



2 November 2023

Second field of fractionated pegmatite dykes discovered at the Aero Property – James Bay, Canada

Highlights:

- Nine additional pegmatite dykes discovered at JBY's Aero Property as part of its ongoing maiden exploration campaign.
- The newly discovered pegmatite field covers an area of ~1.5km long from east to west and ~500m wide north to south at the Aero Property.
- All pegmatite dykes display fractionation indicators and accessory minerals associated with Lithium-Caesium-Tantalum (LCT) pegmatites.
- Discovery is near a 4-season gravel road & power lines, facilitating efficient access and potential future exploration and 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 developments from 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.

Following on from the recent discovery of an extensive field of fractionated pegmatite dykes at the Aero Property¹ the field crew continued field mapping within the eastern portion of the Aero Property, where they have now uncovered a second field of fractionated pegmatites.

The field currently consists of nine new pegmatites extending across a corridor ~1.5km in length and ~500m wide. The new pegmatite field is interpreted to be an extension of the previously discovered field (ASX release, 5 October 2023), which is approximately 2km to the south-west.

¹ See ASX Announcement dated 5 October 2023: "Extensive field of fractionated pegmatite dykes discovered over 3km in length at the Aero Property – James Bay, Canada"

Similar to the previously discovered field of pegmatite dykes, all nine additional dykes observed are generally white in colour and clearly stand out as ridges several metres above the surrounding ground (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.

The Company's exploration partner, Breakaway Exploration (BXM), has completed rock chip and rock saw channel sampling across the field. All samples have been submitted to the laboratory for assays.

Details of the pegmatites discovered and mapped within the second field are provided in Table 1 below:

Number	Pegmatite Name	Approximate pegmatite Length (m)	Approximate Max width exposed (m)
1	Nimrod	87	15
2	Grumman*	110	5
3	Piper	170	15
4	Gladiator	124	22
5	Firefly	135	5
6	Demon	50	5
7	Bulldog	190	12
8	Bleroit*	202	10
9	Avia	151	10

* Grumman ~30m sits within the Aero Property boundary.
* Bleroit ~98m sits within the Aero Property boundary.

Table 1 – Outlines and exposed area of all pegmatite dykes discovered within second field of pegmatites at Aero Property.

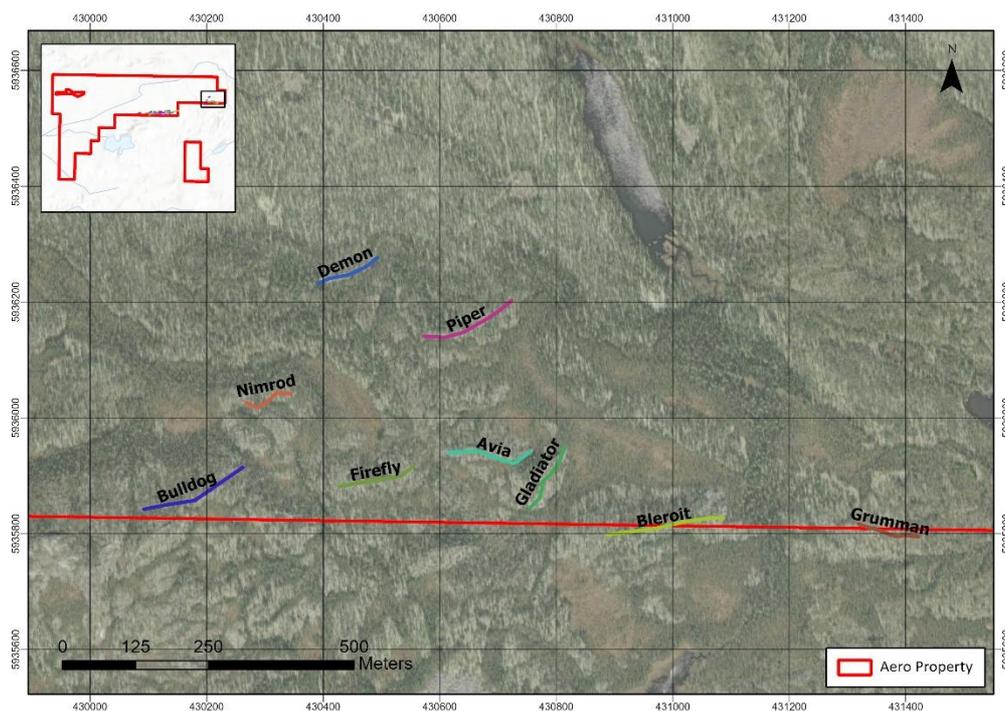


Figure 1 – Satellite image and locations of second pegmatite field at Aero Property.

Similar to the first pegmatite field, all nine pegmatite dykes discovered within the eastern field also plunge under cover, trending to the north within the Aero Property.



Figure 2 – Gladiator pegmatite dyke north side looking south.

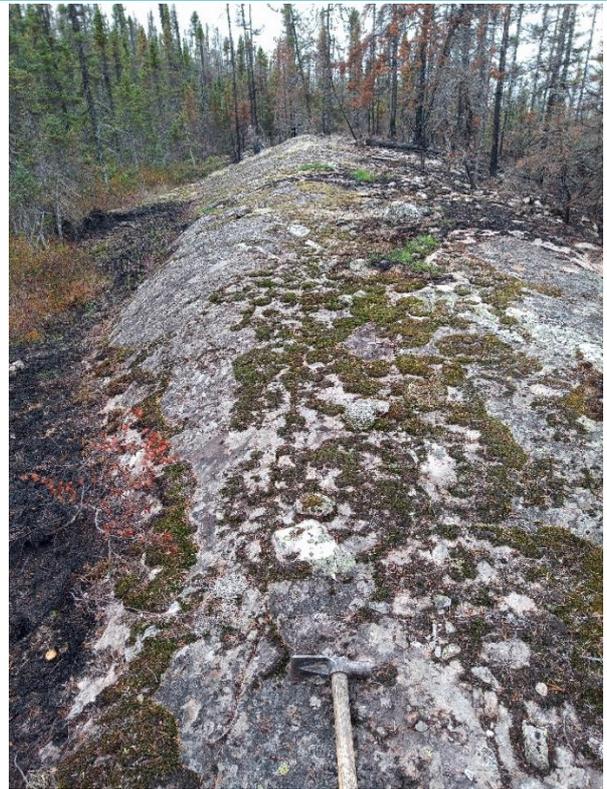


Figure 3 – Bulldog pegmatite dyke west side looking east.



Figure 4 – Breakaway Exploration sampling on Piper pegmatite dyke.

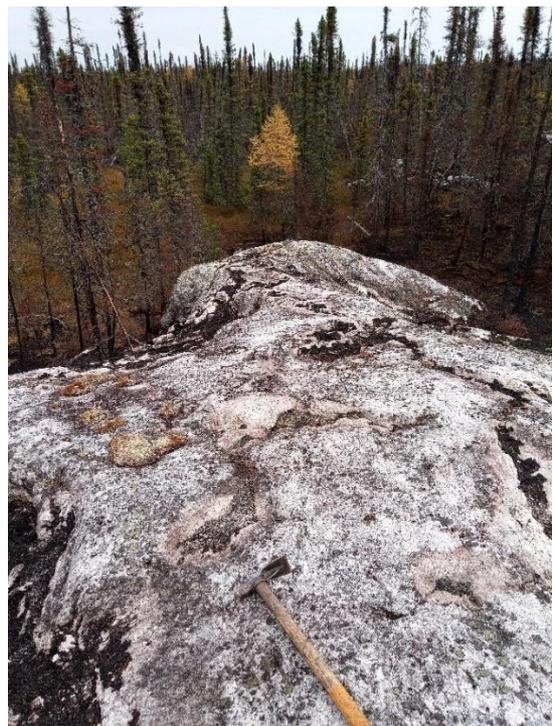


Figure 5 – Avia pegmatite eastern side looking east.

Similar to the first pegmatite field, all nine pegmatite dykes discovered within the eastern field also plunge under cover, trending to the north within the Aero Property.

James Bay Executive Director, Andrew Dornan, commented:

“To have uncovered two fractionated pegmatite fields on the Aero property within six weeks of commencing our maiden field program is exceptional. We cannot underestimate the significance of these discoveries at our Aero Property given the proximity to key infrastructure, which allows easy access and straightforward exploration planning and execution. We have only scratched the surface on our La Grande Project, with our flagship Joule property still unexplored. The opportunity that lies ahead of us is huge.”

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.

The maiden field programs planned activities were undertaken by five personnel and were designed to map targeted areas of the Aero Property along with systematically collecting rock chips and completion of channel samples for analysis.

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

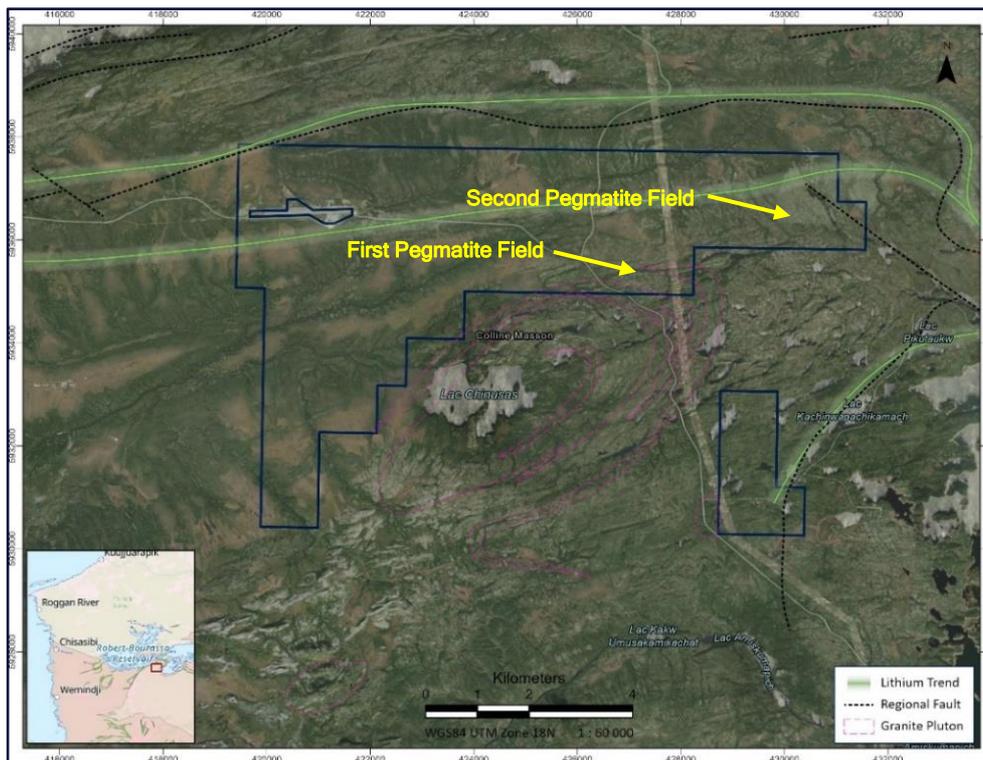


Figure 6 - Aero Property Satellite Imagery.

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 224km². 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% Li₂O and 160ppm Ta₂O₅ (0.40% Li₂O cut-off grade).²

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.

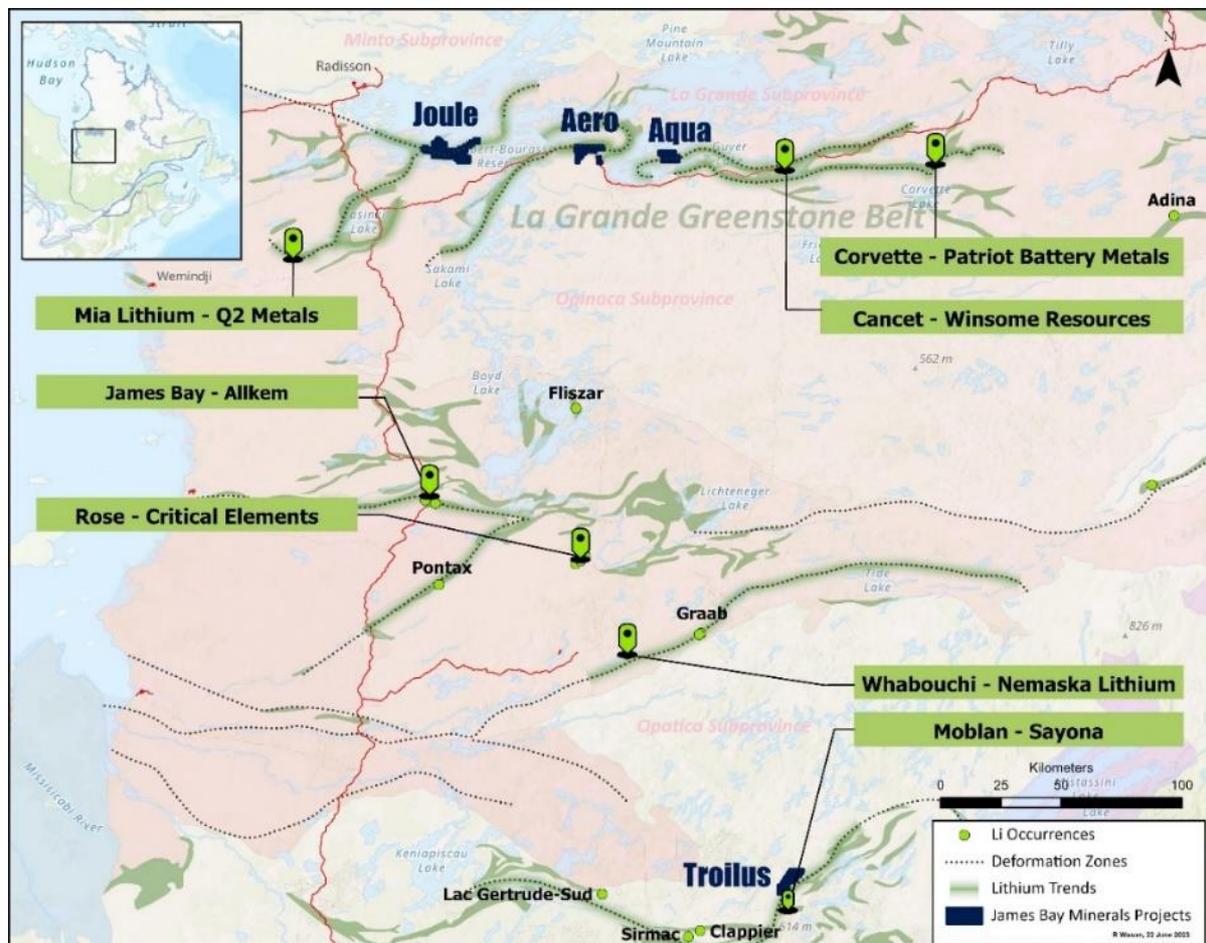


Figure 7 - James Bay Minerals' key lithium project locations in Quebec, Canada.

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

² 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"

Battery Metals) properties both exhibit deformation zones upon which significant exploration success has occurred².

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

For more information:

Investors:

Andrew Dornan
Executive Director
James Bay Minerals
info@jamesbayminerals.com.au

Media:

Nicholas Read
Read Corporate
Phone: (08) 9388 1474
E: nicholas@readcorporate.com.au

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Investigative style rock chip sampling taken opportunistically from pegmatite outcrop has been undertaken along with rock saw channel sampling Pegmatite was identified in the outcrop.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> In connection to this announcement no drilling has been conducted yet and no drill assays are being reported.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> In connection to this announcement no drilling has been conducted yet and no drill assays are being reported.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> In connection to this announcement no drilling has been conducted yet and logging completed.

Criteria	JORC Code explanation	Commentary
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Sample types and locations have not yet been reported. • Sample collection has been completed and dispatched. Sample locations, techniques and preparation details will be reported in future announcements with assay results.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Rock chip and channel samples dispatched to the selected laboratory in Quebec are awaiting analysis. • The laboratory will utilise standards and blanks as part of the analyses for QA/QC.
Verification of sampling and assaying	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • All field data being taken at this stage will utilise a handheld GPS, which is a standard tool for reconnaissance style sampling. • The grid system used is WGS 84 UTM Zone 18N.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Initial surface samples have been taken to demonstrate the length of the pegmatites exposed along strike. Channel samples attempt to sample a representative cross-section of the pegmatite at surface. No results have been reported and no bias has been determined yet.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All samples collected are held on site at the company's and Breakaway Explorations sample storage facility as batches are prepared. All samples are stored within number coded sealed bags and labelled by the company's field personnel. Field personnel have organised transport of the samples to a laboratory in Quebec.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Right Archean Rock Age Large deformation zones Proximity to Greenstone Belts
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 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 	<ul style="list-style-type: none"> No drilling activities have been undertaken or reported to date.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> No drilling activities have been undertaken or reported to date.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> No drilling activities have been undertaken or reported to date.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Appropriate maps and figures have been included in this announcement.
Balanced reporting	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> All relevant and material exploration data for the target areas discussed, have been reported or referenced.
Other substantive exploration data	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> All relevant and material exploration data for the target areas discussed, have been reported or referenced.

Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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