



26 August 2024

Field exploration continues to gather momentum across La Grande East Lithium Project

Highlights:

- Field exploration underway across the La Grande East Project in James Bay, Quebec.
- Fieldwork will focus on 340 high-priority targets identified as part of desktop studies which utilised satellite imagery and government geophysical data.
- Two magnetic lows that extend into Patriot Battery Metals' world-class Shaakichiuwaanaan Lithium Project are key areas of interest across the La Grande East Project.
- The Company's La Grande Projects, which are prospective for both lithium and rare earths, are located directly along-trend from Winsome Resources' (ASX: WR1) Cancet Lithium Project and Patriot Battery Metals' (ASX: PMT) Shaakichiuwaanaan Lithium Project.

James Bay Minerals (ASX: JBY) (“James Bay”, or “the Company”) is pleased to advise that its 2024 summer exploration campaign within the James Bay region in Quebec, Canada continues to gain momentum with field work commencing across the La Grande East Project. Field works are running concurrently with ongoing exploration at the Aero Property.

The James Bay region is one of only very few Tier-1 jurisdictions which display the three key ingredients required for the formation of large-scale Lithium, Caesium, Tantalum (LCT) pegmatites.

Exploration Activities Planned

Field exploration will focus on 340 high-priority targets identified as part of desktop studies¹. Activities will encompass field mapping, rock chip sampling and, where suitable, channel sampling. As with the Joule and Aqua Projects, the Company is utilising a helicopter to efficiently transport personnel between targets, enabling the exploration team to cover a greater number of sites in less time.

James Bay Executive Director, Andrew Dornan, commented:

“We're excited to advance our exploration efforts across the James Bay region, with the upcoming fieldwork at the La Grande East Project. With the 340 high-priority targets identified through detailed desktop studies in a favorable geological setting, we see significant potential for a major lithium discovery.”

“We also remain mindful of the current market pressures on lithium and we are actively exploring further opportunities to diversify our asset portfolio for long-term stability and growth.”

¹ See JBY ASX Announcement dated 23 April 2024

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.

Key attributes and features of the Project include:

- Two magnetic lows which trend into Patriot Battery Metals' world-class Shaakichiuwaanaan Project.
- Initial reviews of the eastern portion of the property have identified multiple large white dyke-like features as viewed from satellite imagery. Some are more than 500m in length.
- The property sits less than 1km from the Transtaiga Highway, which allows for all year walk-up access.²

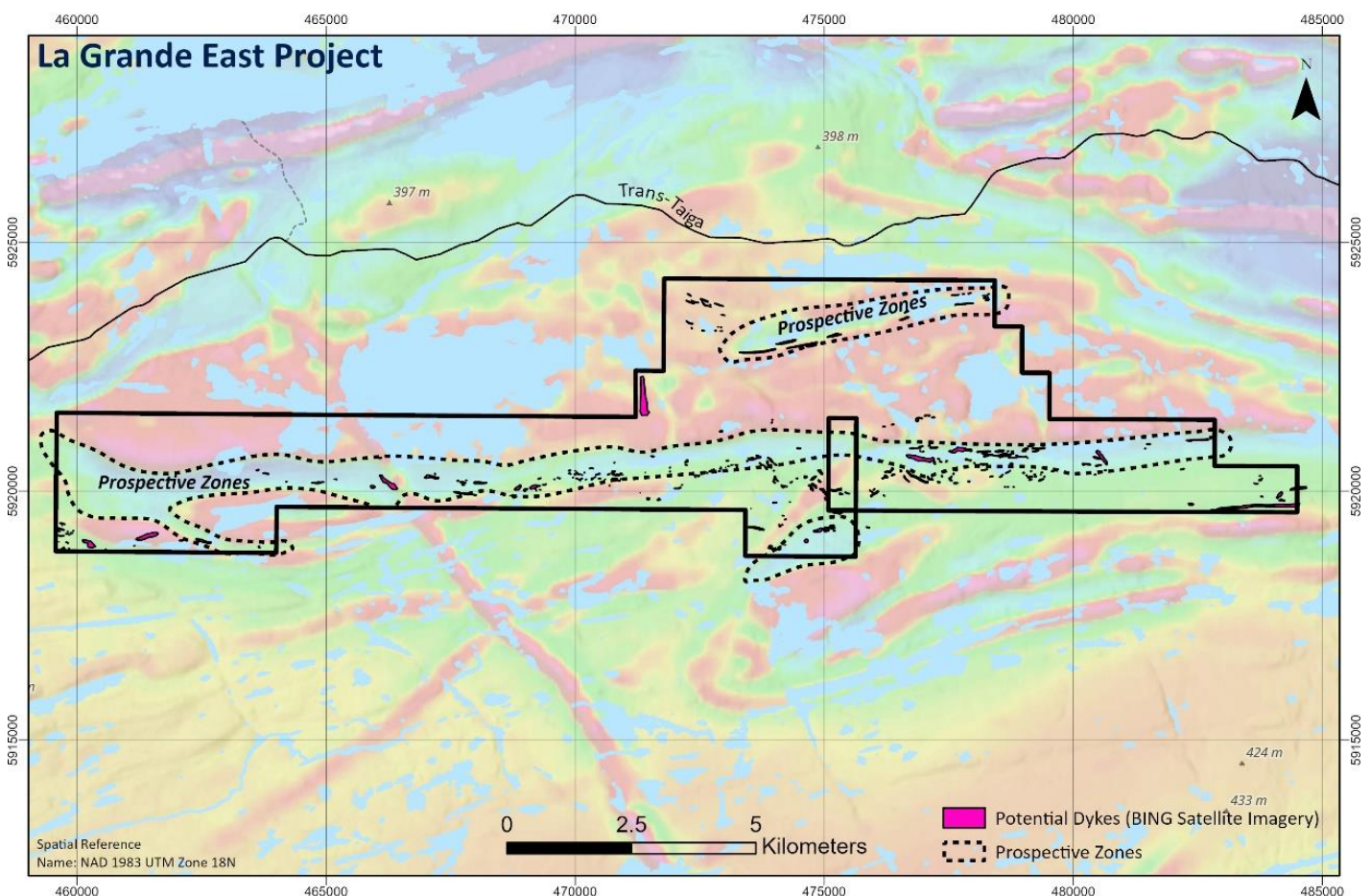


Figure 1 – La Grande East, Quebec Government geophysical surveys overlayed with prospective zones.

² See JBY ASX Announcement dated 28 March 2024

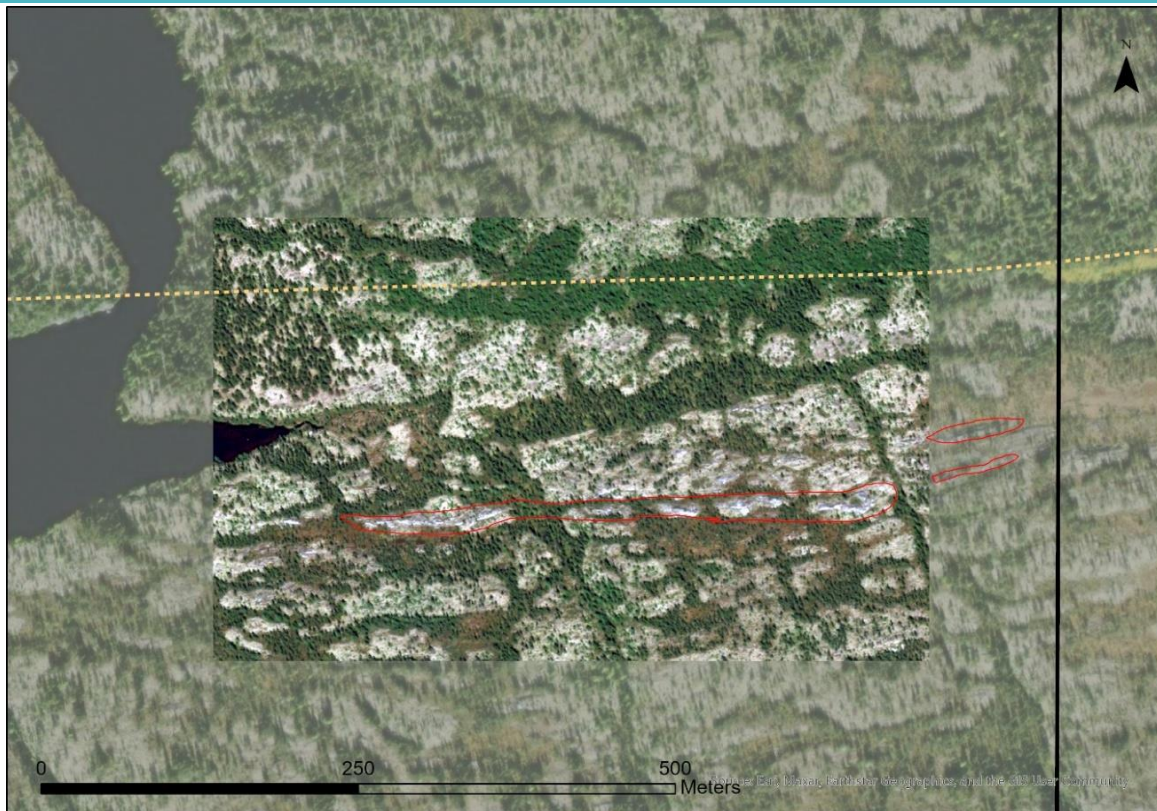


Figure 2 – Field exploration targets generated from Bing Satellite images within the eastern portion of the project.



Figure 3 – Field exploration targets generated from Bing Satellite images within the eastern portion of the project.

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 Shaakichiwaanaan deposit, where Patriot Battery Metals (ASX: PMT) recently reported an updated Indicated and Inferred Mineral Resource Estimate³ and completed a Preliminary Economic Assessment outlining the potential for a competitive and globally significant high-grade lithium project targeting production of up to ~800ktpa spodumene concentrate⁴.

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.

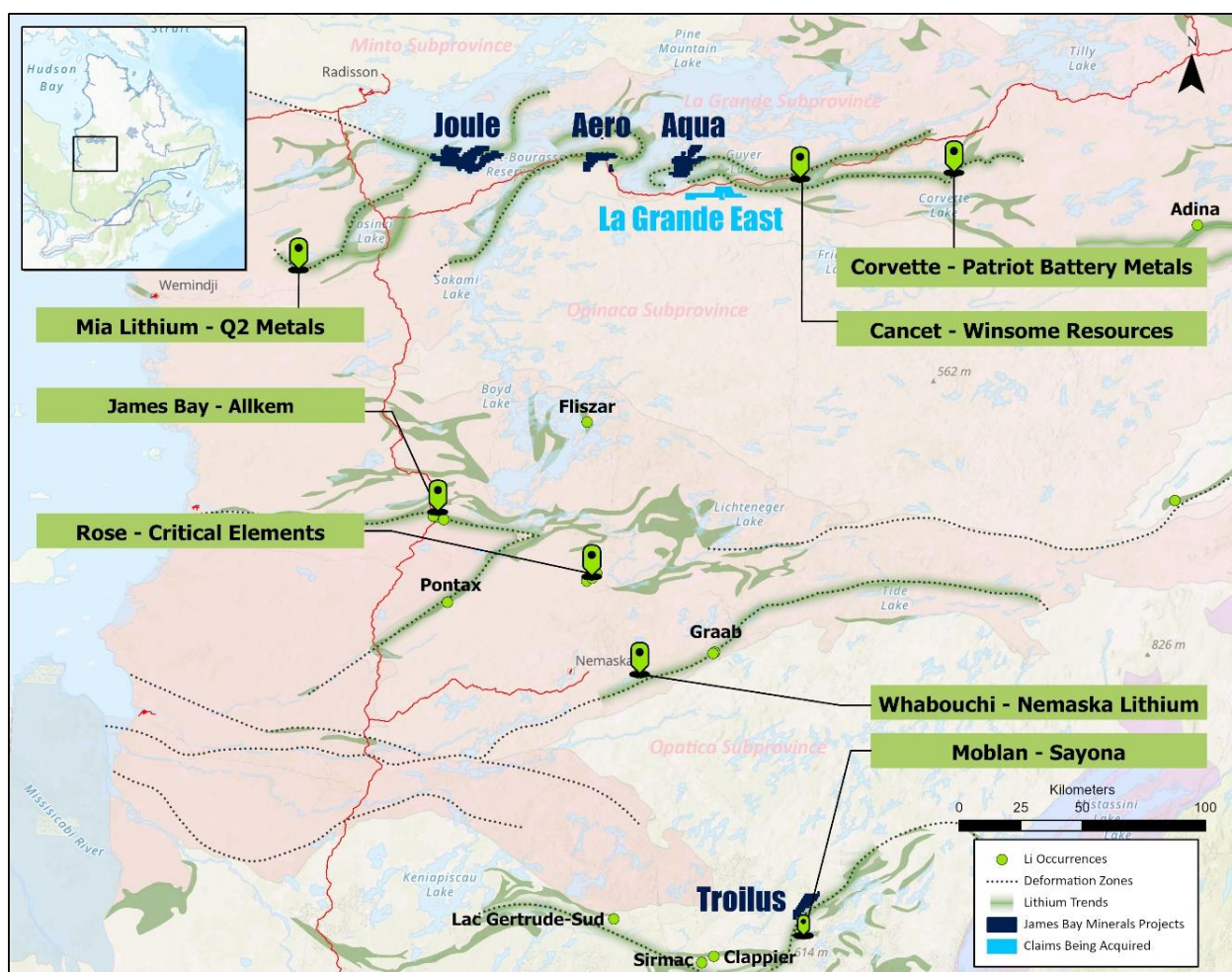


Figure 4 – James Bay Minerals' key lithium project locations in Quebec, Canada.

The flagship Joule Property encompasses a ~24km long prospective deformation zone along a regional fault which has been subject to minimal historical exploration⁵. 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 pegmatites⁵. Of note, the nearby Cancet (Winsome Resources Ltd) and Corvette (Patriot

³ See PMT ASX Announcement dated 8 August 2024

⁴ See PMT ASX Announcement dated 22 August 2024

⁵ See JBY Prospectus dated 19 July 2023

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 Pegmatites⁵. Of note, FIN Resources has uncovered a significant lithium showing approximately 200m from the north-western border of the Property⁶.

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.

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 or estimates of mineral resources at the La Grande and Troilus Projects is extracted from the Company's Prospectus dated 19 July 2023 (**Prospectus**) and the ASX announcements dated 28 March 2024 and 23 April 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 or Original Announcements and, in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.*

⁶ See FIN ASX Announcement dated 9 October 2023