

# Lithium Power International (ASX: LPI)

March 2017

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**Note:** This report is based on information provided by the company as at February 2017

Investment Profile	
Share Price as at 28 February 2017	A\$0.415
Midpoint per Share Valuation	A\$1.04
Issued Capital:	
Ordinary Shares (m)	164.3m
Options (m)	67.0m
Fully Diluted (m)	235.1m
Market Capitalisation (m)	A\$68.20m
12 month L/H (\$)	A\$0.20/\$0.48

## Board and Management

### Directors

Mr David Hannon: Non-Executive Chairman  
 Mr Martin Holland: Managing Director/Chief Executive Officer  
 Mr Reccared (Ricky) Fertig: Non-Executive Director/Chairman, Minera Salar Blanco S.A.  
 Mr Andrew Phillips: Non-Executive Director/Company Secretary/CFO  
 Dr. Luis Ignacia Silva P: Non-Executive Director/Latin America Regional Manager

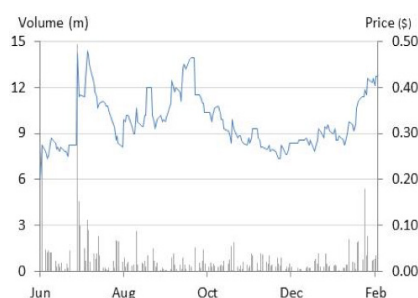
### Technical Team

Mr Murray Brooker: Group Technical and Exploration Advisor  
 Mr Peter Ehren: Independent Expert, Brine Processing  
 Mr Stuart Peterson: Exploration Manager

## Major Shareholders

Mr Martin Holland - MD/CEO	12.78%
Mr David Hannon - Chairman	12.61%
Mr Ricky Fertig - NED	10.73%
Minera Salar Blanca S.A.	9.74%
Top 20	59.06%
Board and Management	36.65%

## Share Price Performance



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Senior Analyst – Mark Gordon

## ADVANCED HIGH GRADE LITHIUM ASSET

Lithium Projects International (“LPI” or “the Company”) is concentrating activities on its 50% owned Maricunga Lithium Project (“Maricunga” or “the Project”) in northern Chile. Maricunga is a Tier 1 lithium brine play, and is distinguished by a very high lithium resource grade of 1,250mg/l, as well as high grade potassium and being located adjacent to infrastructure. Work to date has highlighted and confirmed the potential of the Project, with the Company now undertaking a final feasibility study (to be completed by late 2017) with a view to commencing production in 2020.

## KEY POINTS

- ◆ **High Quality Resource:** In Maricunga, LPI has a high quality resource in a Tier 1 brine deposit. With 574,000t of contained lithium carbonate equivalent (“LCE”) at a lithium grade of 1,250mg/l in the foreign (NI43-101) resource, Maricunga is the highest grade undeveloped brine resource in the Americas, has the third highest brine resource grade globally and is second in Chile only to the Salar de Atacama operations. Resource drilling, pump and evaporation test work to date has also returned excellent results – the pumping has delivered high flow rates better than most operating or development projects, with the current and earlier evaporation test work indicating the potential to produce lithium products using industry standard techniques.
- ◆ **By-Product Potential:** The quality of the resource is enhanced by the high potassium grade, which highlights the potential to produce potassium products as a by-product, thus enhancing project economics.
- ◆ **Ready Access to Infrastructure:** Other advantages of Maricunga are that it is adjacent to International Highway 31, close to grid power and is readily accessible by road to the city of Copiapo (170km) and the port of Caldera (250km).
- ◆ **Resource Expansion Potential:** The recently completed drilling and tenement consolidation have highlighted the potential to significantly increase the current resource at similar grades to the existing – as part of the current final feasibility study LPI will be releasing an updated JORC 2012 compliant resource in Q2, 2017 – the tenement consolidation has increased the potential resource area by 78%, with recent resource drilling being completed to 200m depth in contrast to the 150m as used in the current estimate.
- ◆ **Low Sovereign Risk Jurisdiction:** Chile is a proven mining jurisdiction, with a well-developed mining law.
- ◆ **In the Right Commodity:** The fundamentals for lithium look strong over the medium to long term with the expected 5-10% CAGR growth largely in battery markets, and LPI is ideally situated to take advantage of this.
- ◆ **Strong and Committed Personnel:** Company personnel, including consultants, have extensive industry experience in varied regions and commodities, including lithium brine operations. In addition directors hold significant share holdings, and thus will be motivated to producing strong returns for shareholders.
- ◆ **Steady News Flow:** Ongoing activities related to the current final feasibility study will produce steady news flow through 2017.

## VALUATION SUMMARY

- ◆ We have a valuation range of A\$0.83 - A\$1.25 per share for LPI, with a mid-point of A\$1.04 per share, with 90% ascribed to Maricunga.
- ◆ We would expect to see short to medium term appreciation of the share price with ongoing activities.

## SWOT ANALYSIS

### Strengths

- ◆ **Quality project:** This is the key strength of LPI, with results of work to date indicating that technically Maricunga is a superior project.
- ◆ **Relatively advanced:** With over US\$42 million invested over the last 6 years in exploration work and tenement acquisition/consolidation (including US\$12.17 million by LPI), Maricunga is a relatively advanced resources play.
- ◆ **Proven mining destination with low sovereign risk:** Chile is a proven mining destination and host to a number of world class deposits, with well develop mining legislation.
- ◆ **Ready access to infrastructure:** This includes ready access to the highway, grid power and port.
- ◆ **Experienced people with skin in the game:** Company personnel have significant experience in the resources game, including lithium brines, as well as significant share holdings.

### Weaknesses

- ◆ **Current small resource:** Compared to peers, at 574,000t contained LCE, LPI's resource is relatively small; however this is mitigated by the upside potential due to the recently completed resource drilling.
- ◆ **Regulatory environment:** With lithium being considered a strategic mineral in Chile, the regulatory environment is quite restrictive, and currently precludes mining from some of the project tenements (although this does not preclude ongoing work including development studies) as well as applying quotas to production.

### Opportunities

- ◆ **Resource expansion:** The results of recent work highlight the potential to significantly increase the Maricunga resource.
- ◆ **Change in regulatory environment:** There are indications that the Chilean government may lessen the restrictions on lithium, thus potentially opening up the currently restricted tenements for exploitation.
- ◆ **"Old code" tenements:** Three of the Project tenements were granted under the 1932 code, which allows for the exploitation of lithium – these present the opportunity for a start-up operation.
- ◆ **Lithium fundamentals:** These currently look strong for the foreseeable future, which should facilitate progress and investor interest in Maricunga.

### Threats

- ◆ **Lithium prices:** Falling commodity prices are one of the key threats facing any resource company – in the short to medium term fall in prices would affect the ability to raise funds to carry out the development studies – however given the quality of the project and the potential to be a low cost producer when compared to other hopefuls LPI may be somewhat protected from this.
- ◆ **Permitting:** Permitting of the Project may be affected by the quota system for lithium.

## OVERVIEW

### STRATEGY AND PROJECT OVERVIEW

- ◆ LPI, which first listed on the ASX on June 23, 2016, is a pure play lithium explorer and developer with its key asset being a 50% ownership of the Maricunga Lithium Project in Chile.
- ◆ Maricunga is the highest grade undeveloped lithium salar in the Americas, second only to Salar de Atacama, which is Chile's sole brine lithium producer.
- ◆ The other owners of Maricunga are the OTC-listed Li3 Energy Inc. (OTCQB: LIEG, "Li3", 17.7%) and the private Chilean company Minera Salar Blanco S.A. ("MSB", 32.3%).
- ◆ Li3 is currently in the process of merging with Bearing Resources Corp. (TSX-V: BRZ, "Bearing"), with Li3 to become a wholly owned subsidiary of Bearing.
- ◆ The partners have formed an incorporated JV ("NewCo"), with all tenements being vended into NewCo – LPI's 50% interest in NewCo is held by a 100% owned Chilean subsidiary.
- ◆ The company's strategy is to develop Maricunga with its JV partners, with planned first production by 2020 – the Company is currently undertaking a final feasibility study, which is due for completion by the end of CY2017, which will then lead into a pilot plant programme, which is planned for completion by the end of CY2018.
- ◆ The Company has other 100% owned projects in Australia and Argentina which will not be discussed further:
  - Greenbushes in southern Western Australia – this includes two exploration tenements adjacent to the Greenbushes mine, the world's largest hard rock spodumene mine, owned by Tianqui and Albemarle Corporation (NYSE: ALB, "Albemarmle") – LPI has completed soil sampling with plans to drill test targets in H2, 2017.
  - Pilbara in northern Western Australia, which includes one granted exploration tenement and two applications – these are adjacent to the feasibility stage projects of Pilbara Metals (ASX: PLS) and Altura Mining (ASX: AJM) – soil sampling has defined a number of targets that are expected to be drilled in H1, 2017, with 3,000m of drilling being approved.
  - Salar de Centenario in northern Argentina – this comprises a number of exploration tenements in the northern and central parts of the salar, and in the same region as the operations of Orocobre (ASX: ORE, "Orocobre"), FMC and Lithium Americas Corporation (TSX: LAC, "LAC") – LPI is looking at the sale of this project.

### FINANCIAL POSITION

- ◆ The Company floated in June 2016 through an oversubscribed IPO, raising \$8 million through the issue of 40 million shares at \$0.20/share.
- ◆ LPI subsequently raised A\$13.5 million at A\$0.38/share in October/November 2016 – this included a placement of A\$12 million to sophisticated and institutional investors, A\$1.0 million through a fully underwritten share purchase plan and a \$0.5 million placement to directors – this raising was for the Maricunga Lithium Project.
- ◆ This included 32.5 million listed options - Although currently out of the money, the A\$0.55 options, which have an expiry date of November 27, 2017, have the potential to bring in close to A\$21 million should they be converted.
- ◆ 29.3 million unlisted options are currently in the money, with the potential to bring in \$5.9 million if exercised, however the majority of these are escrowed to June 24, 2018.
- ◆ As of December 31, 2017 the Company had A\$7.12 million in cash and no debt.

### MARICUNGA LITHIUM PROJECT (LPI – 50%)

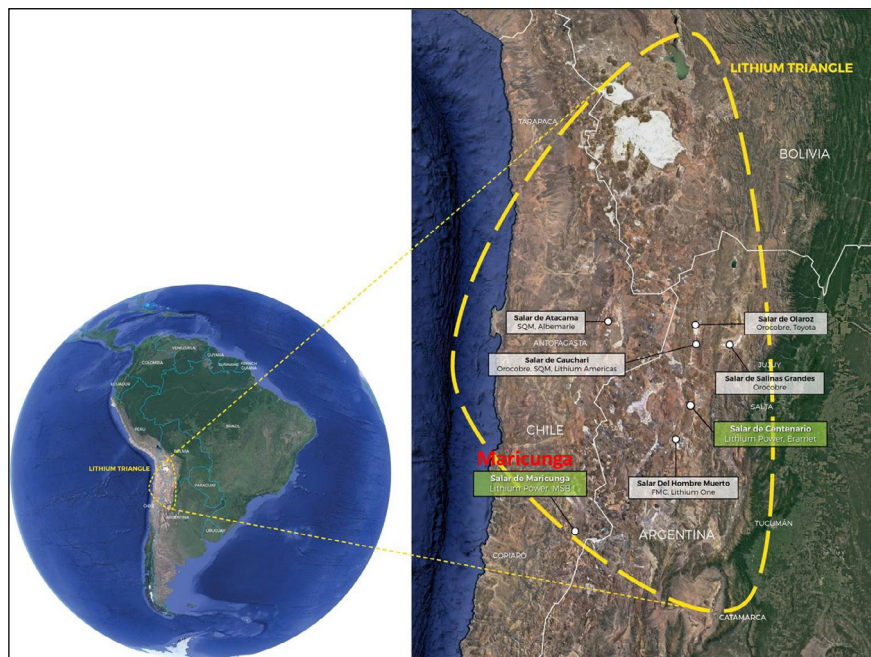
#### Location and Tenure

- ◆ Maricunga is located in the Atacama Region III of northern Chile, and is close to infrastructure, including road and power – International Highway 31 connecting Argentina and Chile is adjacent to the salar, with the Project being 170km from the city of Copiapo, the provincial capital, and 250km by highway from the port of Caldera on the Chilean coast.



- ◆ The Project comprises granted exploration tenements totalling 2,563ha over the northern, lithium rich part of the salar, as well as 1,900ha in infrastructure tenements (including 1,800ha for evaporation ponds and 100ha for the camp).
- ◆ The exploration tenements fall into two groups – 1,125ha of “old code” tenements including Cocina 19-27, San Francisco, Salamina and Despreciada; and 1,438ha of “new code” tenements including Litio 1-6.
- ◆ Neighbours include Sociedad Química y Minera de Chile (“SQM”), a major lithium producer with a permitted 48,000tpa LCE operation in the Salar de Atacama, and Codelco, the Government owned copper miner.

**Figure 1: Maricunga location map**



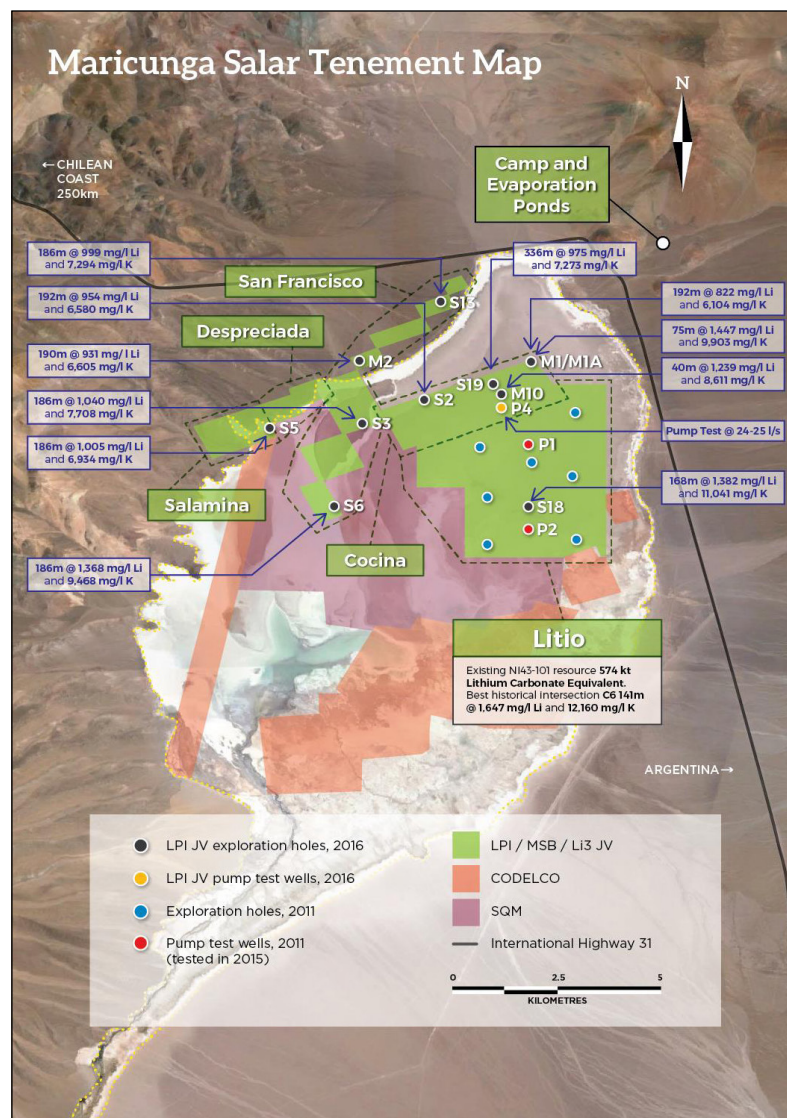
Source: LPI

### Special Considerations – Lithium as a Strategic Mineral in Chile

- ◆ The distinction given above between the “old code” and “new code” tenements is critical – in Chile lithium is considered a strategic mineral, and under current mining law is a non-concessional substance, and thus only “old code” tenements granted before 1979 are authorised for lithium exploitation.
- ◆ The reason for the “strategic” classification was the recognition that an isotope of lithium is used in nuclear power stations; however that use is now inconsequential.
- ◆ The two current production facilities – run by SQM and Albemarle at Salar de Atacama - are on concessions held by the Chilean Economic Development Agency (“CORFO”), and leased out to the relevant companies - this is different to LPI, which holds its own tenements.
- ◆ The Salar de Atacama leases are managed by CORFO with quotas set by the Chilean Commission of Nuclear Energy (“CCHEN”).
- ◆ The acknowledgement that the situation needs to be redefined saw the Chilean Government establishing the National Lithium Commission in June 2014, tasked with developing a new state policy regarding lithium.
- ◆ Recent initiatives and events appear to reflect some changes in the system; however the commission has recommended that the “strategic” status for lithium remain, and that the Government still regulate production.
- ◆ Reportedly the Government is looking to diversify reliance on lithium away from SQM, however was also considering (in 2015) having the state take a more active role in the production of lithium.
- ◆ As part of the diversification drive, the Government has requested that Codelco work towards developing its assets at Maricunga and Pedernales by ways of government/private partnerships.

- ◆ More recent events have included, in early 2017, approving the increase of Albemarle's quota to 80,000tpa of battery grade LCE over the next 27 years – this is up from the current capacity of 50,000tpa of LCE (although production has only been at 50% of capacity over the last few years).
- ◆ This approval included a renegotiation of the lease/commission payments – the rate is calculated on a sliding scale according to the price received for the products, and for example at a price of US\$8,000/tonne LCE is 10.9%, and at US\$12,000/tonne is 13.7%.
- ◆ This should be considered as a super-profits tax, and may not apply to a start-up operation, particularly where the licences are not being leased from CORFO as is the case with LPI.
- ◆ This approval would seem to be a reversal of some of the 2015 considerations; also more recent comments by CORFO indicate that Chile is prepared to expand production, but not to the extent that it would lead to a collapse in prices, and that it would keep the current system in place.
- ◆ Given the current situation, LPI would look at using its "old code" licences (which will be included in the upgraded resource) as a starter project should approval be given, and then should legislation change, progress to mining the new code Litio tenements on which the current resource is based.

**Figure 2: Maricunga tenement and drilling map**



Source: LPI

### Acquisition Terms

- ◆ The tenement package has been acquired and consolidated under the following terms.
  - The tenements Cocina 19-27, Litio 1-6, Blanco and Camp1 were vended into the JV entity, NewCo, by MSB and Li3.

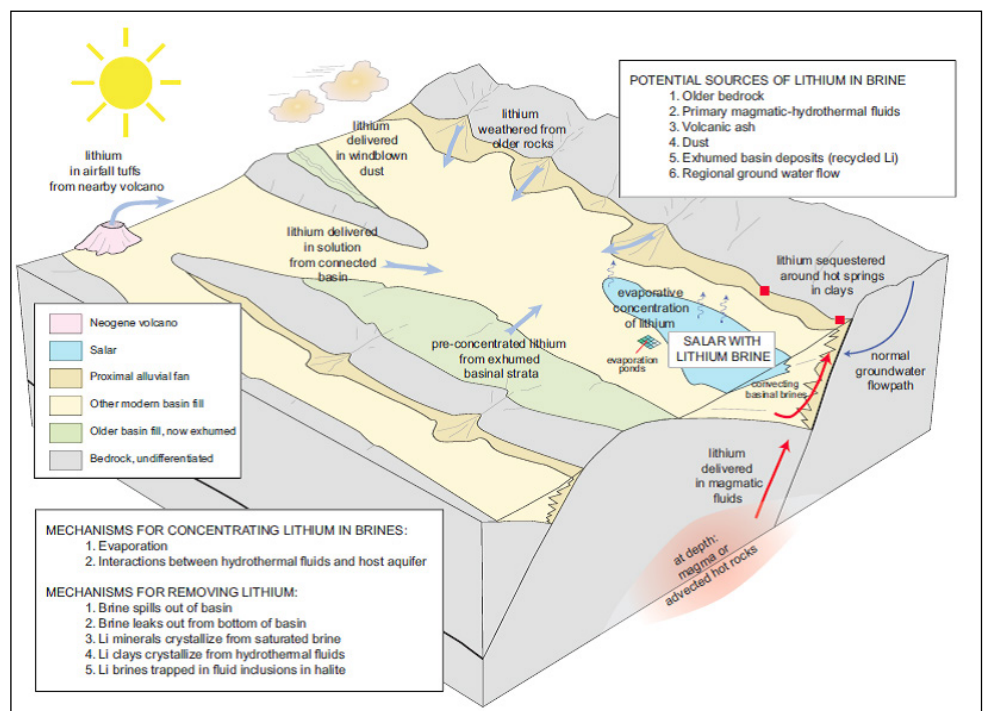


- In October 2016, LPI acquired from MSB options over the “old code” San Francisco, Salamina and Despreciada tenements (“Option Rights”), and LPI issued 16m ordinary shares to MSB, as approved by LPI shareholders, and escrowed for two years.
- LPI exercised the Option Rights at an exercise price of US\$5.22m, and transferred the tenements into NewCo.
- ◆ To earn a 50% interest in NewCo, LPI is to sole fund (up to a limit of US\$21.95 million) activities through to completion of a final feasibility study and approval of an EIA, as well as vend in the optioned tenements.
- ◆ Earn-in payments include:
  - An initial payment of US\$6.95 million to fund initial exploration and development activities, with this payment including a secured loan of up to \$US2.7 million to fund Phase 1 exploration activities until incorporation of the JV (since converted into equity in NewCo and has paid for the drilling and other activities) and further payments of US\$4.25 million to fund Phase 2 development activities, and,
  - A final earn-in payment of US\$15 million in stages until December 2018.
  - Should the November 2017, A\$0.55 options issued as part of the October 2016 capital raising be converted funding requirements should be largely covered: funds should be potentially available from the divestment of the other assets.
- ◆ Any additional funding requirements will be provided on a pro-rata basis by the JV partners.

### Geology and Mineralisation

- ◆ Lithium mineralisation at Maricunga is within saline brines in Salar de Maricunga, with the brines within clastic sediments and evaporates of the salar.
- ◆ A description of lithium brine deposits is presented later in this note.
- ◆ The salar has formed in the northern part of the closed intra-montane Maricunga basin located west of the western cordillera of the Andes Mountains, with the Maricunga basin having a drainage area of some 2,200km<sup>2</sup>.

**Figure 3: Diagrammatic representation of a lithium-bearing salar**



Source: Lithium Brines: A Global Perspective (Munk et al)

- ◆ Basement rocks range in age from Upper Paleozoic to Lower Tertiary, with units in the vicinity of Maricunga including Quaternary sands and gravels, alluvial Pliocene-Miocene sediments and Upper Miocene volcanics.
- ◆ The salar is elliptical, with an approximately 23km long NNE major axis, and a 10km long minor axis – the salar covers an area of approximately 140km<sup>2</sup>.

- ◆ Stratigraphy in the salar includes an upper mixed halite sequence (up to 66m thick), comprised of massive halite interbedded with halite bearing sands and silts, and a lower largely clastic sequence, which includes interbedded silts, clays, sands, gravels, conglomerates and volcanic ash.
- ◆ The deepest hole drilled (S19, 360m), ended in high grade lithium bearing sands and did not reach bedrock.
- ◆ Concentrated brines have been formed by evaporation of groundwater within the closed basin, with the minerals within the brines being sourced from the surrounding rocks.

### Resources and Upside Potential

- ◆ In 2012 Li3 completed a NI43-101 compliant resource estimate with Measured Resources of 574,000t of LCE with a brine grade of 1,250mg/l lithium and 1,482,638t of KCl at a grade of 8,970g/l potassium.
- ◆ This was part of a number of work programmes costing over US\$42 million over the past 6 years (including the US\$12.17 million spent by LPI) thus far.
- ◆ Resources were estimated down to a depth of 150m, largely in low drainable porosity sediments in the 1,438ha "Litio" tenements – only limited drilling was carried out in the higher permeability, coarser grained sediments.
- ◆ The resource estimation was based on 6 x 150m deep sonic drillholes (900m); with addition drilling including 915m in 11 reverse circulation ("RC") holes used for geological logging, piezometer placement and production wells.
- ◆ Work completed by Li3 also included pump testing and initial process test work, with results considered positive, confirming that brine production would be able to be achieved through trenches and wells, and the extraction of both lithium and potassium from the brine would be feasible through standard technology.
- ◆ Pumping test work from wells P1 and P2 carried out by MSB in 2015 resulted in flow rates of 38 and 37l/s over 14 days and 28 days respectively, with grades of 1260mg/l and 1170mg/l – these tested the upper halite and lower clastic aquifers.
- ◆ Activities by LPI have significantly enhanced the resource upside potential of Maricunga:
  - With the vending in of the additional tenements, the Project exploration area has increased some 78% to 2,563ha
  - The resource drilling has been completed to a depth of 200m, as compared to the 150m depth for the current resource.
  - The results of hole S19 indicate significant additional depth potential, with this still in lithium brine bearing sediments at the completed depth of 360m.
- ◆ Average grades from the resource drilling have ranged from 822mg/l to 1,447mg/l – these are shown in Table 1.

**Table 1: 2016 resource drilling results**

2016 resource drilling results						
Hole Name	Depth	Assay Test Interval (m)	Lithium (mg/l avg)	Potassium (mg/l avg)	Type	Orientation
M10	200	160 - 200	1,239	8,611	Rotary	Vertical
M1	77	9 - 75	1,447	9,903	Rotary	Vertical
M2	198	8,6 - 198	931	6,605	Rotary	Vertical
S5	200	14 - 200	1,005	6,934	Rotary	Vertical
S3	200	12 - 198	1,040	7,708	Rotary	Vertical
S13	200	12 - 198	999	7,294	Rotary	Vertical
S6	200	12 - 198	1,368	9,468	Rotary	Vertical
M1A	200	6 - 198	822	6,104	Sonic	Vertical
S2	200	5 - 197	954	6,580	Sonic	Vertical
S18	173	5 - 173	1,382	11,041	Sonic	Vertical
S19	360	18 - 154	975	7,273	Rotary	Vertical
P4	180	Pumping well 24-25 l/s (located near M10)			Rotary	Vertical

Source: LPI

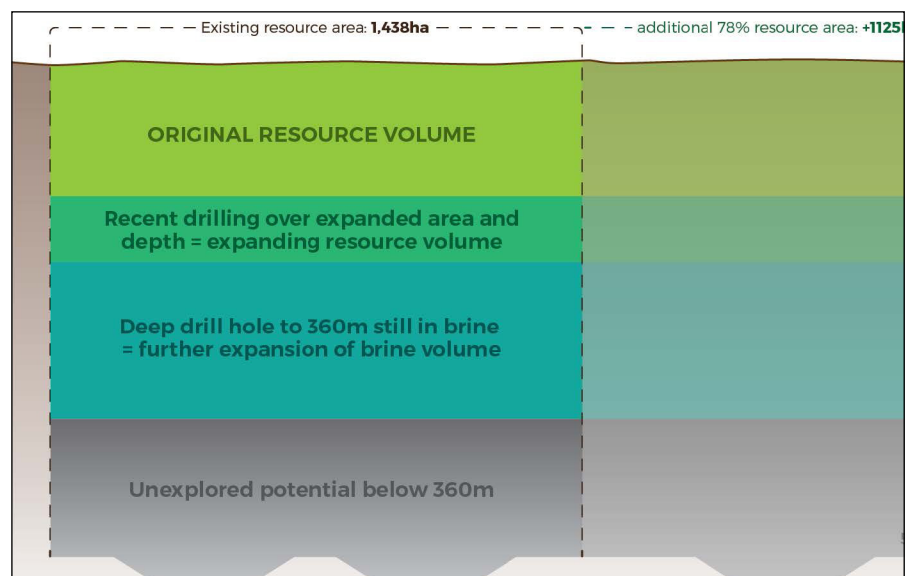
- ◆ Pumping test work from hole P4 in the “old code” Cocina tenements has resulted in an sustained flow rate of 25l/s at a grade of 945mg/l throughout the 30 day test – this was from the lower clastic aquifer from 66 -180m - this did not include flows from the upper lithium rich halite aquifer that was previously tested by MSB.
- ◆ These values are some of the highest recorded in production or advanced stage brine projects in South America as presented in Table 2.
- ◆ As announced to the market in their December 2016 half-yearly accounts on February 28, 2017, Orocobre are achieving flow rates of 10-12l/s from production wells at their Olaroz operation - this is less than half of the rate achieved in hole P4 at Maricunga.

**Table 2: Comparison of Maricunga flow rates and other South American brine pump tests**

Comparison of Maricunga flow rates and other South American brine pump tests				
Flow rate l/s	Pump test type	Sediment type	Data source	Duration
<b>Maricunga Project, Chile, Lithium Power International</b>				
25	Test production (P4)	Sand, gravel	Lithium Power - announcement 23/02/17	30 days
38	Test production (P1)	Salt, sand, clay	Lithium Power announcement 13/09/16	14 days
37	Test production (P2)	Salt, sand, clay	Lithium Power announcement 13/09/16	28 days
<b>Hombre Muerto, Argentina, FMC and Galaxy</b>				
38	Pre-production	Salt	Sal de Vida NI43-101; Houston and Jaacks, 2010	30 days
15.2	Pre-production	Mixed sediment	Galaxy 10/04/13 announcement	30 days
16	Pre-production	Mixed sediment	Galaxy 10/10/12 announcement	30 days
<b>Sal de los Angeles (Diablillos), Argentina, LithiumX</b>				
8	Airlift over 44 m	Sand, gravel	LithiumX report 29/08/2016 page 79	2 hours
8	Airlift over 42 m	Sand, gravel	LithiumX report 29/08/2016 page 79	65 hours
<b>Cauchari, Argentina, SQM and Lithium Americas</b>				
5.8-20	Pre-production PB-03A	Salt and sand layers	Lithium Americas DFS 11/07/2012. Tested at 20 l/s	27 days
10.3-25	Pre-production PB-04	Sand, silt, clay and salt.	Lithium Americas DFS 11/07/2012. Tested at 13 l/s	30 days
12.9-25	Pre-production PB-06A	5 layers of sand and gravel + clay	Lithium Americas DFS 11/07/2012. Tested at 22 l/s	13 days
4	Pre-production PB-01	Alternating layers sand, salt, clay	Lithium Americas DFS 11/07/2012 page 170	8 days
23	Pre-production PB-I	Coarse gravel, sand, clay	Lithium Americas DFS 11/07/2012. Tested at 23 l/s	4 days
<b>Olaroz, Argentina, Orocobre</b>				
10-12	Production wells		Orocobre Presentation 28/02/2017	
14	Pre-production	Sand, clay, silt, halite	Orocobre announcement 25/01/2012	3 months
31	Production hole	Sand, some gravel, clay, silt, halite	Orocobre announcement 23/10/2014	
20	Pump testing	Med-coarse clean gravel	Olaroz technical report 13/05/2011	6 days

Source: LPI

- ◆ Ongoing evaporation test work by LPI has again been positive, with the Company reporting on February 24, 2017 that over the three months of the test thus far, the brine lithium concentration has increased 5-fold from 1,260mg/l to over 6,300mg/l.
- ◆ This has been accompanied by the precipitation of KCl, with this showing the potential to produce a potassium by-product and thus enhancing the economics of any future project.
- ◆ Other work by the Company has included construction of a camp, including power supply.

**Figure 4: Resource upside potential**

Source: LPI

### Planned Activities

- ◆ Activities are targeted towards completion of the final feasibility study by the end of 2017, as shown in Figure 5, which will be followed by a pilot scale operations and brine sampling and testing.
- ◆ Current activities include the resource upgrade, due for completion in Q2, 2017 and ongoing evaporation test work.
- ◆ Work is also progressing on the engineering front, with the pilot plant design underway.
- ◆ LPI is looking at the option of using an existing third party pilot plant with interest being shown by some parties, which will significantly cut costs and time lines.
- ◆ LPI is also investigating rapid evaporation processing that has the potential to shorten evaporation times - this is known and not new technology,
- ◆ The Company has engaged a Tier 1 environmental consultancy group to carry out the environmental studies, with baseline studies already underway - it is planned to complete and submit the EIA by the end of 2017, in line with completion of the final feasibility study, with approval expected in 2018.

**Figure 5: Planned work programme**

Source: LPI

## BACKGROUND – LITHIUM AND MARKETS

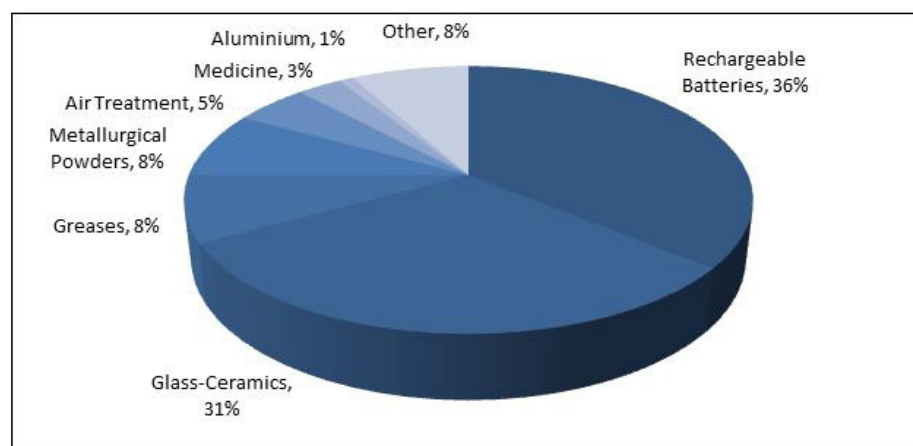
### What is Lithium?

- ◆ Lithium is an alkali metal; the lightest of all metals and the least dense of any of the elements that are solids at room temperature. Because of its inherent instability and reactivity it never occurs freely in nature, but only in compounds.

### Lithium Uses and Demand

- ◆ Lithium has a large number of uses, with the most relevant now being in rechargeable batteries, which in 2015 made up some 36% of the then annual demand of around 200,000t of lithium carbonate equivalent ("LCE"), which is the form that lithium grades and prices are most commonly quoted in - current LCE production is around 220,000tpa.

Figure 6: Lithium uses - 2015



Source: Company and research reports

- ◆ Some forecasters have the lithium market growing at +10% CAGR over the next 8 years, with this largely driven by demand for rechargeable batteries - this market has reportedly grown by 20% CAGR since 2000 (driven by the growth in consumer electronics and phones), with upcoming growth largely due to the expected increase in sales of electric vehicles.
- ◆ This would result in the demand for LCE growing from ~220,000tpa currently to 400,000tpa by 2025.
- ◆ On the more conservative side, Stormcrow, in their 2015 121 Hong Kong conference presentation, presented the possibility that by 2025 minimum additional LCE demand from batteries alone will be 104,000tpa, a 50% increase on current total LCE production and at a 4% CAGR.
- ◆ Other growing battery uses include home storage, and the potential for grid scale storage to be used in conjunction with solar and wind power generation.
- ◆ In Australia over the last 18 months we have seen AGL Energy launching a home storage product in Australia in line with Tesla's "Powerwall" announcements. The major battery producers are Japan, China and South Korea, with Tesla also now joining the fray.

### Lithium Products

- ◆ Lithium is supplied as, and prices quoted for a number of products, with the most common being lithium carbonate, followed by lithium hydroxide and lithium concentrates.
- ◆ Care has to be used in comparing reported grades, tonnages and expected revenues between companies when they are quoted on different bases.
- ◆ Lithium carbonate ( $\text{Li}_2\text{CO}_3$ ) contains around 18.8% lithium; therefore one tonne of lithium is equivalent to 5.3 tonnes of lithium carbonate.
- ◆ Another compound that is often quoted is lithium oxide –  $\text{Li}_2\text{O}$  – which contains 46.5% lithium, around 2.5 times that of LCE, with lithium hydroxide ( $\text{LiOH}$ , 29% Li) also being used – conversion factors are shown in Table 3.



**Table 3 :Lithium mineral/compound conversion factors**

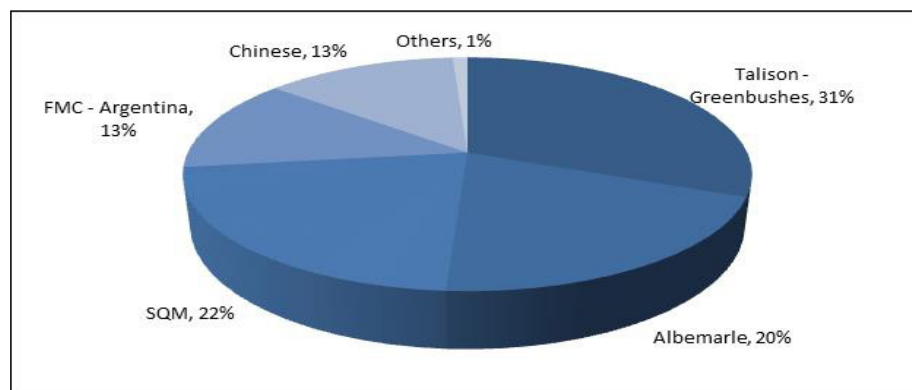
Lithium mineral/compound conversion factors						
Species	Formula	Lithium content	Convert to Li	Convert to Li <sub>2</sub> O	Convert to Li <sub>2</sub> CO <sub>3</sub>	Convert to LiOH
Lithium	Li	100%	1.000	2.152	5.322	3.451
Lithium Oxide	Li <sub>2</sub> O	46.46%	0.465	1.000	2.473	1.603
Lithium Carbonate	Li <sub>2</sub> CO <sub>3</sub>	18.79%	0.188	0.404	1.000	0.648
Lithium Hydroxide	LiOH	28.98%	0.290	0.365	1.542	1.000

Source: IIR analysis

- ◆ Lithium products come in three main specifications, with typical values as follows, and with these commanding different prices:
  - Industrial grade (+96% Li, 0.70% H<sub>2</sub>O, 0.50% Na<sub>2</sub>O) - glass, casting powders and greases.
  - Technical grade (~99.3% Li, 0.60% H<sub>2</sub>O, 0.20% Na<sub>2</sub>O) - ceramics, greases and batteries.
  - Battery grade (>99.5% Li, 0.50% H<sub>2</sub>O, 0.05% Na<sub>2</sub>O) - high end battery cathode materials

### Lithium Supply

- ◆ There are two main sources of lithium – brine deposits and hard rock spodumene deposits.
- ◆ Production from brine deposits involves the extraction by pumping of lithium rich brines in salt lakes, followed by concentration by evaporation in evaporation ponds. From this, the concentrated solutions are processed to end products, including lithium carbonate and lithium hydroxide.
- ◆ Common by- or co-products include potassium and boron salts, which can significantly improve the economics of brine operations.
- ◆ Key points that affect potential brine operations include lithium content, magnesium content (this is relatively expensive to remove, with a rule of thumb stating that the ratio of Mg to Li in brines must be below 10:1 for a brine deposit to be economical) and evaporation and rainfall rates – high evaporation rates results in lower costs as smaller ponds and shorter residence times are required.
- ◆ Brine deposits are further detailed in the section below.
- ◆ Spodumene (which is a lithium pyroxene – LiAl(SiO<sub>3</sub>)<sub>2</sub>) and other silicate mineral (including petalite and lepidolite) deposits are commonly hosted in pegmatites, and are mined by conventional hard rock open cut mining, followed by crushing and grinding, and extraction using a mixture of gravity, heavy media separation, magnetic separation and flotation to produce a concentrate, largely comprised of spodumene, but also commonly containing quartz and feldspar.
- ◆ Two spodumene concentrate qualities are often produced from the same deposit – a premium technical grade (“TG”) concentrate and a chemical grade (“CG”) concentrate, dependent upon customers’ requirements. A common by-product is tantalite and other tantalum minerals. The concentrate is then further treated to produce β-spodumene for ceramics, and LCE for other uses.
- ◆ TG concentrates, which are largely used in glass and ceramics applications, particularly in low thermal shock ceramics, require low iron contents (maximum of 0.2% Fe<sub>2</sub>O<sub>3</sub>, but significantly lower is preferred), and with LiO<sub>2</sub> grades of at least 6.5%. Specifications for CG concentrate, as used in battery applications, are less strict, with concomitant lower prices.
- ◆ The following graph shows a breakdown of the major producers - what this shows is that production outside of China is highly concentrated, with only a few companies in the business.

**Figure 7: Lithium producers by market share 2014**

Source: Albemarle Lithium Day presentation - 2015

- ◆ Both FMC and SQM operate brine operations in the Altiplano of Chile and Argentina – another company starting up there is Orocobre, which is currently ramping up production at its Olaroz Project.
- ◆ The largest single producer is the Greenbushes Mine in Western Australia, which is a hard rock spodumene producer and a joint venture between Albemarle (49%) and Sichuan Tianqui Lithium (51%).
- ◆ Greenbushes provides some 78% of global spodumene concentrates, with the balance made up largely by Chinese producers.
- ◆ Albemarle's other 20% share in the above graph comes from a number of brine operations in the US and Chile, which, when added to its holding in Talison, makes it the world's largest single producer of lithium with 35% of market share.
- ◆ Greenbushes produces some 65,000tpa of LCE, however is looking at expansions, including an LiOH plant at Kwinana, to double production to 130,000tpa of LCE by the end of 2018
- ◆ Recent developments in the hard rock space (and not included in the above graph) have seen the restart of Galaxy Resources (ASX: GXY, "Galaxy") Mt. Cattlin operation and the ramp up of the Mt. Marion operation, owned by Neometals Limited (13.8%, ASX: NMT, "Neometals"). Jiangxi Ganfeng Lithium Co. Limited (43.1%, SHE: 002460, "Ganfeng") and Mineral Resources Limited (43.1%, ASX: MIN, "MinRes").
- ◆ Both operations are in Western Australia, with Mt. Cattlin planning to produce up to 137,000tpa and Mt. Marion up to 400,000tpa of spodumene concentrate.
- ◆ Other near term expansion projects include Albemarle's Salar de Atacama operation, with the recent granting of the updated quota, and with production expected to increase from Orocobre's Olaroz operation with ramping up of commissioning.

### Lithium Pricing

- ◆ Like most specialty metals, pricing is opaque and set by direct negotiation between producer and customer - pricing is also dependent upon the type and relative quality of the product.
- ◆ Another difficulty involves the plethora of lithium products, however prices trend to track each other.
- ◆ Prices have increased significantly over since late 2015, with Chinese spot battery grade lithium carbonate prices recently reaching over US\$20,000/tonne CFR.
- ◆ This follows on from prices staying around US\$5,000 - US\$6,000/tonne in the preceding few years.
- ◆ These price rises have also been evident in the South American brine producers – according to the TRU Group these averaged around US\$4,500/tonne in 2014 (with battery grade product at a premium of US\$500-US\$1,000/tonne), however reached around US\$10,000/tonne in 2016 as presented in Company financial reports.
- ◆ Recently announced spodumene concentrate prices include US\$905/tonne for 6.0% Li<sub>2</sub>O product from Galaxy's Mt. Cattlin operation - this is equivalent to US\$6,000/tonne LCE.
- ◆ Spodumene concentrate prices however vary according to grade and levels of contaminants; however largely track that of lithium carbonate, albeit at a significant discount on an LCE basis due to the requirement for further processing.

- ◆ We see prices of lithium carbonate continuing to trade at around US\$8,000 to US\$10,000/tonne, however this could be considered a conservative view.

### Where to From Here?

- ◆ This depends upon who you listen to!
- ◆ Various commentators forecast demand to rise at between 5% and 10% CAGR over the next 8 years, with this resulting in additional demand of at least between 100,000tpa LCE and 200,000tpa LCE by 2025.
- ◆ This increase in demand should continue to support current prices, and we could conceivably see further price increases.
- ◆ However there is the ready potential for the current oligopoly to increase production to meet any demand increases, and also the potential to price new players that are considered a threat out of the market – just two upcoming expansion projects, Greenbushes and Albemarle's Salar de Atacama Project have the potential to add up to 100,000tpa LCE into the market.
- ◆ In addition if Mt. Marion and Mt. Cattlin reach their combined targets of 537,000tpa spodumene concentrate have the capacity to supply an additional 50,000tpa of LCE into the market, assuming average concentrate grades of 5.0% LiO<sub>2</sub> and metallurgical recoveries of 75%.
- ◆ However, by virtue of their relatively low cost, any new Chilean Tier 1 brine projects should have the capacity to be successfully developed - any fall in prices due to excess supply would likely lead to cutbacks in production from the lower margin hard rock operators.

## BACKGROUND – LITHIUM BRINE DEPOSITS

### General Characteristics and Geology

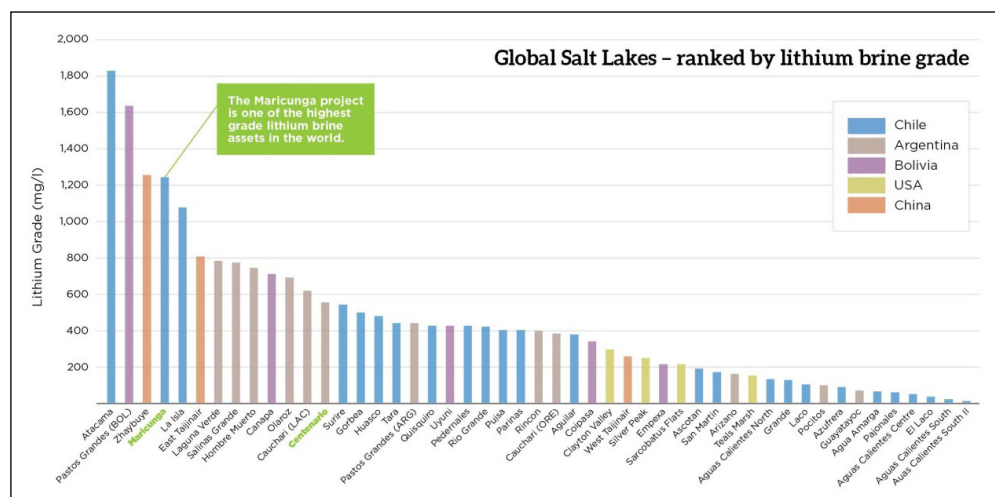
- ◆ Salars can be classified according to “mature” and “immature” end members.
- ◆ “Immature clastic” salars are characterised by significant thicknesses of clastic sediments with gypsum dominated evaporite interbeds, with porosity and permeability characterised by primary depositional features, which can be highly variable given the nature of the sediments.
- ◆ The clastic controlled characteristics can extend to several hundred metres depth – the recent drilling by LPI at Salar de Maricunga has demonstrated this with hole S19 intersecting porous, lithium brine rich sediments down to at least 360m depth.
- ◆ “Mature halite” salars are characterised by high permeability at shallow levels, however this decreases rapidly with increase in depth due to salt recrystallising and sealing fractures – in these salars exploitable resources are limited to shallow depths, generally down to around 50m.
- ◆ The immature salars are commonly found at higher and wetter elevations, with the mature type at lower and more arid elevations.
- ◆ A number of factors are essential in the formation of lithium rich, potentially exploitable saline brines:
  - Arid climate – low rainfall.
  - High evaporation rates.
  - Closed basin, with ongoing tectonic subsidence.
  - Suitable lithium source rocks.
  - Thick aquifers with permissive porosity and permeability to allow efficient extraction of the brines.
- ◆ Ongoing hydrothermal activity is also considered important for a number of reasons, including enhancing leaching of lithium from source rocks amongst others.
- ◆ A magnesium to lithium ratio of under 9:1 or 10:1 is also considered essential, given that magnesium is a deleterious element, and incurs additional operating costs in removal.
- ◆ High potassium grades are considered positive, as potassium salts can be produced as a by-product; other potential by-products include boron.

- ◆ High lithium grades and high evaporation rates generally help operating and capital costs, in that relatively smaller evaporation ponds and shorter residence times are required to concentrate the brines to the specifications required by the downstream processing plants.
- ◆ As shown in Table 4 Salar de Maricunga meets all of these requirements, and compares very well with other salars in South America, especially with regards to its exceptional lithium and potassium grades.
- ◆ As mentioned earlier the salar has the highest lithium grade of any undeveloped resource in the Americas, and has the fourth highest lithium resource grade of any salar globally.
- ◆ Other factors that affect the viability of a lithium brine operation include access to infrastructure and the operating jurisdiction – again Salar de Maricunga is located favourably with respect to these parameters.

**Table 4: Characteristics of South American salars**

Characteristics of South American salars						
	Salar de Maricunga	Salar de Atacama	Salar de Centenario	Salar de Hombre Muerto	Salar de Olaroz	Salar de Cauchari
Country	Chile	Chile	Argentina	Argentina	Argentina	Argentina
Owner	LPI/MSB/Li3	SQM/ALB	LPI/Eramet	FMC/Lithium One	Orocobre/Lithium Americas	Orocobre/Lithium Americas
Lithium (g/l)	1.25	1.84	0.56	0.74	0.69	0.59
Potassium (g/l)	8.97	22.63	5.11	7.40	5.73	4.85
Magnesium (g/l)	8.28	11.74	3.26	1.02	1.86	1.42
Mg/Li	6.63	6.40	5.87	1.40	2.40	2.43
K/Li	7.18	12.33	9.20	9.95	8.30	8.30
K/Mg	1.08	1.93	1.57	7.26	3.46	3.58
Altitude (m)	3800	2300	3900	4000	3900	3900
Rainfall (mm/yr)	125	15	100	100	100	100
Evaporation (mm/yr)	2400	3200	2600	2710	2600	2600

Source: LPI, from various company reports and presentations

**Figure 8: Global comparison – lithium grades in salt lakes**

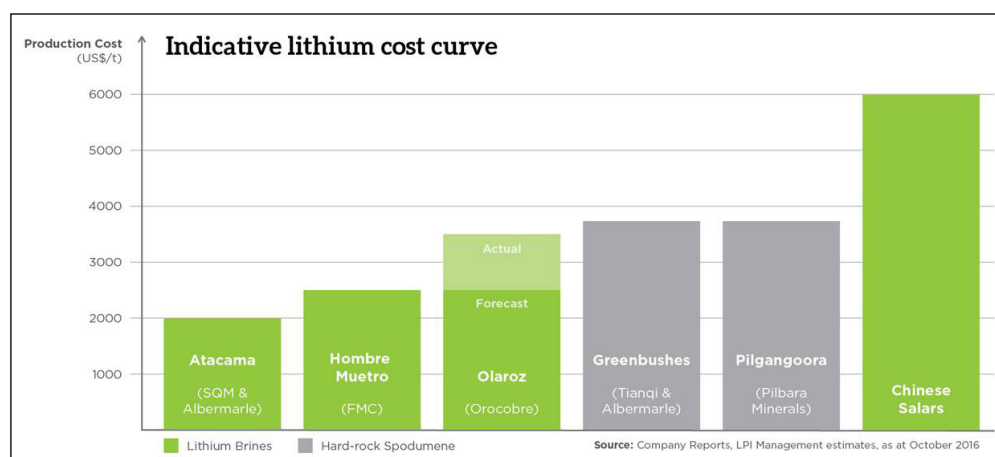
Source: LPI

## Mining and Treatment

- ◆ Mining and treatment of lithium brine deposits is relatively simple, and results in generally low operating costs when compared to hard rock lithium operations – a comparison of operating costs is shown in Figure 9.
- ◆ Of the projects presented on the graph the Atacama projects are in Chile (in the same region as Salar Maricunga), Hombre Muerto and Olaroz are in Argentina and the spodumene projects are in Western Australia

- ◆ What this does show are the high margins for a brine business producing lithium carbonate and other downstream products – hard rock operations commonly produce and sell only concentrate, which can be discounted by up to 60% on an LCE basis compared to the downstream products to allow for the processing costs.
- ◆ Capital costs however are relatively high for brine operations, and there can be a longer ramp up to production than in a hard rock mine.
- ◆ Treatment involves the harvesting of brines from wells or trenches, with the lithium content in the brine upgraded through evaporation in a series of evaporation ponds.
- ◆ Recoverable resources are commonly significantly lower than in-situ resources, with brine recovery factors commonly in the order of 20-70%.
- ◆ The evaporation process, which can take up to 12-18 months to complete and can include up to 10 stages, results in the progressive precipitation of various salts from the brines.
- ◆ As mentioned earlier LPI is looking at rapid evaporation processing that has the potential to shorten this time frame.

**Figure 9: Indicative lithium cost curve**



Source: LPI

- ◆ The first salt to precipitate is usually halite (NaCl), commonly followed by sylvite (KCl) and then more magnesium rich species.
- ◆ The aim of the evaporation process is to increase the lithium grade to at least ~1-2% or above, at which point it is treated to produce the end products including lithium carbonate and lithium hydroxide.
- ◆ Treatment may include the addition of reagents, including soda ash to remove magnesium – depending on the magnesium to lithium ratio this can significantly increase operating costs.

## PEER GROUP ANALYSIS

- ◆ There are only limited listed companies globally exploring for and developing lithium brine projects, with these presented in Table 5.
- ◆ The majority of the projects are located in Argentina, with the exception of Clayton Valley (Nevada) and Salar de Maricunga (Chile)
- ◆ We have included Bearing Resources, assuming completion of the merger with Li3, with the merged entity holding 17.7% of Maricunga.
- ◆ In our table we have included enterprise value ("EV"), which is calculated from undiluted market capitalisation + net debt – cash to give an indicative value for the relevant companies projects.
- ◆ Where debt facilities are in place (as in the case of LAC) we have assumed that it has been fully drawn down and also ownership structures are based on the ultimate ownership structure under any agreements in place.
- ◆ We have not ascribed any value for other projects that the companies may have in their portfolios.



- ◆ Using the EV we have calculated the EV/tonne of the company's share of contained LCE resources that can be used as a comparison between companies – however care should be used when using this figure, which we consider as indicative only, and will vary according to a number of factors.
- ◆ One such factor concerns large resources that can potentially support a multi-decade operation (even when the generally relatively low recoverability of brines is taken into account) – such resources are commonly discounted past what will support a reasonable throughput 10 - 20 year operation – an example below may be LAC, which, although in construction, has a relatively low EV/tonne of contained LCE in the peer group.
- ◆ A critical factor to be considered is the recovery factor – figures given below are in-situ resources, and not recoverable resources, with recovery factors being highly variable between different projects and within salars - this will have a significant effect on recoverable resources, thus affecting the relative valuations.

**Table 5: LPI peer group comparison**

LPI peer group comparison								
Company	Code	Project	EV (A\$m)	LCE (mt)	Li Grade (mg/l)	Ultimate Ownership	EV/t LCE (A\$)	Stage
Orocobre Limited	ASX:ORL	Salar Olaroz	\$761	6.8	690	66.5%	\$168	Producer
Lithium Americas Corp	TSX:LAC	Cauchari-Olaroz	\$605	11.8	666	50.0%	\$102	Construction
Lithium X Energy Corp	TSXV:LIX	Sal de Los Angeles	\$116	2.1	501	80.0%	\$71	M&I Resource
Wealth Minerals Ltd	TSXV:WML	Salar Atacama	\$96	N/A	N/A	100.0%	N/A	Exploration
Neo Lithium Corp	TSXV:NLC	Tres Quebrados	\$72	N/A	N/A	100.0%	N/A	Exploration
<b>Lithium Power International</b>	<b>ASX:LPI</b>	<b>Salar Maricunga</b>	<b>\$61</b>	<b>0.6<sup>1</sup></b>	<b>1,250</b>	<b>50.0%</b>	<b>\$213<sup>1</sup></b>	<b>M&amp;I Resource</b>
Bearing Resources <sup>2</sup>	TSXV:BRZ	Salar Maricunga	\$42	0.6	1,250	17.7%	\$411	M&I Resource
Millennial Lithium Corp	TSXV:ML	Pastos Grandes	\$36	N/A	N/A	100.0%	N/A	Exploration
Pure Energy Minerals	TSXV:PE	Clayton Valley	\$33	0.8	102	100.0%	\$40	Inferred Resource
Advantage Lithium Corp	TSXV:AAL	Cauchari	\$30	0.5	380	75.0%	\$85	Inferred Resource

Source: IRESS, Company reports

1. The figures for LPI will change with the upcoming resource upgrade: 2. BRZ figures assume merger completion.

- ◆ A number of points can be noted in the above table.
- ◆ The EV for Orocobre currently values Olaroz as an A\$1.15 billion project – this is even though there have been issues ramping up, and with a share price that has retreated some 60% over the past month.
- ◆ Orocobre is forecasting production of 12,000 - 12,500t LCE in CY2017, with plans for a ramp up to 35,000tpa by the end of CY2018 – at estimated CY2017 production rates this values Olaroz at ~A\$94,000/annual tonne of LCE production, and may provide a guide to potential values for companies once in operation.
- ◆ The Cauchari-Olaroz project of LAC/SQM is due to commence construction in 2017, with funding being provided to LAC by a US\$286 million project funding facility with Ganfeng Lithium and Bangchak Petroleum – this includes US\$81 million in equity investments in LAC and US\$205 million in debt.
- ◆ Production is planned for 2019, with an initial production rate of 25,000tpa LCE, scalable to 50,000tpa LCE – at the lower production rate the implied \$1.21 billion project pre-construction value equates to a value of A\$48,400/annual tonne of forecast LCE production.
- ◆ We note the two exploration companies with EV's of around A\$70 - A\$100 million.
- ◆ LPI, by virtue of grade, has the only Tier 1 brine asset in the mix that has a resource – the Argentinean and US brines are considered Tier 2 and 3.
- ◆ Despite this the Company has a relatively low EV when compared to peers, and we would consider it undervalued.

## VALUATION

- ◆ Given that there is no publicly released production guidance, we are unable to carry out a DCF valuation for the Maricunga Lithium Project.
- ◆ Also, given the paucity of lithium brine projects and the different stages of development it is very difficult to directly compare LPI to values of comparative companies.
- ◆ However other techniques may be used – these include using comparative transactions, and also an indicative multiple of in-ground values.
- ◆ We present both methods below, however both need to be considered as indicative only given comments and uncertainties raised in the relevant text.
- ◆ In summary our IGv analysis results in an indicative Maricunga Lithium Project valuation range of A\$0.70 - A\$1.12/share, with a mid point value of A\$0.91/share, with the comparable transaction method resulting in a value of A\$0.90/share.
- ◆ We have ascribed the other projects a value of A\$15 million, and included cash as at December 31, 2016 of A\$7.12 million.
- ◆ This results in a mid-point per share valuation of A\$1.04/share for LPI as shown in Table 6.

**Table 6: LPI valuation**

LPI Valuation						
Asset	Total Value (A\$m)			Per Share Value (A\$)		
	Low	Mid	High	Low	Mid	High
Maricunga Lithium	\$115	\$150	\$184	\$0.70	\$0.91	\$1.12
Other Projects	\$15	\$15	\$15	\$0.09	\$0.09	\$0.09
Cash	\$7	\$7	\$7	\$0.04	\$0.04	\$0.04
<b>Total</b>	<b>\$137</b>	<b>\$172</b>	<b>\$206</b>	<b>\$0.83</b>	<b>\$1.04</b>	<b>\$1.25</b>

Source: IIR analysis

### Comparable Transaction – Bearing Merger with Li3

- ◆ On November 26, 2016 Bearing (TSX-V: BRZ) announced that it was merging with Li3, with the consideration being 18.4 million shares in Bearing, with this including shares for debt repayment.
- ◆ With 21.4 million shares currently on issue, the merged structure would include 39.8 million shares.
- ◆ The merger is still going through the regulatory processes, and is expected to close in Q2, 2017.
- ◆ At the time of the announcement Bearing's share price was C\$0.43/share – it subsequently steadily rose to ~C\$1.05/share, spiked to C\$1.64/share and has subsequently retreated to C\$1.05/share.
- ◆ The question (and one uncertainty in the valuation) here is what share price reflects the true value of the deal – is it that at the time of the announcement, or can it be assumed to be the price of C\$1.05, at which the stock settled for a while – we have used the latter here given the recent buoyancy in the lithium markets and rise in lithium prices.
- ◆ Bearing currently has cash of C\$2.7 million, and using a share price of C\$1.05 gives the Company a merged EV of \$41.8 million - we understand that there is debt in Li3 that is not disclosed publicly, but the quantum that we understand that this has in on our valuation calculation is not material, give the other uncertain factors.
- ◆ Assuming that Salar de Maricunga is ascribed all value; this implies a project valuation, on the merger terms, of C\$236 million, and thus valuing LPI's 50% stake at C\$118 million.
- ◆ Using an AUD/CAD exchange rate of parity, values LPI's stake at A\$118 million, or A\$0.72/share, a 73% premium to the current price.
- ◆ It could be argued that the transaction includes a discount for being a minority interest in the Project – assuming a discount of 20% (or a premium of 25% from the discounted price) results in a valuation of LPI's share of A\$148 million or A\$0.90/share - a 117% premium to the current share price.
- ◆ This method is also limited given we are only aware of this one recent publicly disclosed transaction involving brines with a mineral resource estimate.

## Multiple of In-Ground Value

- ◆ This is a rule of thumb method, and needs to be treated with care, however is useful for first pass estimates of potential value.
- ◆ Here we use factors, largely related to the confidence of the resource, and apply them to the in-ground value to arrive at an indicative valuation – this should ideally be used with other methods.
- ◆ The IGV of 574,000t of LCE at current prices of US\$10,000/t is US\$5.75 billion.
- ◆ It needs to be noted that this will change with the upcoming resource upgrade.
- ◆ Calculating the IGV of recoverable resources, using say a 40% recovery factor for the brine, gives an IGV of US\$2.30 billion.
- ◆ As a rule of thumb, given the grade and high margin nature of the operation the NPV can be set at 15% of IGV, which would make an indicative project NPV of US\$345 million.
- ◆ LPI's 50% share is therefore indicatively worth US\$172 million in the ground.
- ◆ This provides a range, discounted for resource confidence (50-80% for Measured Resources) of US\$86 - US\$138 million.
- ◆ At a AUD/USD exchange rate of 0.75 this results in an indicative value of A\$115 - A\$184 million for 50% of the project, or A\$0.70 - A\$1.12/share undiluted.

## CAPITAL STRUCTURE

- ◆ LPI currently has 164.3 million ordinary shares (of which 51.4 million are escrowed to at least 24 June, 2018) on issue.
- ◆ The Company has 37.5 million listed options and 29.5 million unlisted options on issue.
- ◆ 29.3 million unlisted options are currently in the money, with the potential to bring in \$5.9 million if exercised, however the majority of these are escrowed to June 24, 2018.
- ◆ Although currently out of the money, the A\$0.55 listed options, which have an expiry date of November 27, 2017, have the potential to bring in close to A\$21 million should they be converted.
- ◆ The top shareholder at 12.78% is the Managing Director, Martin Holland, with directors holding ~36.7% of the stock.
- ◆ The Company has over 1,200 shareholders, with the top 20 holding 59.06%.

## RISKS

- ◆ **Lithium regulatory environment:** Our view is that this is the key risk facing LPI given the current uncertainty in the lithium regulations, however there is a good possibility that the situation will improve.
- ◆ **Permitting:** This is a risk facing any potential developer, however Chile has a well understood permitting environment; issues we see may involve delays rather than failure to permit (except for that mentioned above).
- ◆ **Resource:** With this we include aspects such as pump testing and evaporation test work, with these being the key technical risks, however the very positive results of work seem to have somewhat mitigated these risks.
- ◆ **Funding:** This may be an issue should the lithium market crash over the period that the PFS and BFS are being undertaken – the Company is going to need to raise appreciable cash to fund the studies and complete the earn-in and this may dry up should markets turn - this is largely covered with potential option conversions in a continuing good market.

## BOARD AND MANAGEMENT

- ◆ **Mr David Hannon – Non-Executive Chairman:** Mr. Hannon holds a Bachelor of Economics from Macquarie University and is a Fellow of the Financial Services Institute of Australia (FINSIA). Mr. Hannon commenced his commercial career as a stockbroker/Investment banker in 1985. He later became a Director of a private Investment bank specialising in venture capital with a focus on the mining sector. Mr. Hannon has operated a private Investment group, Chifley Investor Group Pty Limited for over 15 years.

Mr. Hannon's other listed mining company experience involves being a founding Director of Atlas Iron Limited ("Atlas") in 2004. Mr. Hannon remained a member of the Atlas Board for 10 years and was Chairman while it maintained its position as a member of the ASX 100 Index with a market capitalisation of over A\$2b. Throughout this period Mr. Hannon held various positions including Chairman of the Audit Committee and Chairman of the Nominations and Remunerations Committee. While Atlas embarked upon an iron ore growth strategy of its Pilbara assets it became the fourth largest iron ore producer in Australia.

- ◆ **Martin Holland – Managing Director/Chief Executive Officer:** Mr Holland has 11 years' management experience focusing on the mining exploration sector. Previously he was CEO of gold explorer Stratum Metals Limited from 2010 to 2014, which listed on ASX in 2011. Mr. Holland is Chairman of Sydney based private investment company, Holland International Pty Limited, which has strong working relationships with leading institutions and banks across Australia and the Asia Pacific region.
- ◆ **Mr Reccared (Ricky) Fertig – Non-Executive Director/Chairman Minera Salar Blanca S.A.:** Mr Fertig is a senior executive with 30 years' international commercial experience across mining, property, healthcare and services sector. Mr. Fertig is the Chief Executive Officer of Adrenna Property Group Limited, a property fund listed on the Johannesburg Stock Exchange. He is also chairman of Quyn International Outsource, a South African-based human resource group that has over 3,000 employees in Southern Africa, servicing the mining, construction and commercial industries; RMS Corporate Solutions, one of the leading property and facilities management companies in Southern Africa; and East Sydney Private Hospital in Sydney, Australia, which he co-founded.
- ◆ **Mr Andrew Phillips (B.B.S.) – Non-Executive Director/Company Secretary/CFO:** Mr Phillips has over 25 years of commercial and financial experience internationally. He has previously held senior management roles with Aristocrat, Allianz, Hoya Lens and Sequoia, with additional board experience in the small cap resources sector.
- ◆ **Dr Luis Ignacio Silva P (PGeo, Ph.D., CEng) – Non-Executive Director/Latin America Regional Manager:** Dr. Silva has over 40 years' experience in mining exploration and environmental studies, which includes the lithium sector over the last 10 years. He has managed projects in Chile and Panama and has additional experience in Argentina, Bolivia, Costa Rica and Peru. He was previously Deputy Manager of Geology at SERNAGEOMIM (the Chilean Geological Survey) for two years, from February 2012 to April 2014. Prior to that he was the Exploration and General Manager for Talison's Salares-7 lithium project from December 2009 to December 2011. He has worked with some of the largest mining companies in the world, including Talison, Freeport, Amax, Barrick, Lundin, Homestake, Cyprus, Phelps Dodge, Pegasus, Cominco, CNC, and Codelco and the Chilean Nuclear Energy Commission.
- ◆ **Mr Murray Brooker (Bsc (Hons), MSc (Geology), MSc (Hydrogeology)) – Group Technical and Exploration Advisor:** Mr Brooker is a geologist with 25 years of experience, specialising in lithium prospecting and exploration. He has lead teams in Argentina, Chile and Australia throughout his career, and is a very well respected and connected lithium expert in South America. Most recently, Mr Brooker was the JORC Competent Person for Orocobre Lithium brine projects in Argentina. Mr Brooker has experience in managing groups of geoscientists, project management for development projects, conducting project evaluations, project generation, CP/QP reporting and interpretation of satellite imagery, geological and geophysical data.
- ◆ **Mr Peter Ehren - Independent Expert, Brine Processing:** International expert in brine process engineering brine and chemistry. Involved in many lithium brine projects in Chile and Argentina. Developed the process for the most recent operating lithium brine project in Argentina.
- ◆ **Mr Stuart Peterson (BSc (Geology & Earth Sciences)) – Exploration Manager:** Mr Peterson is an exploration geologist with over 12 years experience in the field. He has gained hard-rock lithium experience in his previous role at Mineral Resources at their Mt Marion lithium project in Western Australia. In that role, Mr Peterson had direct exposure to all near-mine extensional drilling programs on their lithium-hosted pegmatite deposits (Spodumene/kunzite). Prior to that, he has held Exploration Management roles with White Lion Enterprises and Spitfire Materials, plus geological positions with Murchison Metals, SinoSteel, and Epsilon Energy. He is a Member of AusIMM.

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