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8 March 2010

ASX ANNOUNCEMENT

Orocobre Limited Announces High-Grade Lithium and Potassium Brine Discoveries

- ***Extensive pit sampling at Salinas Grandes shows the highest average lithium and potassium grades in Argentina and comparable with Atacama brines.***
- ***Grades average 1,409 mg/l lithium and 16,394 mg/l potassium over the Company's properties on the Salinas Grandes salar nucleus.***
- ***Very Low average magnesium to lithium ratio of 2.6.***
- ***Additional potential at Guayatoyoc with high potassium grades.***
- ***Both discoveries further strengthen Orocobre as the leading developer in Argentina's "Puna Lithium Province".***

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The Directors of Orocobre Limited (ASX: ORE), “Orocobre” or “the Company”, the leading lithium-potash resource developer in the Puna region of Argentina are pleased to announce the further expansion of the Company’s lithium-potash project pipeline with two significant discoveries:

- The discovery of very high grade lithium-potassium brines at the Company’s Salar de Salinas Grandes properties. These are believed to be the highest average grade results from any sampling programme undertaken in Argentina and are comparable with the brines reported at Atacama.
- The discovery of a high quality potassium target at the Company’s Laguna de Guayatoyoc property.

The projects are held by the Company’s 85% owned subsidiary, South American Salars Pty Ltd.

Salinas Grandes – A New Chemistry Standard in Argentina

Extensive pit sampling on the Company’s Salinas Grandes properties show over approximately 12,000 hectares of salar nucleus:

- Lithium (Li) grades averaging 1,409 mg/l Li (range from 541mg/l to a high of 4,237mg/l Li) and
- Potassium (K) grades averaging 16,394 mg/l potassium (range from 5,484 to a high of 49,720 mg/l K).
- The magnesium to lithium ratio is also very low with an average value of 2.6.

The values from Salinas Grandes are significantly higher than reported data from other salars in Argentina, and are comparable to the reported brines from the Salar de Atacama (the world’s largest and lowest cost lithium producer from brines).

The low Magnesium/Lithium ratio is on a par with the best brines, including from Orocobre’s Salar de Olaroz project, and is materially lower than Atacama. Summary Salinas Grandes information is presented in the table below.

Salinas Grandes	Number of pit samples	Low	High	Median	Average	Standard Deviation	CV
		mg/l	mg/l	mg/l	mg/l	mg/l	
Lithium (Li)	116	541	4,237	1,262	1,409	684	0.49
Potassium (K)	116	5,484	49,720	14,464	16,394	7,525	0.46
Magnesium (Mg)	116	1,363	12,696	3,190	3,737	1,973	0.53
Mg/Li	116	2.13	3.32	2.62	2.63	0.21	0.08

Guayatoyoc – Broadening the Product Base

Pit sampling on the Company's Guayatoyoc properties show potassium grades averaging 4,635 mg/l potassium (K) (ranging from 39 mg/l to 7,464mg/l K) over an area of 33,000 hectares.

Further details on both discoveries are presented later.

MANAGEMENT COMMENTARY

Orocobre's Managing Director, Richard Seville, said "The Salinas Grandes discovery builds on the Company's commanding position in Argentina's Puna Lithium Province. The Salinas Grandes discovery, along with our Olaroz and the related Cauchari property, provide further evidence that Orocobre's properties in the Puna Lithium Province appear to represent the brine "sweet spot "of Argentina.

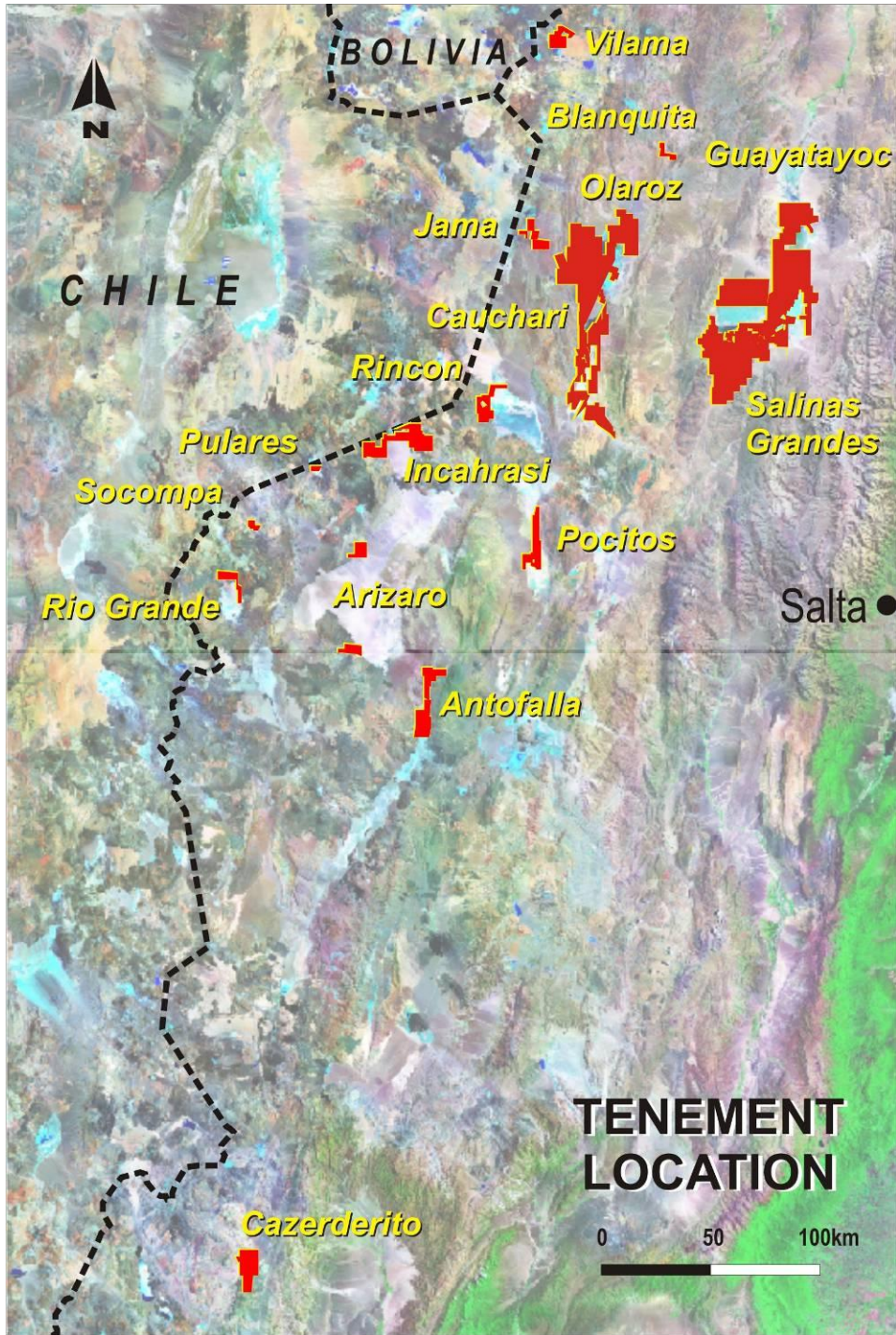
"Salinas Grandes has the potential to become a valuable addition to our long-term portfolio of high quality resources, and cements Orocobre as a lithium development market leader," Mr. Seville said.

"Based on our initial findings, Salinas Grandes could become one of the world's premier lithium assets, and its proximity to our other interests provides an opportunity for significant operational synergies. Over the remainder of this year, as we complete the Olaroz Definitive Feasibility Study with Toyota Tsusho Corporation, we will conduct further evaluations of the Salinas Grandes discovery to determine whether to develop the deposit as either a stand-alone lithium project or as part of an integrated plan."

Salinas Grandes and Guayatoyoc Sampling Programme Details

Location

The properties are located approximately 70kms east- south east of the Company's flagship Salar de Olaroz project, which is being developed under an agreement with Toyota Tsusho Corporation, (ASX Announcement: 20 January 2010).

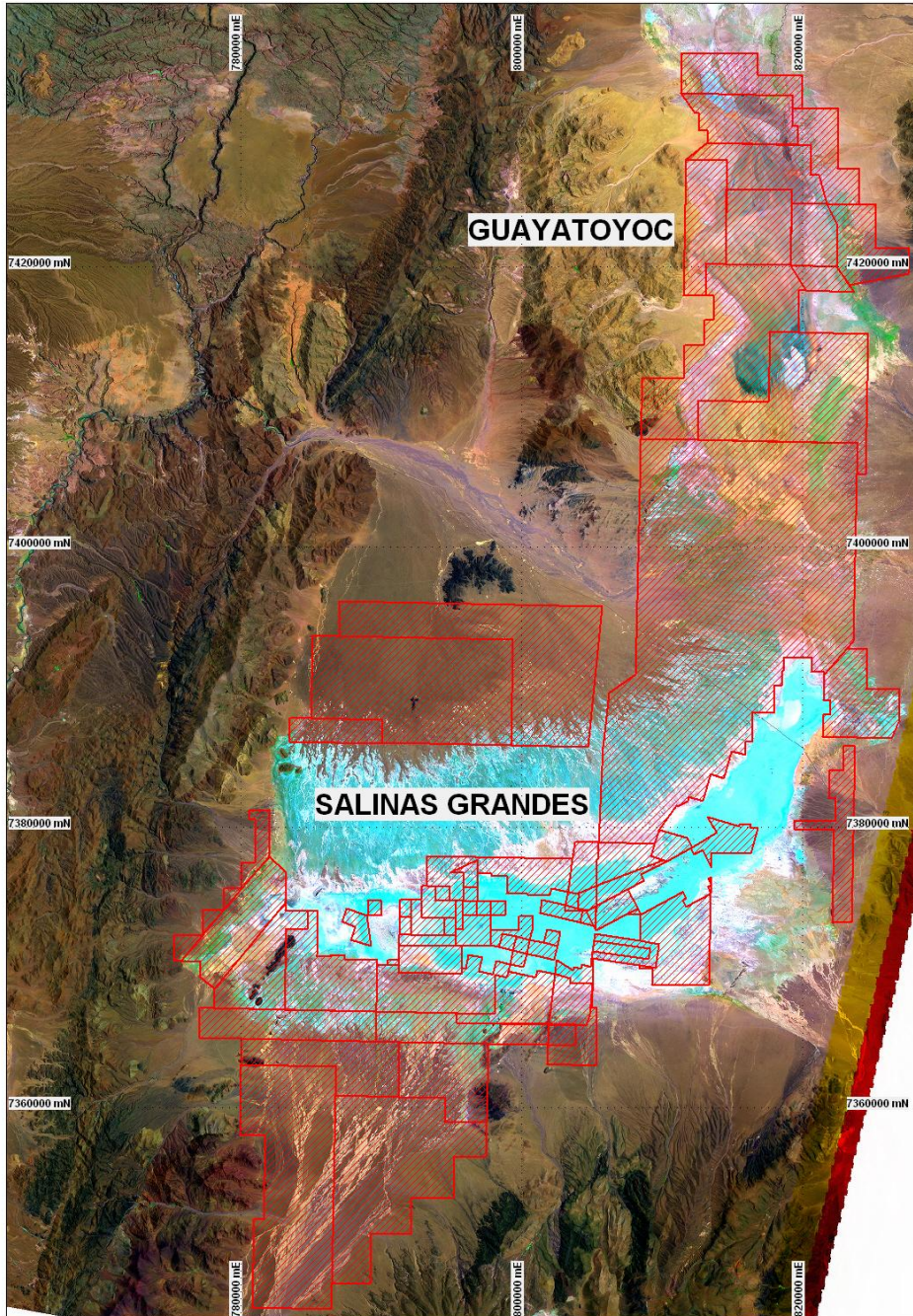


Plan showing Orocobre properties

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The properties held by Orocobre cover approximately 148,000 hectares in and around Salar de Salinas Grandes and Laguna de Guaytoyoc. This includes approximately 12,500 hectares of salar nucleus in Salinas Grandes, significant additional areas of prospective salar margin and 33,000 hectares covering Guaytoyoc.

Location of Company Properties



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Ownership

The Salinas Grandes and Guayatoyoc properties are owned 100% outright, or with rights to purchase 100%, by South American Salars Pty Ltd, an 85% owned subsidiary of Orocobre.

The majority of the area has been acquired by applications over vacant ground followed by augmentation of a number of smaller properties through acquisitions from local parties. The company is also pleased to announce the acquisition of a large area of approximately 4,000 hectares of salar nucleus and prospective margin at Salinas Grandes from UK based Red Sea Resources Ltd for a consideration of US\$923,500 (US\$422,500 in cash and US\$500,750 in shares priced at A\$1.81/share).

Details of Sampling Programmes

The sampling programmes for the Company's two discoveries were undertaken by digging pits until brines were intersected. The pits were up to 3m deep and dug by hand until free flowing brine was intercepted. The brine was allowed to clear and a 2 litre sample taken from which a 50ml subsample was taken.

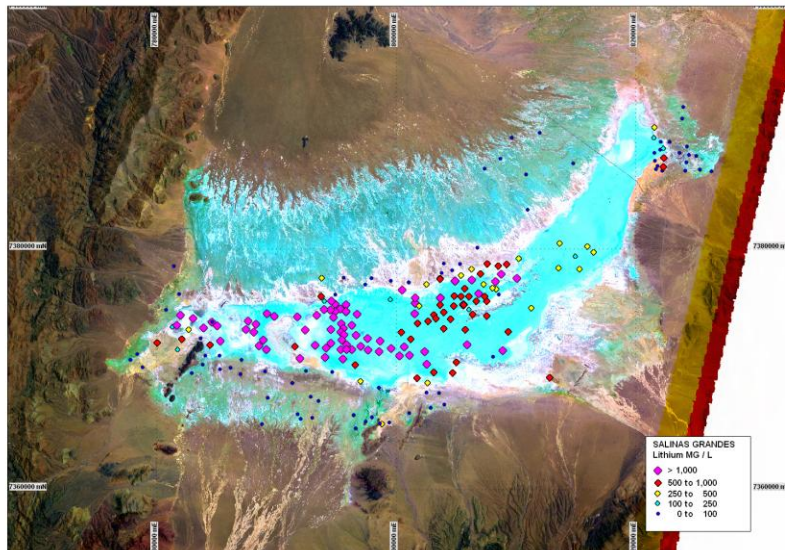
Samples were sent to UK-owned, Alec Stuart Laboratories in Mendoza and analysed using an inductively coupled plasma (ICP) protocol. In addition to the laboratories' internal quality assurance systems, the Company also uses its own blind standards, blanks and repeats to test the samples. This is a similar methodology to that used at the Company's Olaroz project.

The results from the testing programmes are discussed below:

Salinas Grandes Results

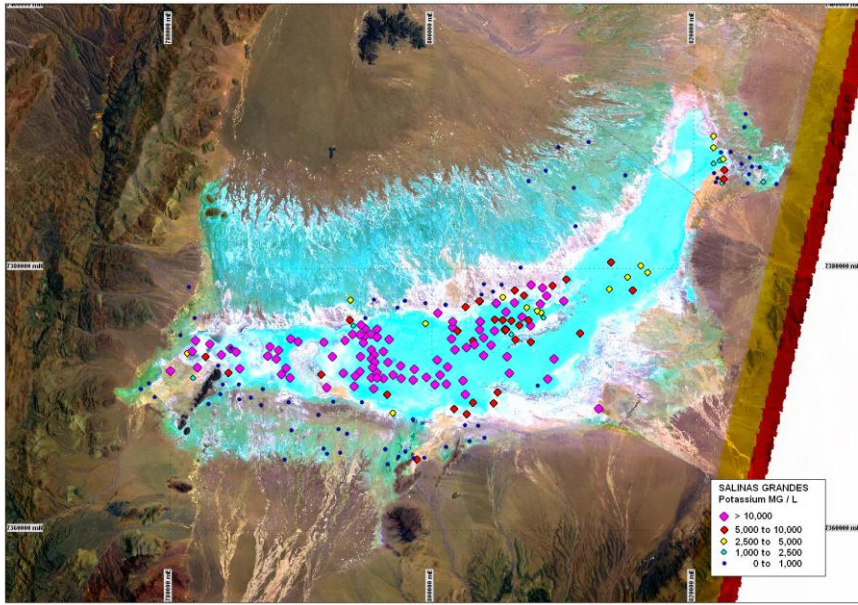
The lithium and potassium results from the pitting programmes in the Company's properties are presented graphically in the attached plans.

Lithium Values at Salinas Grandes



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Potassium Values at Salinas Grandes



Analysis of the data from the salar nucleus indicated very high values of lithium and potassium and low magnesium ratios as summarized in Table 1

Table 1

Salinas Grandes	Number of samples	Low	High	Median	Average	Standard Deviation	CV
		mg/l	mg/l	mg/l	mg/l	mg/l	
Lithium (Li)	116	541	4,237	1,262	1,409	684	0.49
Potassium (K)	116	5,484	49,720	14,464	16,394	7,525	0.46
Magnesium (Mg)	116	1,363	12,696	3,190	3,737	1,973	0.53
Mg/Li	116	2.13	3.32	2.62	2.63	0.21	0.08

As can be seen in comparison to other salars (Table 2), the values from Salinas Grandes are higher than other major salars and comparable to Salar de Atacama (the world's largest and lowest cost Lithium production). The potassium to lithium ratio is a high 11.9 indicating potential high co-product benefits from potash.

Table 2 – Comparative Brines

	Li (mg/l)	K (mg/l)	Mg (mg/l)	Mg:Li Ratio	Source/Reference
Salinas Grandes*	1,409	19,394	3,737	2.7	Orocobre Sampling
Olaroz	800	6,600	2,240	2.8	Orocobre Inferred Resource
Atacama	1,800	22,200	11,760	6.5	Ehren-Gonzales
Hombre Muerto	744	7,440	1,080	1.5	Ehren-Gonzales
Uyuni	420	8,640	7,800	18.6	Ehren-Gonzales
Clayton Valley	276	6,360	360	1.3	Ehren-Gonzales
East Tajinaier	600	12,840	22,680	37.8	Ehren-Gonzales
West Tajinaier	252	8,400	15,720	62.4	Ehren-Gonzales

*Pit sample results only

The low Magnesium/Lithium ratio is on a par with the best brines including Olaroz, and considerably better than those found at Atacama.

Guayatoyoc

Results from sampling at Guayatoyoc are summarized in the following table.

	Number of samples	Low	High	Median	Average	Standard Deviation	CV
Guayatoyoc							
Lithium (Li)	17	0	196	83	88	53	1.06
Potassium (K)	17	39	7,464	5,184	4,635	2,311	0.89
Magnesium (Mg)	17	3	465	187	507	114	2.71
Mg/Li	17	0.4	26.4	2.2	5.2	7.1	2.33

There are noticeable differences in the geochemistry relative to Salinas Grandes, with Guayatoyoc having much lower lithium grades. However, the potassium grades are high and potentially of economic interest in their own right. This potential is enhanced by proximity to the Company's other project developments such as the flagship Salar de Olaroz and Salinas Grandes.

Discussion

Preliminary analysis of the data from the pit sampling indicates high concentrations of lithium and potassium in brines at the south/west of Salar de Salinas Grandes. To the east and to the north, the grades decrease. Further north as one trends to Guayatoyoc, the lithium grades decrease further to sub-economic levels.

The Potassium to Lithium ratio also changes with ratios in the order of 12 in the south/west and ratios of above 60 at Guayatoyoc. The variation in chemistry suggests two different brine sources for the overall salar.

Future Operational Milestones

During the second quarter of 2010, Orocobre intends to commence a drilling and sampling programme at Salinas Grandes together with preliminary hydrological studies to further evaluate the project. Environmental Impact Statement (EIS) approval has been already received for this work in the Salta Province, where the majority of the Salinas Grandes properties are located.

At Olaroz, the Company is advancing the Definitive Feasibility Study investigations. This work is being funded by its project partner, Toyota Tsusho Corporation. The Company expects to make the decision to move forward with the Olaroz Project later this year, following successful completion of the Definitive Feasibility Study. Project construction is anticipated to begin in early-2011 and initial lithium production is expected to commence in early-2012.

Added Mr. Seville, "Orocobre has a significant field position in the salars that represent the "sweet-spot" of Argentina's Puna Lithium Province. We are continuing exploration and development work in this emerging area, and are committed to making this region a global force in the production of high quality lithium for use in a growing list of applications."

James D. Calaway, US-based Chairman of Orocobre, said, "With a number of fundamental drivers behind the world's growing demand for lithium, and our flagship Olaroz project complemented by our new discoveries in the Lithium-Potassium "sweet-spot" of Argentina, positions Orocobre to become one of the largest and lowest-cost producers of lithium in the world.

For and on behalf of the Board
Paul Crawford
Company Secretary

For more information please contact:

In Australia and Asia

Richard Seville
Managing Director
Orocobre Limited
T +61 7 3871 3985
M +61 419 916 338

Paul Ryan
FD Third Person
T: +61 8 9386 1233
M: +61 429 856 883

In Canada

James D. Calaway
Chairman
Orocobre Limited
T: +1 (713) 366-0301
M: +1 (713)-818-1457

Margot Olcay
FD
T +1 (212) 850-5611

Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Richard Seville who is a member (No 109543) of the Australasian Institute of Mining and Metallurgy. Mr Seville is a Director of Orocobre Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' and to qualify as a "Qualified Person" as defined in Canadian National Instrument 43-101, Mr Seville consents to the inclusion in the report of the matters based on his information in the form and context in which it appears and has reviewed and verified that the information presented in this release conforms to NI43-101 standards.

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Background information

About Orocobre Limited

Orocobre Limited is an Australian (ASX) Listed Company with interests in lithium-potash prospects in Argentina. Orocobre is the leading lithium-potash resource developer in the lithium and potash rich Puna Lithium Province of Argentina.

Orocobre's Salar de Olaroz brine deposit is widely expected to be the next large scale, low cost lithium-potash brine resource to come into production. Orocobre expects to complete its Definitive Feasibility Study in the third quarter of 2010, and commence initial commercial production in 2012. The project is being developed in joint venture with Toyota Tsusho Corporation which is funding the DFS. In addition, Orocobre is undertaking a significant Puna Region exploration program that is yielding a promising pipeline of future lithium and potash Projects including Salinas Grandes and Cauchari.

The Olaroz project is located in the Jujuy Province in the elevated and arid Puna region in the north - western part of the country and is well served by infrastructure with access by sealed road and nearby gas pipelines and rail.

Geos Mining of Sydney estimated (April 2009) an Inferred resource of 350 million kL of brine at 800g/kL lithium and 6,600g/kL potassium to a depth of 55m depth over the properties then held. This is equivalent to 1.5 million tonnes of lithium carbonate and 4.4 million tonnes of potash. Programmes being undertaken as part of Definitive Feasibility Study are expected to upgrade this resource and to Measured and Indicated categories and potentially increase its size. There is also considerable potential for significant additional mineralised brines in aquifers beneath the shallow resource on which the Definitive Feasibility Study is being undertaken.

The brine chemistry is very attractive with high grades, low magnesium:lithium ratios and beneficial sulphate levels. Scoping studies undertaken in 2009 indicated the potential to establish an operation producing 15,000 tonnes per annum lithium carbonate and 36,000 tonnes per annum of potash with operating costs competitive with existing low cost brine producers.