



TSX-V: LI

Vancouver, BC, Canada. September 10, 2009

NEWS RELEASE

NR: 09-06

Lithium One EXPANDS SAL DE VIDA LITHIUM BRINE PROJECT to Almost 200 Square Kilometres

Lithium One Inc (the "Company") (TSX-V: LI), is pleased to announce that it has signed a definitive option agreement to acquire a 100% interest in an additional 4,390 hectares of the Salar del Hombre Muerto in northwest Argentina. The new property adjoins the ground recently optioned from Maktub Compañía Minera SRL ("Maktub") **and increases the area of the Company's Sal de Vida lithium brine project to approximately 194 square kilometres.**

The Company has now consolidated the majority of the eastern portion of Salar del Hombre Muerto into the new Sal de Vida project. The western half of the salar is the site of Argentina's only commercial scale lithium mining operation, Fénix, owned by Minera del Altiplano, a subsidiary of FMC Corporation. The 2008 production from the Fénix operation represented nearly 14% of the total world production of lithium metal [Sources: Economics of Lithium 11th Edition, Roskill Information Services (2009); FMC Website].

Lithium One has initiated an exploration program on the Sal de Vida project, with the intent to advance the project to a feasibility decision in 2010.

Property Agreement

The Company is acquiring the properties, referred to as the Agustin, Luna Blanca, and Rodolfo claims, from a private individual (the "Vendor") through a Purchase Option. Completion of the Purchase Option payments results in a 100% ownership of the property, with no retained royalty. Lithium One is committed to paying the first two instalments, with the option to pay instalments three to seven in order to complete the Purchase Option. The schedule of payment is:

1. US\$35,000 on or before September 15th, 2009
2. US\$40,000 on or before October 1st, 2009
3. US\$45,000 on or before November 1st, 2009
4. US\$60,000 on or before December 1st 2009
5. US\$100,000 on or before February 1st, 2010
6. US\$100,000 on or before April 1st, 2010
7. US\$100,000 on or before June 1st, 2010

The Vendor has the option to take the last two payments as shares in Lithium One, specifically 50,000 shares for payment 6 and 50,000 shares for payment 7.

Closure of this agreement is subject to approval by the TSX Venture Exchange.

Review by Qualified Person

The technical portions of this news release have been reviewed and approved by Mr. A. James McCann, the Company's consulting exploration manager. Mr. McCann is a licensed Professional Geologist in Quebec and a qualified person as defined by National Instrument 43-101.

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. Salar brines can precipitate salts such as lithium chloride which are first concentrated and then can be processed into lithium carbonate. For additional information on lithium please see the Company's website, www.lithium1.com.

About Lithium One:

Lithium One Inc is a well-financed 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. 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 lithium assets.

ON BEHALF OF THE BOARD OF DIRECTORS,

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

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Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Disclaimer

The Company has conducted certain research on technical and production data from other operations. The Company has made every effort to be accurate and believes the data cited herein about FMC and their Fénix operation to be reliable. However, the Company cautions that this information with respect to the FMC property and operations could not be verified by the Company and is not necessarily indicative of the mineral endowment on the Sal de Vida Project or the potential production from any future mining on the Sal de Vida Property.

Forward-Looking Statements

This document may contain “forward-looking information” within the meaning of Canadian securities legislation (hereinafter referred to as “forward-looking statements”). These forward-looking statements are made as of the date of this document and the Company does not intend, and does not assume any obligation, to update these forward-looking statements. Forward-looking statements relate to future events or future performance and reflect management’s expectations or beliefs regarding future events. By their very nature forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include unsuccessful exploration results, changes in metals prices, changes in the availability of funding for mineral exploration, unanticipated changes in key management personnel and general economic conditions, title disputes as well as those factors detailed from time to time in the Company’s interim and annual financial statements and management’s discussion and analysis of those statements, all of which are filed and available for review on SEDAR at www.sedar.com. In certain cases, forward-looking statements can be identified by the use of words such as “plans”, “expects” or “does not expect”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved” or the negative of these terms or comparable terminology. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward looking statements.