

09 April 2014

# ASX / TSX ANNOUNCEMENT

# **Construction Update on the Olaroz Lithium Project**

- Construction 85% complete. Lithium carbonate plant is the main outstanding work area to be completed.
- Brine pumping flow rates currently running at long term requirements of 1801/s. Peak flow rates of 2201/s for brine stock build up to be achieved in early May.



- Thick continuous sand plus halite aquifer intersected in the first hole drilled beneath the current defined resource at Olaroz.
- Gas Atacama gas branch line connection was commenced in March and is expected to be completed within the next month.
- Construction projected to be completed on budget with the first commercial production of lithium carbonate projected to be the end of August 2014.

Orocobre Limited (ORE:ASX, ORL:TSX) ("Orocobre" or "the Company") is pleased to advise progress on construction of the flagship Olaroz Lithium Project. In terms of physical progress the construction program is approximately 85% complete. A total of approximately US\$194m has been spent or committed via executed contracts in the construction project to date.

# Pumping and hydrogeology

Daily production of 180l/s of brine is being maintained with approximately 125 l/s from the northern bore field and 55 l/s from the southern bore field. Brine supply from the southern bore field is currently limited by undersized transfer pumps at the TK-200 transfer ponds and 3 bores are currently off line in the southern field. Correctly sized pumps are expected to be installed by May at which time peak filling rates of approximately 220 l/s will be achieved to build up brine stocks.

As part of the bore field development one bore was drilled to 304 m, the deepest hole to date by the company in Olaroz. Resource drilling was previously only carried out to a maximum depth of 200 m, with the resource only extending to a depth of 197 m below surface. This hole intersected a continuous sand plus halite aquifer from 255 m to the end of the hole at 304 m. Pumping tests have confirmed good hydrogeological properties and a high brine grade, averaging 770 mg/l Lithium during the pump testing. The significance of this previously unknown thick sand sequence is that it may extend laterally beneath much of the defined brine resource and contain a significant additional, and un-estimated, volume of lithium-bearing brine. The complete vertical thickness is currently unknown as the hole ended in sand at 304m. Previous geophysical surveys conducted by Orocobre have suggested the Olaroz salar deposits may extend to a possible 600 m deep.

# Other construction points of note:

The gas branch line connection from Gas Atacama was commenced in March and is expected to be completed and commissioned within the next month.

Electrical components for the installation and commissioning of the reverse osmosis plant are expected to be delivered in April.

Construction works continue on the lithium processing plant, finished goods warehouse and the soda ash warehouse.





More images are available on our web page under "Gallery". Please click here for the most recent images

The Company continues to follow the "Jujuy First" strategy to successfully work with suppliers and the employment bureau to focus on the hiring of local people from the communities of Olaroz, Huancar, Puesto Sey, Pastos Chicos, Catua, Susques, Jama, El Toro, Coranzulí, San Juan and Abrapampa.

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 to be a key success factor, training local people under the supervision of high quality experienced professionals.

The Olaroz lithium project is being developed by Orocobre (66.5%) with partners Toyota Tsusho Corporation ("TTC") (25%) and the Jujuy Province mining and energy company, JEMSE (8.5%) with a construction budget of US\$229m including contingency. First commercial production is projected to be for the end of August 2014.

#### For more information please contact:

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#### **About Orocobre Limited**

Orocobre Limited 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, "greenfield" brine based lithium project in 20 years at its flagship Salar de Olaroz resource, with planned production of 17,500 tonnes per annum of low-cost battery grade lithium carbonate projected to be in commercial production in August 2014. The Company also wholly-owns Borax Argentina, an important regional borate producer. Orocobre is included in the S&P/ASX 300 Index and was named 2012 Mining Company of the Year by Argentine mining magazine Panorama

Minero and the Fundacion para el Desarrollo de la Mineria Argentina ("Fundamin" or Foundation for Development of Argentina Mining). For further information, please visit <u>www.orocobre.com</u>

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

The information in this report that relates to exploration reporting at the Olaroz project has been prepared by Mr Murray Brooker. Murray Brooker is a geologist and hydrogeologist and is a Member of the Australian Institute of Geoscientists. Murray has sufficient relevant experience to qualify as a competent person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is also a "Qualified Person" as defined in 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 may include, but is not limited to, the draw down of finance for the Olaroz Project, the completion of construction at the Olaroz Project and the timing thereof, the commencement of commercial production at the Olaroz Project and the timing thereof, the cost of construction relative to the estimated capital cost of the Olaroz Project, the design production rate for lithium carbonate and potash at the Olaroz Project, the expected brine grade at the Olaroz Project, the expected operating costs at the Olaroz Project and the comparison of such expected costs to expected global operating costs, and the ongoing working relationship between Orocobre and the Province of Jujuy.

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 Report for the year ended June 30, 2013 filed at 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.



Appendix 1 – JORC Table 1 Checklist of Assessment and Reporting Criteria

Criteria	Commentary	
Sampling Techniques and Data		
Drilling technique	• Rotary drilling using an 8 <sup>3</sup> / <sub>4</sub> inch tricone, with a 14 inch bit used for reaming the hole	
Drill sample recovery	• Drill cuttings were sampled from the mouth of the drill hole. Brine samples were not taken during drilling.	
Logging	<ul> <li>Drill cuttings were logged by a geologist at the drill site.</li> <li>The drilling penetration rate (minutes/metres) was recorded during drilling.</li> <li>Upon completion of the hole geophysical logs, including spontaneous potential, near and far resistivity, were measured.</li> </ul>	
Sampling techniques	• Lithological samples were not taken for analysis during drilling, as the purpose of drilling the hole was to install a bore for brine production.	
Sub-sampling techniques and sample preparation	<ul> <li>No lithological samples were taken for analysis during drilling, so no sub-sampling was undertaken</li> <li>Brine samples were taken from the hole during pump testing</li> </ul>	
Quality of assay data and laboratory tests	<ul> <li>Brine samples from the pump testing of this bore were analysed at the company's dedicated Olaroz site laboratory.</li> <li>Samples from this well are analysed daily at part of a larger sampling and analysis program. The laboratory operates a program of QA/QC, with the use of standard, duplicate and blank samples.</li> </ul>	
Verification of sampling and assaying	• The company has an external verification regime in place, with samples from bores being sent to an external laboratory, together with standards, duplicates and blanks	
Location of data points	<ul> <li>The bore has been located with a hand held GPS.</li> <li>The location is in UTM GK Zone 3, with the Argentine POSGAR datum</li> </ul>	
Data spacing and distribution	<ul> <li>Lithological data was collected at a 1 m interval throughout the bore</li> <li>Brine samples are representative of the complete water column within the bore, with no specific sampling conducted</li> </ul>	

Orientation of data in relation to geological structure Sample security	<ul> <li>The salar deposits that host lithium-bearing brines consist of subhorizontal beds and lenses of sand, gravel, silt, clay and halite. The vertical bore is essentially perpendicular to these units, intersecting their true thickness</li> <li>The major geological structures interpreted are faults parallel to the north south extension of the salar, on the salar margins</li> <li>Samples were transported to the on-site Olaroz laboratory by</li> </ul>	
	company personel managing the pump test and the subsequent daily monitoring and sampling of the bore.	
Review (and Audit)	• Conducted by the author, <i>No audit was conducted</i> .	
Mineral tenement and land tenure status		
Mineral tenement and land tenure status	<ul> <li>Orocobre owns mining properties covering the Olaroz salar, where the Olaroz lithium brine project is located</li> <li>The tenements are 100% owned by Orocobre</li> <li>The tenements are believed to be in good standing, with payments made to relevant government departments</li> </ul>	
Exploration by other parties	• The Olaroz salar has previously been explored for surficial borate deposits, with Orocobre the first company to explore the salar for lithium brines. Another lithium exploration company holds properties around the margins of the Olaroz salar.	
Geology	<ul> <li>The sediments within the salar consist of sands, gravels, silts, clays and halite deposits that have accumulated in the salar from terrestrial sedimentation and evaporation of brines within the salar.</li> <li>Brines within the salar are formed by solar concentration, with brines hosted within the different sedimentary units</li> <li>Drilling to 304 m in the salar has intersected interlayered sands, silts and clays, with gravels predominantly on the margins of the salar. Halite units with differing porosities are present within this mixed sedimentary sequence</li> <li>Geophysics suggests that deeper salar deposits extend to ~600 m below surface.</li> </ul>	
Drill hole data	<ul> <li>The company has drilled &gt;80 exploration holes and production brine wells in the salar since 2008</li> </ul>	
Data aggregation	• Data aggregation consists of an "all of hole" lithium concentration, with lithium concentrations from different units within the hole contributing to an "all of hole" combined value	
Relationship between mineralisation widths and intercept lengths	• The lithium-bearing brine deposits extend across the Olaroz salar (> 5 km wide), and over a thickness of > 300 m, limited by the depth of current drilling	
Diagrams	• The hole is part of the southern bore field. No maps are included in this brief announcement	
Balanced reporting	• This announcement presents key results of bore P301, which was drilled to 304 m, with other bores no deeper than 210 m	
Other substantive	• N/A	

exploration data		
Further work	• The company will consider drilling other wells of similar or greater depth if and when then need arises to develop more of the lithium resource	
Estimation and Reporting of Mineral Resources		
Database integrity	• This announcement does not address mineral resources	
Site visits	• The QP/CP has visited the mine site many times, most recently in March 2014.	
Geological interpretation	• Mineralisation is developed in a sequence of terrestrial sediments.	
Dimensions	• N/A	
Estimation and modelling techniques	• N/A	
Moisture	• N/A	
Cut-off parameters	• N/A	
Mining factors and assumptions	• N/A	
Metallurgical factors and assumptions	• N/A	
Environmental factors or assumptions	• N/A	
Bulk density	• N/A	
Classification	• N/A	
Review and audit	• N/A	
Discussion of relative accuracy/confidence	• N/A	