



**ARGOSY MINERALS**  
LIMITED

# Fast-track development in the world's most prolific lithium region

Investor Presentation – May 2018

ASX Code: AGY



[www.argosyminerals.com.au](http://www.argosyminerals.com.au)

for personal use only

# Disclaimer



This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction. This presentation may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction. This presentation does not constitute financial product advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

Certain statements contained in this presentation, including information as to the future financial or operating performance of Argosy Minerals Limited ("Argosy" or "AGY") and its projects, are forward-looking statements. Such forward-looking statements: are necessarily based upon a number of estimates and assumptions that, whilst considered reasonable by Argosy, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements; and may include, among other things, statements regarding targets, estimates and assumptions in respect of metal production and prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. Argosy disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words "believe", "expect", "anticipate", "indicate", "contemplate", "target", "plan", "intends", "continue", "budget", "estimate", "may", "will", "schedule" and other similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

The information in this report that relates to technical matters is based on information compiled by Jerko Zuvela who is the Managing Director of AGY. Mr Zuvela is a Member of the Australasian Institute of Mining and Metallurgy.

Certain information in this presentation has been derived from third parties and though AGY has no reason to believe that it is not accurate, reliable or complete, it has not been independently audited or verified by AGY.

To the extent permitted by law, AGY and its officers, employees, related bodies corporate and agents disclaim all liability, direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of AGY and/or any of its agents) for any loss or damage suffered by a recipient or other persons arising out of, or in connection with, any use or reliance on this presentation or information.

All amounts in A\$ unless stated otherwise.

# Company Overview

*Lithium brine project in the 'Lithium Triangle' with staged development works well underway*



- Key Rincon Lithium Project located in the world-class "Lithium Triangle" – the world's dominant source of lithium production:

- *Located in Salar del Rincon, Salta Province, Argentina*

- *Flagship asset in Argosy's lithium fast-track development strategy, staged development commenced targeting battery grade lithium carbonate (LCE) production*

- *Rincon is joint-venture with pre-eminent lithium processing expert, Pablo Alurralde*

- *Stage 1 industrial scale pilot plant now operational, with capacity up to 500tpa LCE product*

- *Stage 2 initial commercial development commenced – pond development ~30% complete and operational*

- \$17m capital raising completed in October 2017

- *Funds continue being utilised for on-going Stage 2 development works*

- Argosy currently has 77.5% interest in the JV entity that owns Rincon Lithium Project - Puna Mining S.A., with the right to move to 90% ownership in consideration for funding Stage 3 development

- Continued engagement with customers in tightening lithium market to secure long-term off-take agreements and potentially strategic investment



- Argentina – open for business

- Strong upcoming news flow on continued Rincon Lithium Project development milestones

# Capital Structure, Share Price & Recent Milestones



## 12 Month Share Price Performance and Key Milestones

### Current Capital Structure

Shares on Issue	918,496,575
Options on Issue	5M exercisable at \$0.045 4.5M exercisable at \$0.225
Share Price	30c (@ 14/5/2018)
Market Capitalisation	\$275.5 million (@ 30 cents)
Cash	~\$14.4m (@ 31/3/2018)
Significant Shareholders	Directors & Management ~15%



# Directors & Management



## Alex Molyneux – Non-Executive Chairman

Mr. Molyneux currently serves as CEO of one of the world's largest uranium producers, Paladin Energy (ASX:PDN). He is also Non-Executive Chairman of Azarga Metals (TSXV:AZR) and Non-Executive Director of Metalla Royalty & Streaming (TSXV:MTR). Mr. Molyneux was previously CEO of SouthGobi Resources, an Ivanhoe Mines Group company, and a Non-Executive Director of Goldrock Mines Corp. Prior to his 10-year executive career in mining, Mr. Molyneux had a 10-year+ career as a natural resources investment banker, including as Managing Director, Head of Metals and Mining Investment Banking, Asia for Citigroup.



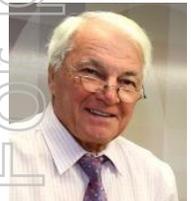
## Jerko Zuvela – Managing Director

Mr Zuvela is a Chartered Professional Geologist having spent over 20 years in the mining and resources industry. Mr. Zuvela has held executive management roles for private and public resources companies, with operational and corporate experience in various commodities covering exploration, project development, business development, finance, commercial and corporate activities involved with projects in Australia, South America, Asia and Africa. Mr. Zuvela has considerable experience in building junior resources companies and understands the requirements working within this sector, including fundamental parameters, strategic drivers and market requirements.



## Ranko Matic – Non-Executive Director

Mr Matic is a Chartered Accountant with over 25 year experience in the areas of financial and executive management, accounting, audit, business and corporate advisory. Mr Matic is a director of a chartered accounting firm and a corporate advisory company based in Perth, and has specialist expertise and exposure in areas of audit, corporate services, due diligence, mergers and acquisitions, and valuations.



## Mal Randall – Non-Executive Director

Mr Randall (Dip Applied Chem, FAICD) holds a Bachelor of Applied Chemistry degree and has more than 45 years' of extensive experience in corporate, management and marketing in the resources sector, including more than 25 years with the Rio Tinto group of companies.



**Pablo Alurralde – President Rincon JV Project** *(Mr Alurralde's experience described in detail in following pages)*

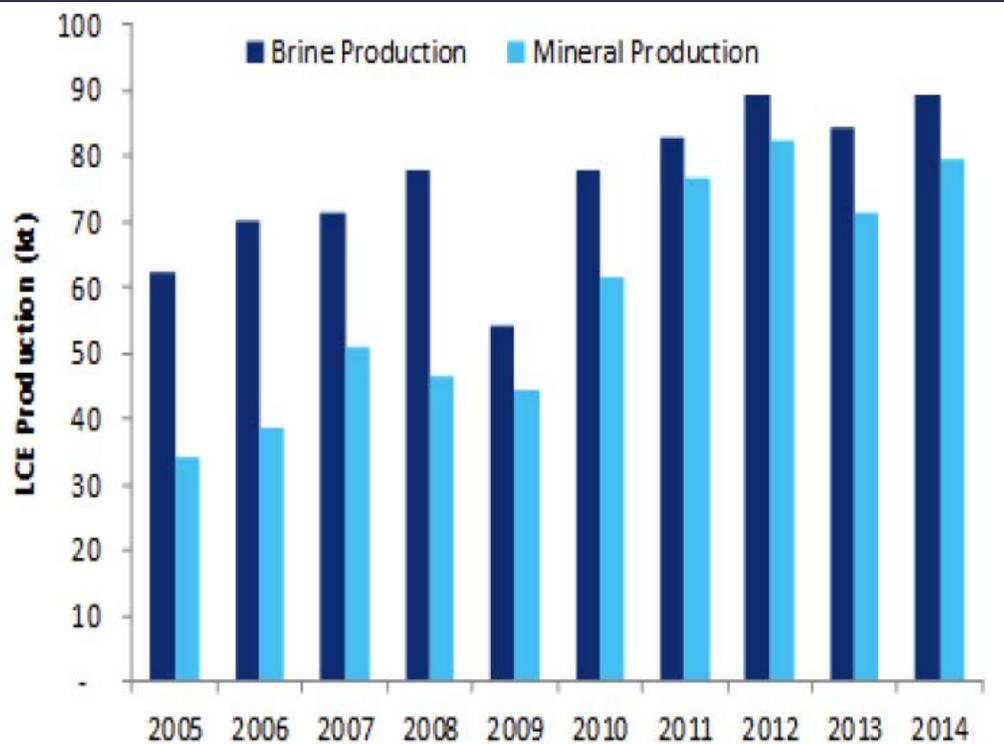
# Lithium 101: Brine vs. Hard-Rock Production

*Most lithium production comes from lower cost brine production*



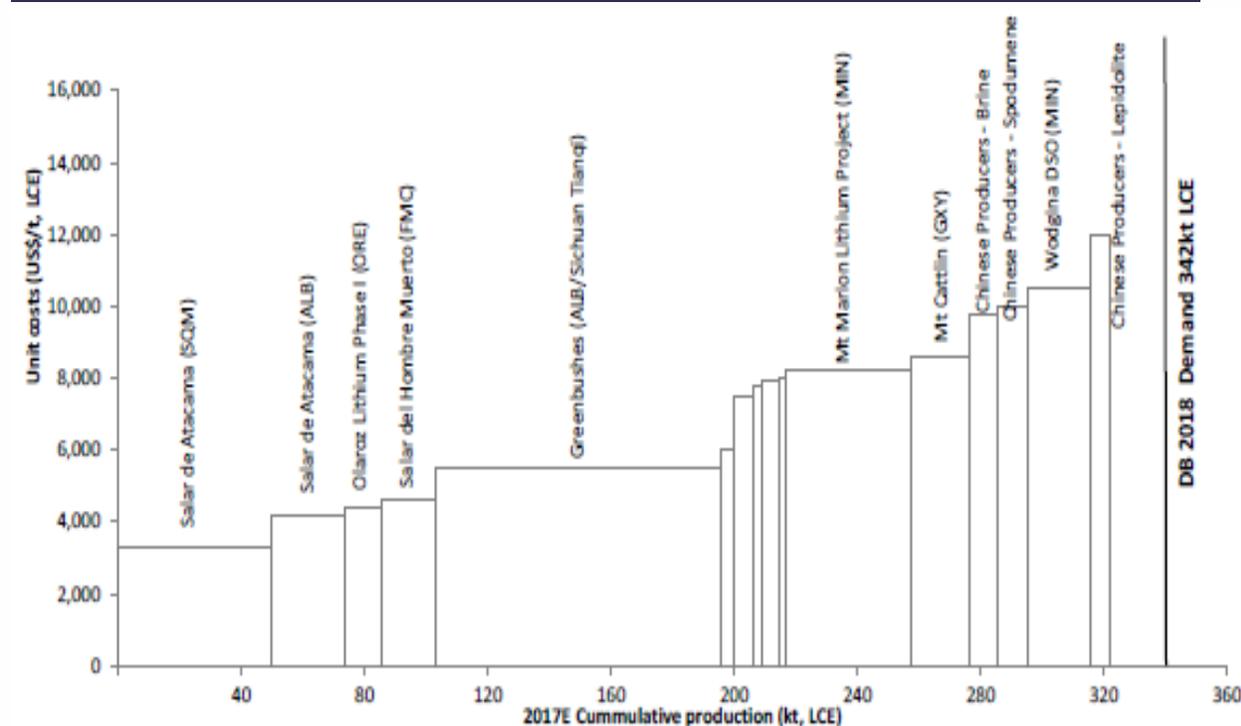
- Lithium production is predominantly delivered from brines
- Brines have significantly lower extraction costs compared to hard rock deposits

### Lithium Production by Deposit Style



Source: Citi Research

### Lithium Cost Curve (by Capacity)



Source: Deutsche Bank, company data

Argosy is focused on developing brine projects with the potential to have low capital and operating costs

# Argosy in the "Lithium Triangle"

World's most prolific lithium producing region



For personal use only



ARGOSY MINERALS LIMITED



49% of Global Lithium Production from the "Lithium Triangle" which holds approximately 70% of World's Lithium Reserves



AGY Rincon JV Lithium Project

Salars (salt flats)

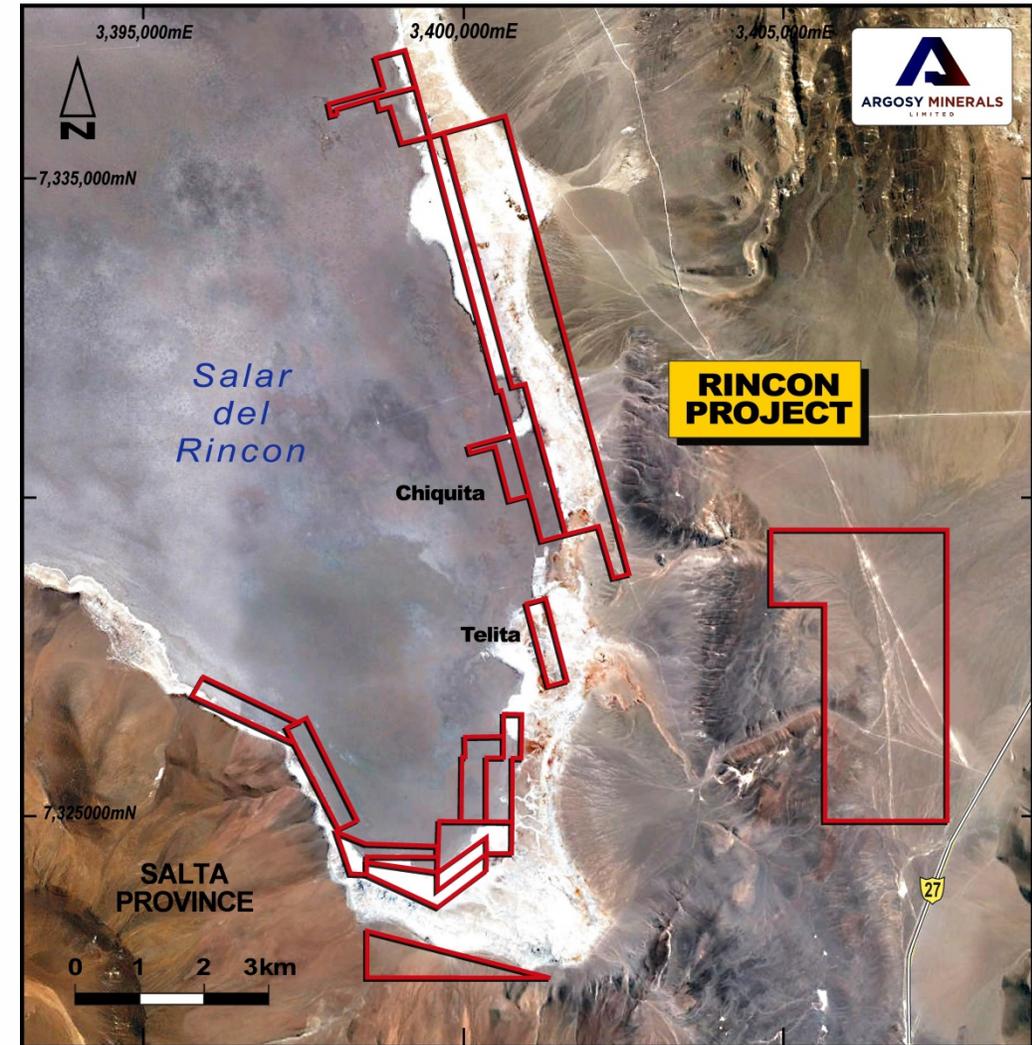


# Rincon Project: Recent History and Overview

*A significant opportunity to achieve near-term LCE production*



- Binding JV Agreement executed September 2016
  - *Argosy currently has 77.5% interest in Puna Mining S.A. – the JV entity that owns the Rincon Lithium Project*
  - *Argosy will earn 90% via the completion of Stage 3 development*
  - *Partnership with world-renowned lithium processing expert Pablo Alurralde*
- Project currently comprises up to 2,572 ha of mining concessions and easement rights landholdings
  - *Concessions 100% owned by Puna Mining and/or Argosy has legal, secure, binding and exclusive option rights to complete 100% acquisition of the properties*
- Extensive historical works conducted within Salar del Rincon
  - *Average lithium brine content of 300-400ppm (Ferretti, 1989)*
  - *Historical drilling & associated works indicate average lithium content of 397ppm (Ovejero Toledo, 2007)*
- Current exploration drilling works confirm historical data
- Independent hydrogeological consultants verifying data for feasibility works and preparation of a Preliminary Economic Assessment (PEA)



Rincon Project Tenement Location Map

For personal use only

# Rincon Project: Location and Infrastructure

*Rincon lies close to infrastructure in Salta Province, a prolific mining jurisdiction*



- The Project lies within Salta Province, ~3,700m ASL, serviced by city of Salta with population of ~600,000
- The region is known for its evaporation rates, given UV is very high, with ~90% of all the days of the year being cloud free and minimal rainfall.
- High quality regional and site infrastructure will facilitate project development, with road, rail, port facilities and power generation services such as electrical and natural gas all available at close distance.

Stage 2 Evaporation Ponds concentrating lithium brine



Exploration diamond drilling operations



For personal use only

# Rincon Project: Development Milestones

Unique development strategy targeting near-term battery grade lithium carbonate production



For personal use only  
Description  
Capacity  
Status

## Stage 1 Pilot Plant Stage

Industrial scale pilot plant to demonstrate effectiveness of Alurralde process for BG LCE production from Rincon Salar brines

~500tpa (LCE)

**Operational**  
(commenced end-March 2018)

## Stage 2 Initial Commercial Stage

Initial commercial scale plant (with matching scale brine capacity from ponds) to demonstrate scalability of operations

~1,500tpa (LCE)

Pond development works ~30% complete  
Plant construction to commence 3Q,2018

## Stage 3 Commercial Stage

Large scale commercial production

To be confirmed by PEA

Target to commence development 2H, 2019

# Rincon Project: Current Status

Development works ahead of schedule with the 'pull forward' of Stage 2 commencement



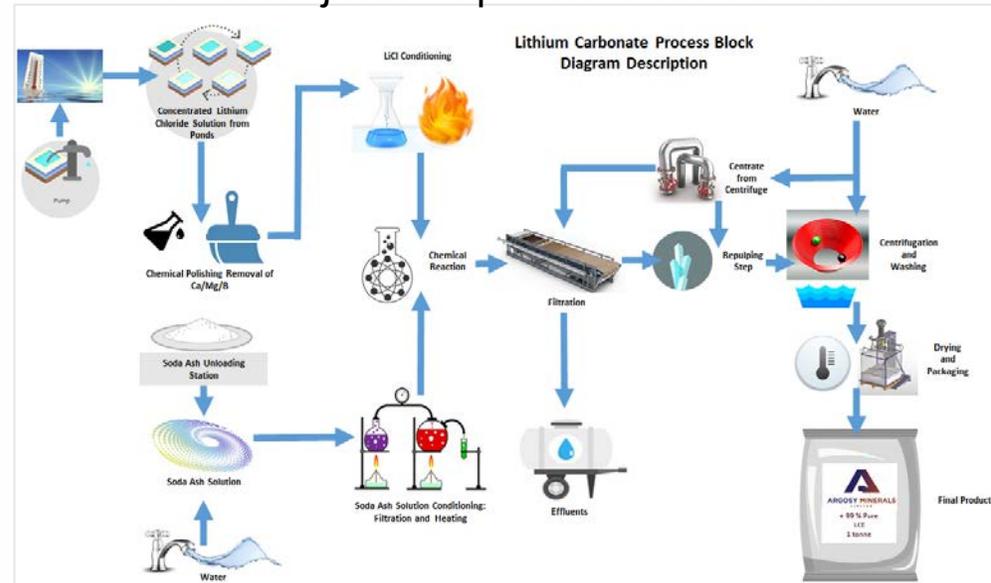
- Stage 1 plant operational & targeting initial production of battery grade LCE product

- Ponds completed April 2017 and plant commenced operations end-March 2018
- LCE product delivery following full commissioning & process testing works

- Stage 2 works progressing ahead of schedule

- Initial 10Ha evaporation ponds completed
- Construction progressing on additional ~24Ha of Stage 2 ponds
- Production wells completed and brine pumping on-going
- Drilling progressing, targeting delineation of JORC-compliant Resource and working towards Preliminary Economic Assessment (PEA)
- Stage 2 commercial plant designed, development to start in Q3, 2018

Rincon Project Conceptual Process Flow Sheet



Rincon Project – Stage 1 Evaporation Ponds



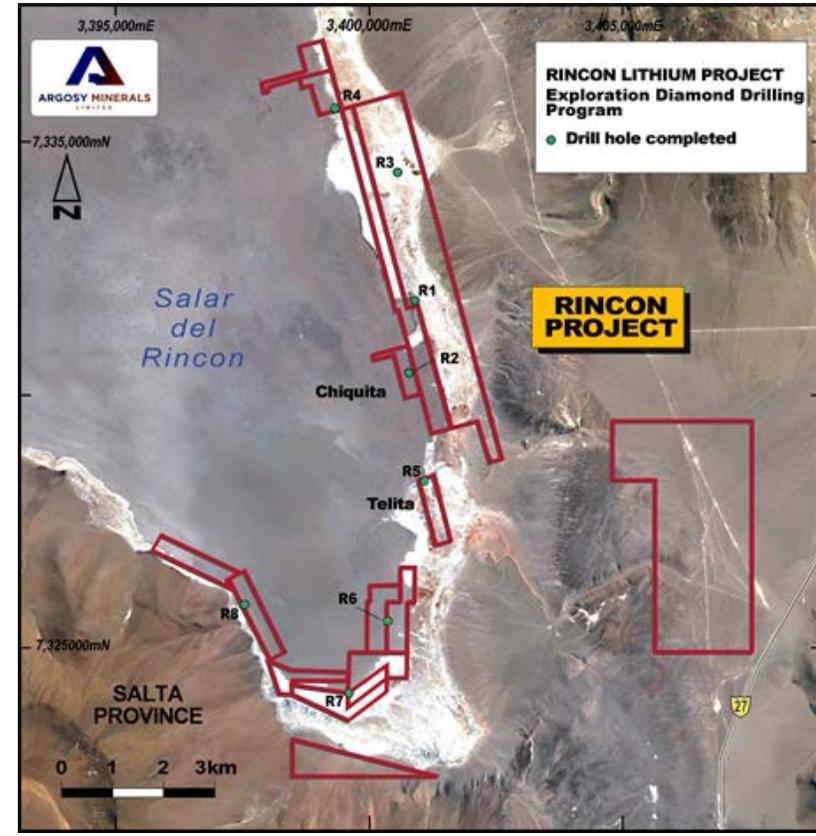
For personal use only

# Rincon Project: Drilling Works

*Drilling includes holes for resource data as well as production wells*



- Two concurrent phases of drilling operations conducted:
  - *Resource exploration drilling to prepare JORC Resource estimate, utilised a diamond drill rig to collect drill cores for porosity assessment and to obtain brine samples for resource estimation*
  - *Production well drilling using a rotary drill rig for construction of wells for pumping of lithium brine into the Stage 2 evaporation ponds.*
- Resource exploration drilling results to date:
  - *Drill-hole R1 averaged 487mg/l lithium in three samples from 82-100m, with average Mg/Li ratio of 4.3*
  - *Drill-hole R2 averaged 385mg/l lithium over the length of the hole, with average Mg/Li ratio of 7.6*
  - *Drill-hole R4 averaged 446mg/l lithium in eight brine samples from 3-78m, with an average Mg/Li ratio of 8.2*
  - *Drill-hole R3 averaged 343mg/l lithium over the upper part of the hole in samples from 42 to 54m, with an Mg/Li ratio of 5.8*
- Production well drilling results indicate:
  - *Initial pump flow rates estimated at >20 l/s*
  - *Preliminary hydrogeological workings estimate abundant brine and flow rates*



Drilling Program Drill-hole Location Map

# Rincon Project: Preliminary Economic Assessment

*Works commenced by independent hydrogeological consultants*



For personal use only

- The Company has engaged independent consultants to prepare a PEA for the Rincon Lithium Project

- The main items of the PEA will comprise:

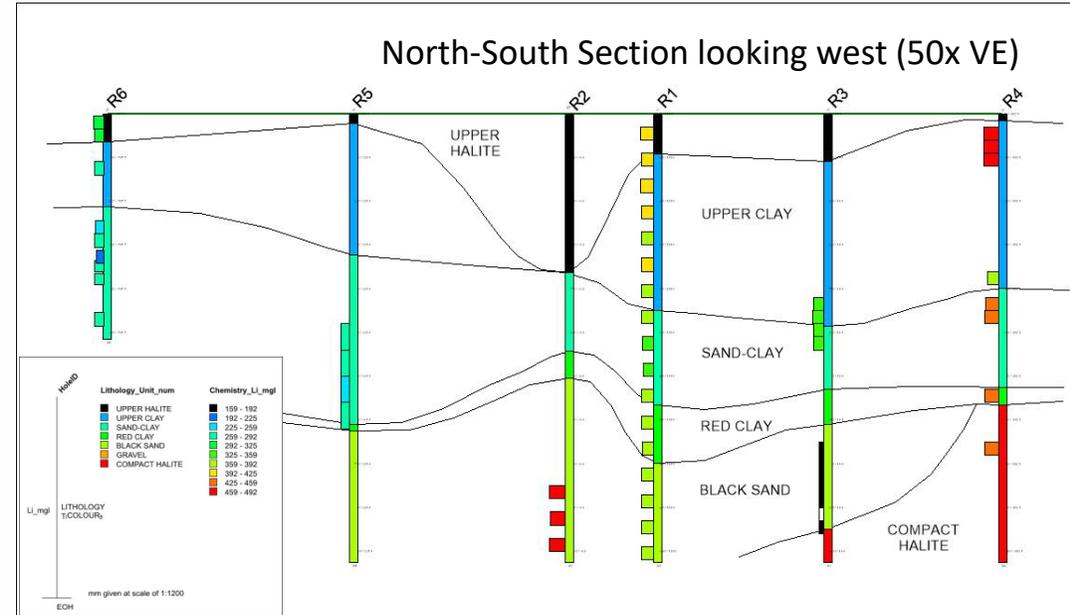
- *Hydrogeological data, with life of mine modelling, production and brine pumping parameters, mineral resources, borefield details;*
- *Capital and operating costs;*
- *Processing and engineering works;*
- *Financial analysis;*
- *Marketing analysis; and*
- *Financial analysis.*

- Hydrogeological works comprise:

- *Hydrogeological model*
- *Numerical model – objective to look at recovery potential*
- *Brine recovery potential – recovery rates, scale of borefield configurations, etc*

- *Preliminary results to date indicate:*

- ▶ Fractured halite supports very high rates of abstraction
- ▶ Black Sand supports high volumes of abstraction
- ▶ Relatively high recovery factors could be applied



# Rincon Project: Key Partner & Expertise

*Pablo Alurralde, a 'world renowned' expert and patent developer for unique lithium process routes*



For personal use only

- Partnership with Argentinian lithium expert Pablo Alurralde
  - Chemical Engineer and Master of Philosophy, former director of FMC Argentina operations
  - 15 years' experience producing lithium carbonate and 30 years' experience designing chemical processes
  - With chemical solution to extract lithium from brines at Rincon
  - Successfully produced lab-scale LCE product from Salar del Rincon historically
  - Patent presented at US Patents Offices as first inventor for "Production of Lithium Carbonate from concentrated brines on sodium chloride" granted to FMC
  - Technical reports on benefit of Rincon and other salars
  - Experience in the optimisation of industrial plants, international commerce and logistics
  - In-depth knowledge of international lithium market



US008309043B2

(12) <b>United States Patent</b> <b>Alurralde et al.</b>	(10) <b>Patent No.:</b> <b>US 8,309,043 B2</b>
	(45) <b>Date of Patent:</b> <b>Nov. 13, 2012</b>
(54) <b>RECOVERY OF LI VALUES FROM SODIUM SATURATE BRINE</b>	4,347,327 A 8 1982 Lee et al.
(75) Inventors: <b>Pablo Alurralde</b> , Salta (AR); <b>Vijay Mehra</b> , Gastonia, NC (US)	4,348,295 A 9 1982 Barba
(73) Assignee: <b>FMC Corporation</b> , Philadelphia, PA (US)	4,348,296 A 9 1982 Bauman et al.
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.	4,348,497 A 9 1982 Hanuman et al.
(21) Appl. No.: 13/288,389	4,376,106 A 3 1983 Lee et al.
(22) Filed: Nov. 3, 2011	4,783,109 A 4 1983 Lee et al.
(65) <b>Prior Publication Data</b>	4,430,311 A 2 1984 Lee et al.
US 2012/0141342 A1 Jun. 7, 2012	4,461,714 A 7 1984 Barba
<b>Related U.S. Application Data</b>	4,472,362 A 9 1984 Barba
(60) Provisional application No. 61/420,042, filed on Dec. 6, 2010.	4,473,962 A 9 1984 Meimenga
(51) <b>Int. Cl.</b> <b>C01D 15/09</b> (2006.01)	4,477,307 A 10 1984 Barba
(52) <b>U.S. Cl.</b> <b>423/179.5; 252/184; 23/295 S; 23/306</b>	5,380,249 A * 2 1995 Bauman et al. 423 179.5
(58) <b>Field of Classification Search</b> <b>423/181; 23/295 S; 306; 252/184</b> See application file for complete search history.	5,909,516 A 2 1997 Bauman et al.
(56) <b>References Cited</b>	6,017,500 A * 1 2000 Mehra 423 179.5
U.S. PATENT DOCUMENTS	6,555,678 B1 * 4 2003 Mehra 423 179.5
3,099,538 A 7 1963 Hudzenig	2011 0306641 A1 * 12 2011 Gell et al. 423 179.5
3,496,200 A 2 1967 Neppert et al.	
4,116,856 A 9 1978 Lee et al.	
4,116,858 A 9 1978 Lee et al.	
4,159,811 A 6 1979 Lee et al.	
4,221,767 A 9 1980 Lee et al.	
4,291,001 A 9 1981 Repsher et al.	
	<b>FOREIGN PATENT DOCUMENTS</b>
	EP 6117316 A1 9 1984
	<b>OTHER PUBLICATIONS</b>
	Notification of Transmittal of the International Search Report and the Written Opinion of the International Searching Authority, or the Declaration corresponding to International Application No. PCT/US2011/059673 mailed Jun. 23, 2012.
	* cited by examiner
	<b>Primary Examiner:</b> Steven Bos
	<b>(74) Attorney, Agent, or Firm:</b> Myers Bigdel Sibley & Sajovec, PA
	<b>ABSTRACT</b>
	The present invention provides a process for recovering Li values from a sodium saturated brine. The process includes recovering Li values from a sodium saturated brine which contains LiX. The process includes concentrating the sodium saturated brine to at least 9000 mg/l LiX, passing the concentrated brine through a bed of polycrystalline hydrated alumina pellets until the pellets are loaded with LiX from the concentrated brine, displacing brine held-up in the bed by using concentrated NaX, unloading LiX from the pellets by flowing through the bed an aqueous solution of LiX which is not saturated, displacing the LiX from the bed using concentrated NaX, and repeating the steps at least one additional time to provide the Li values.
	<b>6 Claims, No Drawings</b>

Patent for "Recovery of Li values from sodium saturate brine"  
**US 8309043 B2**

**SALARES ARGENTINOS:  
FUENTES DE RIQUEZA**

PARTE I. ESQUEMA PRELIMINAR DE BENEFICIO

NEDO NANNI y PABLO H. ALURRALDE  
Instituto de Beneficio de Minerales, Universidad Nacional de Salta (Argentina).



# Rincon Project: Executive Management

## Management team



Argosy has executed a Definitive Farm-In Joint Venture Agreement for the Rincon Lithium Project and currently has a 77.5% interest in the Argentinian joint venture company – Puna Mining S.A., and can earn an ultimate 90% interest.

**Argosy Minerals**  
Jerko Zuvela  
(Managing Director)

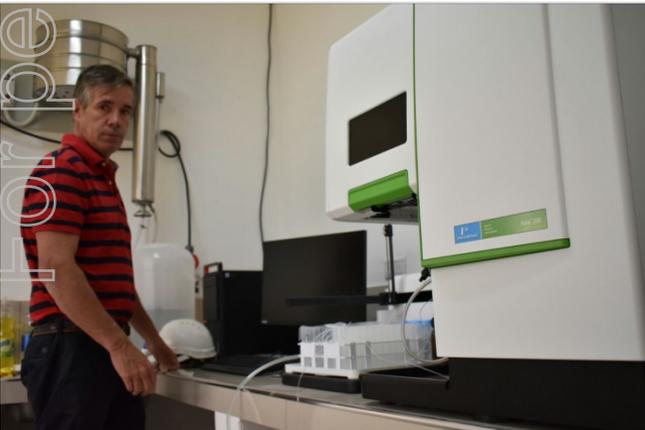
**Lithium Marketing**

**Puna Mining SA**  
Pablo Alurralde  
(President & Principal  
Chemical Engineer)

**Francisco Alurralde**  
(Engineering  
Manager)

**Francisco Menendez**  
(Admin and Business  
Manager)

**Hector Saravia**  
(Geology Manager)



For personal use only

# Investment Summary

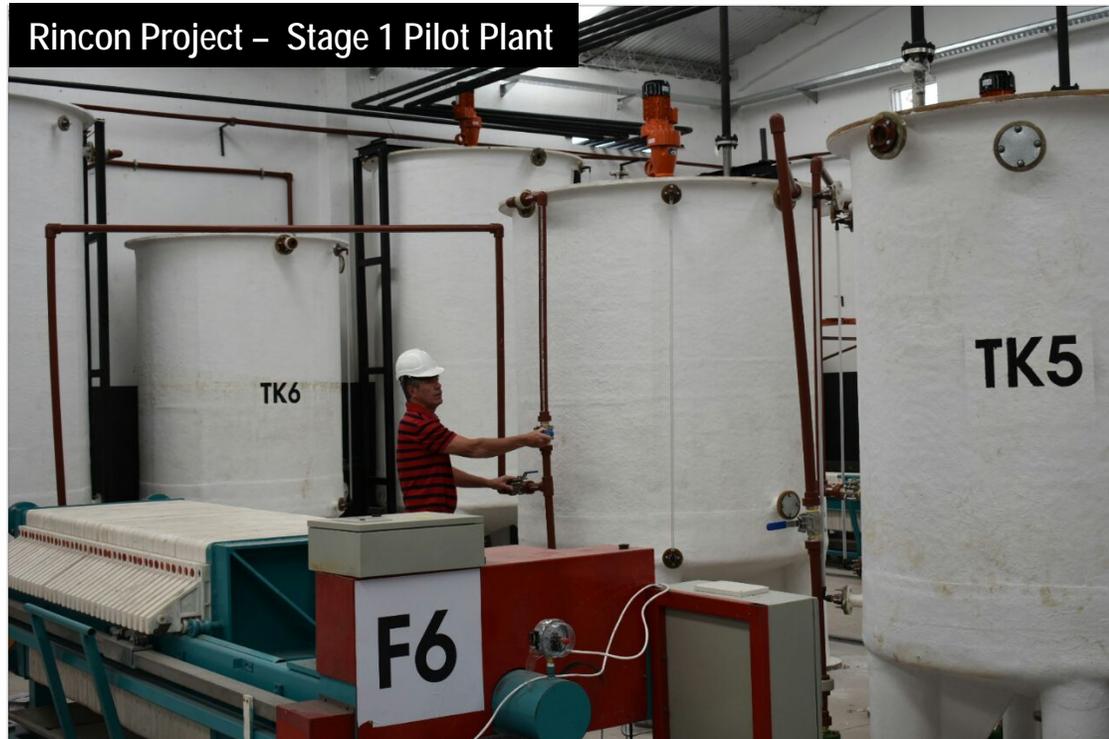
*New standard for development of lithium brine projects worldwide*

- ✓ Key focus is on Rincon Lithium Project located in the world-class “Lithium Triangle” – the world’s dominant source of lithium production
- ✓ Company fully funded to first production of targeted battery grade LCE product
- ✓ Fast-track development at Rincon Project progressing – Stage 1 pilot plant operational for lithium concentrate test-works, targeting battery grade LCE product
- ✓ Stage 2 development works commenced and on-going
- ✓ Argosy currently has 77.5% interest in Puna Mining S.A. – the JV entity that owns the Rincon Lithium Project
- ✓ Pre-eminent lithium processing expert Pablo Alurralde managing Rincon Project
- ✓ Argentina – open for business

## **NEAR-TERM KEY MILESTONES**

- *Execute purchase agreements for tenements currently under option*
- *Progress construction of additional ~24Ha of Stage 2 evaporation ponds*
- *Stage 1 off-take agreement*
- *BG LCE production*
- *JORC Resource estimate*
- *PEA report*

Rincon Project – Stage 1 Pilot Plant



On the fast track to lithium production in Argentina

Rincon Project – initial Stage 2 Evaporation Ponds





**ARGOSY MINERALS**  
LIMITED

## Contact Us

To discuss how Argosy could benefit you, please contact:

Jerko Zuvela - Managing Director

T +61 8 6188 8181

Level 3, 216 St Georges Terrace PERTH WA 6000 Australia

Email: [jerko@argosyminerals.com.au](mailto:jerko@argosyminerals.com.au)



ASX Code: AGY



[www.argosyminerals.com.au](http://www.argosyminerals.com.au)

For personal use only