

# Orocobre Limited: Quarterly Report of Operations For The Period Ended 30 June 2013

31.07.2013 | [Marketwired](#)

BRISBANE, AUSTRALIA -- (Marketwired - July 31, 2013) - [Orocobre Limited](#) (ASX:ORE) (TSX:ORL) -

## HIGHLIGHTS

### Salar de Olaroz Lithium-Potash-Boron Project:

- Construction of the project is proceeding on time and within budget.
- A total of US\$109m has been spent or committed via executed contracts in the construction project to date.

### Salinas Grandes Potash - Lithium Project

- Pump testing shows that brine volumes can be extracted at a sufficient rate and concentration to potentially support modest potash and lithium production.
- Internal studies are underway to develop a strategy for further project advancement.

### Borax Argentina

- The Company announced the decision to relocate the borax chemical plant from its current location in Campo Quijano (close to the city of Salta) to the Tincalayu mine with project financing by HSBC in Argentina.
- The relocation of the borax plant to the Tincalayu mine site will have significant benefits through both the reduction of operating unit costs and also increasing overall mineral recovery from the mine.

### Corporate

- Cash Position of A\$10.8 million at the end of the quarter excluding Olaroz joint venture funding.

### Salar de Olaroz Lithium-Potash Project

The Olaroz Project is Orocobre's flagship project located in Jujuy province of Argentina. Together with partners, Toyota Tsusho Corporation ("TTC") and Jujuy Energia y Minería Sociedad del Estado ("JEMSE"), Orocobre is building the first large scale "green fields" lithium brine project in approximately 20 years and will have a design capacity of 17,500tpa of battery grade lithium carbonate. The project has a construction budget of US\$229m comprised of equity contributions from the partners of US\$82.8m which has been completed and with a debt facility for up to US\$192m from Mizuho Corporate Bank for which the processes to allow drawdown are currently being finalised.

The Olaroz Project joint venture is operated through Argentine subsidiary Sales de Jujuy S.A. (SDJ SA). The effective Olaroz Project equity interest is Orocobre 66.5%, TTC 25.0% and JEMSE 8.5%.

### Construction Update

Construction of the Olaroz lithium project officially began on 21 November, 2012. Progress has been to plan, due in a large part to the preparation and planning that took place in the preceding year. Sinclair Knight Merz, with the assistance of INFA, a well-respected Argentine engineering group, completed detailed engineering for all areas of the operation, including brine extraction, transport and evaporation, the lithium carbonate plant and key areas of the re-purification and micronizing circuits.

The construction of the project continues to proceed on time and within budget.

**Since the start of official construction significant progress has been made with the following tasks completed**

- The clearing of talar over the evaporation pond area (4.2 sq km)
- Construction and lining of the large evaporation pond to permit first filling
- Significant earthworks for construction pads and evaporation ponds. Earthworks are now over 50% complete
- Establishment of a long term water supply to be used both for both domestic and construction purposes
- Establishment of fuel supply/storage and telecommunications
- The construction of the access roads on the salar to the bore field area
- Drilling of 14 by 200m deep brine bores and construction of MV overhead electrical reticulation
- Completion of intermediate pond and brine pipeline to evaporation ponds
- Construction of the first stage camp and offices
- Construction and installation of the sewage treatment plant
- Concrete plant installation
- Groundwork and concrete foundations for liming plant
- Construction of the lime plant conveyor, silos, tanks and other facilities

**The following tasks are currently in progress**

- Foundations and metal structure fabrication for process plant buildings, soda ash warehouse, finished product warehouse and maintenance facilities
- Raw water pumping station - Electrical control room installation
- Groundwork and concrete foundations of water treatment plant
- Waste water treatment plant 2nd stage
- Mechanical erection of liming plant
- Drilling of the remaining 6 brine wells
- Evaporation pond construction
- Liming plant structure - fabrication
- Water plant tank construction
- Gas pipeline construction
- Definitive camp (supply and erection)
- Definitive camp infrastructure construction
- Overflow channel construction
- Construction of process buildings (main building, soda ash and end product storage)
- Liner installation of second evaporation pond
- Construction of reinforced earth gabions for transfer pumps foundation
- Construction of overhead power line
- Construction of warehouse and maintenance workshop building

Approximately \$109m of the US\$229m capital budget has been committed or spent and all major contracts awarded to this point remain on, or under, budget.

The project implementation is through EPCM (Engineering, Procurement and Construction Management) with a high proportion of local involvement through construction and supply contracts and local employment. The unique community and shared value policy continues as a key success factor, training local people under the supervision of high quality experienced professionals.

To view the photos accompanying this press release, please visit the following link:  
<http://media3.marketwire.com/docs/889459Photos.pdf>

For more information on Olaroz please click here:  
[http://www.orocobre.com.au/Projects\\_Olaroz.htm](http://www.orocobre.com.au/Projects_Olaroz.htm)

**Salinas Grandes Potash-Lithium Project (85%)**

Through 85% owned subsidiary South American Salars, Orocobre holds the rights to properties covering over 120,000 hectares in and around Salinas Grandes, located approximately 70 kilometres southeast of Orocobre's flagship Olaroz Project, in the Puna region of the Provinces of Jujuy and Salta, Argentina. The proximity of Salinas Grandes to the flagship Olaroz Project provides potential operating synergies, including the option to process concentrated Salinas Grandes lithium brine at an expanded lithium carbonate plant at Olaroz after recovering potash resources.

To view Figure 1: The location of the Salinas Grandes and Olaroz projects in northern Argentina, please visit the following link:

<http://media3.marketwire.com/docs/889459F1.pdf>

Salinas Grandes has an inferred resource, to a depth of 13.3m, estimated to contain 56.5 million cubic metres of brine at 795 mg/L lithium and 9,550 mg/L potassium, which is equivalent to 239,200 tonnes of lithium carbonate and 1.03 million tonnes of potash (potassium chloride) based on 5.32 tonnes of lithium carbonate being equivalent to 1 tonne of lithium and 1.91 tonnes of potash being equivalent to one tonne of potassium.

Following completion of the resource estimate in 2012 the company has conducted long-term pump tests on five test production wells and two trenches within the central area of the salar. The purpose of the test work was:

- to ascertain whether a sufficiently high pumping rate could be achieved from the aquifer (being only to 13.3m depth)
- to investigate changes in permeability over the salar and to determine whether there are preferred areas for possible future extraction
- to ascertain whether the brine would maintain a stable grade during extraction and not be diluted by brackish water beneath the brine body

An extensive array of monitoring wells was established around test production wells and trenches. These provided information on the drawdown cones of wells and variations in brine chemistry with time.

### **Drilling and Geology**

Orocobre previously drilled a total of 12 diamond drill holes in the Salinas Grandes salar to an average depth of 71.4 metres, with certain holes as deep as 180 metres and 47 shallow auger holes to a typical depth of 12m.

The shallow brine body is hosted in a sequence of silt and clay units, with minor intercalated sand - which generally increase in proportion towards the north of the salar. Halite extends to a maximum thickness of 0.5 metres below surface in the center-south of the salar. Drilling established there are higher permeability zones within the salar, associated with intervals of higher sand content and as channels within lower permeability silts and clays.

### **Pump Testing Methodology**

To evaluate the potential for long term brine extraction from the Salinas Grandes salar, pump testing was completed on five purpose-constructed test production wells. These wells were drilled to between 12.5 and 13.5 m below surface, using a rotary drilling rig, with the wells reamed to an outside diameter of 18 inches. Well casing with a diameter of 12 or 8 inches was installed in the wells, with the length of the casing perforated throughout. A clean, well sorted 1-2 mm sand pack was installed as a filter around the casing in the holes. The location of the wells is shown in figure 2.

To view Figure 2: The location of the long term pump test holes (red), relative to the 2012 resource outline, please visit the following link:

<http://media3.marketwire.com/docs/889459F2.pdf>

A network of monitoring wells was established at distances of 5, 10 and 15 metres from each pump well. Additional monitoring wells were installed around the higher yielding hole CJB005, 50 and 100 metres from this pump well. Monitoring was conducted using a Solinst down hole water level dipper and using data loggers in the pump well and surrounding wells.

Wells were pump tested by installing submersible pumps near the base of the five wells and monitoring changes in the standing water level in the pump well and the surrounding monitoring well network over a period of up to 91 days (in HCJ009HY).

### **Pump Test Results**

Representative hydraulic conductivity (K) values calculated from the long term pump tests are in the range of

0.3 to 8.9 m/day. These pump test details are summarized in Table 1. These values are comparable to the range of values from 0.3 to 52 m/day from 12 short term tests undertaken in 2011 from the auger drilling programme.

To view Table 1: Pump test results from the five long-term pump tests carried out at Salinas Grandes, please visit the following link:

<http://media3.marketwire.com/docs/889459T1.pdf>

Although pump production declined to less than 1 l/s in two wells the remaining three wells sustained pump rates of between 1.55 and 2.71 l/s, with continuous pumping (interrupted for routine refueling of generators and maintenance) over a period of up to 91 days, before the test program was terminated. This suggested that wells are capable of supporting long-term brine production, although there is little available drawdown in most wells, with water levels close to the depth at which the pumps were installed. For production pumping this would probably require periods where wells are allowed to recover, with pumping switched to other wells during the recovery periods.

The highest yielding well (CJB005) is located in the central eastern part of the salar, with well HCJ028HY ~1.5 km to the NW. Well HCJ009HY is located near the northern boundary of the salar. Overall the pump tests show there is considerable variation in permeability within the salar.

### **Brine Chemistry**

Lithium and potassium concentrations declined during the initial 15 day period of the 2012 pump tests prior to stabilizing or showing only minor declines in concentration. Overall the results suggest that relatively constant brine concentrations can be produced from a well following this initial period of decline. The initial decline in concentrations is interpreted to reflect depletion of particularly concentrated brine from the surficial halite layer and underlying surficial sand intervals, relative to long-term contributions from silt, clay and minor sand units deeper within the well.

### **Trenching Pump Test**

Two trenches were constructed in the north west of the salar, in the area established by auger drilling to host Li values of > 800 mg/l. These were constructed with dimensions of 50 m by 3 m, and 1.5 m deep. The objective of this test program was to evaluate whether trenches could be used to extract brine from the shallow aquifer and to solar pre-concentrate the brine prior to extraction. Samples of brine taken following trench construction showed Li values exceeding 1700 mg/l. An evaluation of the economics of trench versus pump well construction will be evaluated as part of the scoping study. The work completed at Salinas Grandes to date confirms the potential that brine can be extracted from the shallow resources at commercial rates and with stable grades that could allow for modest annual production of potassium and lithium to augment our flagship Olaroz project, now under construction.

To better understand the potential for Salinas Grandes the company has initiated an internal study which will determine the strategy for advancing the project further.

For more information on Salinas Grandes please click here:

[http://www.orocobre.com.au/Projects\\_Salinas\\_Grandes.htm](http://www.orocobre.com.au/Projects_Salinas_Grandes.htm)

### **Borax Argentina**

Borax Argentina has extensive operations and has a fifty year production history producing borax chemicals, boric acid and boron minerals. The production currently comes from three principal mines at Tincalayu, Sijes and Porvenir with concentrators at the first two locations and a chemicals plant at Campo Quijano producing refined products.

There are historical estimates on the mineralisation at these mines and at two undeveloped deposits. These form the basis for developing plans for the business.

### **Operations**

Approximately 9,562 tonnes of combined products were sold during the quarter. This is an increase on the previous quarter and in line with expectations. Prices achieved continued to be lower than budgeted due to softer market conditions.

### Combined product sales volume by quarter:

Quarter	Combined Product Sales (tonnes)
December 2012	10,007
March 2013	9,182
June 2013	9,562

### Borax Plant Relocation

On 1st July, the Company announced a significant advance at its 100% subsidiary Borax Argentina with the decision to relocate the borax chemical plant from its current location in Campo Quijano (close to the city of Salta) to the Tincalayu mine site. The Borax Argentina chemical plant produces borax decahydrate, borax pentahydrate and anhydrous borax.

The relocation of the borax plant to the Tincalayu mine site will have significant benefits through both the reduction of operating unit costs and also increasing overall mineral recovery from the mine. Currently, run-of-mine ore at 17% B<sub>2</sub>O<sub>3</sub> is concentrated at Tincalayu using dry magnetic separation to produce a 21% grade which is then transported the 350 kms from Tincalayu to Campo Quijano for production of borax chemicals. Recovery through the dry magnetic separation plant is only approximately 60%. In the future, when the borax plant is at the Tincalayu mine site, the borax plant will treat run-of-mine ore without the use of the magnetic separation plant. This will result in:

- no loss of mineral content prior to the borax plant as there will be no concentration stage
- removal of the operating costs of the dry magnetic separation concentration stage
- improvement in the freight cost profile by cartage of finished products with grades between 37% and 49% B<sub>2</sub>O<sub>3</sub> as opposed to a 21% grade concentrate

The total capital budget of the relocation and plant modifications is AR\$30m (US\$5.6m\*). Of this, the company has received project finance from HSBC for AR\$18m (US\$3.4m\*). Borax Argentina will provide AR\$12m (US\$2.2m\*) in the form of its existing equipment, materials and labour currently employed in the Borax operations. The loan will be repayable over 4 years and has an interest rate of 15.25% p.a.

The interest rate applicable to the loan is less than current market rates in Argentina due to a government directive as documented in the Central Bank publication "Banco Central de la Republica Argentina Communication "A" 5380" dated 21/12/2012, which established a scheme to ensure funds are available to be loaned to local businesses for expansion and improvement projects at reduced interest rates.

It is worthwhile to note that all customer sales contracts for the Borax Argentina business are denominated in US\$ and that the AR\$ has been devaluing against the US\$. Over 2012, the devaluation was 14.1% and over the first six months of 2012 devaluation has been 9.5% (19% pa).

(\* at the exchange rate current at the date of the announcement)

The completion date for the project is forecast to be before the end of Q2 2014. Civil works on the Tincalayu site commenced in July. Modifications and repairs to site buildings and equipment are currently in progress.

The Company considers this project an exciting development which will position the Borax Argentina business well for the future.

### Historical Estimate for JORC Compliant Resource Conversion Programme

During the quarter, work continued on the programmes to convert the Tincalayu historical estimates to JORC compliant resources. The work programme has involved so far:

- Extensive pit mapping to provide geometrical controls of stratigraphy and structures which will be correlated later with past flight plans and drill logs
- Geochemical sampling of different horizons to provide controls on past drilling and bench plans

This part of the programme is almost completed and will allow, in conjunction with past drilling data, a new

three dimensional model of the mineralised horizon to be constructed. A resampling program will also be undertaken on stored drill core using internal and external laboratories. It is planned to have a resource estimate completed in the 4th Quarter 2013 assuming no drilling is required.

Once the conversion programme is completed at Tinacalyu, work will commence on the Sijes hydroboracite deposit and salar hosted ulexite deposits at Porvenir and Diablillos.

For more information on Borax Argentina please click here: [http://www.orocobre.com.au/Projects\\_Borax.htm](http://www.orocobre.com.au/Projects_Borax.htm)

## **Corporate and Administration**

### **Company Secretary Resignation/Appointment**

On 1st July, the Company announced the resignation of Paul Crawford as Company Secretary and the appointment of Neil Kaplan as Company Secretary. Neil Kaplan is also Chief Financial Officer.

### **SAP Implementation**

An SAP ERP system has been implemented at Sales De Jujuy SA which marks another significant milestone for the Olaroz project. The SAP implementation program at Borax Argentina is in progress.

### **Cash Position**

At the end of the quarter, the company had a cash position of A\$10.8 million excluding funds in Olaroz Lithium Project companies.

The final fund transfer to cover the Jujuy Energia y Minera Sociedad del Estado (JEMSE) equity component in the Olaroz project occurred in the Apr-Jun 2013 quarter. This is designated as a loan in the cash flow statement and will be repaid from dividend income.

### **In the Appendix 5B:**

1.10 'Loans to other entities' 2,859 represents the final loan amount to JEMSE for equity contributions.

1.16 'Proceeds from borrowings,' 3,658 is the Borax Argentina loan for the borax plant relocation.

4.2 'Payments to other entities,' 1,100 is a scheduled payment due to Rio Tinto for the purchase of Borax Argentina.

### **About Orocobre Limited**

[Orocobre Limited](http://www.orocobre.com) is listed on the Australian Securities Exchange and Toronto Stock Exchange (ASX:ORE)(TSX:ORL), and is building a substantial Argentinian-based industrial minerals company through the construction and operation of its portfolio of lithium, potash and boron projects and facilities in the Puna region of northern Argentina. The Company is building in partnership with Toyota Tsusho Corporation the first large-scale, de-novo brine based lithium project in 20 years at its flagship Salar de Olaroz resource, with projected production of 17,500 tonnes per annum of low-cost battery grade lithium carbonate scheduled to commence in Q2 2014. The Company also wholly-owns Borax Argentina, an important regional borate producer. Orocobre has recently been included in the S&P/ASX 300 Index. For further information, please visit [www.orocobre.com](http://www.orocobre.com).

### **Technical Information, Competent Persons' and Qualified Persons Statements**

The information in this report that relates to Exploration Results or Mineral Resources is based on information prepared by, or under the supervision of Mr. Richard Seville who is a member of the Australasian Institute of Mining & Metallurgy. Mr. Seville is an executive director of Orocobre Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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'. Mr. Seville consents to the inclusion in this announcement of the matters based on his information in the form and

context in which it appears.

Additional information relating to the Company's projects is available in "Technical Report - Salar de Olaroz Lithium-Potash Project, Argentina" dated May 30, 2011, (the Olaroz Report), the "Technical Report - Salinas Grandes Project" dated April 30, 2010 and the "Technical Report - Salar de Cauchari Project, Argentina" dated April 30, 2010, respectively, which have each been prepared by John Houston, Consulting Hydrogeologist, together with, in the case of the Olaroz Report, Mike Gunn, Consulting Processing Engineer, in accordance with NI 43-101.

### **Caution Regarding Forward-Looking Information**

*This news release contains "forward-looking information" within the meaning of applicable securities legislation. Forward-looking information contained in this release includes, but is not limited to, construction at the Olaroz Project and the timing thereof, the commencement of commercial production at the Olaroz Project and the timing thereof, the projected production of lithium carbonate at the Olaroz Project and the expected brine cost and grade at the Olaroz Project.*

*Such forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from those expressed or implied by such forward looking information, including but not limited to the risk of further changes in government regulations, policies or legislation; the possibility that required concessions may not be obtained, or may be obtained only on terms and conditions that are materially worse than anticipated; the risk that the conditions precedent to draw down the project financing with Mizuho Corporate Bank will not be met; that further funding may be required, but unavailable, for the ongoing development of the Company's projects; fluctuations or decreases in commodity prices; uncertainty in the estimation, economic viability, recoverability and processing of mineral resources; risks associated with weather patterns and impact on production rate; risks associated with construction and development of the Olaroz Project; unexpected capital or operating cost increases; uncertainty of meeting anticipated program milestones at the Olaroz Project; general risks associated with the feasibility and development of the Olaroz Project; as well as those factors disclosed in the Company's Annual Information Form for the year ended June 30, 2012 filed at [www.sedar.com](http://www.sedar.com).*

*The Company believes that the assumptions and expectations reflected in such forward-looking information are reasonable. Assumptions have been made regarding, among other things: the timely receipt of required approvals and completion of agreements on reasonable terms and conditions; the ability of the Company to obtain financing as and when required and on reasonable terms and conditions; the prices of lithium and potash; and the ability of the Company to operate in a safe, efficient and effective manner. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.*

### **Not For Release in US**

*This announcement has been prepared for publication in Australia and may not be released in the U.S. This announcement does not constitute an offer of securities for sale in any jurisdiction, including the United States, and any securities described in this announcement may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended. Any public offering of securities to be made in the United States will be made by means of a prospectus that may be obtained from the issuer and that will contain detailed information about the company and management, as well as financial statements.*

ABN 31 112 589 910

### **Contact**

Orocobre Limited  
David Hall, Business Development Manager  
M: + 61 407 845 052  
dhall@orocobre.com

Orocobre Limited  
James Calaway, Chairman

M: + 1 (713) 818 1457  
jcalaway@orocobre.com

---

Dieser Artikel stammt von [Rohstoff-Welt.de](#)

Die URL für diesen Artikel lautet:

<https://www.rohstoff-welt.de/news/153552--Orocobre-Limited--Quarterly-Report-of-Operations-For-The-Period-Ended-30-June-2013.html>

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm benannten Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in einem Beitrag stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenwürde. Beachten Sie bitte auch unsere [AGB/Disclaimer!](#)

---

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!  
Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2026. Es gelten unsere [AGB](#) und [Datenschutzrichtlinien](#).