from those anticipated in these forward-looking statements due to many important factors, risks and uncertainties. The Company does not undertake any obligation to release publicly any revisions to any "forward- looking statement" to reflect events or circumstances after the date of this announcement, except as may be required under applicable laws.

Competent Person Statement

The Exploration Results reported in this announcement are based on, and fairly represent, information and supporting documentation reviewed, and approved by Mr Brodie Box, MAIG. Mr Box is a geologist and has adequate professional experience with the exploration and geology of the style of mineralisation and types of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Box consents to the form and context in which the Exploration Results are presented in this announcement.

JORC Code, 2012 – Table 1

Section 1 Sampling Techniques and Data – La Grande Project, Aero Property

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

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 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 (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.	• Investigative style rock chip sampling taken opportunistically from pegmatite outcrop is currently being undertaken. • Pegmatite was identified in the outcrop. • Further rock chip samples and channel samples are being undertaken with no results at this point.
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).	• In connection to this announcement no drilling has been conducted yet and no drill assays are being 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.	• In connection to this announcement no drilling has been conducted yet and no drill assays are being reported.
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.	• In connection to this announcement no drilling has been conducted yet and logging completed.

Criteria	JORC Code explanation	Commentary
Subsampling 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 subsampling 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.	• Sample types and locations have not yet been reported. • Sample collection is ongoing and has not yet been finalised at time of writing.
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 (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	• Rock chip and channel samples are proposed to be dispatched to the selected laboratory in Quebec for analysis. • The laboratory will utilise standards and blanks as part of the analyses for QA/QC.
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 data generated from the mapping of the pegmatite has been uploaded into the company's data storage and been checked by two personnel.
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 field data being taken at this stage will utilise a handheld GPS, which is a standard tool for reconnaissance style sampling.

Criteria	JORC Code explanation	Commentary
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.	• Not Applicable for investigative nature of sampling. • At this stage no effort was made to illustrate geological or grade continuity between sample points.
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 mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Not Applicable at this stage of reporting with sampling ongoing.
Sample security	• The measures taken to ensure sample security.	• All samples collected are being held on site at the company's and Breakaway Explorations sample storage facility. All samples are stored within number coded sealed bags and labelled by the company's field personnel. • Once finalised samples will be transported to the appropriated laboratory within Quebec for testing.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review have been undertaken.

Section 2 Reporting of Exploration Results – La Grande Project, Aero Property

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

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 Aero Property which forms part of La Grande Project is 100% owned by James Bay Minerals Ltd. • The Aero Property consists of 89 continuous claims covering an area of 4,366 hectares. The Project is located in the La Grande, Greenstone belt. • All claims are in good standing and have been legally validated by a Quebec lawyer specialising in the field
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Aero Property which forms part of James Bay Minerals La Grande Project is a greenfield project with limited historical exploration. • All data obtained on the properties has been generated by Quebec Government Stratigraphic surveys.
Geology	• Deposit type, geological setting and style of mineralisation.	• The geology of the Property is relatively unexplored. The primary type of mineralization suggested by the data and mineralization on the adjacent properties is lithium-bearing spodumene which occurs in granite pegmatite and aplite dykes. • The property sits within three key geological ingredients which make it prospective to large LCT pegmatites. These are: - Right Archean Rock Age - Large deformation zones - Proximity to Greenstone Belts
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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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 drilling activities have been undertaken or reported to date.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated	• No drilling activities have been undertaken or reported to date.
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 (e.g., 'down hole length, true width not known').	• No drilling activities have been undertaken or reported to date.
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 maps and figures have been included in 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	• All relevant and material exploration data for the target areas discussed, have been reported or referenced.
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	• All relevant and material exploration data for the target areas discussed, have been reported or referenced.

Criteria	JORC Code explanation	Commentary
Further work	• 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 will include but not limited to systematic geological mapping, rock chip sampling, soil sampling, pXRF measurements, geophysics, structural interpretation and drilling to identify suitable host rock geology and structural architecture for late state evolved and fertile LCT Pegmatites