OROCOBRE LIMITED
ABN 31 112 589 910

1 April 2011

ASX/TSX ANNOUNCEMENT

INCREASED AND UPGRADED RESOURCE AT OLAROZ LITHIUM – POTASH PROJECT

- **Lithium resource increased more than fourfold to 6.4 million tonnes of lithium carbonate equivalent**
- **Potassium resource increased more than fourfold to 19.3 million tonnes of potash (KCL)**
- **Resources upgraded from inferred to measured and indicated categories**
- **Attractively high lithium concentration of 690 mg/L**
- **Magnesium:lithium ratio reduced to 2.4**
- **Initial potential production grades expected to be significantly higher than average resource grades**

OROCOBRE LIMITED ABN 31 112 589 910. **Level 1, 349 Coronation Drive, Milton, QLD 4064**
TELEPHONE **+61 7 3871 3985** FACSIMILIE +61 7 3720 8988 EMAIL mail@orocobre.com.au
WEBSITE www.orocobre.com.au

Orocobre Limited (ASX: ORE, TSX:ORL) is pleased to report a substantially increased and upgraded resource estimate at its flagship Salar de Olaroz Lithium-Potash project in Jujuy province in north-west Argentina. This follows completion of a comprehensive resource definition drilling programme undertaken throughout 2010.

John Houston, independent hydrogeologist, has estimated a measured and indicated resource of **1,752 million cubic metres of brine at 690 mg/L Lithium, 5,730 mg/L Potassium and 1,050 mg/L Boron which is equivalent to 6.4 million tonnes of lithium carbonate and 19.3 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.

Details are given in the table below

					Concentration			Tonnes of Contained Metal		
Resource Category	**Area**	**Thickness**	**Mean specific yield**	**Brine volume**	**Lithium**	**Potassium**	**Boron**	**Lithium**	**Potassium**	**Boron**
	sq. kms	metres	%	cubic kms	mg/L	mg/L	mg/L	Million Tonnes	Million Tonnes	Million Tonnes
Measured Resource	93	54	8.4%	0.42	632	4930	927	0.27	2.08	0.39
Indicated Resource	93	143	10.0%	1.33	708	6030	1100	0.94	8.02	1.46
Measured and Indicated Resource	**93**	**197**	**9.6%**	**1.75**	**690**	**5730**	**1050**	**1.21**	**10.10**	**1.85**

The estimate extends to an average depth of 197 m and uses the company's property boundaries or a 1.1 gm/cc density cut-off at the surface to establish peripheral resource boundaries. No internal cut-off boundaries have been used because it is inappropriate to use them in a fluid resource where extraction will cause mixing.

The weighted average modelled specific yield is 9.6%

The drilling program also confirmed an attractive brine chemistry with an average magnesium to lithium ratio of 2.4, reduced from the 2.8 previously reported, and a sulphate to lithium ratio of 25.

Data Sources for the Resource Estimate

The Olaroz resource estimate extends to an average depth of 197 m and is based on data collected from 20 cored holes drilled to 54 m using sonic drilling techniques to ensure sample integrity and six cored holes using conventional diamond drilling techniques.

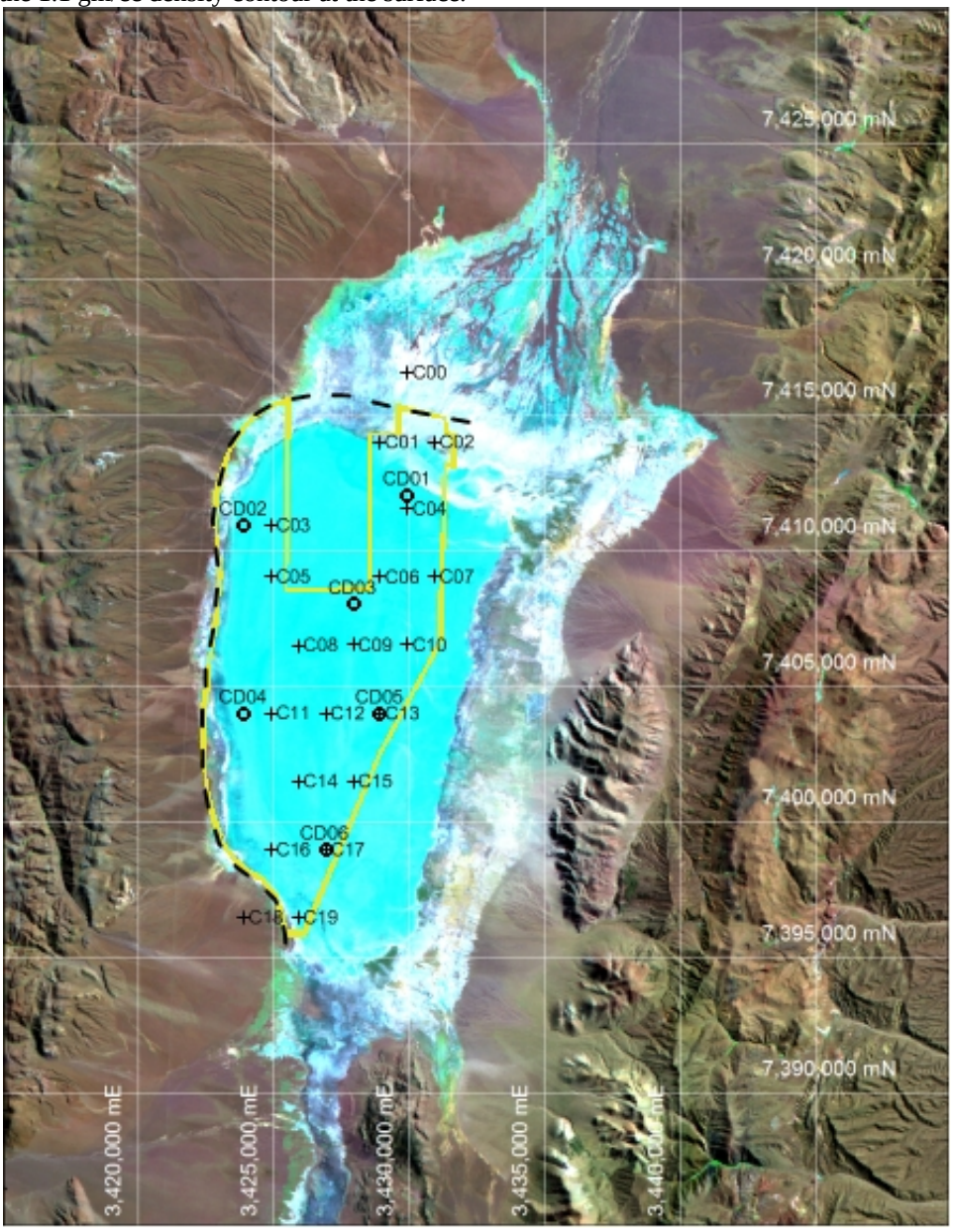
The well density in the upper 54 m of the aquifer is 1 per 4.7 km^2 (equivalent to a mean well spacing of 2.2 km), and downhole sample frequency varies from 1.5 to 4.5 m. In the deeper part of the aquifer (54-200 m), well density is 15.5 km^2 (equivalent to a mean well spacing of 3.9 km), and downhole sample frequency from 3 to 9 m. This resulted in a total of 1,550 samples for porosity analysis, and 1,043 for brine analysis, of which 543 porosity, and 591 brine analyses were actually used in the resource

analysis, the remainder being used for quality control, particularly sample repeatability.

All holes were logged using wire-line geophysics to continuously record natural gamma, density and neutron data, which provide information on the geology, and porosity of the formations. Undisturbed samples of the sediments were taken from the cores on a regular basis for hydrogeological test work.

Hydrogeological boundary conditions were investigated by four, 200m deep holes drilled with rotary techniques.

Plan showing drill hole locations and resource boundary (in yellow). The dashed line is the 1.1 gm/cc density contour at the surface.



Data Quality and Quality Control

Orocobre has placed considerable emphasis and expended considerable additional resources on quality control to ensure that it has a high quality database on which to base the resource estimate. National Instrument 43-101 places emphasis on data verification and laboratory QA/QC. Additionally, the Company and its Qualified Person are firmly of the opinion that the sample integrity at the point of collection during the field investigations is also of fundamental importance, particularly since fluids have a propensity to mix and flow unlike solid phase minerals.

The following points are highlighted with regard to the quality of the data for the Olaroz resource estimate:

Superior Drilling Methods

Drilling methods were selected to provide intact and in-place physical samples. Techniques such as reverse circulation or open whole drilling techniques were rejected on the grounds that they have the potential a) to bias sediment samples by washing out fine particles leading to an overestimation of the sandy fraction and porosity, and b) to sample brines that are contaminated with drilling fluid or mixed with brines from other locations in the well.

Excellent Core Recovery

Very high core recoveries (>95%) were achieved with sonic techniques and good recoveries (>80%) using triple tube diamond drilling techniques.

Wire-Line Geophysics

All holes were logged using wire-line geophysics to continuously record natural gamma, density and neutron data, which provide information on the geology, and porosity of the formations. This information is particularly important for geological interpretation when there is no core recovery.

High Quality Samples for Hydrogeological Test Work

The drilling techniques used an inner lining of lexan so that the core is recovered undisturbed, and can be sealed immediately to ensure negligible change in hydrogeological properties. Subsequent thin section analysis of the cores used in porosity determinations confirmed no salt precipitation in the pores.

In addition to the cores, split tubes were pushed ahead of the drill bit to recover undisturbed samples for porosity and permeability testing.

Real Point Brine samples

New techniques and testing methods were developed by the company to show that the brine samples taken were representative of the in-situ aquifer fluid at the sample point. These techniques included the extraction of pore fluid from core samples by centrifuge to provide check analyses, the addition of fluorescene dyes to drilling fluids where they became necessary, as well as the use of push-ahead wellpoints, in-situ low flow pumping tests to confirm sample repeatability, and the installation of piezometers to check for potential brine variation with natural flow in the aquifer.

New Modelling Techniques

New protocols for the modelling of specific yield from geophysical logs enabled a continuous profile of effective porosity and specific yield to be generated, and the company was able to show that this is particularly important where the range in porosity parameters for any sediment type shows such considerable overlap that a single value is meaningless.

Hydrogeological test work was undertaken at the research laboratories of the British Geological Survey (BGS) using British Standard Methods for total porosity, and well documented and proven methods for effective porosity and specific yield. Quality control involved a comparison of BGS specific yield results with DB Stephens determination of “drainable porosity” using their Relative Brine Release Capacity technique.

Chemical analytical test work was undertaken by UK-owned international laboratory, Alex Stewart S.A. at its facilities in Mendoza, Argentina, who have extensive experience analyzing brines from the Altiplano and Puna. They are accredited to ISO 9001:2000 and operate to their own internal standards consistent with ISO 17025.
Check analyses were also sent to a number of other laboratories. Quality control involved the submission of blind standards, duplicates and blanks for analysis, together with ion balance and related checks.

Geology

Based on interpretation of the geological and geophysical logs, as well as surface geophysics and geochemistry, a hydrogeological model was developed by John Houston and Orocobre geologists that divided the deposit into seven stratigraphic units down to the base of current drilling.

The host aquifer is an interbedded sequence of sediments and halite. The sediments include sands, silts and clays with the units reflecting their likely origin from the Rosario delta in the north and the Archibarca Fan in the southwest. Halite indicates the presence of lakes at various times during the formation of the aquifer. Layers of borate nodules are common in clay rich areas. The sedimentary sequence is under-

consolidated down to the base of drilling reflecting rapid deposition, with little possibility of pore fluid escape. This has positive implications for future extraction.

The brine can be seen to have evolved as a result of the evaporation of influent waters over thousands of years leading to high concentrations in the upper nucleus, from where the brine descends through the aquifer and spreads out at depth. Very high lithium concentrations of more than 1200 mg/L occur over a significant part of the salar which will be able to provide higher grade feed in the early years of operation. Extensive deeper brines averaging around 700 mg/L lithium should ensure long-term constancy in the brine feed to the plant.

Resource Estimation Method.

The resource estimate is based on two layers. The first is from surface to 54 m where the data density is at its highest, appropriate for a measured resource, and the second between 54 to 197m where the data density is lower but adequate to provide a reliable indicated resource. Within each layer, four geological units were identified. For each unit, at each well site, depth weighted values of specific yield enabled the equivalent brine thickness to be determined. The product of brine thickness and depth weighted concentration of Li, K and B gives a brine grade for each unit in each well. These are then summed in each well to provide a layer brine grade, which is subsequently block kriged to provide a best estimate of the resource.

Exploration Potential

Within the area of the resource estimate, it is everywhere open at depth, and in the lowermost units has lateral extension potential within the company's properties both to the south-west and north. Gravity surveys have shown the basin to up to 650m deep, and ATM surveys confirm that brine may be more extensive at depth.

Definitive Feasibility Study Update

The company is at the final stages of the Definitive Feasibility Study and it is anticipated that it will be completed and released in a few weeks.

Future Technical Report

The independent brine resource estimate summarised in this announcement has been prepared by John Houston consistent with the standards set out in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and Canadian Securities Administrators' National Instrument 43-101. A Technical Report complying with National Instrument 43-101, with full details of the techniques used, the data obtained and the resource analysis will be filed on Sedar within 45 days of release of this announcement.

Managing Director Richard Seville commented:

"We are delighted to have completed this stage of the program and produced a Measured and Indicated Resource of 6.4 million tonnes of lithium carbonate, more than a fourfold increase of the previous Inferred Resource of 1.5 million tonnes"

Our original 2008 drilling program highlighted the challenges of assessing these immature, soft sediment salars which are typical of Argentina. We have developed "state of the art" techniques to collect the quality of data necessary for a resource estimate at these confidence levels.

The grade of our resource, even using no grade cut-off, is high and reduces capital costs of ponds as less evaporation time is required. The large, broad surface area of the Olaroz salar, and consistently high grades at depth give us confidence that attractive grades will be maintained over time in a potential production scenario. These resource attributes, together with the quality of our data, which I believe gives a great deal of confidence in the results, clearly differentiate us from other projects.

We are at the final stages of our Definitive Feasibility Study which we will deliver in a few weeks."

For and on behalf of the Board

Paul Crawford
Company Secretary

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 more information please contact:

Australia and Asia

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

Gemma Young
FD Third Person
T: +61 8 9386 1233
M: +61 412 349 345
E: gemma.young@fdthirdperson.com.au

North America

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

Jessica Wagner
FD
T: +1 (312) 861 4707
M: +1 (646) 258 7439
E: Jessica.wagner@fd.com

"Competent Person's and Qualified Person's Statement

The resource model and brine resource estimation on the Salar de Olaroz was undertaken by John Houston who is a Chartered Geologist and a Fellow of the Geological Society of London. John Houston has sufficient relevant experience 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. He is also a "Qualified Person" as defined by Canadian Securities Administrators' National Instrument 43-101. John Houston consents to the inclusion in this announcement of this information in the form and context in which it appears.

Additional information relating to the Company's Salar de Olaroz project is available in the existing technical report entitled "Technical Report – Salar de Olaroz Project, Argentina" dated April 30, 2010, which was prepared by John Houston and Peter Ehren, Consulting Processing Engineer, and in the Company's news release dated March 6, 2011 relating to the approvals process at the Salar de Olaroz project.

Caution Regarding Forward-Looking Information

This new release contains forward-looking information within the meaning of applicable Canadian securities legislation. Specifically, this press release contains forward-looking statements relating to the Company's Salar de Olaroz Project. Although Orocobre believes that the expectations and assumptions on which such forward– looking statements are based are reasonable as of the date of this news release, undue reliance should not be placed on the forward – looking statements and information, as Orocobre can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their nature they involve inherent risks and uncertainties. The forward-looking statements contained in this news release are made as of the date hereof and Orocobre undertakes no obligation to update publicly or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless so required by applicable securities laws.