

**ASX RELEASE**

LPI.ASX

24 October 2016

**DRILLING UPDATE  
MARICUNGA LITHIUM BRINE PROJECT IN CHILE**

- **Drilling program continues at Maricunga lithium brine project, following successful completion of first exploration hole to 200m**
- **A continuation of lithium-bearing sands from the Lito properties was intersected over a 120 m interval in this first hole in the previously unexplored Cocina property**
- **Drilling of new pump test well alongside first exploration hole is now underway, following positive initial observations**
- **The 18 hole drilling program is targeting expansion of the existing lithium resource\* within properties acquired since the original estimate**
- **Lithium assays from initial drill holes and pump testing to be released in coming weeks**
- **Maricunga project is located within the 'lithium triangle', and considered by LPI to be the highest quality pre-production lithium brine asset in South America**

Lithium Power International Limited (ASX: LPI) ("LPI" or "the Company") is pleased to provide an update on the progress of its 18-hole drilling program at the Company's flagship Maricunga lithium brine project in Chile.

Drilling has commenced in the Cocina property, with the first exploration hole (M10) reaching a total depth of 200 metres (see Figure 2). M10 encountered substantial sandy intervals with fine to coarse sand from 80-200 metres, which provides further evidence of a thick lithium-bearing sandy sequence within the Maricunga salar. Typically, sand units have drainable brine porosities 5-10 times higher than clay deposits typically found in salars.

LPI management anticipates that the sandy intervals discovered at M10 may potentially add significantly to the existing lithium brine resource\* identified in the neighbouring Lito properties, subject to final assay results. As previously announced, the Lito properties hold an average lithium brine grade of 1,250 mg/l, the third highest in South America.

The second exploration hole (M1) is currently underway within Cocina, and has reached a depth of 65m. In addition, drilling has commenced on a pump test well (P4) which will be drilled to 150m (see Figure 1). P4 is being drilled alongside M10, with the latter to be used as a monitoring well during the 30 day pump test due to commence in November.

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**Lithium Power International's Chief Executive Officer, Martin Holland, commented:**

"We are very pleased with the progress being made at Maricunga to date. At this early stage of our resource expansion program our technical team is highly encouraged by the discovery of sandy units that correlate with lithium-bearing sands in the existing resource\*. This is reflected in the pump test well being drilled as a twin hole to M10.

First lithium assays are expected to be received in early November, and the Company will be in a position to provide regular updates on drilling progress and the pump test flow rate over coming weeks."



**Figure 1: Hellema Holland Praxla rig drilling the pump test well in Cocina tenement**

**Maricunga Lithium Project Overview:**

The Maricunga lithium brine project is regarded by LPI as the highest quality pre-production lithium project in South America, with characteristics comparable to the world-leading Atacama brine deposit (which sits at the bottom of the global lithium cost curve). The project has a very high grade of both lithium (1250 mg/l) and potassium (8970 mg/l). The reader is referred to previous LPI announcements for more details regarding the project geology and past activities.

Maricunga is located 170km north-east of the mining town of Copiapo and 250km from the Chilean coast. It is adjacent to International Highway 31, which connects northern Chile and Argentina. LPI remains the only ASX-listed company with exposure to a lithium brine resource in Chile.

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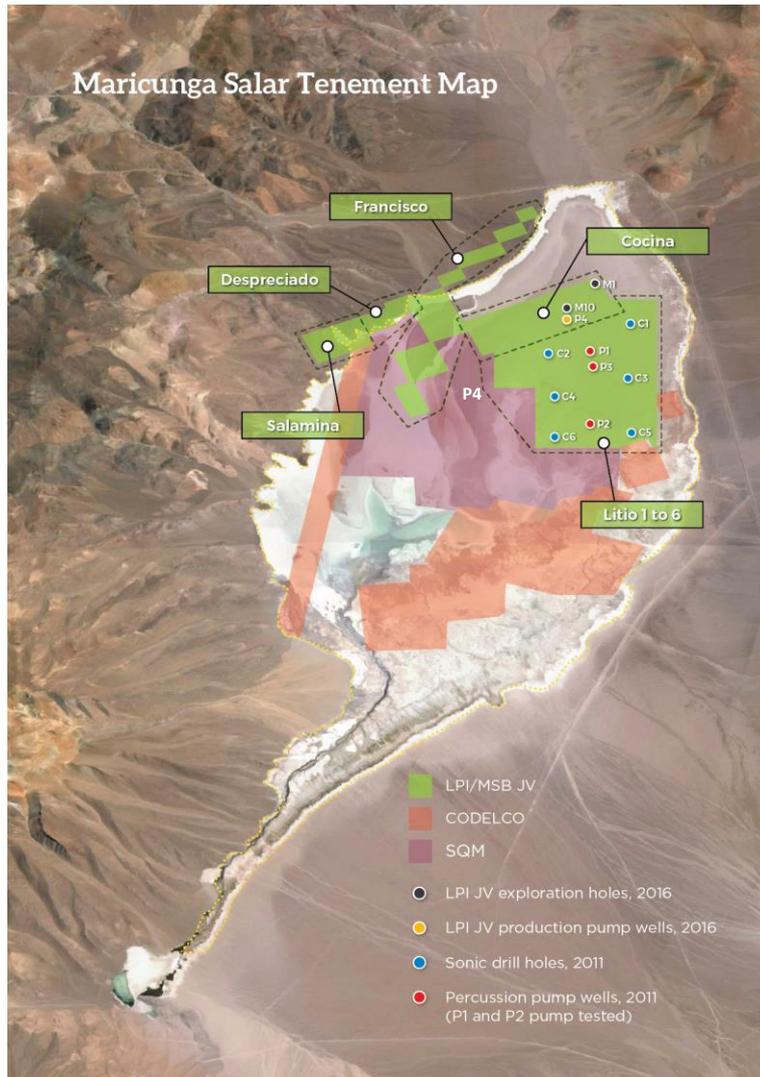


Figure 2: Location of historical drill holes (blue and red) and current drilling (black and yellow) at the Maricunga lithium brine project

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i \* The reader is referred to the previous announcement by LPI on the 28 July, 2016, which provided details of the Maricunga project resource and information regarding what is considered by ASX as a production target. With regards to the resource LPI confirms that it is not in possession of any new information or data relating to the resource, (which is considered by ASX to be a foreign estimate), that materially impacts on the reliability of the estimate or the mining entity's ability to verify the foreign estimate as mineral resources in accordance with Appendix 5A (JORC Code). LPI confirms that all the material assumptions underpinning the production target provided in that announcement continue to apply. LPI confirms that the supporting information provided in the announcement by LPI on the 28 July, 2016 continues to apply and has not materially changed. LPI Cautions that the foreign estimate was not reported in accordance with the JORC code.

This work was completed prior to three years before the joint venture on the project was announced by LPI on 20/07/16. A competent person has not done sufficient work to classify the foreign estimate as mineral resources or ore reserves in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the foreign estimate will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code. As the Maricunga resource estimate was not undertaken under the JORC code LPI intends to verify this foreign estimate as part of the 4Q16 drilling and assaying program on the Maricunga project. Work will consist of drilling diamond and detailed sampling and analysis with an accompanying QA/QC program. Future reporting will be under the JORC code.

#### **Competent Person's Statement – MARICUNGA LITHIUM BRINE PROJECT**

The information contained in this ASX release relating to Exploration Results has been compiled by Mr Murray Brooker. Mr Brooker is a Geologist and Hydrogeologist and is a Member of the Australian Institute of Geoscientists and the International Association of Hydrogeologists. Murray has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is also a "Qualified Person" as defined by Canadian Securities Administrators' National Instrument 43-101.

Murray Brooker is an employee of Hydrominex Geoscience Pty Ltd and an independent consultant to Lithium Power International. Murray Brooker consents to the inclusion in this announcement of this information in the form and context in which it appears. The information in this announcement is an accurate representation of the available data from initial drilling at the Maricunga project.

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**APPENDIX 1 - JORC Code, 2012 Edition**
**Table 1 Report: Maricunga Salar**

Criteria	Section 1 - Sampling Techniques and Data
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>• Drill cuttings were taken during rotary drilling from the mouth of the drill hole, with diamond core collected from another rig.</li> <li>• Brine samples were collected at different times during the drilling, depending on the drilling method, with 3 m sample spacing in the diamond drilling and 10 m in the rotary drilling. Water levels were also monitored extensively during drilling and sampling of brine.</li> <li>• The brine sample was collected in a clean plastic bottle and filled to minimize air space within the bottle. Each bottle was taped and marked with the sample number and details of the hole and date. Brine samples in historical hole P3 were composite samples taken as the well was drilled and are not discrete interval samples, like those taken during diamond drilling.</li> </ul>
<i>Drilling technique</i>	<ul style="list-style-type: none"> <li>• Rotary drilling – This method is being used to install the production well and other holes on site as part of the drilling program, with the use of brine for lubrication during drilling, to minimize the development of wall cake in the holes that could reduce the well flow rate once holes are completed.</li> <li>• Diamond drilling – to recover core for detailed geological description. During diamond drilling cores are collected in a transparent plastic “lexan” tube which is inserted in the core barrel as a triple tube. Core tubes are a nominally 1.5 m long but when core recovery is poorer in friable units shorter drilling runs are required to maintain high quality core recovery. Cores are capped with plastic caps immediately following recovery, with the caps taped in place and the cores labelled for laboratory analysis. Drilling is conducted with brine from the surface aquifer at each drill hole site, with a minimal use of drilling additives which could affect the quality of brine samples.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• From rotary drilling cuttings are recovered from the mud flow from holes as they are being drilled. These are bagged and a selection of cuttings washed for geological logging. The volume of sample in the bags is noted as part of the logging process.</li> <li>• Diamond core is recovered in plastic core tubes, and the core recovery of each run assessed against the length of core drilled.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• Rotary drill chip samples were bagged for geologic logging by the geologist responsible for the logging of all rotary and core material in the program. One geologist has been assigned exclusively to logging, in order to maintain the consistency of observations.</li> <li>• Core samples were preserved in plastic tubes. Samples were cut from the base of tubes using an angle grinder and each core section capped with tight fitting plastic caps taped in position. Geological logging of the cores was subsequently undertaken by splitting the core tubes open and logging the core systematically for grain size, mineralogy and lithology.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• Brine samples collected during bailer sampling are homogenized in the bailer device, following the purging of brine from the drill column. Several bottles of brine are collected and no sub-sampling is undertaken in the field.</li> <li>• The brine samples are collected in new one-litre sample bottles. Each bottle was labelled with the hole number, the depth and date.</li> </ul>

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<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>The University of Antofagasta in northern Chile is used as the primary laboratory to conduct the assaying of the brine samples collected as part of the drilling program. They also analyze blanks and standards, with blind control samples used as part of QA/QC procedures. The laboratory of the University of Antofagasta is not ISO certified, but it is specialized in the chemical analysis of brines and inorganic salts, with extensive experience in this field since the 1980s, when the main development studies of the Salar de Atacama were begun.</li> <li>The quality control and analytical procedures used at the University of Antofagasta laboratory are considered to be of high quality and comparable to those employed by ISO certified laboratories specializing in analysis of brines and inorganic salts.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>A full QA/QC program for monitoring accuracy, precision and to monitor potential contamination of samples and the analytical process is part of the current drilling program. Accuracy, the closeness of measurements to the "true" or accepted value, is monitored by the insertion of standards, or reference samples, and by check analysis at an independent (or umpire) laboratory.</li> <li>Duplicate samples in the analysis chain are submitted to the University of Antofagasta as unique samples (blind duplicates) during the drilling process</li> <li>Stable blank samples (water without lithium) are inserted to measure cross contamination during the drilling process</li> <li>The anion-cation balance is used as a measure of analytical accuracy.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>The holes are located with a hand held GPS.</li> <li>The location is in UTM Zone 19, with the Provisional South American 1956 datum</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Lithological data was collected throughout the drilling. Brine samples are collected with a 3 m spacing vertically in diamond holes.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>The salar deposits that host lithium-bearing brines consist of subhorizontal beds and lenses of halite, sand, silt and clay. The vertical holes are essentially perpendicular to these units, intersecting their true thickness</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Samples were transported to the University of Antofagasta (primary and duplicate samples) for chemical analysis in sealed 1-litre rigid plastic bottles with sample numbers clearly identified.</li> <li>The samples were moved from the drill site to secure storage at the camp on a daily basis. All brine sample bottles are marked with a unique label.</li> </ul>
<i>Review (and Audit)</i>	<ul style="list-style-type: none"> <li>No audit of data has been conducted to date.</li> </ul>

### Section 2 - Mineral Tenement and Land Tenure Status

<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Maricunga property is located approximately 170 km northeast of Copiapo in the III Region of northern Chile at an elevation of approximately 3,800 masl.</li> <li>The property comprises 1,438 ha in six mineral claims known as Litio 1 through Litio 6. In addition the Cocina 19-27 properties, San Francisco, Salamina and Despreciada properties have been added since the resource on the Litio properties.</li> <li>The properties are located in the northern section of the Salar de Maricunga.</li> <li>The tenements are believed to be in good standing, with payments made to relevant government departments</li> <li>An independent review of the property (tenement) status was conducted as part of the due diligence process prior to the joint venture agreement.</li> </ul>
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<i>Exploration by other parties</i>	<ul style="list-style-type: none"> <li>• SLM Lito drilled 58 vertical holes in the Lito properties on a 500 m x 500 m grid in February, 2007. Each hole was 20 m deep. The drilling covered all of the Lito 1 – 6 property holdings.</li> <li>• Those holes were 3.5" diameter and cased with either 40 mm PVC or 70 mm HDPE pipe inserted by hand to resistance. Samples were recovered at 2 m to 10 m depth and 10 m to 20 m depth by blowing the drill hole with compressed air and allowing recharge of the hole.</li> <li>• Subsequently, samples were taken from each drill hole from the top 2 m of brine. In total, 232 samples were collected and sent to Cesmec in Antofagasta for analysis.</li> <li>• Prior to this the salar was evaluated by Chilean state organization Corfu, using hand dug pit samples.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• The sediments within the salar consist of halite, sands, gravels, silts and clays deposits that have accumulated in the salar from terrestrial sedimentation and evaporation of brines within the salar.</li> <li>• Brines within the salar are formed by solar concentration, with brines hosted within pore spaces of the different sedimentary units</li> <li>• Geology is recorded during drilling and in logging following the collection of drill cores, with interpretation of relationships between units ongoing as the drilling progresses.</li> </ul>
<i>Drill hole data</i>	<ul style="list-style-type: none"> <li>• Drill hole data includes core and rotary cuttings, geological logging of samples, brine samples, and subsequent analytical results of brines and porosity and permeability test work on core samples</li> </ul>
<i>Data aggregation</i>	<ul style="list-style-type: none"> <li>• Data consists of individual holes installed for lithological and brine sampling, with discrete interval sampling for geology and brine.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• The lithium-bearing brine deposits extend across the tenements over a thickness of &gt; 150 m, limited by the depth of the drilling in the Lito properties</li> <li>• The drill holes are vertical and perpendicular to the horizontal sediment layers in the salar, so thicknesses reported are considered to be true thicknesses</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• Diagrams are provided in the Technical report on the Maricunga Lithium Project Region III, Chile, NI 43-101 report prepared for Li3 Energy May 23, 2012.</li> <li>• Additional diagrams will be provided as this drilling program progresses.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• This announcement presents representative key results from the beginning of the 2016 drilling program. Not all corresponding results from the drilling (brine assays, porosity data) are yet available.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• Refer to the information provided in Technical report on the Maricunga Lithium Project Region III, Chile. NI 43-101 report prepared for Li3 Energy May 23, 2012</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• The company has an extensive program of pump testing of wells, evaporation test work and process engineering investigations planned for the project.</li> </ul>