20 June 2024

Field exploration commences at Aqua Property

Highlights:

- **The 2024 targeted summer field program continues at the highly prospective Aqua Property in James Bay, Quebec.**
- **Fieldwork underway across 123 LCT Pegmatite targets generated from aerial surveys.**
- **High-priority targets are emerging approximately 200 metres east of FIN Resources (ASX: FIN) significant spodumene showings, where assays have revealed grades as high as 6.85% Li_2O.**
- **The Company's La Grande Projects, which are prospective for both lithium and rare earths, are located along-trend from Winsome Resources' (ASX: WR1) Cancet Lithium Project and Patriot Battery Metals' (ASX: PMT) Corvette Lithium Project.**

James Bay Minerals (ASX: **JBY**) (**"James Bay",** or **"the Company"**) is pleased to announce the commencement of exploration activities at its highly prospective Aqua Property, concurrent with ongoing efforts at the flagship Joule Property. Located in the renowned Eeyou Istchee-James Bay district in Quebec, Canada, these activities mark significant progress in the Company's exploration endeavours.

James Bay Executive Director, Andrew Dornan, commented:

"Commencing exploration activities across high-priority LCT Pegmatites at the Aqua Property marks another step forward for our company, reflecting our commitment to unlocking new opportunities in parallel with our ongoing efforts at the Joule Property.

"This growing exploration momentum will position the Company to tap into the potential of these promising geological settings, aiming to uncover significant drill-ready targets."

Aqua Property

The Aqua Property contains a deformation zone running from east to west over a strike length of approximately 6km, which is considered prospective for LCT Pegmatites[1]. Of note, FIN Resources has uncovered a significant lithium showing approximately 200m from the north-western border of the Property[2].

Using LiDAR technology, the exploration team has meticulously measured and mapped variations in slope, aspect and elevation to analyse landforms. This detailed analysis has identified high-priority areas that stand out among other geological structures, characteristic of Lithium-Caesium-Tantalum (LCT) pegmatites in the

[1] See James Bay Minerals Prospectus dated 19 July 2023
[2] See Fin Resources Ltd dated 20 November 2023

James Bay Minerals Limited
1/1 Tully Road, East Perth
Western Australia 6004

info@jamesbayminerals.com.au
www.jamesbayminerals.com.au

region[3]. Overlaying these findings onto high-resolution photos revealed visible white outcrops, generating key targets for the development and prioritisation of the current field program[3].

Exploration Activities Planned

Initial field exploration activities will encompass field mapping, rock chip sampling and, where suitable, channel sampling. Access lines will be cut across the property to facilitate ATV mobility. Additionally, the Company has enlisted a helicopter contractor to efficiently transport personnel between targets, enabling the exploration team to cover a greater number of sites in less time.

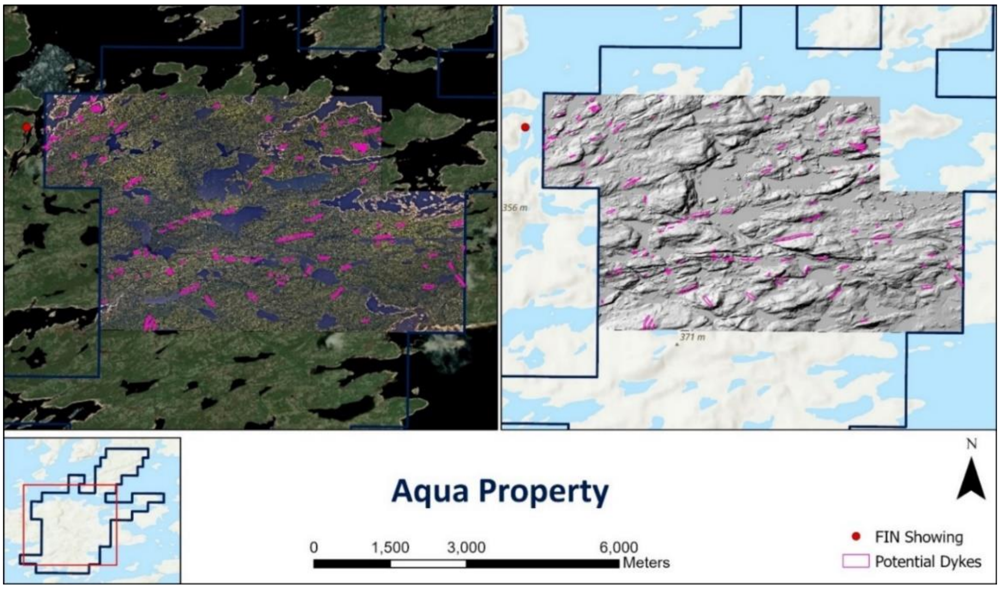

Figure 1 – High-priority LCT pegmatite targets/dykes across Aqua Property defined in pink.

Figures 2 & 3 – Prospecting at Aqua Property

3 See James Bay Minerals announcement dated 4 December 2023

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 41,572Ha or 416km^2. The Joule, Aero, Aqua and La Grande East 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)[4].

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

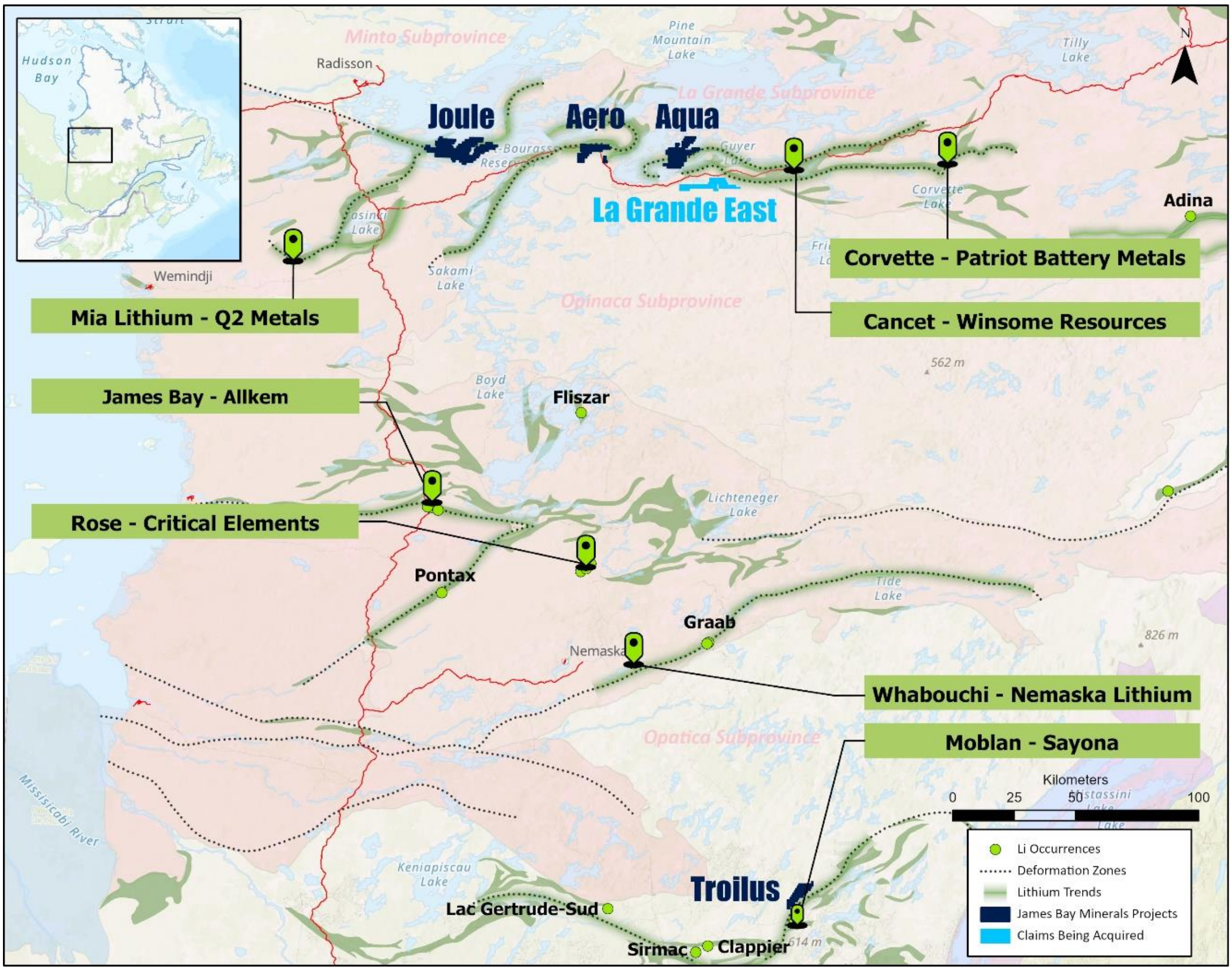

Figure 4 – James Bay Minerals' key lithium project locations in Quebec, Canada.

The flagship Joule Property encompasses a ~24km long prospective deformation zone along a regional fault which has been subject to minimal historical exploration[5]. The eastern segment of the deformation zone extends for 14km and fan tails to reach a width up to 1.5km.

The Aero Property contains approximately 12km of deformation zones which are considered highly prospective for LCT pegmatites[5]. Of note, the nearby Cancet (Winsome Resources Ltd) and Corvette (Patriot Battery Metals) properties both exhibit deformation zones upon which significant exploration success has occurred.

[4] See Patriot Battery Metals announcement dated 31 July 2023
[5] See Jame Bay Minerals Prospectus dated 19 July 2023

The Aqua Property contains a deformation zone running east to west through the property of approximately 6km, this zone is considered prospective for LCT Pegmatites[5]. Of note, FIN Resources has uncovered a significant lithium showing approximately 200m from the north-western border of the Property.

The La Grande East Project was acquired in Q1 2024 due to several key attributes – namely, two magnetic lows which are interpreted to trend into Patriot Battery Metals' Project, multiple large white dyke-like features identified from satellite imagery and the fact that the Project sits less than 1km from the Transtaiga Highway, allowing all year walk-up access.[6]

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

- Neo Archaean rocks;
- Placement along major regional faults; and
- Located 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 information in this announcement that relates to Exploration Results at the La Grande and Troilus Projects is extracted from the Company's Prospectus dated 19 July 2023 ***(Prospectus)*** *and the ASX announcements dated 4 December 2023 and 28 March 2024* ***(Original Announcements),*** *as referenced. The Company confirms that it is not aware of any new information or data that materially affects the information contained in the Prospectus and Original Announcements.*

[6] *See James Bay Minerals announcement dated 28 March 2024*