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**29 October 2010**

**ASX/TSX ANNOUNCEMENT**

**Quarterly Report of Operations  
For The Period Ended 30 September, 2010**

**Highlights:**

- **Lithium Carbonate production commences at Olaroz test work facilities at Salar de Olaroz.**
- **Brine analyses from the resource evaluation drilling program within the area of the current inferred resource are in line with previous drilling.**
- **Encouraging exploration results in Rio Rosario delta area expands potential of Olaroz to the north of previous drilling.**
- **Orocobre appoints the internationally recognized engineering firm, Sinclair Knight Merz, to undertake the Definitive Feasibility Study on the Salar de Olaroz lithium-potash brine project.**
- **Preparatory works completed at Salinas Grandes prior to drilling.**
- **Federico Nicholson appointed as a Non-executive Director.**

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## **PROGRESS ON SALAR DE OLAROZ DEFINITIVE FEASIBILITY STUDY**

During the quarter Orocobre Limited (“Orocobre” or “the Company”) continued to make considerable progress on the Definitive Feasibility Study on the company’s flagship Olaroz Lithium-Potash Project.

The Orocobre team focused on the execution of the many technical and governmental aspects of the project, while the Company’s partner, Toyota Tsusho Corporation (“**Toyota Tsusho**”) focused on the sales and marketing assessment, and the project financing plans for of the Olaroz development.

### **Pilot plant scale lithium carbonate production commences**

Lithium carbonate production has commenced at the company’s process development test work facilities on the Salar de Olaroz. Over the past 18 months the Company has been developing the process route for treating the Olaroz brine based on the “Silver Peak” method used at Clayton Valley, Nevada since the late 1960’s. This has now resulted in the pilot plant scale production of lithium carbonate on site. This is an important milestone for the company. The next stage in the process development is to optimise the process route with the objective of providing sufficient supply of “on spec” lithium carbonate material to potential end users.



**Lithium Carbonate Product**



Process Development Facilities at Salar de Olaroz

## Olaroz Resource Evaluation Drilling Program Results

The current resource evaluation drilling program is designed with 20 cored holes to 54m using sonic technology and six cored holes to 200m, five using conventional triple tube coring techniques and one with sonic technology. Of the twenty cored sonic holes, sixteen are designed to upgrade the current resource and are located within the area of the 2008 drilling programme (Resource Upgrade Area) and four are outside the Resource Upgrade Area and are designed to increase the size of the resource.

Brine sampling results from the drilling in the Resource Upgrade Area are available for seven holes and are presented below in Table 1

Resource Upgrade Area							
Hole	Depth	Lithium mg/l	Potassium mg/l	Boron mg/l	Magnesium mg/l	Mg/Li	Comments
C14	0-54m	692	5821	771	1669	2.4	
C11	0-54m	466	3911	765	858	1.8	
	48-54m	559	4024	953	1366	2.4	Increasing grades with depth
C12	0-54m	886	6870	1138	2434	2.7	
	48-54m	956	6709	1319	3085	3.2	Increasing grades with depth
C13B	0-54m	864	7920	1124	2205	2.5	
	33-54m	1051	8786	1453	3103	2.9	Increasing grades with depth
C04	0-54m	800	6696	750	2048	2.5	
	43.5-54m	958	6978	925	2467	2.6	Increasing grades with depth
C03	0-54m	595	4486	657	1402	2.2	
C05	0-54m	632	4749	727	1356	2.0	

Table 1 – Results from sonic drilling Resource Upgrade Area

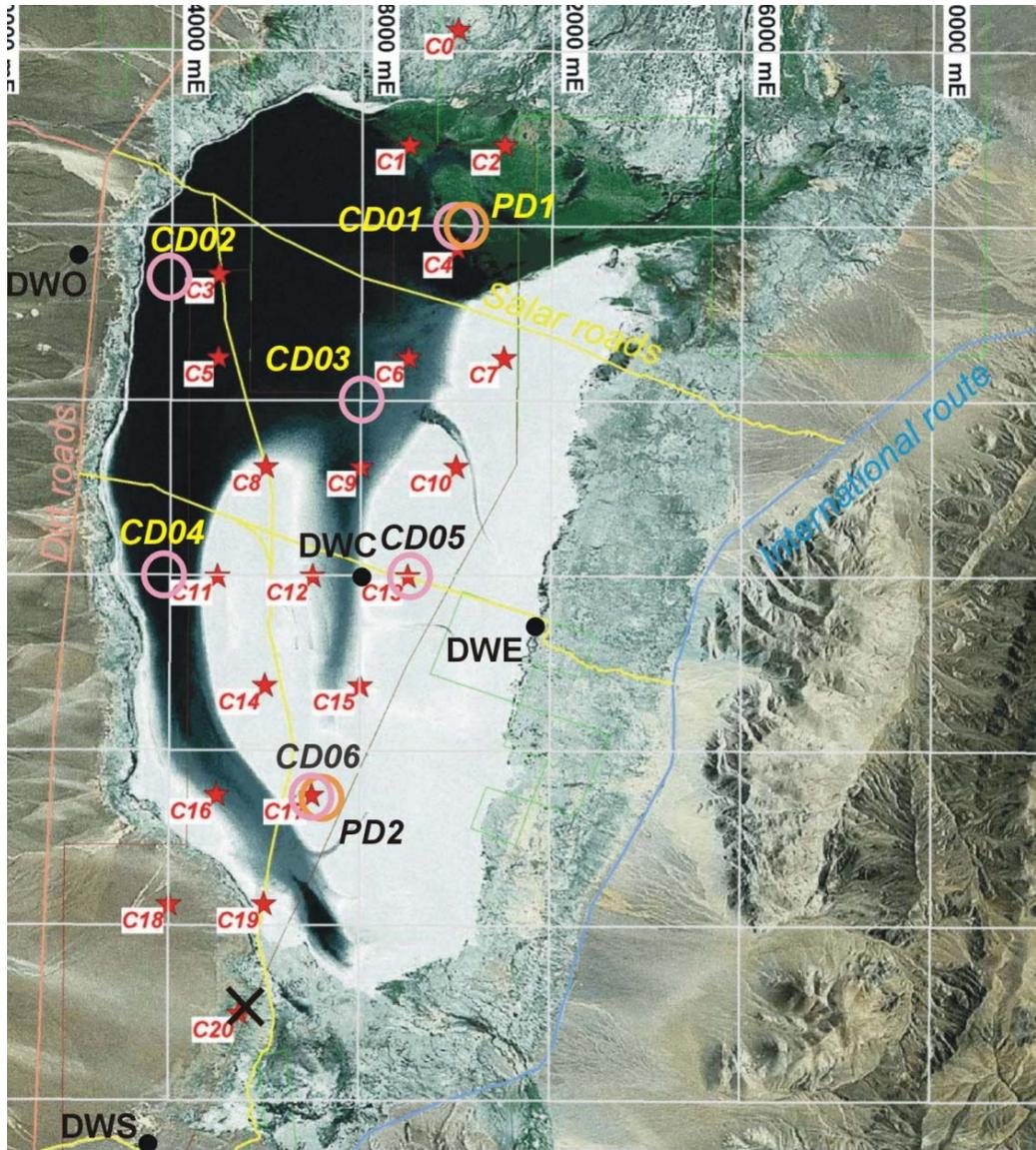


Figure 1 – Plan showing drill hole locations

Taking into account the location of the holes for these results, the results are considered to be in line with the results from the 2008 drill programme. The highest grades occur in the central part of the salar (From C04 in the north-east, through C12/ C13B to C14 in the south-west). Lower grade results are on the western edge.

The results confirm low Magnesium to Lithium ratio. Average sulphate levels over the length of the hole varied from 13g/l to 18g/l.

### Rio Rosario Delta Exploration Target Results

Three cored holes, using sonic drilling techniques, have been drilled in the southern part of the Rio Rosario delta north of the holes drilled in 2008 with the objective of exploring for brines

north of the current resource and extending the resource area. The results for these holes are presented below in Table 2.

Resource Extension - Rio Rosario Delta Target						
Hole	Depth	Lithium mg/l	Potassium mg/l	Boron mg/l	Magnesium mg/l	Mg/Li
C00	0-54m	124	891	255	306	3.1
	45-54m	237	1745	441	479	2.0
C01	0-54m	270	2174	398	568	2.2
	45-54m	360	2822	510	660	1.8
C02	0-54m	272	2429	403	540	2.1
	46.5-54m	459	4384	658	897	1.9

Table 2 – Results from sonic drilling in Rio Rosario delta exploration target area

The results highlight the potential for high grade brines to occur beneath a shallow, lower grade, lower density layer of brine. The potential geometry of this brine body is shown in Figure 2 based on surface geophysical surveys calibrated with the drilling results.

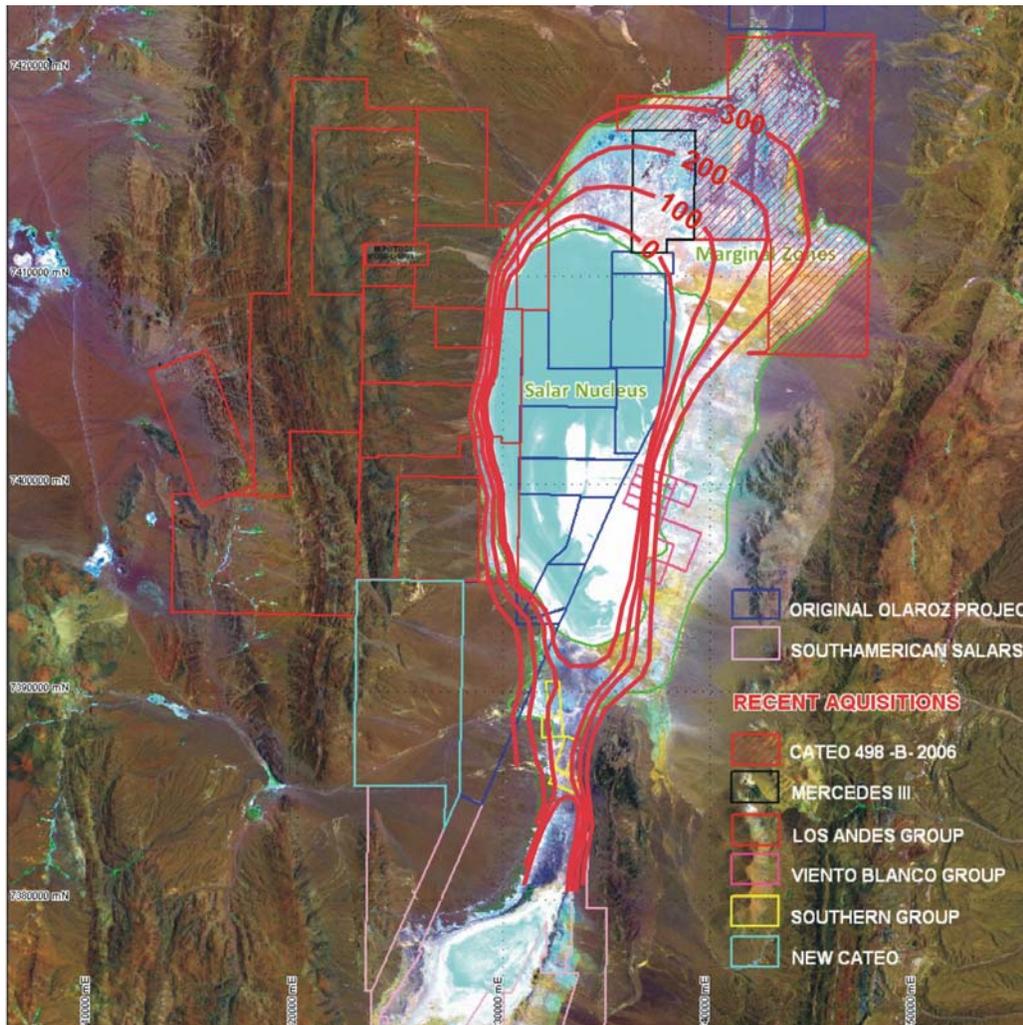


Figure 2 - Plan showing interpreted brine body at different depths based on AMT surveys and drilling.

## Boundary holes for hydro-geological modelling

Four, 200m deep holes were drilled outside the resource area to provide information on the boundary conditions for later extraction reserve modelling. The locations are shown in Figure 1 and results in Table 3. These holes intersected fresh water (DWS) to the south east in the Archibarca delta which separates Olaroz from Cauchari, to the west of the salar (DWO) and further north in the Rio Rosario delta (DWN). To the east in the vicinity of the Viento Blanco leases (DWE), the transitional zone between brine and fresh water was intersected

Hydrogeological Modelling Boundary Holes							
Hole	Depth	Lithium	Potassium	Boron	Magnesium	Mg/Li	
		mg/l	mg/l	mg/l	mg/l		
DWE	0-200m	195	2068	743	650	3.3	Transition from fresh to brine
DWS	0-200m	27	397	308	73	2.7	Fresh Water
DWO	0-200m	23	163	42	45	1.9	Fresh Water
DWN	0-200m	5	48	20	14	2.7	Fresh Water

Table 3 – Results from Boundary Holes

## Quality Assurance/Quality Control

The Quality Assurance/Quality Control protocols are similar to those described in the technical report entitled “Technical Report – Salar de Olaroz Project, Argentina” dated April 30, 2010 (the “Olaroz Report”), prepared by John Houston, Consulting Hydro-geologist, together with, in the case of the Olaroz Report, Peter Ehren, Consulting Processing Engineer, in accordance with NI 43-101. These protocols involve systems to ensure the security of the samples and the use of blind standards, duplicates and check analyses.

The samples were analysed by Alex Stewart Assayers (ASA) of Mendoza, Argentina, using the Inducted Coupled Plasma spectrometry (ICP) method for the elements reported. The ASA laboratories have extensive experience analysing lithium bearing brines. They are ISO 9001 accredited, and operate according to Alex Stewart Group standards consistent with ISO 17025 methods at other laboratories. These results have been verified by Richard Seville, Chief Executive Officer of the Company and a qualified person as defined in NI 43-101.

## Sinclair Knight Merz appointed as Definitive Feasibility Study Engineers

During the quarter, the Company appointed Sinclair Knight Merz (“SKM”) as engineers for the Definitive Feasibility Study (“DFS”) on its flagship Salar de Olaroz lithium-potassium brine project.

SKM were chosen after an extensive selection process because of its lithium brine processing experience, direct experience in Argentina, and its recognized world class engineering design capabilities. SKM will be responsible for the engineering design, and capital and operating cost estimates, whilst Orocobre’s DFS team will continue to be responsible for the processing test work and the finalisation of flow sheet development as successfully undertaken over the past two years.

SKM has direct experience in engineering and construction in Argentina, having been involved in the design and construction management of FMC's Salar de Hombre Muerto lithium operation in Argentina, and with experience at Salar de Atacama in Chile.

The Definitive Feasibility Study for the Salar de Olaroz Project is expected to be completed in 1Q 2011.

## **SALAR DE SALINAS GRANDES POTASSIUM-LITHIUM PROJECT**

During the quarter, preparatory works were undertaken for the commencement of the first drilling program. This included the establishment of a permanent camp and the construction of roads and drill pads. Drilling is due to commence shortly.

In addition a number of ponds have been constructed for evaporation test work and a meteorological station established.

## **FEDERICO NICHOLSON APPOINTED AS A DIRECTOR**

During the quarter Federico Nicholson was appointed as a Non-Executive Director.

Mr. Nicholson is Orocobre's second Non- Executive Director based in Argentina and is a highly regarded business leader in Argentina. He has played a senior role in the development and operation of Ledesma S.A.A.I. (Ledesma) one of the country's largest agro-industrial companies. Ledesma employs more than 5,500 people and is the largest employer in Jujuy province, where Orocobre's flagship Salar de Olaroz project is located.

Mr. Nicholson is one of the most well known and respected business leaders in northern Argentina and brings to the Board a comprehensive understanding of building and operating successful companies in the Jujuy and Salta provinces of Argentina.

Paul Crawford  
Company Secretary

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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 the leading lithium-potash developer in the lithium and potassium rich Puna Lithium Province of Argentina.

For further information, please visit [www.orocobre.com](http://www.orocobre.com).

***Competent Person Statement & Technical Information***

*The information in this report that relates to exploration results and mineral resources is based on information prepared by or under the supervision of Mr Richard Seville, who is a member of the Australian Institute of Mining and Metallurgy. Mr Seville is a director of Orocobre Ltd and has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves', and as a "qualified person" under National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 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. Additional information relating to the Company's projects is available in the technical reports entitled "Technical Report – Salar de Olaroz Project, Argentina" dated April 30, 2010 (the "Olaroz Report"), "Technical Report – Salinas Grandes Project" dated April 30, 2010 and "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, Peter Ehren, Consulting Processing Engineer, in accordance with NI 43-101.*

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

*This report contains "forward-looking information" within the meaning of applicable securities legislation. Forward-looking information may include, but is not limited to, information with respect to the future financial and operating performance of the Company, its affiliates and subsidiaries, the estimation and realization of mineral reserves and mineral resources, costs and timing of development of the Company's projects, costs and timing of future exploration, timing and receipt of approvals, consents*

*and permits under applicable legislation, results of future exploration and drilling and adequacy of financial resources. Forward-looking information is often characterized by words such as “plan”, “expect”, “budget”, “target”, “project”, “intend”, “believe”, “anticipate”, “estimate” and other similar words or statements that certain events or conditions “may” or “will” occur.*

*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 risks associated with investments in publicly listed companies, such as the Company; risks associated with general economic conditions; the risk that further funding may be required, but unavailable, for the ongoing development of the Company’s projects; changes in government regulations, policies or legislation; unforeseen expenses; fluctuations in commodity prices; fluctuation in the exchange rate of the Argentine peso, the Australian dollar, the Canadian dollar or the United States dollar; litigation risk; restrictions on the repatriation of earnings by the Company’s subsidiaries; conflicts of interest of certain directors of the Company; inability to effect service of process or to enforce judgments within Canada upon and against the directors and officers of the Company; the inherent risks and dangers of mining exploration and operations in general; risk of continued negative operating cash flow; the possibility that required permits may not be obtained; environmental risks; uncertainty in the estimation of mineral resources and mineral reserves; risks that the current inferred resource at the Company’s Olaroz project will not be converted to a sufficient amount of indicated or measured resources to warrant development; general risks associated with the feasibility and development of each of the Company’s projects; the risk that a definitive joint venture agreement with Toyota Tsusho Corporation may not be completed; risks that the new process being developed by the Company will take longer to develop than anticipated or that it will not be successfully developed; risks of being unable to sell production in the event of the development of a project; foreign investment risks in Argentina; changes in Argentinean laws or regulations; future actions by the Argentinean government; breach of any of the contracts through which the Company holds property rights; defects in or challenges to the Company’s property interests; uninsured hazards; disruptions to the Company’s supplies or service providers; reliance on key personnel; retention of key employees; absence of dividends; competition; absence of unitization or reservoir management rules; the Company’s dependence on an open border between Argentina and Chile; as well as those factors disclosed in the Company’s publicly filed documents.*

*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 Company’s ability to carry on its exploration and development activities, the timely receipt of required approvals, the prices of lithium and potash, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used.*

*Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such 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.*