

ASX RELEASE

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RESERVE ESTIMATE AND RESOURCE UPDATE FOR MARICUNGA LITHIUM BRINE PROJECT

Highlights

- ✓ Maiden Reserve estimate reported in accordance with JORC guidelines and NI 43-101 international standards, for a total of 742,000 tonnes of LCE¹ thus exceeding the 20-year project mine life production needs.
- ✓ Resources updated to a total of 2,070,000 tonnes of Lithium Carbonate (LCE) now all classified as Measured or Indicated following the drilling of two additional 200 m deep holes.
- ✓ Life of mine extraction concentration between 1,050 and 1,200 mg/l lithium.
- ✓ Definitive Feasibility Study (DFS) is in the final stages of preparation for release.

Lithium Power International Limited (ASX: LPI) (LPI or the Company) through its Joint Venture (JV) Company, Minera Salar Blanco S.A. (MSB), is pleased to provide details of the maiden Ore Reserve and Mineral Resource update for its Maricunga lithium brine project in northern Chile (Figure 1).

Lithium Power International's Chief Executive Officer, Cristobal Garcia-Huidobro, commented:

"Producing the maiden Reserve and updated Resource, is an important step forward for the company and a key part of the project Definitive Feasibility Study, to be released in the coming days. The Reserve more than supports 20 years of production, with an average input grade of brine pumped from aquifers to the ponds of between 1,050 and 1,200 mg/l lithium, highlighting the exceptional grade of the Maricunga project. An optimized well field design supports brine extraction over the life of project from within the MSB properties."

¹ After 58% lithium process recovery efficiency, the total recovered Reserve is 430,000 tonnes LCE (118,000 tonnes Proved - 313,000 Probable).

Executive Summary and Key Outcomes

The Mineral Resource estimate consists of 100% Indicated and Measured Resources, with the previous 20% Inferred Resources converted to Indicated Resources following the drilling of two additional sonic holes to 200 m in 2H18 for a revised Resource of 2.07 Mt of lithium Resources (Tables 1 and 2). The estimated Mineral Resources used in the Definitive Feasibility Study has been prepared by competent persons and reported in accordance with requirements of the 2012 JORC code.

A hydrogeological model was developed to define a maiden brine Reserve for the project, taking into account brine recovery from the aquifers in the salar. An overall mining Reserve of 742,000 tonnes of LCE has been defined, for brine extracted from the aquifer and pumped to the ponds, of which 203,000 is classified as Proved and 539,000 as Probable (Table 3). Proved Resources represent those in the old mining code *Cocina* property and the first 7 years of production from the *Litio* properties in the salar. The remaining Reserves are classified as Probable. When the lithium pond and process recovery efficiency of 58% is applied, the total recovered LCE equates to 430,000 tonnes, of which 27% derives from Proved Ore and 73% is derived from Probable Ore in brine fed to the ponds (Table 4).

This 430,000 tonnes of defined Reserve for the project exceeds the 20 years of production at 20 Ktpa of lithium carbonate, based on the Resource and Reserve defined to 200 m depth. The company believes there is also considerable scope to add additional Resources, and probably Reserves, below the current Resource drilling depth of 200 m.

Table 1: Updated December 2018 Mineral Resource Estimate for Lithium Metal (Li) and Potassium

	Measured (M)		Indicated (I)		M+I	
	Li	K	Li	K	Li	K
Property Area (Km ²)	18.88		6.43		25.31	
Aquifer volume (km ³)	3.05		1.94		5	
Mean specific yield (Sy)	0.04		0.11		0.07	
Brine volume (km ³)	0.13		0.21		0.35	
Mean grade (g/m ³)	48	349	128	923	79	572
Concentration (mg/L)	1,175	8,624	1,153	8,306	1,167	8,500
Resource (tonnes)	146,000	1,065,000	244,000	1,754,000	389,000	2,818,000

Notes to the Resource estimate: 1. CIM definitions were followed for Mineral Resources; 2. The Qualified Person for this Mineral Resource estimate is Frits Reidel, CPG; 3. No cut-off values have been applied to the Resource estimate; 4. Numbers may not add due to rounding; 5. The effective date is December 24 2018.

Table 2: December 2018 Lithium Carbonate (LCE) and Potash Mineral Resource Estimate

	Total Resource (M+I)	
Product	LCE (Li ₂ CO ₃)	Potash (KCl)
Tonnes	2,070,000	5,383,000

Table 3: Mining Reserve for Pumped Lithium and Lithium Carbonate (LCE)

Concession	Category	Extraction Years	Brine Vol. (Mm ³)	Avg Li Conc. (mg/l)	Li Metal (tonnes)	LCE (tonnes)
Old Mining Code	Proved	1-7	21	1,051	22,000	115,000
	Probable	1-18	42	1,068	45,000	241,000
New Mining Code (Litio 1-6)	Proved	7-14	14	1,184	17,000	88,000
	Probable	14-23	48	1,170	56,000	298,000
Total 20 years production			117		130,000	692,000
Mining Reserve			125		139,000	742,000

Table 4: Production of Lithium Carbonate (LCE) (reflecting the 58% lithium process recovery efficiency post pumping)

Concession	Category	Extraction Years	Brine Vol. (Mm ³)	Avg Li Conc. (mg/l)	Li Metal (tonnes)	LCE (tonnes)
Old Mining Code	Proved	1-7	21	1,051	13,000	67,000
	Probable	1-18	42	1,068	26,000	140,000
New Mining Code (Litio 1-6)	Proved	7-14	14	1,184	10,000	51,000
	Probable	14-23	48	1,170	32,000	173,000
Total 20 years production			117		75,000	401,000
Production Available			125		81,000	430,000

See below Table 10 for footnotes to the reserve.

Project Background

The mineralization style of the Maricunga lithium brine project is that of a salt lake (salar) where lithium (Li, for electronic applications and battery production) and potassium (KCL, for production of potassium chloride fertilizer - Potash) are dissolved in brine, hosted in pore spaces within the lake sediments. MSB's Maricunga project is considered to be one of the highest grade lithium brine projects in existence.

It is important to note that there are fundamental differences between salt lake brine deposits and hard rock metal deposits. Brine is a fluid hosted in porous sediment and has the ability to flow in response to pumping or use of a natural hydraulic gradient. Brine projects almost always have lower operating costs than hard rock projects, because there is no need to crush rock and sell a low grade concentrate for refining. Instead, brine operations directly produce and sell a high grade saleable lithium carbonate product.

Project Geology

Geological Setting

The Salar de Maricunga (Maricunga Salar) is located within a large drainage basin of approximately 2,200 km² located to the west of the western Andes cordillera. The basin enclosing the Maricunga Salar has surrounding mountain ranges that have been raised by inverse faults that expose a basement sequence ranging in age from Upper Paleozoic to Lower Tertiary (Figure 2).

Figure 1: Maricunga project location in the Lithium Triangle in Chile



The Maricunga Salar has an ellipsoidal shape, covering an area of approximately 140 km² in the northern sector of the Maricunga basin, with a NNE-SSW trending axis approximately 23 km long and an approximately east-west axis of 10 km wide. The salar proper is surrounded on the northwest, north, northeast, east and south by Quaternary and Miocene-Cenozoic alluvial deposits and on the west and southwest by volcanic rocks of Upper Miocene age. The asymmetric shape of the salar suggests the importance of faulting in the basin, with movement along faults trending north to northeast during Quaternary time.

The clastic sediments bordering the salar on the north, northwest and west sides are composed of fluvial Quaternary sands and gravels of mixed size and composition. In addition to drilling undertaken by the Joint Venture, there are a number of historical drill holes outside the salar which provide useful information on the distribution of the clastic sediments outside the salar.

Geological Interpretation

Correlation between MSB's drill holes has allowed recognition of different sediment units, which vary in thickness and lateral extent. These represent variations between lithologies originally deposited in a dry salt lake environment (salt, clays) and those deposited by flooding and transportation of coarser grained material (sands, gravels, volcanoclastic sediments). The distribution of these units is shown in Figures 3. Interpretation is based on the 2016-18 drilling program (S and M-holes) and the 2011 C-series (sonic) and P-series (Reverse Circulation) drill holes. The general distribution of units from top to bottom consists of the:

- Upper Halite unit (salt) with salt+clay intervals - This unit is present at surface in the north of the salar. The upper halite unit thickness is up to generally 15 to 30 m thick and thins to the east, west and north through the project area. This upper halite unit has relatively high drainable porosity and permeability (discussed in subsequent sections), with clay interbeds reducing the drainable porosity and permeability at different depths;
- Clay Core - This clay unit is located predominantly beneath the *Litio 1-6* properties and thickens towards the south and east, extending to a depth of approximately 100 m in C1 and C2 and to a depth of 170 m in S18. This unit is absent in the western properties, which contain dominantly coarser material. The clay unit has low drainable porosity and was the predominant unit intersected in the 2012 drilling campaign;
- Deeper halite - This localized deeper halite (salt) unit within the clay core was intersected in holes S18 and C3. It has a thickness of approximately 20 m and represents a previous salar surface and has relatively lower drainable porosity than the upper halite unit due to compaction;
- Eastern Alluvium - This unit consists of clean gravels to clayey gravels and has moderate drainable porosity. This unit is present to the east of the *Litio 1-6* properties and becomes interbedded with sediments of the clay core and sands within the salar. The unit is heterogeneous, with gravel fragments in a matrix of sand, silt and clay;
- Northwest Alluvium - This unit consists of a well sorted gravel and sandy gravel in the north and west of the project area and is part of the alluvial / fluvial fan system entering the salar from the west and northwest. The unit may locally contain sub-rounded fragments and sand. The northwest gravel unit has a high drainable porosity.

- Lower Alluvial - This unit consists dominantly of sands and is spatially interpreted as the distal part of Northwest gravel alluvial/fluvial system that enters the salar from the northwest. This unit is interbedded with the clay core further east in the salar;
- Upper Volcaniclastic - This upper volcaniclastic unit is very friable and matrix supported, with sub angular fragments including pumice material. A maximum thickness of 139 m was intersected in hole M2 (S11) and it is interpreted to thin further east in the salar. The Upper Volcaniclastic has a high drainable porosity;
- Lower Sand - A lower sand unit is recognized separating the upper and lower volcaniclastic units and is interpreted as reworked material from the lower volcaniclastic unit. This unit consists of medium to fine sand which has moderate sorting and a moderate porosity due to the presence of a finer grained matrix; and
- Lower Volcaniclastic - A lower volcaniclastic unit has been intersected to the base of the current drilling including in deep hole (S-19) to a depth of 360 m, with a thickness of 78 m to the base of the hole. The unit is homogeneous and friable with a fine to medium sand texture and some silt, also containing some pumice fragments. The Lower Volcaniclastic has a high drainable porosity.

Surface Water Hydrology

The catchment which comprises the Maricunga salar covers an area of 2,200 km², with the salar the low point to which water flows within the catchment. The catchment is entirely closed and there is no surface water outflow from the basin. Evaluation of flow patterns within the catchment show that water flows towards the north of the salar, with seasonal flooding around the margin of the *Litio 1-6* and *Cocina* properties from summer rain and some winter snowfall, balanced by evaporation of this surface water. Seasonal flooding is more extensive further south in the salar.

Groundwater Hydrology

The salar is the topographic low point within the Maricunga Basin. The salar itself is surrounded by alluvial fans which drain into the salar. In the north of the salar the water table can be within approximately 5 cm of the surface, promoting evaporation of shallow groundwater in the marginal sediment surrounding the salar and the salar nucleus, resulting in hyper-saline brine (6 times more concentrated than sea water) which contains elevated concentrations of lithium and potassium. Interpretation of drilling and testing results in the salar and the surrounding alluvial fans by MSB suggests the occurrence of several hydrogeological units of importance that is summarized below:

Figure 2: Geological map of the Maricunga Basin showing the section line of Figure 3. *Litio* properties are in yellow and more recently acquired properties in red

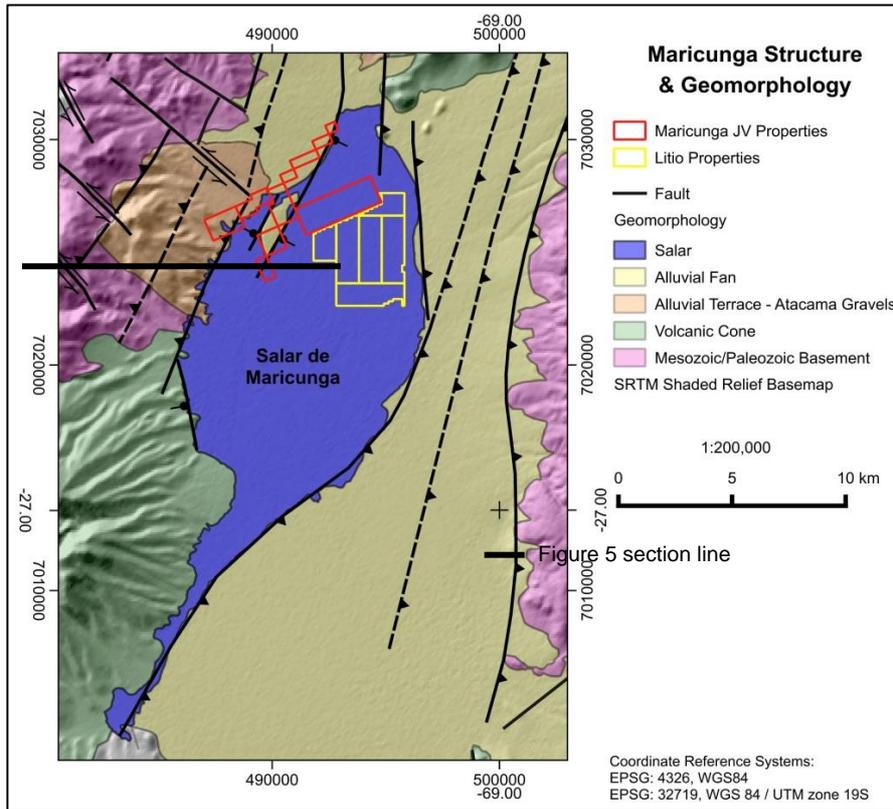
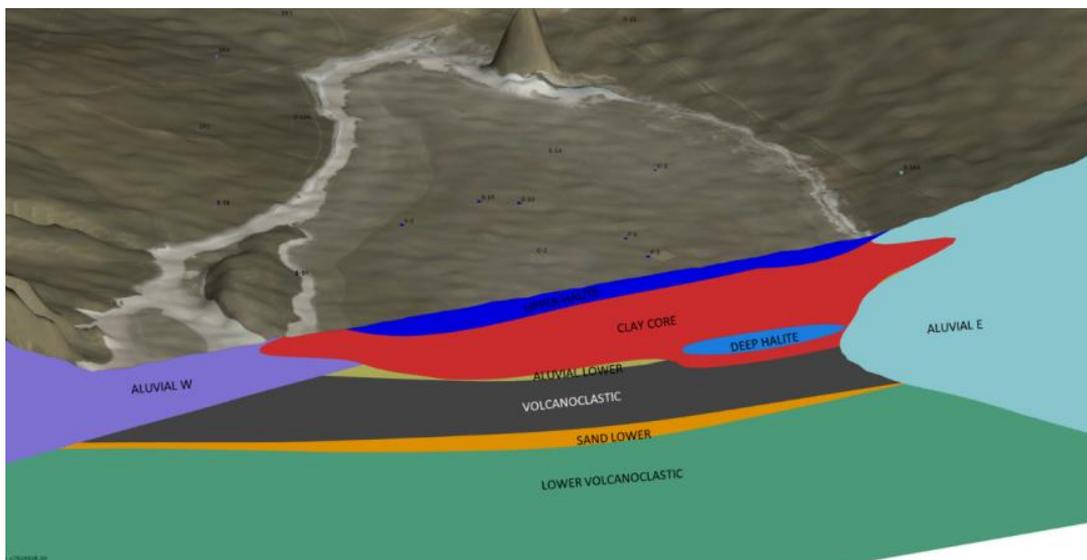


Figure 3: East-West cross section looking north, showing the major geological units



- Alluvial fans surrounding the salar - These are coarse grained and overall highly permeable units that drain towards the salar. Groundwater flow is unconfined to semi-confined; specific yield (drainable porosity) is high. Water quality in the fans on the east side of the salar is fresh to brackish;
- An unconfined to semi-confined Upper Halite+Clay aquifer can be identified in the northern center of the salar. This unit is limited in areal extent to the visible halite nucleus of the salar observed in satellite images. This upper brine aquifer is highly permeable and has a medium drainable porosity. This upper brine aquifer contains high concentration lithium brine;
- The clay core -This clay unit underlies the upper halite aquifer in the center of the salar and extends to the east below the alluvial fans. This clay unit has a very low permeability and forms a hydraulic barrier for flow between the upper halite aquifer and the underlying clastic units (deeper sand gravel and volcanoclastic aquifers). On the eastern side of the salar fresh water in the alluvial fans sits on top of this clay core; while brine is encountered in the clastic sediments underlying the clay. In the nucleus of the salar the clay unit contains high concentration lithium brine; and
- A deeper brine aquifer occurs in the gravel, sand and volcanoclastic units underlying the clay core. Below the nucleus of the salar this deeper aquifer is overlain by the clay core and groundwater conditions are confined. On the west side of the salar, in absence of the clay core, groundwater conditions become semi-confined to unconfined. The deeper brine aquifer is relatively permeable (well P4/S-10 pumping test results) and has a relatively high drainable porosity.

Drilling Program

Between September 2016 and the end of January 2017 MSB conducted the drilling of 9 rotary drill holes and 4 sonic drill holes on the project for a total number of 1,815 m and 613 m, respectively. The Resource drilling program consisted of 200 m deep drill holes for brine sampling (excluding production well P4). Drilling rigs were truck mounted machines, driven to the drill sites on or immediately surrounding the salar. Two additional holes were drilled to 200 m in 2Q18 in the *Litio* properties, to convert the inferred Resources below 150 m to Indicated Resources. Drill holes were located by a qualified surveyor at the end of the drilling program (Table 11 and Figure 4 for locations).

Resource Drilling Methods

Sonic Drilling

Sonic drilling was utilized to provide high quality drill core samples as diamond drilling (originally planned for the 2017 program) was unable to successfully recover acceptable core samples of the predominantly granular and coarser grained lithologies encountered in the west of the project area and beneath the clay core unit. The same sonic drilling equipment was used for six of the holes drilled during the 2011 campaign in the *Litio 1-6* properties.

The sonic drilling method recovers core samples with minimal disturbance and achieved a close to 100% core recovery overall, a key characteristic of the sonic drilling method which makes it ideally suited for drilling on salars. The Boart Longyear sonic drill rig (SR-162 SRF 600T) used for the program was unable to reach 200 m in hole S18 in halite and stiff clay and this hole was terminated at 173 m (having reached the upper volcanoclastic unit), demonstrating the limitations of this sonic drilling rig.

The sonic rig also drilled a short twin hole S20 in gravel and it is unlikely the sonic drill would have been able to drill core holes to 200 m in the predominantly gravel and volcanoclastic material in the west of the project area.

Two additional holes, S-23 and S-24, were drilled in 2018, to allow conversion of the previously Inferred Resources from 150 to 200 m depth in the *Litio* properties to Indicated Resources. The sonic drilling recovered 100 mm (4 inch) diameter cores, collected alternately into 1.5 m length plastic liners and tubular plastic bags. Sonic drill holes used in the Resource were M1A, S2 and S18 drilled in the *Cocina* and *Litio 1-6* properties. The fourth (40 m) sonic drill hole (S20) was used to twin the upper part of hole M2, to provide lithological samples for comparison of core and drill cuttings and evaluation of the potential for loss of fine material during rotary drilling.

Rotary Drilling

Rotary drilling with HWT casing was substituted for most of the planned diamond drill holes as sonic drilling equipment was not available when required and rotary drilling is a more economical form of drilling. Rotary drilling was carried out using a 3-7/8 inch tricone bit, with sample recovery through the HWT casing to surface. The rotary drilling provided information on the lithologies encountered, but the drill cuttings provided less complete lithological information than the sonic cores. Drill cuttings were recovered from drilling fluid at the mouth of the hole and stored in plastic bags, with representative samples stored in labelled chip trays. The cuttings were generally noted to have less fine sediment content than corresponding sonic cores, despite collection of samples in cloth bags that allow water to drain but retain fine material.

Exploration Drilling

In addition to the holes drilled to 200 m for the Resource estimation a deep rotary hole (S19) was drilled in the *Cocina* property to 360 m depth, to evaluate the sediment types and brine chemistry below 200 m. This drill hole intersected the volcanoclastic units and sand below 200 m, which suggests excellent potential for Resource expansion below 200 m.

Drill Hole Spacing and Density

Drill holes are located within MSB's properties with a hole spacing from drilling is between 1.3 km and 2.1 km. The overall drill hole density is 1 bore per 1.4 km². The drill hole density is considered adequate to support Indicated and Measured Resource categories.

Installation of Wells - Construction

All Resource drill holes were converted to 50 mm diameter monitoring wells on completion of drilling. The monitoring wells have a single 6 m length screen section installed to selected depths. Six additional monitoring wells were installed to selected depths around the salar for long term monitoring of groundwater levels and brine chemistry. All holes during the 2011 program were also completed as monitoring wells at the time and had pressure transducers installed for water level monitoring.

Production well P4 was drilled at 17-1/2 inch diameter using the flooded reverse drilling method (rotary drilling) to a depth of 180 m and completed with 12-inch diameter PVC blank and screened casing and gravel pack.

Brine Sampling and Analysis

Lithium brine projects are fundamentally different to hard rock mining projects, in that the lithium is dissolved in brine, which is hosted in pore spaces in sediments. During the exploration stage, brine must be sampled for Resource estimation in a representative way to minimize the potential for contamination between sample intervals. Brine will flow into the drill hole as it is advanced. In MSB's project the brine sampling was carried out using a different methodology for each of the types of drilling, with different levels of confidence in the sampling. Sampling was carried out every six meters vertically, which is generally less than the thickness of the lithological units defined in the geological model, although individual beds of sediments (sands, silts, clays and halite) are generally thinner than six meters.

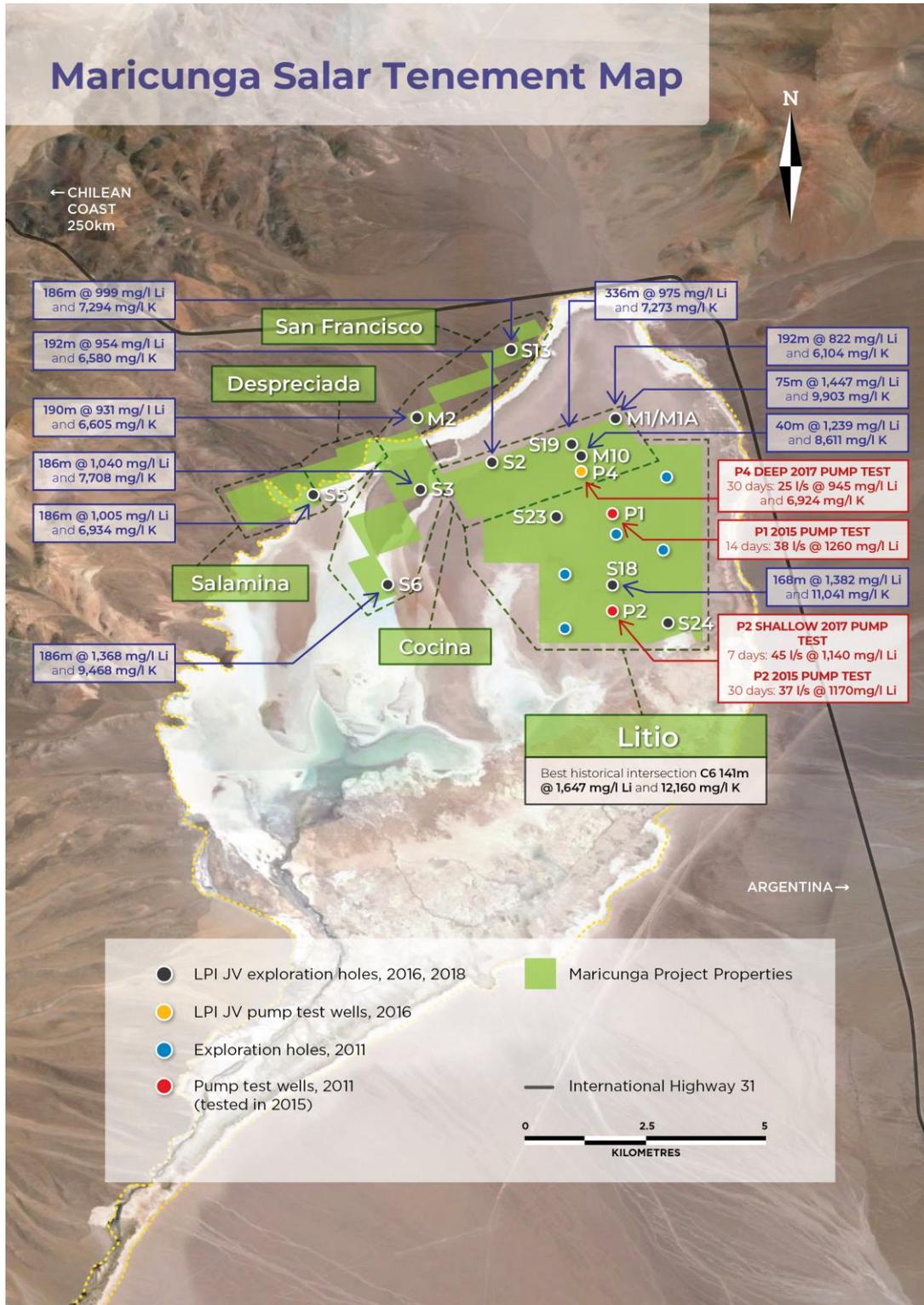
Sonic Drill Hole Sampling

High-frequency vibration generated by a sonic oscillator creates vibration known as “resonance” which is transferred to the drill rods, which reduces friction and allows the drill bit to penetrate the sediments with minimal disturbance. Once the sampling depth is reached, 6 inch drill casing is advanced around the 4 inch drilling rods, effectively preventing vertical flow between the walls of the hole and the base of the drill hole, so that only the bottom of the hole is open for brine inflow. Sonic drilling was conducted dry without the use of drilling fluids and additives, except in rare cases in stiff clays (at the base of hole S18, which did not reach the 200 m target depth).

Sampling of brine in the hole used a 6 m long bailer device, which is a steel drilling rod with a non-return valve at the base, to prevent leakage of brine when the bailer is raised to the surface. The bailer is suspended from the drill rig wire line and lowered into the hole to fill with brine.

The objective is to remove/purge a volume of brine equivalent to three times the saturated volume of the drill hole annulus (the 4 inch diameter drill rods) at each sample depth – as removal of the brine causes inflow of new brine to the hole. The brine was discarded until three well volumes were purged from the hole prior to taking brine samples in new, clean 1 litre unpreserved bottles. Brine samples were collected in duplicate at every sampling interval and in triplicate at every fifth sampling interval.

Figure 4: Maricunga drill hole locations and summarized results



In some cases, notably in the lower permeability clay sediments, it was not possible to purge three well volumes and the hole was purged dry and following a period waiting for new inflows of brine to the hole inflow brine was sampled. Based on the hydrogeological conditions in the salar and previous experience gained from the 2011 drilling campaign, a brine sampling interval of 6 m was deemed appropriate (brine sampling during the 2011 drilling program was carried out at 3 m depth intervals). The physical parameters of the brine were measured, such as the conductivity, pH, and density when the sample was taken.

Rotary Drill Hole Sampling

During the rotary drilling a similar methodology was applied, although there are some important differences. A plug-type device connected to the wireline cable was used to purge the hole, rather than using a bailer. This consists of a very stiff rubber plug on a steel tool which is lowered down the hole. When this tool is pulled up from the base of the hole, the rubber plug expands to flush with inside of the drill rods, drawing brine up the drill rods above the plug, with the brine flowing out of the rods at surface. This works in a similar fashion to the bailer, but in a continuous mode, rather than numerous repetitions of lowering and raising a bailer.

In the case of the rotary drilling it was not possible to lower the HWT casing to a meter above the base of the hole in many cases and consequently inflows from around the sides to the base of the hole could occur. The raising of the plug is likely to have had a suction effect around the base of the hole, stimulating inflows into the hole over a larger area than with the sonic drill holes.

Drilling fluids (in this case brine) are required during the rotary drilling to lift the cuttings out of the hole. The drilling fluid was mixed with a rhodamine / Fluorescein tracer dye in portable tanks adjacent to the rig to distinguish the drilling fluid from the natural formation brine. The drilling fluid was circulated from the tanks into the drill hole. Purging of the drill hole was continued until no tracer dye was observed in the brine removed from the hole (the tracer dye has a very high visibility even in very low concentrations). Any trace of dye observed in brine samples was noted to indicate the potential for contamination with drilling fluid. Brine samples were collected in duplicate at every sampling interval and in triplicate at every fifth sampling interval.

Brine Assays and QA/QC Measures

Brine samples were submitted to the primary laboratory (University of Antofagasta in Chile) accompanied by blind QA/QC samples comprising field duplicates, laboratory certified standard samples and blank (distilled water) samples.

Two laboratory certified standard samples were prepared at an independent laboratory in the USA. These standard samples were then submitted to five different analytical laboratories in South America, including the University of Antofagasta, to check the performance of these laboratories. This laboratory “round robin” confirmed the University of Antofagasta had the highest level of accuracy

and precision of all the laboratories. Check samples comprising duplicates of primary samples, standards and blanks were sent to the selected check laboratory based on the round robin results.

The University of Antofagasta laboratory in Chile is not a NATA certified laboratory, unlike other commercial laboratories used in the round robin. However, the laboratory has extensive experience and a long history of analyzing brine samples for industrial mineral mining clients (potash and lithium projects) in South America, including SQM, Albemarle, Lithium Americas and Orocobre.

A total of 363 primary brine samples were analyzed from the 2016-18 drilling campaigns. An additional 133 brine samples were analyzed from pumping tests and baseline monitoring. These primary analyses were supported by a total 166 QA/QC analyses consisting of 49 standard samples, 89 duplicates and 28 blank samples. This is a rate of 13% duplicates, 7% for standards and 4% for blanks.

In addition to evaluation of standards, field duplicates and blanks the ionic balance (the difference between the sum of the cations and the anions) was evaluated for data quality. Balances are generally considered to be acceptable if the difference is <5% and were generally <1%. No samples were rejected as having > 5% balances. The results of standard, duplicate and blank samples analyses are considered to be adequate and appropriate for use in the Resource estimation described herein.

Brine Chemistry

Variations in Brine Concentration

Evaluation of variations in brine chemistry confirms that the highest brine concentrations are generally present in the halite+clay unit at the top of the holes on the salar. The highest lithium concentration of 3,376 mg/l was encountered in the upper halite aquifer in hole S6 at 12 m depth. Potassium displays a similar distribution to lithium, with the highest near surface concentrations in the southern *San Francisco* property block (hole S6). Higher lithium concentrations at depth are found in the south and west of the *Litio 1-6* properties (hole S18). The brine concentrations show a slight decline with depth in some holes and below 200 m depth in rotary hole S19 the average lithium and potassium concentrations are 928 mg/l and 7,481 mg/l, respectively.

Chemistry and Deleterious Elements

In addition to lithium and potassium, elements of economic interest in the brine, there are other elements which must be removed as part of the brine processing and which are considered deleterious elements. Principally these consist of magnesium and calcium, which are represented by the magnesium/lithium (Mg/Li) and calcium/lithium (Ca/Li) ratios respectively. The Maricunga Salar has the highest reported lithium concentrations outside of the Salar de Atacama in Chile, the largest

lithium producing salt lake globally. Maricunga has a moderate Mg/Li ratio of 6.5, comparable to Atacama (6.6). Maricunga also has a very low sulphate/lithium ratio of 0.8 however; the calcium concentration is relatively high, represented by a Ca/Li ratio of ~12, with calcium removal also necessary for lithium production.

Highly experienced process engineer Peter Ehren has overseen the test work for the chemical process, with test work completed with major international engineering suppliers, principally GEA, resulting in design of the Salt Removal Plant for the project.

Porosity Data Collection

Core Sampling and Laboratory testing

Sonic core samples were collected in 100 mm diameter transparent lexan core tubes of 1.5 m length and capped with plastic caps immediately after the tubes were extracted from the core barrel. Flexible duct tape was used to seal the caps to the core tubes, which were oriented with the depths of the start and finish of each tube and the drill hole number. Samples of 15 cm length were cut and capped (prior to logging) from the bottom of each 1.5 m core tube and shipped to the GeoSystems Analysis (GSA) laboratory in the USA for specific hydraulic core testing. The remaining length of the core tube was then split open and the sediments were logged (visually) and photographed.

GSA carried out the following laboratory analyses as part of the 2016-18 program:

- 208 core samples for specific yield (drainable porosity);
- 213 core samples for dry bulk density;
- 40 core samples for particle size distribution (PSD);
- 20 tri-cone samples for PSD; and
- 28 duplicate core samples were analyzed by Core Laboratories in Houston for drainable porosity as a QA/QC check on the GSA results;

Daniel B Stephens and Associates (DBSA) laboratory carried out the following laboratory analyses as part of the 2012 program:

- 285 core samples sent for porosity analysis;
- 30 core samples for grain size analysis; and

- 32 duplicate core samples were analysed by the British Geological Survey (BGS) for specific yield (drainable porosity) as a QA/QC check on the DBSA results.

The drainable porosity database used for the lithium Resource estimate reported herein consists of a total of 503 drainable porosity analyses.

Specific Yield Test Methodology

Between the 2012 and 2016-18 sampling campaigns specific yield (drainable porosity) testing has been conducted at four different reputable laboratories (one primary laboratory and one check laboratory for each campaign). In the 2016-18 campaigns the GSA laboratory, in the USA was used as the primary laboratory. This laboratory has developed the Relative Solution Release Capacity (RSRC) methodology in which sediment samples are re-saturated with a synthetic brine based on the composition of Maricunga Salar brine and then tested over a period of 6 days, to drain brine from the samples under conditions considered to simulate gravity drainage conditions of a well (equivalent to 1/3 bar pressure). Grain size analyses were completed on 40 core samples to understand the particle size distribution and correlate these results with the main geological units and the grain size results of the tri-cone drill holes, and to develop a relationship to permeability.

Porosity check sampling was carried out by sending 30 samples to Core Laboratories in Houston, USA for low-pressure centrifuging testing (equivalent to 5 psi; 1/3 bar) to simulate gravity drainage of the brine samples. This lab operated as the check laboratory and uses a different and independent methodology to that used by the GSA lab. A very similar methodology was also used in 2012 by the BGS laboratory which was used then as the check laboratory for the results of the DBSA laboratory. The centrifuge method has been widely used for determination of specific yield on salt lake projects in South America.

Based on all the results collected for the project to date average drainable porosity values have been assigned to each of the geological units, reflecting their composition of different sediment types. The results used for Resource estimation are consistent with reasonable values for drainable porosity used on other brine projects globally.

Industrial Minerals

Lithium and potassium are industrial minerals and as such, the prices for sale of these products are not readily quoted in financial media. The lithium market is growing very strongly due to the use of lithium in electronic applications and the predicted very significant expansion of electric vehicles and batteries for large scale energy storage. Both these applications will include demand for a significant volume of lithium products and consequently the quoted long term and spot prices for lithium have increased significantly in the last few years.

It should be noted that the lithium and potash markets have a high degree of producer concentration and the value of lithium and potash products is a function of product quality, volume of supply to the market, production costs and transport and handling. The production of lithium is independent from that of potash, and a decision regarding potash production could be taken in the future following commencement of the lithium project and subject to potash pricing. Potash could be produced approximately 3 years after lithium production commences.

The concentrations of lithium and potassium through the mineral deposit show a relatively low level of variability and have been analyzed and modelled along with magnesium, calcium and trace elements, which will be removed as part of the lithium production process.

Mineral Resources

Resource Definition

The essential elements of a brine Resource determination for a salar are:

- Definition of the aquifer geometry,
- Determination of the drainable porosity or specific yield (Sy) of the hydrogeological units in the salar, and
- Determination of the concentration of the elements of interest.

Resources may be defined as the product of these three parameters. The use of specific yield allows the direct comparison of brine Resources from the widest range of environments.

Aquifer geometry is a function of both the shape of the aquifer, the internal structure and the boundary conditions (brine / fresh water interface). Aquifer geometry and boundary conditions can be established by drilling and geophysical methods.

Hydrogeological analyses are required to establish catchment characteristics such as ground and surface water inflows, evaporation rates, water chemistry and other factors potentially affecting the brine reservoir volume and composition in-situ. Drilling is required to obtain samples to estimate the salar lithology, specific yield and grade variations both laterally and vertically.

The model Resource estimate is limited to the MSB mining concessions in the Maricunga Salar covering an area of 2,563 ha as shown in Figure 4.

The Resource model domain is constrained by the following factors:

- The top of the model coincides with the brine level in the salar that was measured in the monitoring wells.
- The lateral boundaries of the model domain are limited to the area of the MSB mining claims in the salar.
- The bottom of the model domain coincides with a total depth of 200 m.
- Specific yield is defined as the volume of water released from storage by an unconfined aquifer per unit surface area of aquifer per unit decline of the water table.

The specific yield values used to develop the Resources are based on results of the logging and hydrogeological interpretation 10 sonic boreholes, results of drainable porosity analyses carried out on 493 undisturbed valid samples from sonic core by GeoSystems Analysis, Daniel B Stephens and Associates, Corelabs, BGC, and four pumping tests. The boreholes within the Measured and Indicated Resource areas are appropriately spaced at a borehole density of one bore per 1.5 km². Table 4 shows the drainable porosity values assigned to the different geological units for the Resource model and summarizes the statistics of specific yield classified in terms of the corresponding lithology of the core sample.

Most of the core samples were taken from the clay (285), volcanoclastic (81), and upper halite (51) units. The mean of the specific yield associated with the alluvial and volcanoclastic units is 0.18 and 0.11, respectively. These values are one order of magnitude larger than the rest of the units, which show specific yield values ranging between 0.02 and 0.06. The degree of variability in each unit is relatively high with coefficients of variations that range between 0.4 and 1.0 except for the upper halite and lower sand unit (coefficient of variation of 0.09 and 0.06, respectively).

Table 4: Porosity values applied in the Resource model

Geological Unit	Count	Sy Ave	Sy Low	Sy Max	Sy Std. Dev
Upper Halite	51	0.04	0	0.15	0.04
Clay Core	285	0.02	0	0.09	0.02
NW Alluvium	17	0.18	0.09	0.31	0.07
Lower Alluvium	39	0.05	0	0.3	0.06
Volcanoclastics	81	0.11	0	0.31	0.07
Lower Sand	15	0.06	0.01	0.16	0.04
Lower Volcanoclastics*		0.11			

* The Volcanoclastic drainable porosity has been assigned to the Lower Volcanoclastic unit due to geological similarities.

The distributions of lithium and potassium concentrations in the model domain are based on a total of 651 valid brine analyses (not including QA/QC analyses). Table 5 shows a summary of the brine chemical composition.

Table 5: Summary of brine chemistry composition

Variable	Average	Low	Max	Std. Dev
Li (mg/L)	1,146	24	3,375	364
K (mg/L)	8,292	85	20,640	2,527
Mg (mg/L)	7,462	161	21,800	2,548
Ca (mg/L)	12,853	521	36,950	4,666
SO4 (mg/L)	706	259	2,960	308
B (mg/L)	586	16	1,992	186

Resource Model Methodology and Construction

The Resource estimation for the project was developed using the Stanford Geostatistical Modeling Software (SGeMS) and the geological model as a reliable representation of the local lithology. The following steps were carried out to calculate the lithium and potassium Resources:

- Generation of histograms, probability plots and box plots for the Exploratory Data Analysis (EDA) for lithium and potassium. No outlier restrictions were applied, as distributions of the different elements do not show anomalously high values. Calculation of the experimental variograms with their respective variogram models for lithium and potassium in three orthogonal directions;
- Definition of the block model (34,560,000 blocks) and block size (x=50 m, y=50 m, z=1 m). The block size has been chosen for being representative of the fine units inside the geological model;
- Interpolation of lithium and potassium concentrations for each block in mg/l using ordinary kriging with the variogram models. The presence of brine is not necessarily followed by the lithologies. Therefore, hard boundaries are not considered inside the geological units for the estimation;
- Calculation of total Resources using the average drainable porosity value for each geological unit, based on the boreholes data. Each geological unit will represent a particular drainable porosity value as shown in Table 4. The total Resources are shown in Table 6.

The method used to describe the data is based on the following two observations: (1) the lithium and potassium concentration in the system are orders of magnitude larger than the variability in the specific yield. The interquartile range of the specific yield is 0.37, whereas the interquartile range of potassium and lithium is 17,700 mg/L and 2,915 mg/L, respectively. Therefore, it is more important to represent the variability of the concentrations than that of the specific yield; (2) there is not enough information to estimate the correlation structure associated with the different lithological units. Therefore, the specific yield is described by a discrete random function and assumed constant within each unit; and the concentrations are defined by a continuous random function described by a correlation function that includes the information of all units.

The spatial variability of lithium, potassium and boron concentrations were characterized by the semi-variogram, $\gamma(h)$. The semi-variogram is a function that measures the variability between pairs of variables separated by a distance h . Very often, the correlation between two variables separated by a certain distance disappears when $|h|$ becomes too large. At this instant, $\gamma(h)$ approaches a constant value. The distance beyond which $\gamma(h)$ can be considered to be a constant value is known as the range, which represents the transition of the variable to the state of negligible correlation. Experimental semi-variograms obtained along multiple directions revealed that the random function model can be characterized with an axisymmetric model; symmetric semi-variogram with respect to the z -direction.

This type of correlation function model can be observed in sedimentary geological formations such as an evaporitic system. Based on this, the experimental semi-variograms were fitted with a theoretical model consisting of two correlation structures, i.e., the combination of an exponential model with a Gaussian model.

This composite structure is necessary in this case to properly represent the small-scale correlation observed along the z -direction compared to a larger correlation observed in the xy plane directions.

The semi-variogram is expressed in mg^2/L^2 and the range in units of meters. Thus, the correlation structure in the xy plane has a range of 2,200 meters, whereas the correlation structure in the z -direction has one structure with a range of 30 meters and another with a range of 200 meters. This means that in overall the system is highly stratified with lenses that extend laterally several kilometers but with limited thickness of few meters. Experimental semi-variogram data shown in the graphs correspond to semi-variogram point estimates with more than 50 pair samples.

The interpolation methodology for estimating lithium and potassium was Ordinary Kriging (OK), which assumes that the mean is locally constant but unknown. The estimation was carried out separately for each parameter using their respective variogram models as appropriate. The final distribution is shown in the following figures.

The grade estimates of lithium and potassium in each block inside the model were calculated applying the following operation:

$$R_i = C_i \cdot S_{y_i}$$

Where: i is the indice of the block, going from 1 to 34,560,000

R_i : Grade value to be assigned (g/m^3)

C_i : Concentration value assigned from the estimation (mg/L)

S_{y_i} : Drainable porosity value assigned from the estimation (-)

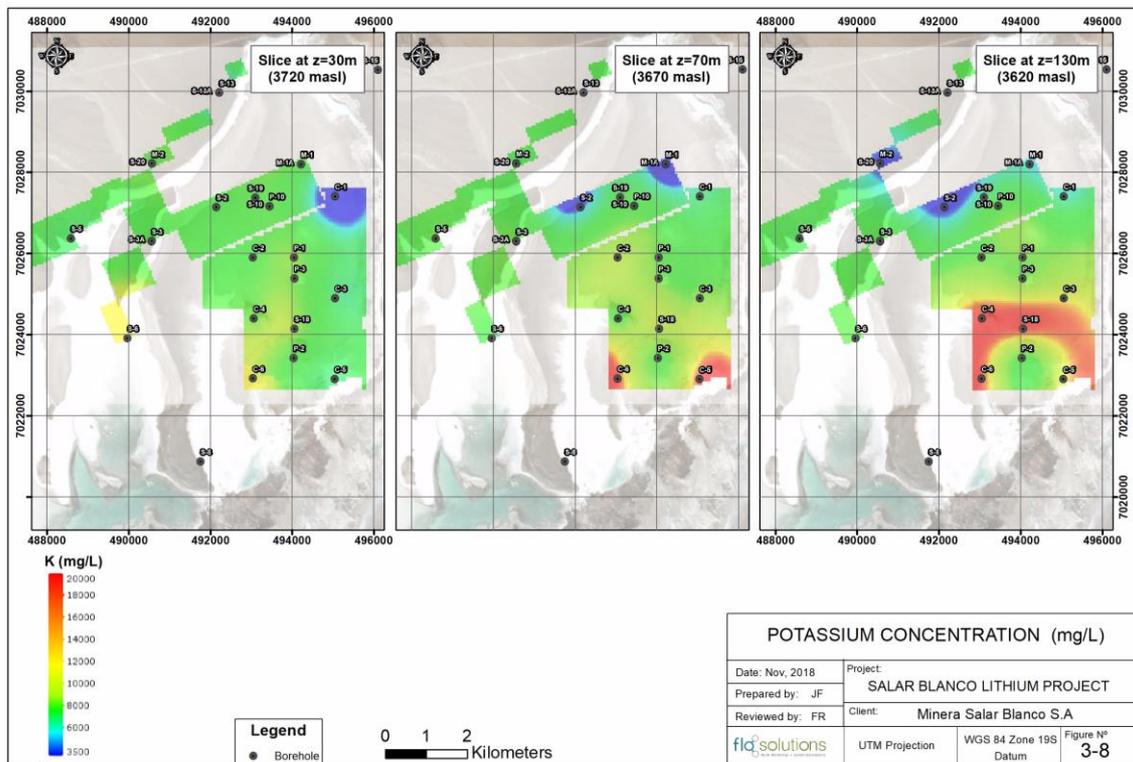
V_i : Block volume (m^3)

The total Resource in the reservoir is estimated as the sum of all blocks in the model,

$$R_T = \sum_i R_i V_i$$

Figure 6 shows a N-S sections through the Resource model showing lithium grade distributions in g/m^3 . All the Resource classification was made in the limits of the block model.

Figure 5: Lithium distribution

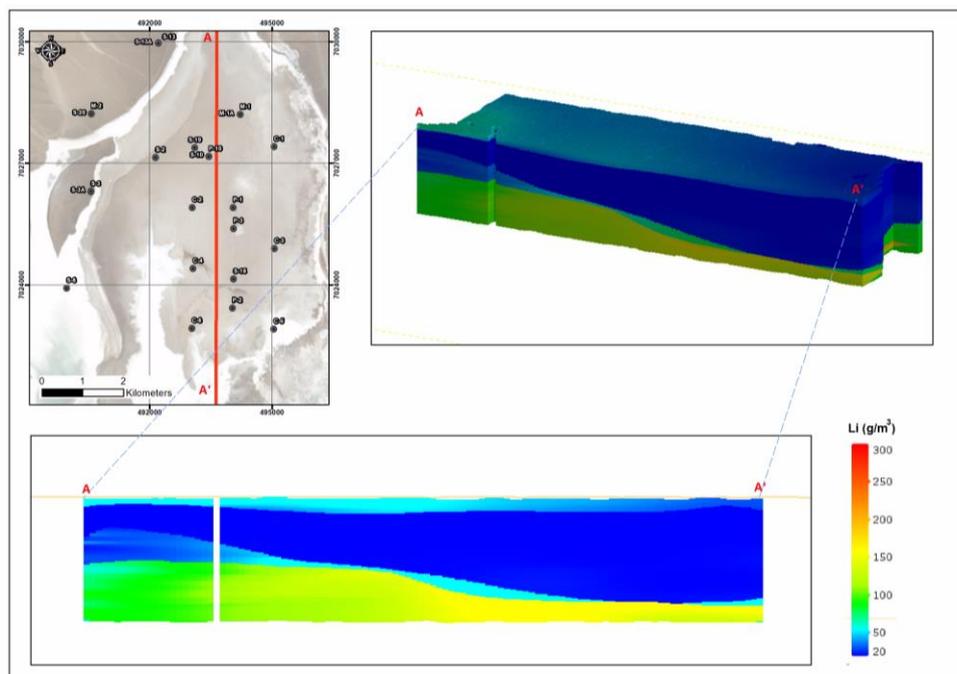


Resource Classification

The Measured and Indicated Resource areas are shown in Table 6 and Figure 7 below, reflecting the requirements for Measured and Indicated Resources as outlined below from the JORC Code (2012)

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

Figure 6: N-S section through the Resource model showing the lithium grade distribution



A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Mineral Reserve or to a Probable Mineral Reserve.

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

The Resource estimate for MSB's project is reported in accordance with the requirements of the JORC Code and uses the international best practices methods specific to brine Resources. The lithium and potassium Resources are summarized in Tables 6 and 7. The effective date for the estimate is December 24, 2018.

Table 6: Measured and Indicated Lithium and Potassium Resources for MSB's Project – Dated December 24, 2018

	Measured (M)		Indicated (I)		M+I	
	Li	K	Li	K	Li	K
Property Area (Km ²)	18.88		6.43		25.31	
Aquifer volume (km ³)	3.05		1.94		5	
Mean specific yield (Sy)	0.04		0.11		0.07	
Brine volume (km ³)	0.13		0.21		0.35	
Mean grade (g/m ³)	48	349	128	923	79	572
Concentration (mg/L)	1,175	8,624	1,153	8,306	1,167	8,500
Resource (tonnes)	146,000	1,065,000	244,000	1,754,000	389,000	2,818,000

Notes to the Resource estimate:

- JORC and CIM definitions were followed for Mineral Resources.
- The Qualified Person for this Mineral Resource estimate is Frits Reidel, CPG.
- No cut-off values have been applied to the Resource estimate.
- Numbers may not add due to rounding.
- The Measured and Indicated Resources are the input for the Mineral Reserve estimation.
- The effective date is December 24, 2018.

The Measured category comprises 37% and the Indicated category 63% of Resources with the total Measured and Indicated Resources comprising 2.07 Mt LCE Resource defined to only 200m depth below surface. Table 7 shows the Mineral Resources of MSB's Project expressed as lithium carbonate equivalent (LCE) and potash (KCl).

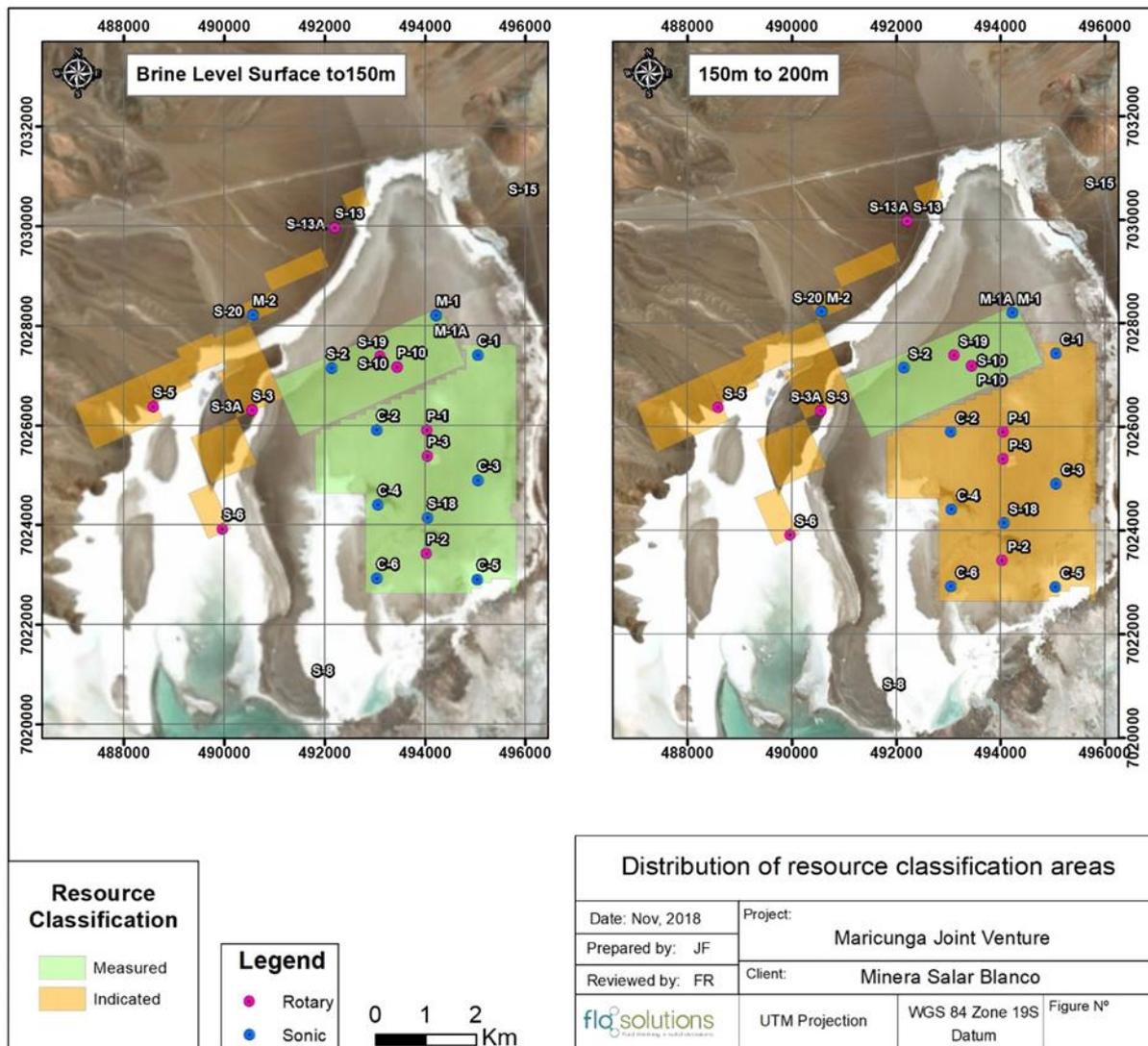
Table 7: MSB's Resources expressed LCE and potash

Product	Total Resource (M+I)	
	LCE (Li ₂ CO ₃)	Potash (KCl)
Tonnes	2,070,000	5,383,000

1. Lithium is converted to lithium carbonate (Li_2CO_3) with a conversion factor of 5.32.
2. Potassium is converted to potash with a conversion factor of 1.91.
3. Numbers may not add due to rounding.

It is the opinion of the authors that the salar geometry, brine chemistry composition and the specific yield of the salar sediments have been adequately characterized to support the Measured and Indicated Resource estimate for the Project herein.

Figure 7: Distribution of Resource classification areas



Reasonable Prospects for Resource Extraction

Porosity testing of sediment samples by four reputable laboratories and pumping tests carried out by MSB indicate that the porosity and permeability characteristics of the sediments in the Resource area are favorable for brine extraction by pumping (refer to announcements by the company on the 23 February and 17 May 2017 regarding pumping test results and in this announcement for details of drainable porosities).

The hydraulic parameters of the Resource area determined from the results of the pumping tests suggests that it is reasonable to expect brine extraction by a conventional production wellfield at a commercially viable rate, while the geochemical characteristics of the brine suggest that conventional processing techniques may be employed to produce saleable lithium products in an economically profitable manner.

These conventional processing techniques are employed in most lithium brine operations, including the two operations at Salar de Atacama (Chile), one at Salar de Olaroz (Argentina), and one at Clayton Valley (USA).

The CP considers there are reasonable grounds for future economic extraction of the Resource, considering the necessary modifying factors and using wells installed to and beyond the depth of current drilling. Lithium brine has been extracted from salars in Chile and Argentina for over 34 years for production of lithium chemicals.

No cut-off grade was applied to the Resource estimation, as Maricunga is characterized by high lithium concentrations to the boundaries of the properties and mineral process information suggests the lithium and potassium concentrations are economic for processing. Monitoring of brine chemistry over time will be undertaken to evaluate potential changes in the lithium and potassium concentrations during the life of the mining operation.

Exploration Target

One deep hole (S19) was previously drilled to 360 m. This hole encountered a continuation to depth of the aquifers hosting lithium Resources above 200 m. Consequently, an exploration target* of 1.0 to 2.5 Mt of lithium carbonate equivalent (LCE) and 2.9 to 6.6 Mt of potassium chloride (KCl) is defined below the base of the Resource at 200 m, to a depth up to 400 m (Table 8). With the exploration target* there is significant potential for Resource expansion. Figure 8 illustrates the comparison of the 2012 Resource estimate and the updated December 2018 estimate.

**It must be stressed that an exploration target is not a Mineral Resource. The potential quantity and grade of the exploration target is conceptual in nature, and there has been insufficient exploration to define a Mineral Resource in the volume where the Exploration Target is outlined. It is uncertain if further exploration drilling will result in the determination of a Mineral Resource in this volume.*

However, there is a considerable amount of geological knowledge available to MSB from the drilling, seismic, AMT and gravity geophysics, which gives the company a fair amount of confidence with respect to the exploration target.

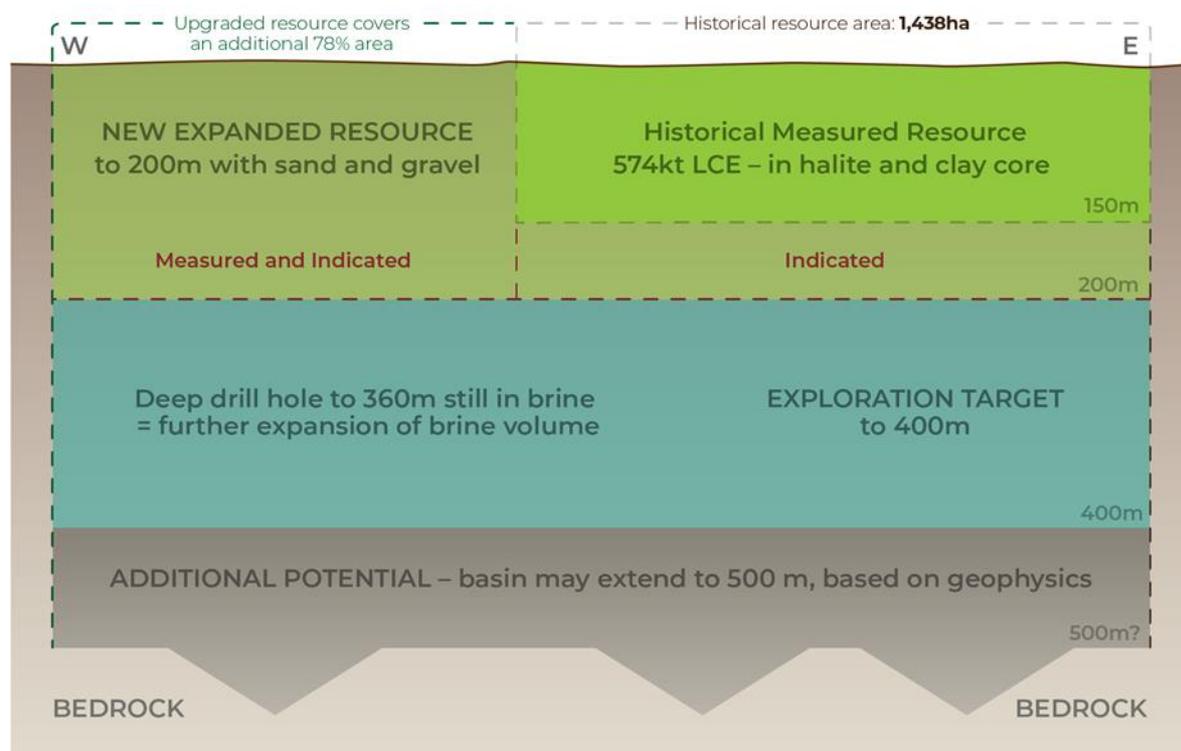
Table 8: Maricunga Exploration Target* The target is based on limited drilling and geophysical data suggesting continuation of lithium and potassium mineralized brine below the updated Resource

EXPLORATION TARGET ESTIMATE MARICUNGA										
Subarea	Area km ²	Thickness m	Mean drainable porosity %	Brine volume million m ³	Lithium Concentration mg/L	Contained Lithium tonnes	Lithium Carbonate LCE tonnes	Potassium Concentration mg/L	Contained Potassium tonnes	Potassium Chloride KCl tonnes
UPPER RANGE SCENARIO										
Western	4.23	100	10%	42.3	1,000	40,000	200,000	6,500	270,000	500,000
Central	21.41	200	10%	428.0	1,000	430,000	2,300,000	7,500	3,200,000	6,100,000
	Continues from directly below the resource					470,000	2,500,000		3,470,000	6,600,000
LOWER RANGE SCENARIO										
Western	4.23	100	6%	25.4	600	15,000	80,000	5,000	130,000	240,000
Central	21.41	200	6%	257.0	700	180,000	950,000	5,500	1,400,000	2,700,000
	Continues from directly below the resource					195,000	1,030,000		1,530,000	2,940,000

Lithium is converted to lithium carbonate (Li₂CO₃) with a conversion factor of 5.32. Numbers may not add due to rounding.

Potassium is converted to potassium chloride (KCl) with a conversion factor of 1.91

Figure 8: Relationship between the 2012 Resource estimate, the new expanded 2018 Resource and the deeper exploration target



Pumping Tests

MSB conducted pumping tests on production wells P1, P2 and P4 between 2015 and 2017, all at significant flow rates. Constant rate (30 day) pumping tests were carried out on production wells P1 and P2 at 37 and 38 l/s, respectively, from the upper halite aquifer, the clay core and underlying sand, gravel and volcanoclastic units (the deeper brine aquifer). A second constant rate test was carried out on Well P2 in 2017, pumping only from the upper halite unit, at a flow of 45 l/s, confirming the high hydraulic conductivity values for the upper halite aquifer. Well P4 (completed in the deeper brine aquifer) was tested at 25 l/s over 30 days, confirming this unit has very prospective permeability and porosity characteristics.

It should be noted that even considering the brine volume corresponding to the drainable porosity applied to each sediment unit, it is not possible to recover all of a brine Resource during a mining operation, due to considerations such as changes in the water levels and lithium concentrations, brine flow, environmental effects, and third-party adjacent property ownership. The conversion of the Resource to a Reserve requires building a numerical groundwater flow model that takes account of these different variables and will indicate what volume of brine can be extracted from the Resource and the level of any possible dilution in brine grade that can be expected over the life of the mining operation. The Reserve volume, differs significantly from the Resource.

Groundwater Model and Mineral Reserves

Model construction and calibration

The essential elements of the brine Reserves determination for the salar are:

- Construction of a three-dimensional groundwater flow and transport model
- Steady state and transient calibration of the model
- Predictive simulation of brine extraction

The calibrated Reserve model is used to simulate a brine extraction system that will meet the brine feed requirements for the evaporation ponds for an annual lithium carbonate (LCE) production target of 20,000 tpa. It is assumed that the project has an overall lithium process recovery efficiency of 58% (ponds and plant). Therefore, to meet the target LCE production rate of 20 kilotonnes per year (Ktpa), the brine abstraction from the production wellfield in the salar needs to be at a rate of 34.6 Ktpa. The Reserve model predicts that the proposed brine extraction system can extract a cumulative average of 34.6 Ktpa of LCE.

The model is used to simulate a brine wellfield operation with 54.6 Ktpa for two years, followed by six years with an average production rate of 30.7 Ktpa, eleven years with an average rate of 33.5 Ktpa, and a final year at 29.4 Ktpa.

The boundary of the model was defined to encompass the unconsolidated sediments of the Maricunga basin and extends from the Maricunga Salar, in the west central portion of the domain, to the upper reaches of the alluvial fans in the catchments feeding the salar.

The topographic elevation of the model domain ranges from 3,749 meters above sea level (masl) at the salar to 4,230 masl in the northeast corner of the domain. The base of the model has an elevation of 3,545 masl, for a total average simulated sediment thickness beneath the salar of 200 m.

The stratigraphic units in the model domain were exported from 3D Geomodeller using the Smart Layering Approach, in which the stratigraphic units are exported into a 3D Feflow mesh, making adjustments so that the layers are generally horizontal.

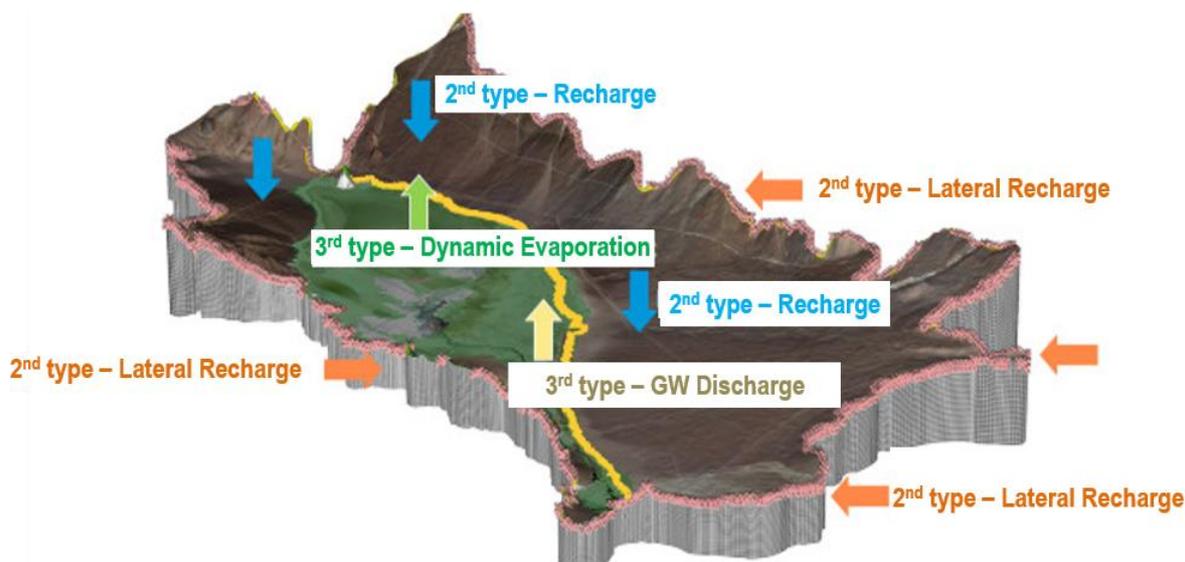
The model has a total of 2,489,422 nodes, 4,744,425 elements, and 25 layers. Elements located where bedrock is present are inactive in the flow and transport simulations. Therefore, the total number of active elements is 3,823,317. All elements are triangular prisms with elemental diameters ranging from approximately 50 m in the center of the salar to approximately 230 m at the outer edges of the model domain. The layer thickness ranges from 0.1 m to 51 m. The thinnest elements were defined during the Smart-Layering process, when the contact between dipping stratigraphic units was pinched off in order to keep the layers relatively horizontal. The thickest elements are also due to the Smart Layering process.

There are two primary groundwater inflow processes at the Maricunga Salar: recharge by direct precipitation and indirect recharge on catchments surrounding the salar. Groundwater discharges at lower elevations via evapotranspiration and diffuse seepage to surface water.

The bottom of the model domain was treated as a no-flow boundary. Evapotranspiration and recharge boundary conditions were applied to Layer 1. The lateral recharge boundary conditions were applied to the outer boundaries in Slices 1 to 3 of the model. Where a lateral recharge boundary is not defined, the model edge is treated as a no-flow boundary. Recharge was applied only to the alluvial fan materials, at a rate of 32.9 mm/y, for a total of 405 L/s, consistent with the conceptual model (Flosolutions, 2018).

In addition to direct recharge, the Maricunga Salar receives indirect recharge at higher elevations within the catchments that surround the salar. The catchment inflows were treated as flux (second type) boundary conditions. As much as possible, the flux boundary nodes were set to be below the water table, and the boundary nodes were applied to Slices 1 to 3 of the model. Inflow rates range from 4.5 l/s from the Volcanico Norte basin located north of the salar to 436.4 L/s from the Ciénaga Redonda catchment located southeast of the salar.

Figure 9: Reserve model boundary conditions for groundwater flow



A significant groundwater discharge process at the Maricunga Salar is evapotranspiration. In all cases, the evapotranspiration rate was defined as a linear function of water table depth from ground surface. When the water table was at ground surface, the applied evapotranspiration rate was a maximum value. The evapotranspiration rate decreased linearly with depth from ground surface to a depth of 2 m, at which point, the evapotranspiration rate was set to equal zero.

The magnitude of the maximum evapotranspiration zone was calibrated using target evapotranspiration fluxes from the water balance (Flosolutions, 2018). Saline water from the center of the salar was assigned a lower maximum evapotranspiration rate, consistent with the well-established reduction in evaporation of saline waters compared to fresh water.

The Maricunga Salar has areas of surface water during the wet season. These areas are located along the eastern and southern margin of the salar, where brine and freshwater come in contact at the downgradient edge of the alluvial fans. Conceptually, freshwater discharge is driven by the presence of the Clay Core unit, at the salar margins. Three groundwater discharge zones were defined. These boundaries were simulated using Feflow transfer boundary nodes.

However, unlike the evapotranspiration boundaries, in which the transfer rate coefficient is a function of depth from ground surface, the transfer rate coefficient for discharge is constant.

The model was developed with six principal hydrogeological units:

- UH-1: Upper Halite - a shallow permeable unit associated with the salar.
- UH-2: Alluvial fans surround the salar.
- UH-3: The Clay Core is a fine-grained unit that underlies the core of the salar, including the Upper Halite. It serves as a confining unit for the two final units, and also as a barrier to lateral groundwater flow into the salar.
- UH-4: The Lower Alluvium includes confined or semiconfined sands and volcanoclastics of low to moderate hydraulic conductivity.
- UH-5: The Basin Fill Sediments underlie the alluvial fans.
- UH-6: Basement bedrock.

The conceptual model of the Reserve is that there are two brine aquifers at the project: a shallow aquifer (UH-1) comprising the Upper Halite and a deep aquifer (UH-4) comprising the Lower Alluvium, Lower Sand and the two Volcanoclastic units. The two aquifers are separated by the Clay Core (UH-3) aquitard. Outside the salar, the alluvial fans (UH-2) transmit recharge from the catchments that feed the salar. Below the alluvial fans, the Basin Fill Sediments (UH-5) form a zone of lower hydraulic conductivity. Bedrock (UH-6) underlies the entire model domain. Elements containing UH-6 are inactivated in the Feflow mesh and do not form a part of the Reserve analysis. Model parameters are presented in Table 9.

Table 9: Unsaturated parameters

Hydrogeologic Unit	Porosity	Sr *	α (m-1)	n	m	δ	Effective Sy**	Conceptual Sy
Upper Halite	0.35	0.25	0.50	1.35	0.25	4.0	0.07	0.07
Clay Core	0.40	0.10	0.15	1.19	0.15	7.0	0.02	0.02
Grava	0.25	0.00	0.80	1.45	0.28	2.0	0.10	0.10-0.15
Río Lamas Alluvial Fan	0.25	0.15	0.90	1.50	0.33	2.5	0.10	0.10
Lower Alluvial & Sand	0.25	0.30	0.50	1.50	0.33	2.0	0.06	0.06
Basin Fill Sediment	0.20	0.00	0.50	1.50	0.33	2.0	0.07	0.01
Volcanoclastics	0.25	0.00	0.80	1.40	0.29	2.0	0.10	0.10

Notes:

*S_r = θ_r , ϕ , or the residual saturation.

** Effective Sy (specific yield) is the amount of water released from storage due to a water table drop of 1 m from a soil column extending from the final water table elevation to a height of 3 m above the initial water table elevation, using Equation 1.

Model Calibration

Fluid density is an important factor in the movement of groundwater in and around a lithium-brine salar. The computational burden of simulating variable-density groundwater flow is significant. For the purposes of the Reserve calculation, the three-dimensional groundwater flow and transport model was configured to assume single-density groundwater. As a general observation, ignoring density effects will result in greater groundwater mixing and dilution. Therefore, the use of a single-density model for the Reserve estimate, especially given the relatively uniform brine density distribution, will provide a conservative estimate of the Reserve.

The flow model was calibrated under steady state and transient conditions to (1) fit the static water levels in project area wells, (2) match the conceptual water balance, and (3) simulate three pumping tests completed in the salar. A combination of manual and automated calibration was completed under both steady state and transient conditions. The majority of the monitoring points have an absolute residual that is less than 1.7 m between measured and simulated levels. There are seven wells with higher residuals.

The maximum water table depression discernable at surface in response to pumping is estimated to not exceed 3.2 m.

Reserve Estimation

In addition to groundwater flow, the Feflow model was configured to simulate the mass transport of lithium in support of the Reserve calculation. Over time, the lithium concentration of the brine will evolve as a response to the pumping, without appreciable dilution of the brine concentration. The average lithium concentration from the wellfield is predicted to remain above 1,050 mg/l throughout project operations, increasing slightly after Year 12 to above 1,100 mg/l, due to wells more centrally located in the Salar coming into operation, with the concentration generally between 1100 and 1200 mg/l lithium over the life of the project. During brine production and for two years afterward, the model assumes that the CAN-6 Industrial water well will pump relatively freshwater at a rate of 35 L/s.

Taking account of modifying factors applicable to the Maricunga Salar deposit, the Reserve for the project to a depth of 200 m has been estimated on the basis of extraction. Production targets also take into account the pond and processing efficiency, which is considered to be 58% for brine pumped to the ponds and then exiting the plant as lithium carbonate. The total production is summarized in Table 10 below.

Table 10: Lithium Production Estimate (adjusted for 58% lithium process recovery efficiency)

Concession	Category	Extraction Years	Brine Vol. (Mm3)	Avg Li Conc. (mg/l)	Li Metal (tonnes)	LCE (tonnes)
Old Mining Code	Proved	1-7	21	1,051	13,000	67,000
	Probable	1-18	42	1,068	26,000	140,000
New Mining Code (Litio 1-6)	Proved	7-14	14	1,184	10,000	51,000
	Probable	14-23	48	1,170	32,000	173,000
Total 20 years production			117		75,000	401,000
Production Available			125		81,000	430,000

Notes to the Production Estimate:

- MSB brine production initiates in Year 1 on the mining properties constituted under old Chilean mining code and include the *Cocina, San Francisco, Salamina, Despreciada* properties (the “Old Code concessions”). In year 7 brine production progressively switches to the *Litio 1-6* concessions that were constituted under the 1982 (“new”) Chilean mining code and require a special operating license (CEOL) from the Chilean government. It is the opinion of the author that there is a reasonable expectation that MSB will have obtained a CEOL by 2020, well in advance of any brine production from the *Litio 1-6* concessions.
- The EIA for the MSB Project was submitted to the Chilean Environmental Review Agency (SEA) in September 2018; it is the opinion of the author that there is a reasonable expectation that the final environmental approvals for the construction and operation of the project will be obtained during 2019.
- MSB’s Reserve Estimate includes an optimized wellfield configuration and pumping schedule from the upper halite unit to comply with environmental constraints and water level decline restrictions on the northeast side of the salar over the 20-year Project life and 3-year of extended brine extraction.
- The total Mineral Reserves contain approximately four (4) percent of Li mass that is derived from outside of MSB’s property boundaries.
- Lithium is converted to lithium carbonate (Li₂CO₃) with a conversion factor of 5.32.
- The effective date for the Reserve Estimate is December 24, 2018.
- Numbers may not add to due rounding effects.
- Approximately 36 percent of the Measured and Indicated Resource are converted to Proved and Probable Reserves at the point of pumping extraction as produced and fed to the evaporation

ponds without accounting for the lithium process recovery efficiency. This is equivalent to 430,000 tonnes of lithium carbonate (LCE) after a 58 percent process recovery efficiency.

Definition of Wells for Reserve Estimation and Production Simulation

A minimum of 12 wells are planned for the project, based on the flow rates observed in pump tests to date and the results of the groundwater model, with which an optimized wellfield location was established for brine extraction. The well field consists of 44 wells over the life of the project (Figure 10), with no more than 15 wells pumping at any one time, with wells between 11 and 208 m deep, although 200 m deep wells predominate. The total includes wells that allow for normal mechanical and electrical availability and utilization purposes.

Production wells will pump brine from both the upper halite aquifer and the lower aquifer (gravel, volcaniclastic units). However, extraction from the very high grade upper halite aquifer is relatively limited, to minimize any impact of pumping from this unit on water in the gravels surrounding the salar. The pumping rate will vary seasonally to take advantage of the periods of peak evaporation, consequently pumping rates will vary between 55 and 234 l/s, with an average flow of 173 l/s throughout the project life. The well field will obtain a maximum pumping rate of 300 l/s during the first two years of the project, when the evaporation ponds are filled.

Operation of the wells will also require periodic maintenance to clean wells and pumps due to a buildup of crystalline salts. The brine from individual wells will be pumped via two centralized open pond locations, then to the pond area for evaporation and later processing.

The Reserve model separately tracks brine that originates outside of the property boundary. It predicts that a small amount (4%) of the lithium produced by the wellfield may originate outside the MSB project properties over the 20 year operation.

Two transfer ponds will be located at the northwest of the salar, including its pumping station which will receive brine from the production wells and pump it through a pipeline to the evaporation ponds area.

Competent Person Statements

The information contained in this ASX release relating to Exploration Targets, Exploration Results and Resources has been compiled by Murray Brooker. Mr Brooker is a Geologist and Hydrogeologist and is a Member of the Australian Institute of Geoscientists (AIG) and the International Association of Hydrogeologists (IAH). Mr Brooker has sufficient experience that is relevant to the style of mineralization 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 (the JORC Code). The Resource estimation was undertaken by Flosolutions of Santiago, Chile.

Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd and an independent consultant to the Company. Mr 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.

The information contained in this ASX release relating to Reserves has been compiled by Frits Reidel. Mr Reidel is a Hydrogeologist and is a Certified Professional Geologist of the American Institute of Professional Geologists (AIPG). Mr Reidel is the Principal Hydrogeologist of Flosolutions (Chile) and has sufficient experience that is relevant to the style of mineralization 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 (the JORC Code). The Reserve estimation was undertaken by Flosolutions of Santiago, (Chile) working with DHI of Lima, Peru.

The company confirms the form and context in which the Competent Person's findings are presented have not been materially modified from the original release.

Forward Looking Statements

The LPI Board believes there is a reasonable basis for making these forward looking statements in this ASX release with what is classified as a production target (the proposed 20 Ktpa lithium carbonate production) and financial forecasts. The board considers the Measured and Indicated Resources, the Proved and Probable Reserves and the current understanding of the modifying factors and the extensive experience of the MSB management and project team's understanding of the context of operating mining projects in Chile, is a reasonable basis for the definition of the proposed production from the project.

For further information, please contact:

Cristobal Garcia-Huidobro – CEO

Lithium Power International

E: info@lithiumpowerinternational.com

Ph: +612 9276 1245

www.lithiumpowerinternational.com

@LithiumPowerLPI

Figure 10: The location of the planned wells used for Reserve definition, showing the wells by property (concession) type

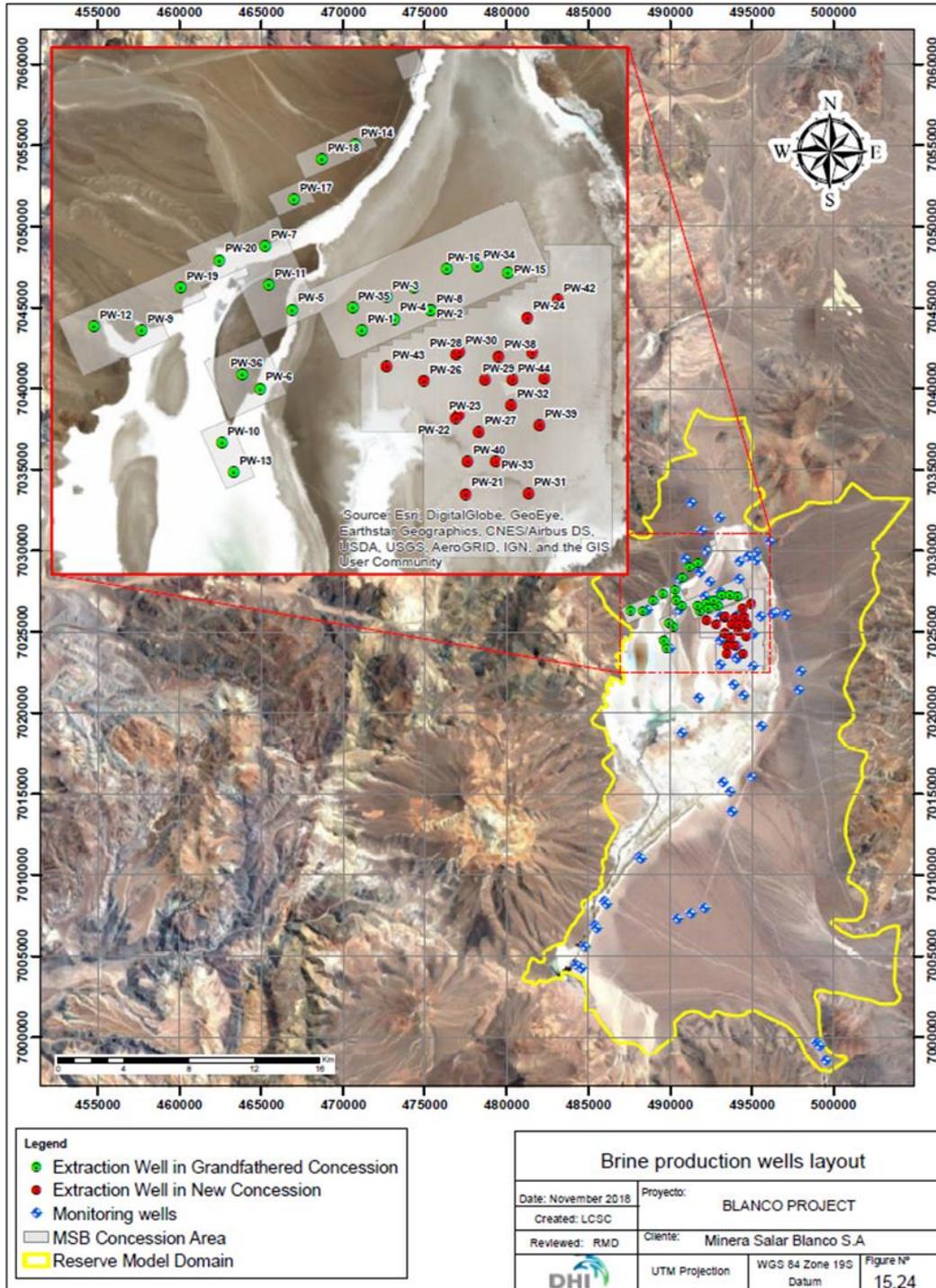


Table 11: Details of drill hole locations & assay results at the Maricunga project. All coordinates are in WGS84 Zone 19 South

Borehole	North	East	Elevation	TD (m)	Method	Year	Objective	Screened interval	SWL
C1	7,027,408	495,052	3,747.51	150	Sonic	2011	Resource	Abandoned	na
C2	7,025,899	493,041	3,747.35	150	Sonic	2011	Resource	06-34	0.11
C3	7,024,895	495,056	3,746.86	150	Sonic	2011	Resource	03-26	0.12
C4	7,024,400	493,058	3,747.35	150	Sonic	2011	Resource	06-29	0.24
C5	7,022,900	495,045	3,746.58	150	Sonic	2011	Resource	06-11	0.15
C6	7,022,918	493,039	3,746.78	150	Sonic	2011	Resource	06-11	0.23
P1	7,025,904	494,043	3,747.25	150	Rotary	2011	Production	6-24;60-144	0.18
P1.1	7,025,891	494,032	3,747.59	150	DTRC	2011	Monitoring	60-149	0.72
P1.2	7,025,894	494,061	3,747.34	30	DTRC	2011	Monitoring	06-24	0.18
P1.3	7,025,905	494,032	3,747.69	70	DTRC	2011	Monitoring	54-66	0.37
P1.4	7,025,915	494,032	3,747.74	30	DTRC	2011	Monitoring	06-24	0.12
P2.1	7,023,393	494,035	3,746.44	113	DTRC	2011	Monitoring	102-108	0.26
P2.3	7,023,410	494,03	3,746.38	30	DTRC	2011	Monitoring	12-30	0.2
P2.4	7,023,403	494,034	3,746.44	150	DTRC	2011	Monitoring	60-145	0.27
P2.5	7,023,397	494,061	3,746.60	150	DTRC	2011	Monitoring	60-145	0.77
P3	7,025,380	494,052	3,747.62	192	DTRC	2011	Monitoring	127-185	-0.37
P2	7,023,422	494,03	3,746.22	150	Rotary	2011	Production	6-24; 66-144	0.25
S 1A	7,028,201	494,22	3,748.95	200	Sonic	2016	Resource	29-119	0.23
S 2	7,027,141	492,143	3,748.84	200	Sonic	2016	Resource	184-190	1.43
S-3	7,026,300	490,56	3,751.54	40	Tricone/HWT	2016	Resource	Abandoned	na
S-3A	7,026,306	490,563	3,751.53	200	Tricone/HWT	2016	Resource	Abandoned	na
S-5	7,026,366	488,59	3,750.17	200	Tricone/HWT	2016	Resource	182-188	1.55
S-6	7,023,913	489,964	3,749.09	200	Tricone/HWT	2016	Resource	184-195	3.09
S-8	7,020,871	491,753	3,748.72	40	Rotary	2016	Monitoring	28-34	1.18
S-11	7,028,215	490,569	3,757.61	200	Tricone/HWT	2016	Resource	144-150	8.95
S-12	7,013,856	493,74	3,769.28	40	Rotary	2016	Monitoring	22-28	na
S-13	7,029,964	492,213	3,755.88	200	Tricone/HWT	2016	Resource	194-200	9.18
S-15	7,030,533	496,104	3,781.23	40	Rotary	2016	Monitoring	34-40	25.11
S-17	7,022,516	497,969	3,789.94	40	Rotary	2016	Monitoring	32-38	29.8
S-16A	7,026,005	497,122	3,769.89	150	Tricone/HWT	2016	Monitoring	50-62	11.3
S-16B	7,025,991	497,123	3,769.99	18	Tricone/HWT	2016	Monitoring	09-15	14.72
S-18	7,024,141	494,054	3,748.64	173	Sonic	2016	Resource	1160-172	2.58
S-19	7,027,381	493,104	3,748.17	360	Tricone/HWT	2016	Resource	196-208	2.98
S-20	7,028,217	490,569	3,757.64	40	Sonic	2016	QA/QC	Abandoned	na
S-21	7,037,751	491,855	3,863.06	85	Rotary	2016	Monitoring	72-84	dry
S-22	NA	NA			Not drilled				
S-23	7,025,899	493,041	3,747.35	200	Sonic	2018	Resource	0-200	0.10
S-24	7,022,900	495,045	3,746.58	200	Sonic	2018	Resource	0-200	0.15
P-4.1	7,027,224	493,194	3,748.81	200	Tricone/HWT	2016	Monitoring	160-172	2.26

Borehole	North	East	Elevation	TD (m)	Method	Year	Objective	Screened interval	SWL
P-4.2	7,027,242	493,172	3,748.65	2	Auger	2016	Monitoring	0-2	0.1
P-4.3	7,027,250	493,16	3,748.70	2	Auger	2016	Monitoring	0-2	0.12
P-4.4	7,027,265	493,139	3,748.74	2	Auger	2016	Monitoring	0-2	0.11

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

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Drill cuttings were taken during rotary drilling. These are low quality drill samples, but provide sufficient information for lithological logging and for geological interpretation. Drill core was recovered in lexan polycarbonate liners and plastic bags alternating every 1.5 m length core run during the sonic drilling. Brine samples were collected at 6 m intervals during drilling (3 m in 2011 drilling). This involved purging brine from the drill hole and then taking a sample corresponding to the interval between the rods and the bottom of the hole. Brine samples below 204 m in hole S19 were taken every 12 m. Fluorescein tracer dye was used to distinguish drilling fluid from natural formation brine. The brine sample was collected in a clean plastic bottle and filled to the top to minimize air space within the bottle. Each bottle was marked with the sample number and details of the hole.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> Rotary drilling (using HWT size casing) – This method was used with natural formation brine for lubrication during drilling, to minimize the development of wall cake in the holes that could reduce the inflow of brine to the hole and affect brine quality. Rotary drilling allowed for recovery of drill cuttings and basic geological description. During rotary drilling, cuttings were collected directly from the outflow from the HWT casing. Drill cuttings were collected over two metre intervals in cloth bags, that were marked with the drill hole number and depth interval. Sub-samples were collected from the cloth bag by the site geologist to fill chip trays. Sonic drilling (M1A, S2, S18 and S20) produced cores with close to 100% core recovery. This technique uses sonic vibration to penetrate the salt lake sediments and produces cores without the rotation and drilling fluid cooling of the bit required for rotary drilling – which can result in the washing away of more friable unconsolidated sediments, such as sands.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse 	<ul style="list-style-type: none"> Rotary drill cuttings were recovered from the hole in porous cloth bags to retain drilling fines, but to allow brine to drain from the sample bags (brine is collected by purging the hole every 6 m and not during the drilling directly, as this uses recirculated brine for drilling fluid). Fluorescein tracer dye was used to distinguish drilling fluid from natural formation brine.

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
	<i>material.</i>	<ul style="list-style-type: none"> Sonic drill core was recovered in alternating 1.5 m length lexan tubes and 1.5 m length tubular plastic bags.
Geologic Logging	<ul style="list-style-type: none"> <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> Rotary (using HWT size casing) drilling was carried out from the collection of drill cuttings for geologic logging and for brine sampling. Drill cuttings were logged by a geologist. Sonic holes were logged by a geologist who supervised cutting of samples for porosity sampling then splits the plastic tube and geologically logs the core.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> Core samples were systematically sub-sampled for laboratory analysis, cutting the lower 15 cm of core from the polycarbonate core sample tube and capping the cut section and taping the lids tightly to the core. This sub-sample was then sent to the porosity laboratory for testing. Sampling was systematic, to minimize any sampling bias. Brine samples collected following the purging of the holes during drilling are homogenized over the sampling interval, as brine is extracted from the hole using a bailer device. No sub-sampling is undertaken in the field. Fluorescein tracer dye was used to distinguish drilling fluid from natural formation brine. The brine sample was collected in one-litre sample bottles, rinsed and filled with brine. Each bottle was marked with the drill whole number and details of the sample. Prior to sending samples to the laboratory they were assigned unique sequential numbers with no relationship to the drill hole number.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and the derivation, etc.</i> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> The University of Antofagasta in northern Chile was used as the primary laboratory to conduct the assaying of the brine samples collected as part of the drilling program. They also analyzed blanks, duplicates and standards, with blind control samples in the analysis chain. The laboratory of the University of Antofagasta is not ISO certified, but 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. 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. Duplicate and standard analyses are considered to be of acceptable quality. Samples for porosity test work are cut from the base of the plastic drill tubes every 3 m. Down hole geophysical tools were provided by a geophysical contractor and these are believed to be calibrated periodically to produce consistent results.
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data</i> 	<ul style="list-style-type: none"> A full QA/QC program for monitoring accuracy, precision and to monitor potential contamination of samples and the analytical process was implemented. Accuracy, the closeness of measurements to the “true” or accepted value, was monitored by the insertion of standards, or reference samples, and by check analysis at an

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
	<p><i>storage (physical and electronic) protocols.</i></p> <ul style="list-style-type: none"> • <i>Discuss any adjustment to assay data.</i> 	<p>independent (or umpire) laboratory.</p> <ul style="list-style-type: none"> • Duplicate samples in the analysis chain were submitted to the University of Antofagasta as unique samples (blind duplicates) following the drilling process. • Stable blank samples (distilled water) were inserted to measure cross contamination during the analytical process. • The anion-cation balance was used as a measure of analytical accuracy and was always considerably less than +/-5%, which is considered to be an acceptable balance.
Location of data points	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • The hole was located with a hand held GPS in the field and subsequently located by a surveyor on completion of the drilling program. • The location is in WGS84 Zone 19 south.
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Lithological data was collected throughout the drilling. Drill holes have a spacing of approximately 2 km. • Brine samples have a 6 m vertical separation and drill cutting lithological samples are on 2 m intervals (in 2011 drilling samples were taken every 3 m). Porosity samples were taken every 3 m in sonic core holes.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • The salar deposits that host lithium-bearing brines consist of sub-horizontal beds and lenses of halite, sand, gravel and clay. The vertical holes are essentially perpendicular to these units, intersecting their true thickness.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Samples were transported to the University of Antofagasta (primary, duplicate and QA/QC samples) for chemical analysis in sealed 1-litre rigid plastic bottles with sample numbers clearly identified. • 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.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits or reviews have been conducted at this point in time.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> 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. The property comprises 1,438 ha in six mineral properties known as <i>Litio 1 -6</i>. In addition, the <i>Cocina 19-27</i> properties, <i>San Francisco</i>, <i>Salamina</i> and <i>Despreciada</i> properties (1,125 ha) were purchased between 2013 and 2015. The properties are located in the northern section of the Salar de Maricunga. The tenements/properties are believed to be in good standing, with payments made to relevant government departments.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> SLM <i>Litio</i> drilled 58 vertical holes in the <i>Litio</i> properties on a 500 m x 500 m grid in February 2007. Each hole was 20 m deep. The drilling covered all of the <i>Litio 1 – 6</i> property holdings. 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. 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. Prior to this the salar was evaluated by Chilean state organization Corfo, using hand dug pit samples.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The sediments within the salar consist of halite, sand, gravel and clay which have accumulated in the salar from terrestrial sedimentation and evaporation of brines within the salar. These units are interpreted to be essentially flat lying, with unconfined aquifer conditions close to surface and semi-confined to confined conditions at depth. Brines within the salar are formed by solar concentration, with brines hosted within the different sedimentary units. Geology was recorded during drilling of all the holes.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 	<ul style="list-style-type: none"> Lithological data was collected from the holes as they were drilled as drill cuttings, and at the geological logging facility for sonic cores, with the field parameters (electrical conductivity, density, pH) Measured on the brine samples taken on 6 m intervals. Brine samples were collected at 6 m intervals and sent for analysis to the University of Antofagasta, together with quality control/quality assurance samples.

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
	<ul style="list-style-type: none"> If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Drill hole collars, surveyed elevations, dip and azimuth, hole length and aquifer intersections are provided in tables within the text.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Brine samples taken from the holes every 6 m represent brine over the sample interval. No outlier restrictions were applied to the concentrations, as distributions of the different elements do not show anomalously high values.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The lithium-bearing brine deposits extend across the properties and over a thickness of > 150 to 200 m (depending on the depth of drilling), limited by the depth of the drilling. Mineralization in brine is interpreted to continue below the depth of the Resource. The drill holes are vertical and essentially perpendicular to the horizontal sediment layers in the salar (providing true thicknesses of mineralization).
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Diagrams are provided in the text of this announcement and diagrams were provided in the technical report on the Maricunga Lithium Project Region III, Chile, NI 43-101 report prepared for Minera Salar Blanco S.A., December 14, 2017. See attached location map.
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> This announcement presents representative data from drilling at the Maricunga Salar, such as lithological descriptions, brine concentrations and chemistry data, and information on the thickness of mineralization.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> Refer to the information provided in the technical report on the Maricunga Lithium Project Region III, Chile NI 43-101 report prepared for Minera Salar Blanco S.A., December 14, 2017 for all geophysical and geochemical data. Information on pumping tests has been provided by the Company following the completion of pumping tests at holes P4 and P2.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> The Company will consider additional drilling. The brine body is open at depth and there is an exploration target defined in this area which could potentially be incorporated into the Resource subject to positive drilling results.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Data was transferred directly from laboratory spreadsheets to the database. Data was checked for transcription errors once in the database, to ensure coordinates, assay values and lithological codes were correct. Data was plotted to check the spatial location and relationship to adjoining sample points. Duplicates and standards have been used in the assay process. Brine assays and porosity test work have been analyzed and compared with other publicly available information for reasonableness. Comparisons of original and current datasets were made to ensure no lack of integrity.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The JORC Competent Person visited the site multiple times during the drilling and sampling program. Some improvements to procedures were made during visits by the Competent Person.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> There is a high level of confidence in the geological model for the Project. There are relatively distinct geological units in essentially flat lying, relatively uniform, clastic sediments and halite. Any alternative interpretations are restricted to smaller scale variations in sedimentology, related to changes in grain size and fine material in units. Data used in the interpretation includes sonic, rotary and reverse circulation drilling. Drilling depths and geology has been used to separate the deposit into different geological units. Sedimentary processes affect the continuity of geology, whereas the concentration of lithium and potassium and other elements in the brine is related to water inflows, evaporation and brine evolution in the salt lake.
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The lateral extent of the Resource has been defined by the boundary of the Company's properties. The brine mineralization consequently covers 25.64 km². The top of the model coincides with the topography obtained from the Shuttle Radar Topography Mission (SRTM). The original elevations were locally adjusted for each drill hole collar with the most accurate coordinates available. The base of the Resource is limited to a 200 m depth. The basement rocks underlying the salt lake sediments have not yet been intersected in drilling. The Resource is defined to a depth of 200 m below surface, with the exploration target immediately underlying the Resource.

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
Estimation and modelling techniques	<ul style="list-style-type: none"> • <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> • <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> • <i>The assumptions made regarding recovery of by-products.</i> • <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> • <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the Resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> • The Resource estimation for the project was developed using the Stanford Geostatistical Modeling Software (SGeMS) and the geological model as a reliable representation of the local lithology. Generation of histograms, probability plots and box plots were conducted for the Exploratory Data Analysis (EDA) for lithium and potassium. Regarding the interpolation parameters, it should be noted that the search radii are flattened ellipsoids with the shortest distance in the Z axis (related to the variogram distance). No outlier restrictions were applied, as distributions of the different elements do not show anomalously high values. • No grade cutting, or capping was applied to the model. The very high lithium concentration values obtained near surface during the drilling and sampling are considered to be representative of the upper halite unit locally. • Results from the primary porosity laboratory GSA were compared with those from the check laboratory Core Laboratories, and historical porosity results when assigning porosity results were normalized within the complete data set based on the results from the total data set. • Potassium is the most economically significant element dissolved in the brine after lithium. Potassium can be produced using the evaporative process as for lithium. However, the final production of potassium requires independent processing from the lithium brine. The potassium recovery process is well understood and could be implemented in the project. Potassium has been estimated as a by-product of the lithium extraction process. As a Resource this makes no allowance for losses following brine extraction in evaporation ponds and the processing plant. • Interpolation of lithium and potassium for each block in mg/l used ordinary kriging. The presence of brine is not necessary controlled by the lithologies and lithium and potassium concentrations are independent of lithology. Geological units had hard boundaries for estimation of porosity. • Estimation of Resources used the average drainable porosity value for each geological unit, based on the drill hole data. • The block size (50 x 50 x 1 m) has been chosen for being representative of the thinner units inside the geological model. • No assumptions were made regarding selective mining units and selective mining can be difficult to apply in brine deposits, where the brine flows in response to pumping. • No assumptions were made about correlation between variables. Lithium and potassium were estimated independently. • The geological interpretation was used to define each geological unit and the property limit was used to enclose the reported Resources. The lithium and

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
		<p>potassium concentration is not necessary related to a particular lithology.</p> <ul style="list-style-type: none"> Validation was performed using a series of checks including comparison of univariate statistics for global estimation bias, visual inspection against samples on plans and sections, swath plots in the north, south and vertical directions to detect any spatial bias. An independent Nearest-Neighbor (NN) model was generated for each parameter in order to verify that the estimates honor the drill hole data. The NN model also provides a de-clustered distribution of drill hole data that can be used for validation. Visual validation shows a good agreement between the samples and the OK estimates. A global statistics comparison shows relative differences between the ordinary kriging results and the Nearest-Neighbor is below 0.3% for Measured Resources and below 3% for Indicated Resources which is considered acceptable.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Moisture content of the cores was not Measured (porosity and density measurements were made), but as brine will be extracted by pumping not mining, this is not relevant for the Resource estimation. Tonnages are estimated as metallic lithium and potassium dissolved in brine.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> No cut-off grade has been applied as the highest grades are present within the upper halite unit and are considered to be real and consistent and a relatively small volume of the total Resource.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> The Resource has been quoted in terms of brine volume, concentration of dissolved elements, contained lithium and potassium and their products lithium carbonate and potassium chloride. No mining or recovery factors have been applied (because the use of the specific yield = drainable porosity reflects the reasonable prospects for economic extraction with the proposed mining methodology). Dilution of brine concentrations may occur over time and typically there are lithium and potassium losses in both the ponds and processing plant in brine mining operations which are estimated as part of the delineation of Reserves. Potential dilution was estimated in the groundwater model simulating brine extraction to define the project Reserve. The conceptual mining method is recovering brine from the salt lake via a network of wells, the established practice on existing lithium and potash brine projects. Detailed hydrologic studies of the salt lake and basin have been undertaken (in the groundwater modelling) to define the extractable Resources and project extraction rates.

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<ul style="list-style-type: none"> The preferred brine processing route has been determined by test work conducted by major global chemical engineering companies GEA and Veolia, conducting pilot plant testing and estimating the equipment necessary for the production plant. Lithium and potassium would be produced via conventional brine processing, following the use of evaporation ponds to concentrate the brine prior to processing. Process test work (which can be considered equivalent to metallurgical test work) has been carried out on the project brine since 2012.
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> Impacts of a lithium and potash operation at the Maricunga project would include: surface disturbance from the creation of extraction/processing facilities and associated infrastructure (mostly away from and not visible from the salar), accumulation of various salt tailing impoundments and extraction from brine and fresh water aquifers regionally.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> Density measurements were taken as part of the drill core assessment. This included determining dry density and particle density as well as field measurements of brine density. Note that no open pit or underground mining is to be carried out as brine is to be extracted by pumping and consequently sediments are not mined but the lithium and potassium is extracted by pumping. No bulk density was applied to the estimates because Resources are defined by volume, rather than by tonnage. The salt unit can contain fractures and possibly vugs which host brine and add to the drainable porosity.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> The Resource has been classified into the Measured and Indicated categories based on confidence in the data collected and the estimation. The Measured Resource reflects the predominance of sonic drilling, with porosity samples from drill cores and well constrained vertical brine sampling in the holes. The Indicated Resource reflects the lower confidence in the brine sampling in the rotary drilling and lower quality geological control from the drill cuttings. In the view of the Competent Person, the Resource classification is believed to adequately reflect the available data and is consistent with the suggestions of Houston et. al., 2011 and the CIM Best Practice Guidelines.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> This Mineral Resource was estimated by independent consultancy FloSolutions, who are contracted by the Maricunga JV for hydrological services. This work has been reviewed by the Competent Person.

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Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the Resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> An independent estimate of the Resource was completed using a Nearest-Neighbor (NN) estimate and the comparison of the results with the ordinary kriging estimate is below 0.3% for Measured Resources and below 3% for Indicated Resources which is considered to be acceptable. Univariate statistics for global estimation bias, visual inspection against samples on plans and sections, swath plots in the north, south and vertical directions to detect any spatial bias shows a good agreement between the samples and the ordinary kriging estimates.

Section 4 Estimation and Reporting of Mineral Reserves

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> The Mineral Resource estimate was undertaken as outlined above and takes into account the reasonable potential for eventual extraction, as the specific yield values and permeabilities used for estimation are allocated by unit. Units with lower drainable porosity and low permeability have a lower conversion to Reserves, regardless of the Resource volume they occupy, as less of the material can be extracted over the life of mine. Ore Reserves are defined based on the Measured and Indicated Mineral Resources, with all Resources now in these categories, as required by the JORC Code.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Person has visited the site several times during the drilling program and has a long-standing understanding of the Cauchari Salar going back a decade.
Study status	<ul style="list-style-type: none"> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. 	<ul style="list-style-type: none"> A Definitive Feasibility Study (DFS) has been completed on the project by WorleyParsons, a major international engineering consultancy. The evaluation of ponds, process and brine extract and the associated modifying factors discussed more in detail below support the definition of Reserves. The DFS has defined a production well field configuration with numerous simulations of brine extraction over the proposed life of mine undertaken to evaluate the evolution of pumping, potential environmental impacts and to develop a production schedule for the project. This schedule is based on the installation of 44 wells over the life of the study, with different wells operating in different periods of the mine life.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> No cut-off has been applied to the Resource, as it has a very high grade (>1,000 mg/l lithium) and the high grades, which are all deemed to be economic, extend

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Mining factors or assumptions	<ul style="list-style-type: none"> • <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> • <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i> • <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> • <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> • <i>The mining dilution factors used.</i> • <i>The mining recovery factors used.</i> • <i>Any minimum mining widths used.</i> • <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> • <i>The infrastructure requirements of the selected mining methods.</i> 	<p style="text-align: center;">to the limits of the properties owned by the company.</p> <ul style="list-style-type: none"> • The Mineral Resource was converted to Mineral Reserves, based on the results of the DFS and consideration of the modifying factors identified in the DFS. As the project is advanced in nature, site-specific information is available for definition of the modifying factors. • The mining method is dictated by the deposit type, which is a brine deposit in which brine is hosted in pore spaces between grains of sediments. Wells are installed to allow flow of brine to the wells and exploitation of the brine by pumping from the wells, developing cones of depression around the individual wells as brine flows to the wells. Limited shallow wells are considered for production from the shallow halite. • There is no open pit or underground excavation (because the brine is pumped out from wells) and no geotechnical parameters are directly measured. The future change of lithium concentration in wells will be monitored as part of the future pumping and monitoring activities. • The Mineral Reserve has potential dilution built in as it is the product of a groundwater model developed from drilling and water level information and is calibrated during actual project pumping data and water levels, with the estimation defined by the model showing the effects of and response to pumping and dilution simulated as part of modelling. There is no specific dilution factor. • The mining recover conversion from Resources to Reserves, at close to 20% of Resources, is typical of results for lithium brine operations, taking account of losses/recoveries through the evaporation ponds and the production plant and recovery from the sediments hosting brine. • Minimum mining widths are not relevant in the context of this project. • Inferred Resources are not considered for the purposes of the production plan and Reserves, as all Inferred Resources have been converted to Indicated Resources and cannot be converted to Reserves. • The infrastructure required for brine extraction is the establishment of the proposed wellfield and the associated pumps and pipework to allow the brine to be transported to the evaporation ponds.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> • <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> • <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> • <i>Any assumptions or allowances made for deleterious elements.</i> 	<ul style="list-style-type: none"> • The metallurgical process proposed is conventional pond evaporation, followed by a Salt Removal Plant and a conventional lithium carbonate plant. The majority of the proposed equipment is in use on existing brine projects and is considered appropriate for the purpose of producing lithium carbonate. • The metallurgical equipment proposed for the project is well tested and is considered appropriate for the project.

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
	<ul style="list-style-type: none"> The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the Ore Reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<ul style="list-style-type: none"> Metallurgical test work was carried out with bulk brine samples and is considered appropriate to support the project. Pilot scale test work has been carried out by highly experienced processing companies GEA and Veolia.
Environmental	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. 	<ul style="list-style-type: none"> The baseline environmental studies for the project have been prepared and submitted, along with the project EIA, which is being evaluated in detail by government departments who approve new developments of this type. The project comprised ponds, which at the end of the project will become large salt repositories, in addition to the salt storage pile where harvested waste salts are dumped. Sectorial permit requests are being prepared by the company.
Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed. 	<ul style="list-style-type: none"> The project is well supported by infrastructure. There is an existing power line that passes by the project, which has the capacity to supply the electricity needs of the project. The company has negotiated access to an industrial water supply for the project. The company owns rights to land for plant and pond and camp development. Transportation to the site has been evaluated by experienced consultants, and the necessary relationships defined for importation of raw materials to site and the storage and transportation of product from the site to the port for export. Labour for the project is available in the Copiapo area and within Chile, with an accommodation camp to be built to support construction and operation of the project.
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	<ul style="list-style-type: none"> The project DFS has used costs based on vendor quotations and the extensive knowledge and database of WorleyParsons engineers, together with the experience of process consultant Peter Ehren. Operating costs were estimated based on the definition of the extraction process and test work which has been undertaken to define and optimise the process, with tests conducted at equipment suppliers and reagent consumption rates estimated for the process – which is a conventional evaporation pond and lithium carbonate processing operation. Vendor quotations were used for reagent costs, which together with electricity are the largest component of the project operation costs. Manpower levels are based on WP experience. Energy prices (mainly electricity and diesel fuel) and chemical prices correspond to expected costs for products delivered at the project's location. The process requires the removal of deleterious elements to specifications for the final high quality product and has been considered in the estimation of costs. The lithium carbonate price has been estimated using information provided by experienced industry analysts, Roskill. There is a significant margin between the estimated sale price and the estimated project operating cost. All costs were estimated in US\$. All values are expressed in 4Q18 US dollars; the

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
		<p>exchange rate between the Chilean peso and the US dollar has been assumed as CHP\$ 650 / US\$; no provision for escalation has been included since both revenues and expenses are expressed in constant dollars. A US dollar Euro rate of 0.85 has also been used in some calculations.</p> <ul style="list-style-type: none"> Costs of all production supply items have been taken at the Maricunga plant, thus there is no transport cost to add from the supply side. Prices for lithium carbonate considered in the economic evaluation, correspond to CIF China prices, with all costs items necessary to transport produced lithium carbonate to China included in the operations costs. These costs include trucking the lithium carbonate to Antofagasta, or nearby Mejillones, both in Chile, which are usual export locations for this product. Additional costs to be considered correspond to port warehousing and handling fees, as well as ocean freight and insurance to a destination port in China. Lithium carbonate is a specialist product and is historically sold under contract, with prices specific to the purity provided by individual producers. The company will be supplying lithium carbonate, a universal product used by lithium product manufacturers. Allowance has been made for royalty payments to the government in the operating expenses. There are not private royalties on the projects. Because there remains some uncertainty regarding royalties covering privately owned lithium properties in Chile, certain assumptions have been made regarding the royalty regime. The uncertainty exists because Maricunga is the most advanced lithium project in Chile outside of operations in the Salar de Atacama, which are operated on properties where the government agency CORFO owns the properties and producers lease them – as distinct from private mineral properties in Chile. Overall royalties to be paid during the full project horizon are equivalent to 5.5% of total sales, with the advantage that the lower 1.3% rate is the one that applies during the initial half-life of the project. The Main reasons to expect a lower royalty rate for the project than for alar de Atacama producers are that the company owns the mining properties outright; the company has paid for the exploration of the properties (unlike at Atacama), it is difficult for the government to set different conditions for the company to those granted to government agency CODELCO.
<p><i>Revenue factors</i></p>	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i> <i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i> 	<ul style="list-style-type: none"> The head grade has been determined by the groundwater model which has been developed for the project and is based on the drilling which was used to produce the Measured and Indicated Resources. Commodity prices are based on forward estimates by experienced industry consultants Roskill. All costs were estimated in US\$. All values are expressed in 4Q17 US dollars; the exchange rate between the Chilean peso and the US dollar has been assumed as CHP\$ 650 / US\$; no provision for escalation has been included since both revenues and expenses are expressed in constant dollars. A US dollar Euro rate of

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		<p>0.85 has also been used in some calculations.</p> <ul style="list-style-type: none"> • Transportation costs are included in the estimation of operating costs (see section above). • Product sale prices and potential penalties are discussed in the preceding section. • The operating costs are for lithium carbonate only and do not include any allowance for by-product credits.
Market assessment	<ul style="list-style-type: none"> • <i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i> • <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i> • <i>Price and volume forecasts and the basis for these forecasts.</i> • <i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i> 	<ul style="list-style-type: none"> • A lithium market analysis has been provided by industry consultants Roskill, who have provided a forecast of lithium carbonate battery and industrial grade prices until 2032. This forecast takes into account the supply and demand and changes in lithium product demands over this period. The trend is for very strong demand expansion for the sector, with factors likely to affect demand consisting principally in the uptake of electric vehicles globally, while supply is dependent of construction of additional mine supply but also refining capacity. • The company is well placed to benefit from the market window caused by the significant increase in demand related to electric vehicle uptake. • The company is well placed on the cost curve, and will produce a final product, unlike many hard rock competitor companies. The project will fall in the lower part of the cost curve, being competitive with other existing and forecasted new lithium projects. • Roskill forecasts average annual prices for lithium carbonate to remain above US\$10,000/t long term on both a nominal and real (inflation adjusted) basis and rise to around US\$20-22,000/t in 2032 (around US\$16-18,000/t adjusting for inflation). This price level reflects the requirement for producers to invest in new capacity to satisfy future consumption and to incentivize the financing of new projects. • Lithium carbonate is considered an industrial mineral, with two classes defined, industrial grade and the higher quality battery grade, with the distinction a slight difference in overall lithium content and is principally related to levels of impurities. The project intends to produce principally battery grade, with the provision for 2,000 t/a of industrial grade product.
Economic	<ul style="list-style-type: none"> • <i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i> • <i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i> 	<ul style="list-style-type: none"> • The economic analysis was undertaken by WorleyParsons using information compiled for the project and their extensive database of cost data. The project economics were estimated with discount rates between 6 and 10%, with 8% considered the mid-point base case. This was used to evaluate the range in NPV. • Inflation was considered in the pricing supplied for lithium products by Roskill and the project costs are considered including inflation.
Social	<ul style="list-style-type: none"> • <i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i> 	<ul style="list-style-type: none"> • The company engaged early in the project assessment process, with communities that could be influenced by the project. This includes local government authorities, and Colla indigenous communities. Meetings were held with the mayors of the three nearest towns, Diego de Almagro, Chañaral and Copiapó, to present the project and to fully understand the concerns and issues of the

Criteria	JORC Code explanation	Considerations for Mineral Brine Projects
		<p>community, were executed.</p> <ul style="list-style-type: none"> MSB proposed in its EIA for these communities to receive 0.3 percent of the project sales as stakeholders in the project. All meetings and agreements with these groups have been well documented. It is important to note that the only interaction with the indigenous territories of the Collas during construction and operation of the project is the use of existing public roads that cross their territories. These public roads are also presently being used by other companies, including Codelco (Chilean government) mine operations.
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the Reserve is contingent. 	<ul style="list-style-type: none"> The DFS has identified a number of risk factors, both related to the natural environment and other aspects of the project. The natural risks related to landforms, surface water run-off and water supply are considered to be manageable and relatively minor. Material legal agreements are understood to be in good standing. MSB is the owner of the mineral properties, with a minority holder (4%) on the <i>Litio</i> properties. The properties are granted mining leases. There is no current marketing arrangement in place, but an off-take agreement or similar is likely to be negotiated prior to or as part of the project financing. MSB has submitted the project Environmental Impact Assessment (EIA) and the baseline environmental monitoring information and is awaiting approval of the project EIA. MSB is preparing requests for the different permits that are required for project operation once the EIA is reviewed and accepted. MSB holds a CCHEN licence for the production of lithium from the old mining code properties held by the Company. MSB has applied for a CEOL licence for the production of lithium from the <i>Litio</i> properties, which were granted under the current mining code. The CEOL will allow production and exporting of lithium from the project. The company believes there are reasonable grounds to expect that the EIA will be approved and the CEOL obtained, as Chile is a well-established and supportive mining jurisdiction.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> The Reserves classified as Proved correspond to Measured Resources in the <i>Cocina</i> and <i>Litio</i> properties. <i>Cocina</i> will be the initial focus of pumping and is located in the north of the salar, with additional Proved Reserves representing the initial 7 years of production from the <i>Litio</i> properties. Because there is naturally uncertainty regarding the long term evolution of pumping, Reserves beyond the 7 year time frame for extraction within the <i>Cocina</i> property and the <i>Litio</i> properties (for which a CEOL extraction licence has yet to be granted) have been classified as Probable. As required in the JORC reporting guidelines, all the Indicated Resources in the old mining code properties are classified as Probable Reserves.

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Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> The Reserves have not been subject to an audit, however it is noted that the Resource to Reserve conversion factor is in line with those for other brine projects.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the Reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> The Mineral Reserve is considered to have a high level of confidence based on the original quality of information collected, the continuity of mineralization and the geostatistics and understanding of the geology, plus the amenability to extract by pumping. This statement relates to the global Reserve, which is based on Measured and Indicated Reserves. Modifying factors include the permitting of the project by the government, which requires approval of the project EIA and the issuing of the project CEOL. The Competent Person believes there is a reasonable probability that these will be approved.

References

Houston, J., Butcher, A., Ehren, P., Evans, K., and Godfrey, L. The Evaluation of Brine Prospects and the Requirement for Modifications to Filing Standards. Economic Geology. V 106, p 1225-1239.

CIM Best Practice Guidelines for Resource and Reserve Estimation for Lithium Brines.