



TSX-V: LI

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NEWS RELEASE

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Lithium One Receives NI 43-101 TECHNICAL REPORT ON JAMES BAY PROJECT and Initiates RESOURCE CALCULATION and METALLURGICAL TESTING

Lithium One Inc (the "Company") (TSX-V: LI), is pleased to provide an update on the James Bay Lithium Project in Quebec. Independent consultant and qualified person, Geoffrey S. Carter, P.Eng, of Broad Oak Associates has reviewed the compiled Lithium One current and historical data and has submitted to the Company the first National Instrument 43-101 (NI 43-101) technical report for the James Bay Lithium Project. The report reviews the technical aspects and potential of the project, and will be filed on SEDAR on a timely basis.

Resource calculations and metallurgical studies are now underway on the James Bay Project.

Mr. Carter describes the lithium deposits of the James Bay Project as being of significant size and of consistent grade (between 1.5 and 1.9% Li_2O). He further observed that the deposits are open for expansion in three directions and at depth. Lithium One has engaged SRK Consulting of Toronto to prepare a statement of mineral resources for the James Bay Lithium Project that is consistent with NI 43-101 and Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) standards.

Hazen Research of Golden, Colorado is also conducting a metallurgical study of the James Bay Lithium Project. To date the lab has received more than 3 tonnes of pegmatite material. The test work at Hazen will include mineralogy, grindability, various flotation trials, and acid roasting to process the spodumene into lithium carbonate, a common starting point for use in manufacturing lithium ion batteries.

Iain Scarr, Vice President – Development, commented on progress at James Bay, *“This 43-101 technical report puts the strong drill results from the 2009 program into context. The intercepts reported from that program averaged 1.6% Li_2O over significant widths up to 60 metres. The deposit is at surface and remains open to the south and down dip. We are pleased to have consultants of the calibre of SRK And Hazen assisting us with the ongoing development at our James Bay Project.”*

The Company expects to release the details of a new lithium mineral resource and the results of metallurgical tests during the first and second quarters of 2010, respectively.

About Lithium

Lithium is a light, highly reactive metal with use in a variety of industrial applications including ceramics, lubricants and pharmaceuticals. The fastest growing market for lithium is as lithium carbonate for use in batteries, including those in cell phones, computers and new generations of electric and hybrid vehicles.

The two most common sources of lithium production are: salar brines or hard rock pegmatites. Lithium from spodumene is in silicate form and following mining and production of a concentrate, requires

processing to be converted to lithium carbonate. Technology for the conversion of spodumene ore to lithium carbonate has been in use for over 20 years.

About Lithium One:

Lithium One Inc is an explorer and developer of mineral properties with a specific focus on lithium. The Company now has two major lithium projects: the Sal de Vida lithium brine project in Argentina and the James Bay bulk tonnage spodumene project in Quebec. The Company continues to advance both projects toward the resource stage, expecting NI 43-101 compliant resource estimates by the 2nd quarter of 2010. Lithium One believes that lithium demand will grow as its value and efficacy in “green energy” applications is fully realized. The Company’s strategy is to build a portfolio of high quality producing lithium assets.

The contents of this press release have been reviewed and approved by Mr. A. James McCann. Mr. McCann is a licensed Professional Geologist in Quebec and a qualified person as defined by National Instrument 43-101.

ON BEHALF OF THE BOARD OF DIRECTORS,

Patrick Highsmith, M.Sc.
President and Chief Executive Officer

Lithium One Inc
1238-200 Granville Street
Vancouver, BC V6C 1S4 Canada
Email: info@lithium1.com

Website: www.lithium1.com

FOR FURTHER INFORMATION, PLEASE CONTACT

Robert Orr
Telephone: 604-697-6259
Fax: 604-408-4799
Email: ro@lithium1.com

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