



14 May 2024

Mobilisation underway for summer 2024 field program at La Grande Projects

Highlights:

- Mobilisation has commenced for the summer 2024 field program at JBY's La Grande Projects in Quebec, Canada, with field activities on track to start in mid-May 2024.
- The 2024 fieldwork program will be focused on key LCT pegmatite targets, along with significant rare earths and uranium targets generated from recent LiDAR, high-resolution photography, Aeromagnetic and Spectro magnetic surveys.
- La Grande East Project – maiden field program will be focused on 340 high-priority targets identified from desktop studies.
- The La Grande Projects, which are prospective for 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 that mobilisation has commenced to its La Grande Projects for the upcoming summer 2024 field program in James Bay, Quebec, Canada. The team is well equipped with a significant list of targets generated from its maiden 2023 exploration program and subsequent desktop studies completed over the past few months.

James Bay Executive Director, Andrew Dornan, commented:

"As we embark on the next exciting phase for the Company, our team has meticulously analysed crucial data and crafted an extensive list of high-priority targets. This strategic approach ensures that fieldwork can be executed with maximum efficiency."

The summer 2024 field program will focus on high-priority targets generated across the Joule, Aero and Aqua Properties, and the La Grande East Project.

Joule Property – La Grande Project

The Joule Property covers an area of 16,385 hectares along the Robert-Bourassa reservoir. Joule has a ~24km deformation zone running from east to west through the property with deformation widths of up to 1.5km in the north-eastern part of the property¹.

Fieldwork will be undertaken across key LCT pegmatite targets, along with significant rare earths and uranium targets generated from LiDAR, high-resolution photography and Aeromagnetic and Spectro magnetic

¹ See James Bay Minerals Prospectus dated 19 July 2023.

surveys. Magnetic and spectrometric survey data has identified several zones with high equivalent-Uranium (eU) readings of up to 29ppm and equivalent (eTH) up to 22ppm².

Aqua Property – La Grande Project

The Aqua Property consists of 172 continuous claims covering an area of 8,803 hectares. Regional faults traverse the property from east to west which host the La Grande Greenstones.

Utilising data generated from the Company's 2023 field program and subsequent desktop studies, planned activities include field mapping and rock chip and channel sampling for analysis. The team's initial focus will be on the north-western portion of the property, which sits directly east of FIN Resources' lithium showings.³

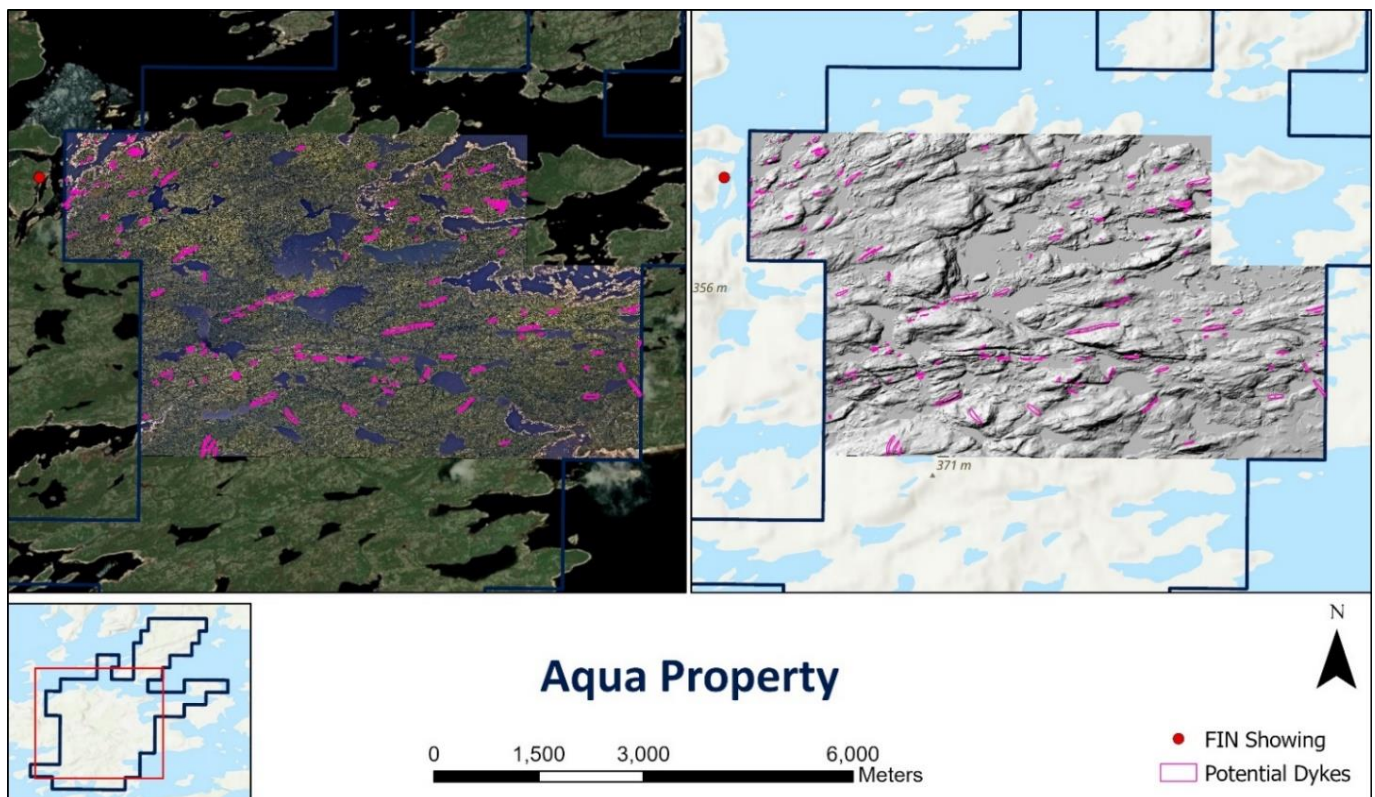


Figure 1 – High-priority LCT pegmatite targets across the Aqua Property.

La Grande East Project

The La Grande East Project is situated approximately 15km from James Bay Minerals' Aqua Property and includes 136 claims (62 claims acquired and 74 claims staked), covering an area of 7,000 hectares along the Robert-Bourassa reservoir. The property sits less than 1km from the Transtaiga Highway, which allows for all year walk-up access.

Upcoming fieldwork will focus on high-priority targets generated from desktop studies across the La Grande East Project. These desktop studies focused on magnetic lows (prospective zones) which trend from east to west across the property. Satellite imagery was then overlaid across the prospective zones, focused on identifying white outcrops, which can correlate with pegmatite outcrops.⁴

² See James Bay Minerals Announcement dated 15 February 2024: "New rare earths and uranium targets identified at Joule"

³ See James Bay Minerals Announcement dated 4 December 2023: "New LCT pegmatite targets identified at Aqua Property"

⁴ See James Bay Minerals Announcement 23 April 2024: "High-Priority Targets identified at La Grande East Project"

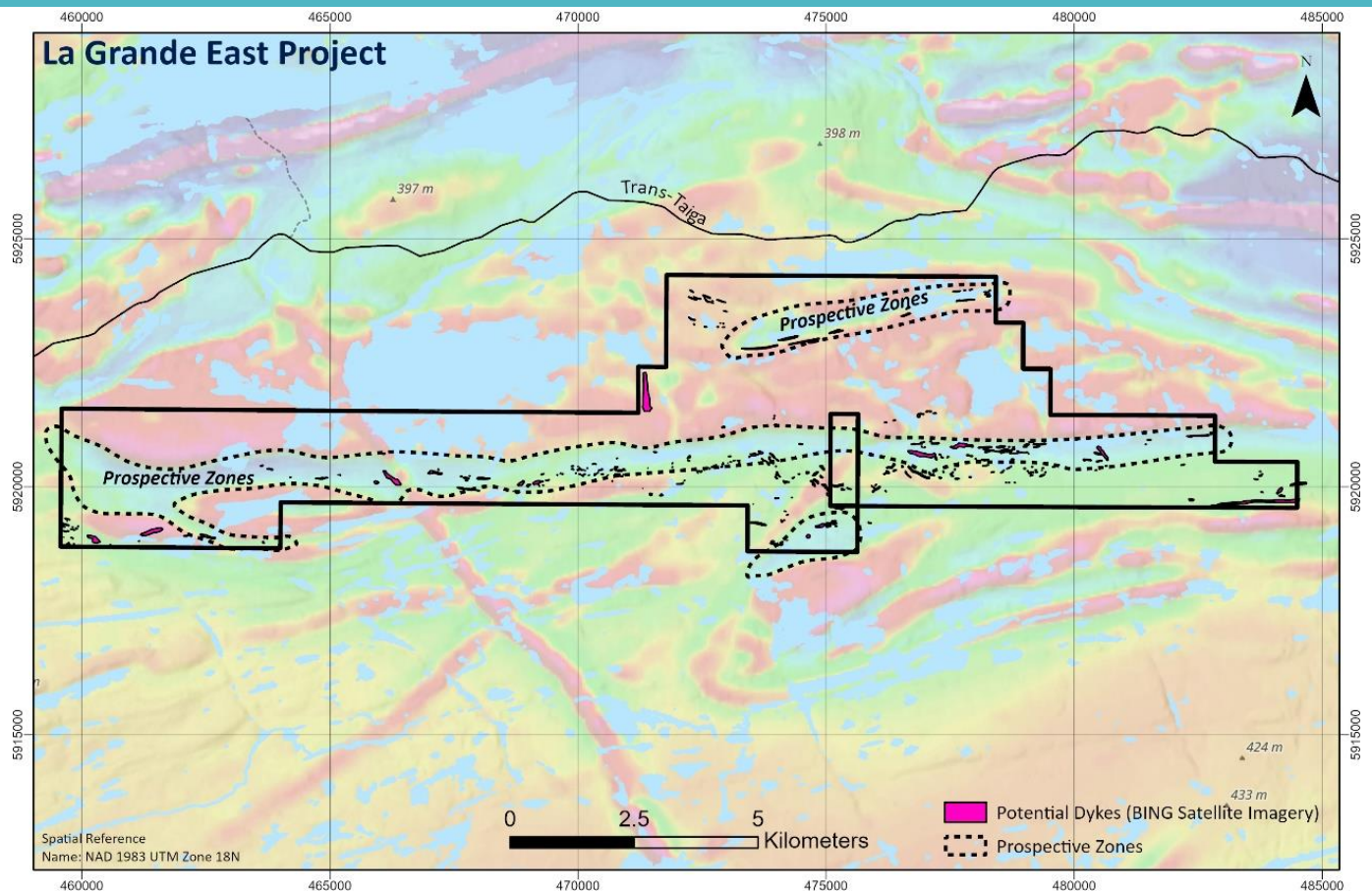


Figure 2 – Geophysical surveys by the Quebec overlayed with prospective zones and potential pegmatite dykes.

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 416km². 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% Li₂O and 160ppm Ta₂O₅ (0.40% Li₂O cut-off grade)⁵.

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.

⁵ 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"

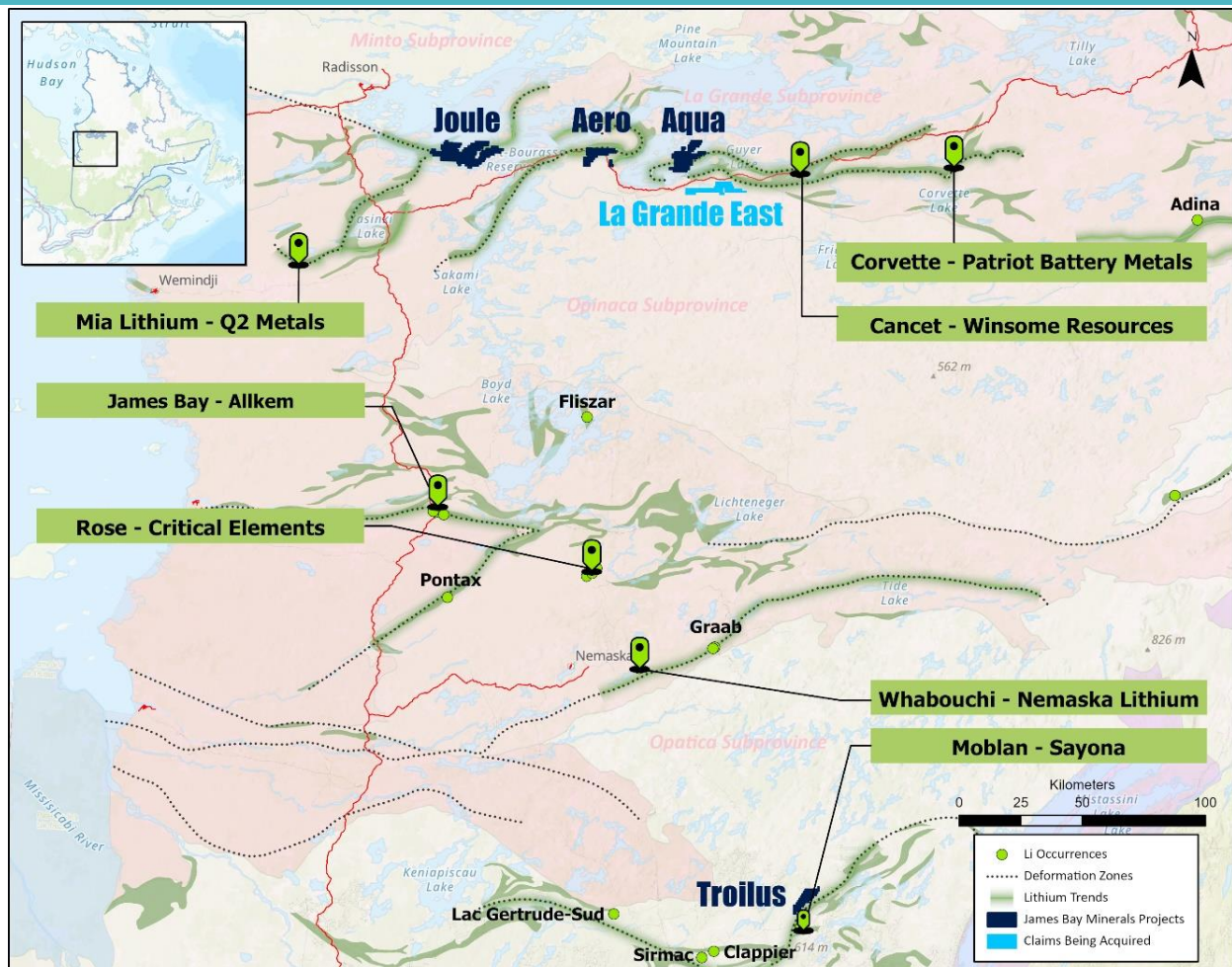


Figure 6 - James Bay Minerals' key lithium project locations in Quebec, Canada.

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 Property contains approximately 12km of deformation zones which are considered highly prospective for LCT pegmatites⁶. 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.

The Aqua Property contains a deformation zone running east to west through the property of approximately 6km, this zone is considered prospective for LCT Pegmatites⁶. Of note, FIN Resources has uncovered a significant lithium showing approximately 200m from the north-western border of the Property⁷.

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 access⁸.

⁶ See JBY Prospectus dated 19 July 2023

⁷ See FIN Resources Announcement dated 9 October 2023: "Large Spodumene Crystals Discovered in Pegmatite Outcrop"

⁸ See James Bay Minerals announcement dated 28 March 2024: "James Bay Expands Quebec Footprint"

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

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Competent Person Statement

*The information in this announcement that relates to Exploration Results at the La Grande, La Grande East and Troilus Projects is extracted from the Company’s Prospectus dated 19 July 2023 (**Prospectus**) and the ASX announcements (**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.*