



TSX-V: LI

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NEWS RELEASE

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## Lithium One Reports ADDITIONAL DRILL RESULTS for its James Bay Lithium Project

Lithium One Inc (the "Company") (TSX-V: LI), is pleased to announce the second set of results from its Phase 2 diamond drill program at the James Bay Lithium Project in Quebec. Highlights of the results from these 20 holes include: **26.97m of 1.76% Li<sub>2</sub>O**, **21.0m of 1.98% Li<sub>2</sub>O**, and **23.46m of 1.65% Li<sub>2</sub>O**. Compared with intercepts reported in the previous news release of August 10<sup>th</sup> 2009, **the intercepts from these holes are wider, with a similar average grade of 1.60% Li<sub>2</sub>O**. Pegmatite intercepts greater than ten metres are summarized in Table 1 below.

**Table 1. Phase 2 Drilling Results, August 11<sup>th</sup> to September 1<sup>st</sup>, 2009**  
(Intercepts > 10 metres, cut-off grade 0.8% Li<sub>2</sub>O)

Hole #	From	to	Width (m)	Li <sub>2</sub> O%
JBL09-23	26.60	53.57	26.97	1.76%
JBL09-28	48.53	69.53	21.00	1.98%
JBL09-34	136.24	159.70	23.46	1.65%
JBL09-24	22.83	46.00	23.17	1.55%
JBL09-21B	16.50	37.70	21.20	1.41%
JBL09-23	59.55	78.50	18.95	1.40%
JBL09-25	36.30	53.14	16.84	1.52%
JBL09-41	29.65	44.30	14.65	1.74%
JBL09-34	42.95	59.52	16.57	1.51%
JBL09-35	110.29	124.35	14.06	1.73%
JBL09-20	14.00	31.38	17.38	1.33%
JBL09-20	57.10	71.82	14.72	1.51%
JBL09-26	40.02	52.97	12.95	1.63%
JBL09-25	53.50	67.04	13.54	1.54%
JBL09-41	62.92	74.94	12.02	1.45%
JBL09-41	135.27	145.62	10.35	1.64%
JBL09-27	106.18	116.46	10.28	1.47%
JBL09-36	142.20	152.70	10.50	1.05%

The results reported are from Pegmatite Swarms #8 and 9, which returned 88 intercepts of spodumene-bearing pegmatites greater than two metres in width. This phase of the program continues to test the core area of the pegmatite dyke swarm corridor. The outcropping corridor is nearly east-west trending, five kilometres long with at least 15 roughly parallel, north-northeast trending dyke swarms.. Drilling reported to date has tested just over 500 metres of the pegmatite corridor. The individual lithium rich dykes strike north-northeast and have variable strike length demonstrated to date, from more than 250 metres at swarm #7 to around 200 metres further west in the vicinity of dyke swarms #8 and 9. Dyke swarm #7 is comprised of six dykes with a total true width of 125 metres, inclusive of unmineralized wallrock between dykes. Dyke swarm #8 consists of eight parallel dykes with a true total width of 150 metres, again inclusive of wallrock. Dyke swarm #9 is comprised of four dykes with a total width of 80 to 100 metres including the wallrock. Most of the dykes remain open along strike to the south and at depth. The maps and cross sections posted to the Company's website are useful to put these figures in perspective.

Two core drills continue at work towards a total program of 11,500 metres. The Company has also employed diamond saw channel samples in order to systematically evaluate the extensive surface exposures. Assays from the surface channels will be reported in the next round of results.

Lithium One President and CEO, Patrick Highsmith, commented, "*The lithium pegmatites on our James Bay Project continue to meet or exceed our expectations. As the drills have moved west into Pegmatite Swarm 9 and beyond, the dykes thicken and maintain average grades above 1.5% Li<sub>2</sub>O. In our last release, we only cited two intercepts wider than 15 metres; this time there are nine such intercepts. And most of our best intercepts are shallower than 100 metres. Our understanding of the shapes and grade distribution is improving. These results continue to support our plan for calculating a mineral resource soon after the drill program and beneficiation testing are complete.*"

Drill holes are collared at as close to 50m spacing as field conditions allow, an interval judged necessary to optimize a resource calculation expected later in the program. All holes have been drilled inclined at an azimuth of 110° (S 70° E) as the dykes dip NW between 52° and 55°, so most of these intercepts are believed to be close to true width. However, true widths of these intercepts may be equal or in some cases less than reported here pending additional geological work. In some cases, the drill holes are angled differently in order to evaluate the geology. More detailed tables of drill results, maps, cross-sections and photos of the James Bay Lithium Project will be posted to the Company's website: [www.lithium1.com](http://www.lithium1.com).

### **Quality Control**

The Company logs, collects, and cuts the drill core on site. Drill core samples are sealed and shipped to TJCM (Table Jamésienne de Concertation Minière) in Chibougamau for sample preparation. The prepared samples are then sent by courier to COREM in Québec City for Li<sub>2</sub>O assay by multi-acid digestion and AA finish. COREM is a government-industry consortium of applied research for the treatment and processing of mineral substances, with a track record in lithium analysis and ore beneficiation. Certain of their laboratories are certified ISO 9001:2000 by BNQ and the analytical laboratory is certified ISO 17025:2005 for certain procedures. The laboratory employs quality control systems throughout that are compliant with ISO 9001 and ISO 17025 standards. The company is employing a rigorous quality assurance and quality control program, including the insertion of analytical control samples and field duplicates, as well as the tracking of replicate analyses and check assays from an independent laboratory. The SGS laboratory in Toronto is serving as a check lab, which is accredited by the Standards Council of Canada to ISO/IEG 17025: 2005.

The work program is under the supervision of Mr. A. James McCann, the Company's consulting exploration manager for Quebec. Mr. McCann is a licensed Professional Geologist in Quebec and a qualified person as defined by National Instrument 43-101. He has reviewed and approved the contents of this press release.

### **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. 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 a well-financed explorer and developer of mineral properties with a specific focus on lithium. 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. The James Bay Lithium Project is the Company's first significant lithium asset.

ON BEHALF OF THE BOARD OF DIRECTORS,

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

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### *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](http://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.*