



**LAGUNA RESOURCES**  
**NL**

## **ARQUEROS**

**Million Ounce Gold and Silver Project  
in a World-Class Province**

**RIU Sydney Resources Roundup  
10-12 May 2010**

# Company Profile

- Dedicated to development of High Quality Mineral Resources in Maricunga Gold Belt of Chile
- Option for 100% of Arqueros gold silver deposit
- New business opportunities in the Southern Maricunga
- Perth based, with experienced management team resident in Chile
- Board of Directors:
  - Chairman                      Matthew Wood
  - Managing Director          Nick Lindsay
  - Non-Executive Director      Jonathan Murray

# Capital Structure

Issue	Price	Shares, M	Market Cap, \$M
Shares on issue	1.6	1,104	17.7
Options @ 1 cent		145	
Fully Diluted	1.6	1,249	20.0

**As of 31 Mar 2010**

**No Debt**

**Cash \$3.3 M**

**ASX:LRC 1.6 cps**



# Arqueros Gold Project – Highlights

- Maricunga Gold Belt (70 Moz gold resources & 465,000 oz production in 2009)
- 20 km north of Kinross' La Coipa Gold Mine (230,000 oz production in 2009)
- Option for 100% of Arqueros – US\$2.3m staged payments *plus* 3% NSR
- Mining infrastructure excellent and close to regional mining centre, Copiapo,
- Targeting production of 100,000 oz pa gold equivalent from open-cut mine development / brownfields project → fast-track to production



**DISCLAIMER:** The Company's exploration target is 1 to 2 million gold equivalent ounces of potential gold-silver mineralisation grading between 1.5 and 2.0 g/t gold equivalents. The potential quantity and grade is conceptual in nature. There has been insufficient exploration to define a Mineral Resource under the JORC Code and it is uncertain if further exploration will result in the determination of a Mineral Resource.

# Location

## La Coipa segment of the Maricunga



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# Maricunga Gold Belt

Tertiary volcanic centres over Paleozoic sedimentary basement.

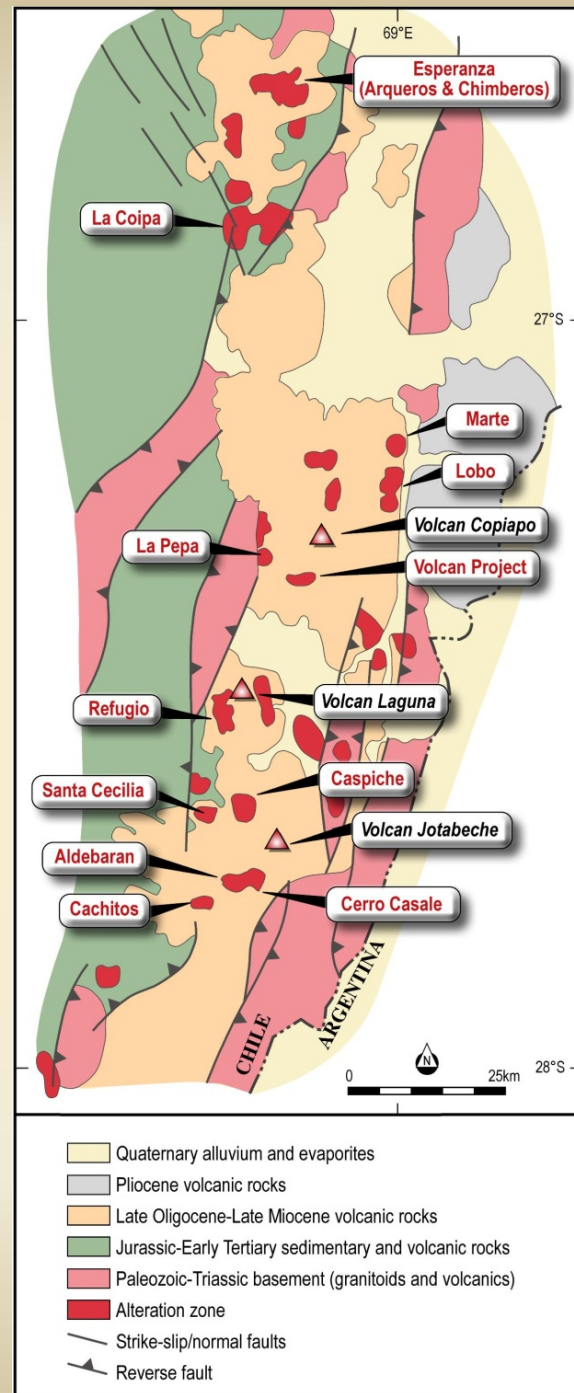
High sulphidation epithermal gold-silver and porphyry gold province, controlled by NS and NW regional structures.

## Major gold projects include:

- La Coipa (Kinross) 3.2 Moz Au & 185 Moz Ag  
(Production 230,000 oz/a Au eq.)
- Refugio (Kinross) 6.5 Moz Au  
(Production, 235,000 oz/a Au)
- Volcan (Andina) 7 Moz Au (BFS)
- Caspiche (Exeter) 25 Moz Au & 2.8 Mt Cu (Explor.)
- Cerro Casale (Barrick) 25 Moz Au & 3.0 Mt Cu (BFS)



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# Arqueros – High Sulphidation Gold & Silver



Historical photo taken in 1988



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# Esperanza Alteration System (114 km<sup>2</sup>)

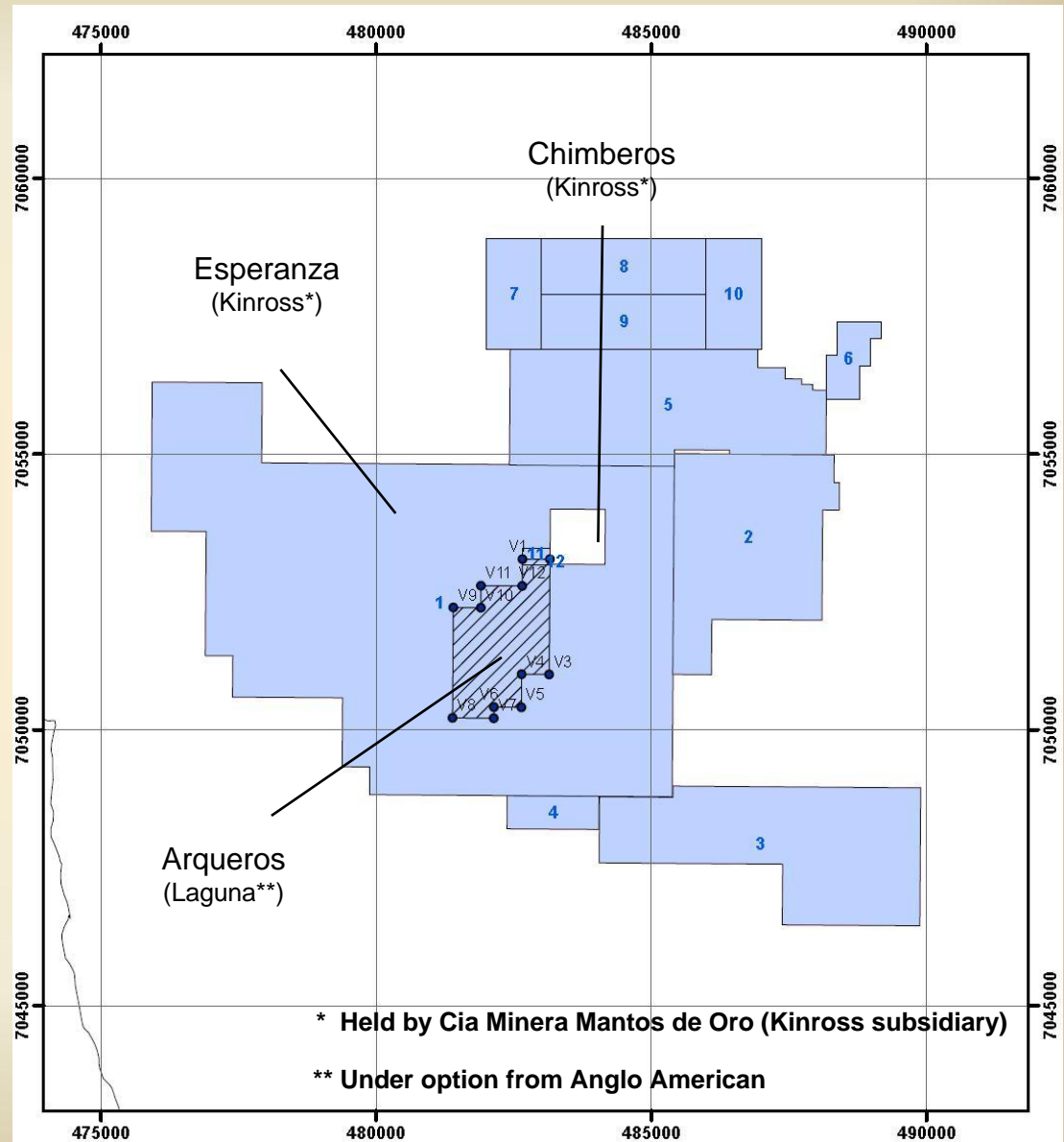




# Tenure

Area 374 ha

Laguna has option to acquire 100% of Arqueros from Anglo American plc.



# JORC Mineral Resource (Inferred) – Nov 09

Inferred Mineral Resource					
Cut-off grade g/t Au equiv.	Tonnes '000	Grade			Ounces Au equivalent
		g/t Au	g/t Ag	g/t Au equiv.	
0.5	16,012	0.45	64	1.52	782,700
1.0	9,711	0.60	85	2.02	629,520
1.5	5,791	0.77	107	2.55	474,770

Based on historical production & exploration data.

Net of resource extracted by historical mining (270,000 oz Au equivalent)

Surface and underground exploration focused on resource validation and expansion

Resource upgrade in June 2010.

**Note 1.** The amount of sample information from surface drilling and underground operations, within the majority of the alteration zone being estimated, was sufficient to generate fairly robust grade continuity models. However because of the historic nature of the information there is some uncertainty in the data location, sample collection methods and sample preparation and analytical quality control, and this uncertainty does not allow anything other than an Inferred Mineral Resource classification to be applied. These data-related uncertainties are to be addressed as a priority during current exploration.

**Note 2.** Gold equivalence (AuEQ) is estimated as  $AuEQ = Au + (Ag * EQ)$ , where Au = gold content, Ag = silver content and EQ = equivalence factor, which is calculated as the ratio of gold price to silver price \* ratio of gold metallurgical recovery to silver metallurgical recovery.  $EQ_{60} = P_{Au}/P_{Ag} * R_{Au}/R_{Ag} = 60$ , based on long-range prices of gold at US\$800/oz & silver US\$15/oz, and recoveries of gold at 90% and silver at 80% respectively.

# Geology

Dacite tuffs, breccias and intrusives

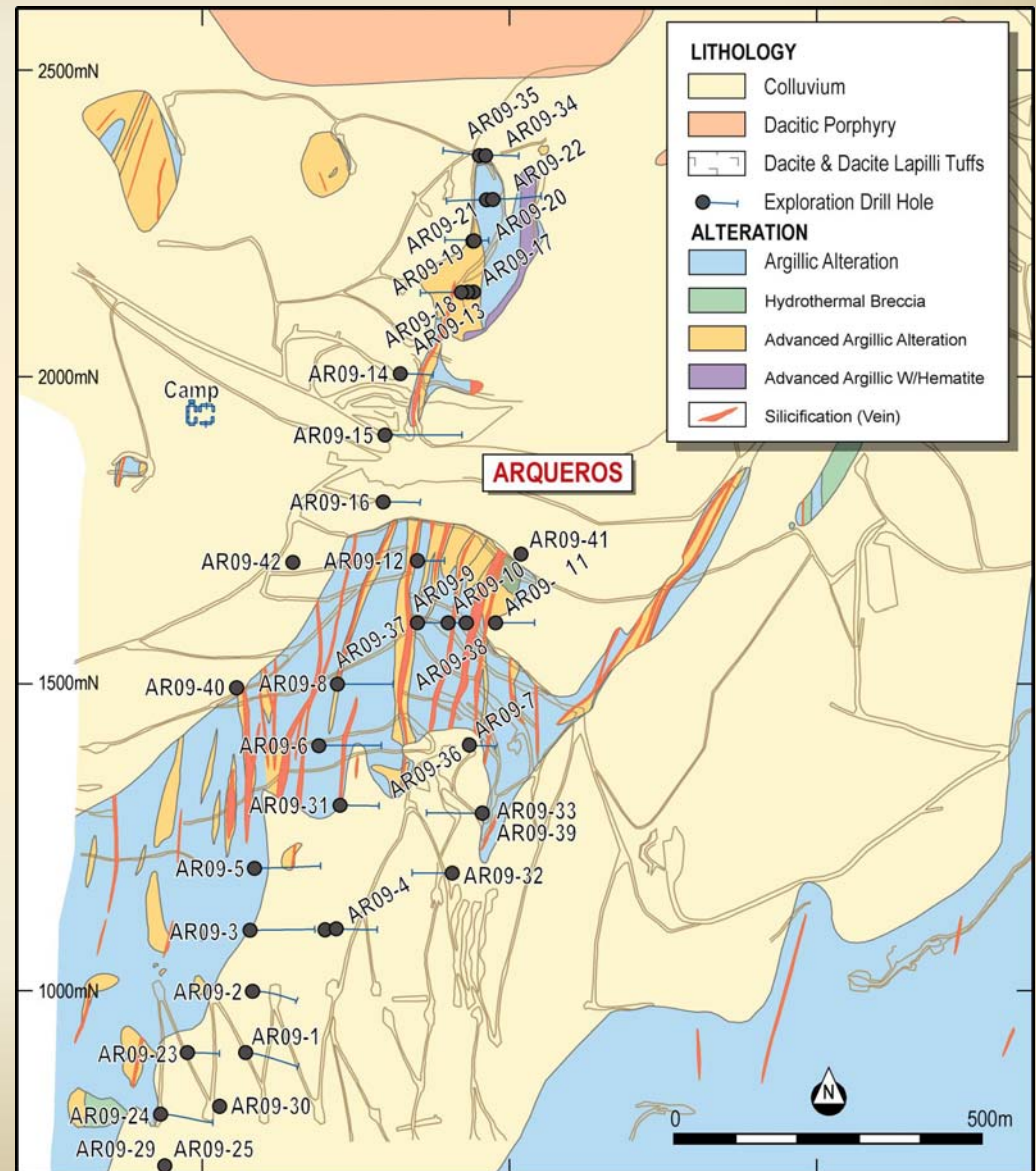
NS & NE structural & stratigraphic controls on high sulphidation epithermal (advanced argillic) alteration and gold - silver mineralisation.



Leached, silicified and mineralised lapilli tuff



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# Mineralisation

Two overlapping mineralised domains:

- Gold domain of sub-vertical silicified NE structures
- Silver domain of sub-horizontal silicified “mantos” hosted in leached, porous tuff

**Historical mining** demonstrated the consistency of grade and extent of the silver mantos

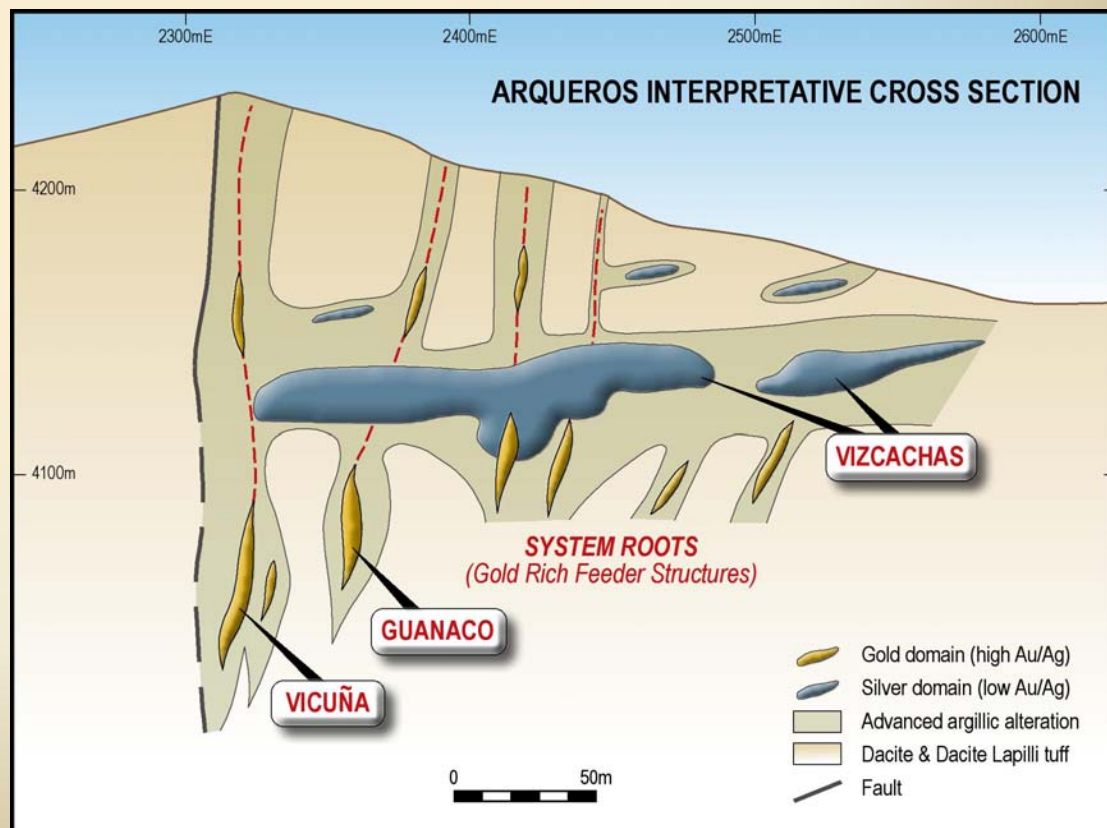
**Previous exploration** drilling exposed the high grade nature of many of the gold structures.

**Exploration target:**

1 to 2 Moz gold equivalent



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# Drilling – Surface Intercepts \*

- AR09-09 111 metres at 1.23 g/t Au eq.  
*including 12 metres at 4.56 g/t Au eq.*
- AR09-37 81 metres at 1.63 g/t Au eq.  
*including 8 metres at 3.80 g/t Au eq.*
- AR09-03 12 metres at 2.7 g/t Au eq.
- AR09-05 13 metres at 3.5 g/t Au eq.  
*including 4 metres at 7.1 g/t Au eq.*
- AR09-07 6 metres at 3.1 g/t Au eq.
- AR09-10 6 metres at 3.8 g/t Au eq.
- AR09-12 2 metres at 6.6 g/t Au eq.
- AR09-16 3 metres at 7.3 g/t Au eq.
- AR09-24 5 metres at 4.9 g/t Au eq.



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\* Higher grade intercepts  
announced 10 May 2010



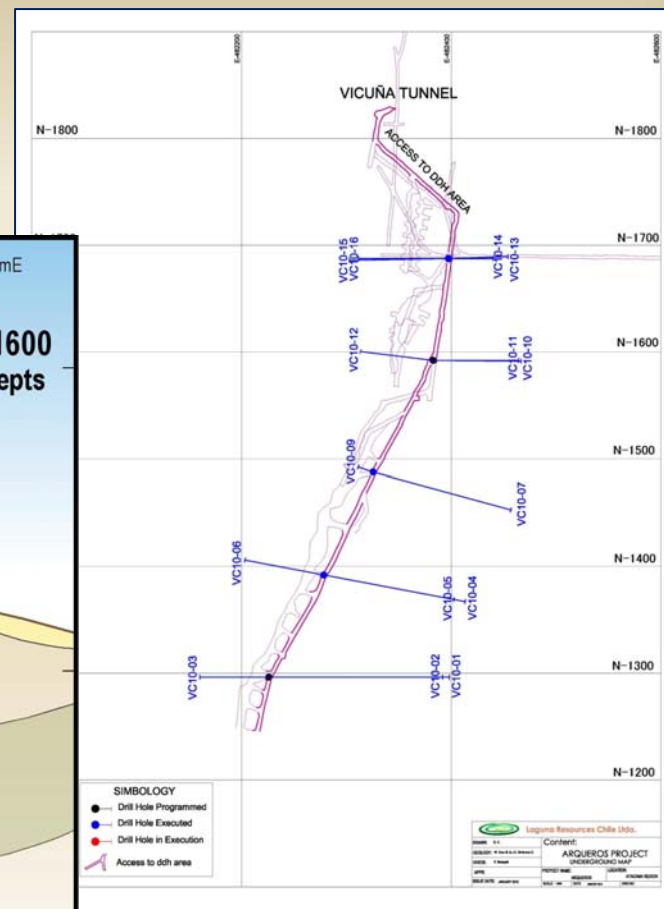
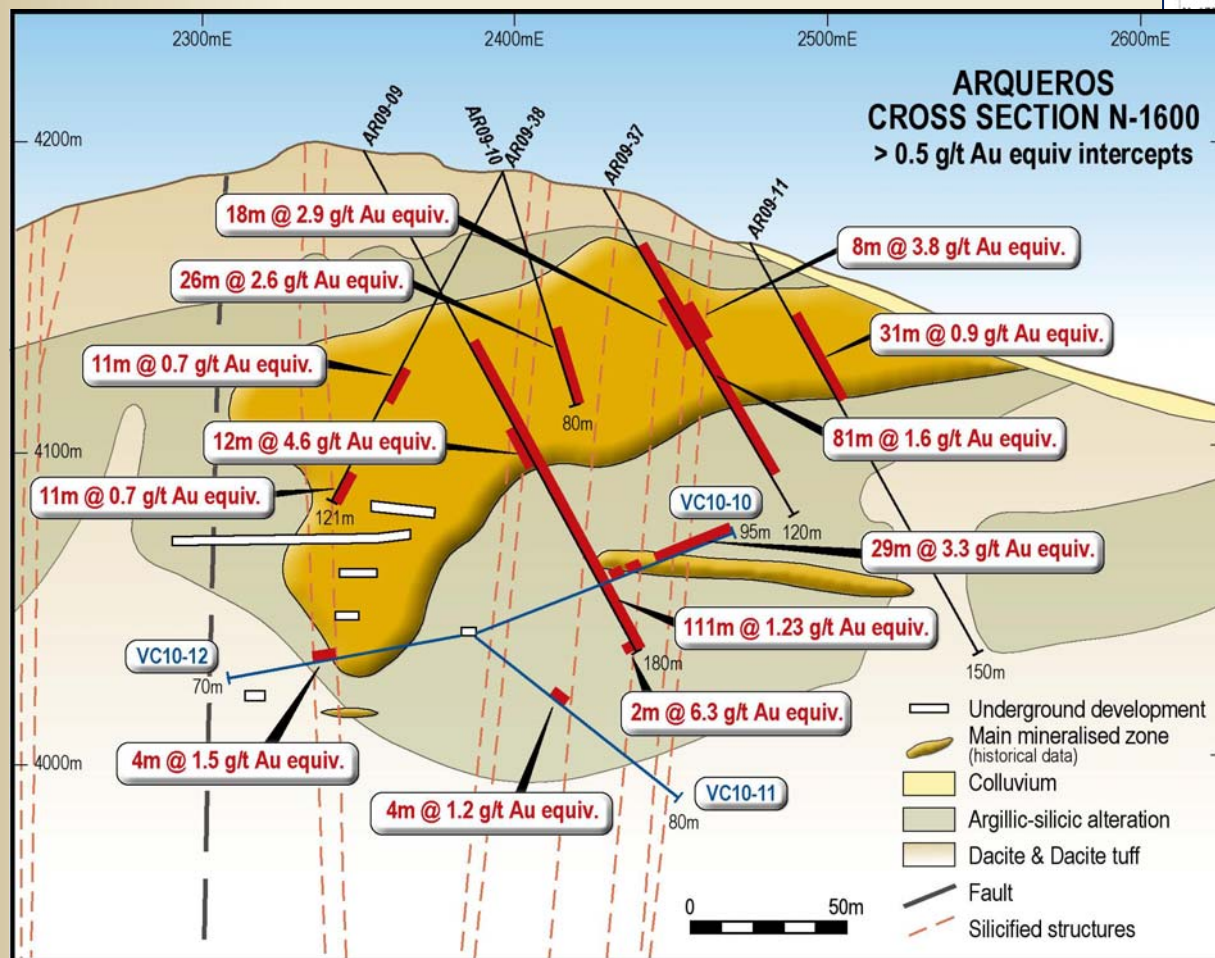
# Drilling – Underground Intercepts \*

- VC10-03 15 metres at 3.5 g/t Au eq.  
*including 5 metres at 6.3 g/t Au eq.*
- VC10-10 29 metres at 3.3 g/t Au eq.  
*including 4 metres at 6.0 g/t Au eq.*  
separate intersection 3 metres at 3.8 g/t Au eq.
- VC10-05 12 metres at 2.2 g/t Au eq.  
*including 3 metres at 5.9 g/t Au eq.*
- VC10-07 3 metres at 4.3 g/t Au eq.
- VC10-13 2.5 metres at 3.5 g/t Au eq.
- VC10-16 6 metres at 2.4 g/t Au eq.  
*including 2 metres at 5.4 g/t Au eq.*

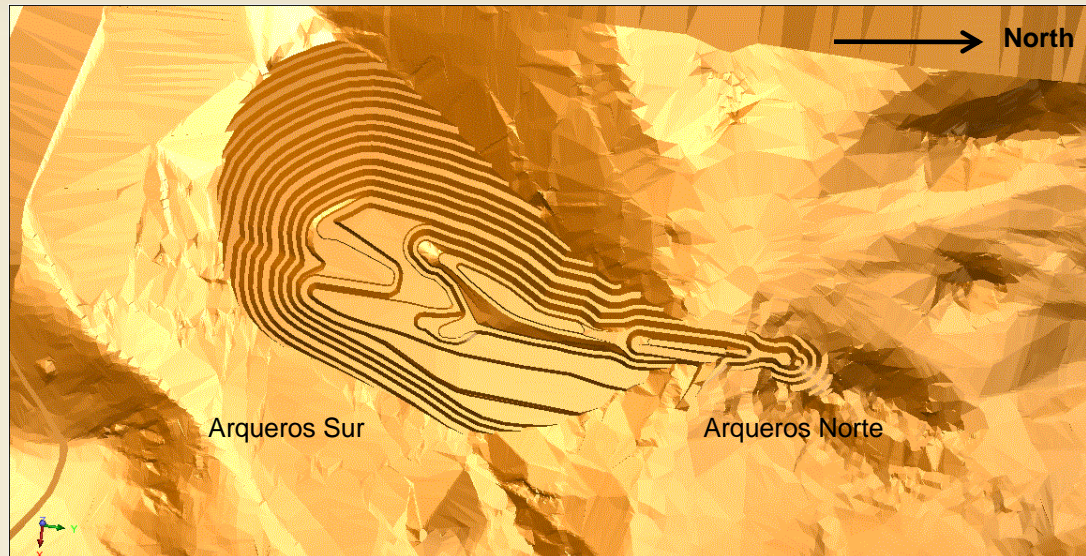




# Section N1600



# Conceptual Mine: 100,000 oz/a Au eq



- 2.1 Mt/a @ 0.6 g/t Au & 85 g/t Ag (modelled scenario) in **OPEN CUT** mine, producing **100,000 oz/a gold equivalent** by conventional agitation cyanide leaching.
- Infrastructure excellent: All weather road access and grid power
  - Haul road to La Coipa mining and processing complex
  - Can Can processing complex also accessible to project
  - High altitude experienced work-force
  - Water by arrangement



# Immediate Work Programme

- Exploration well-advanced:
- Environmental Impact Assessment (preliminary) completed
  - Geology, surveying & sampling (surface and u/ground)
  - Stage 1 drilling (10,000 m surface RC & DD) completed
  - Stage 2 drilling (1,500 m underground DD) completed
  - Metallurgical testwork in progress
  - Resource modelling in progress

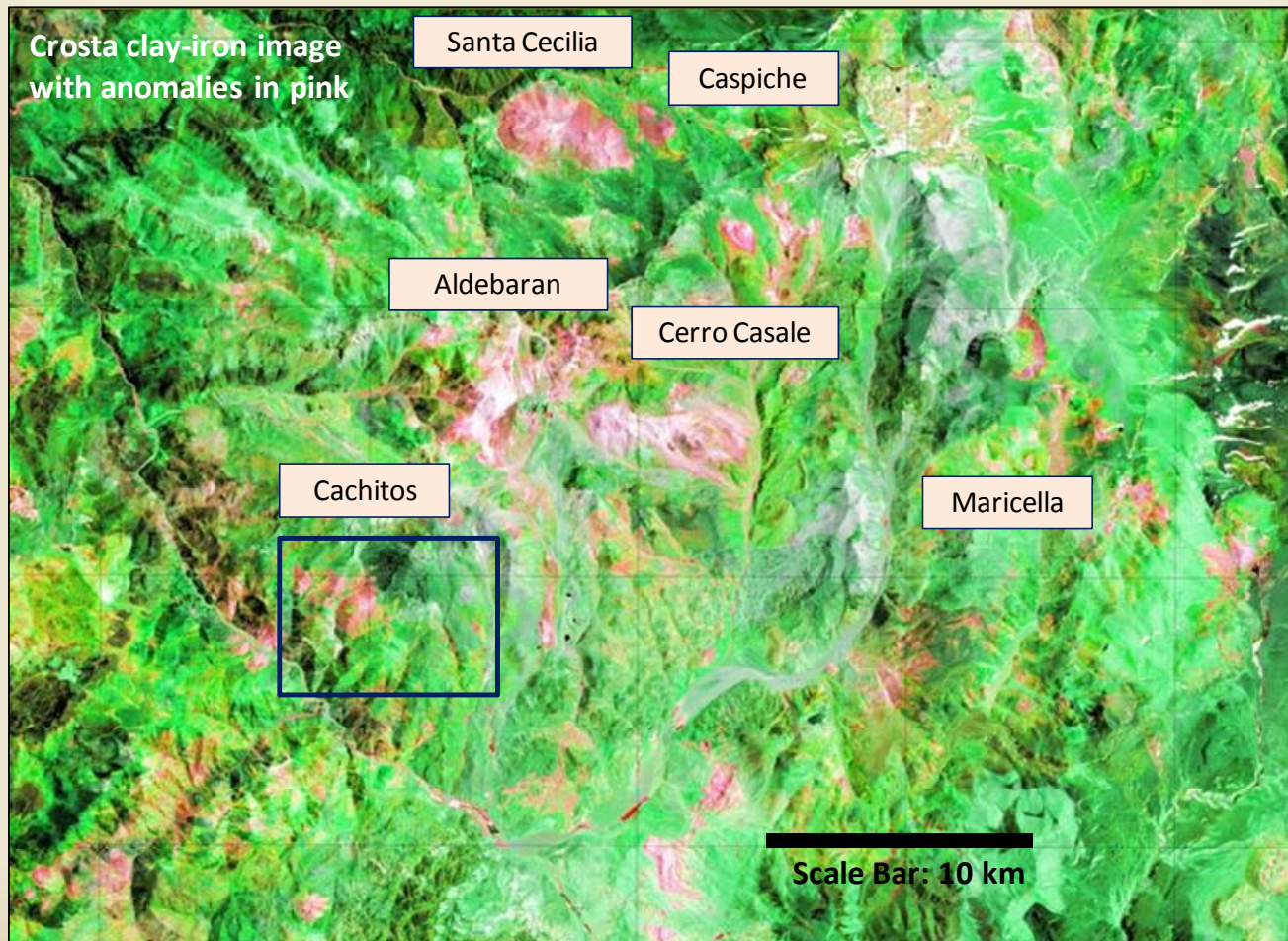
	Status	Apr		May		Jun		Jul	
Environmental studies (preliminary)	Completed								
Data compilation & maiden JORC	Completed								
Surveying & geology (surface & UG)	Completed								
Drilling Stage 1 (10,000m) surface	Completed								
Drilling Stage 2 (1,500m) underground	Completed	assays pending							
JORC upgrade	In progress								
Geotechnical Studies	Completed								
Metallurgical testwork	In progress								
Process Design (conceptual)									
Mine design (conceptual)									
Water, power & infrastructure	In progress								
Commercial analysis	In progress								
Final Report									
PROJECT DECISION									





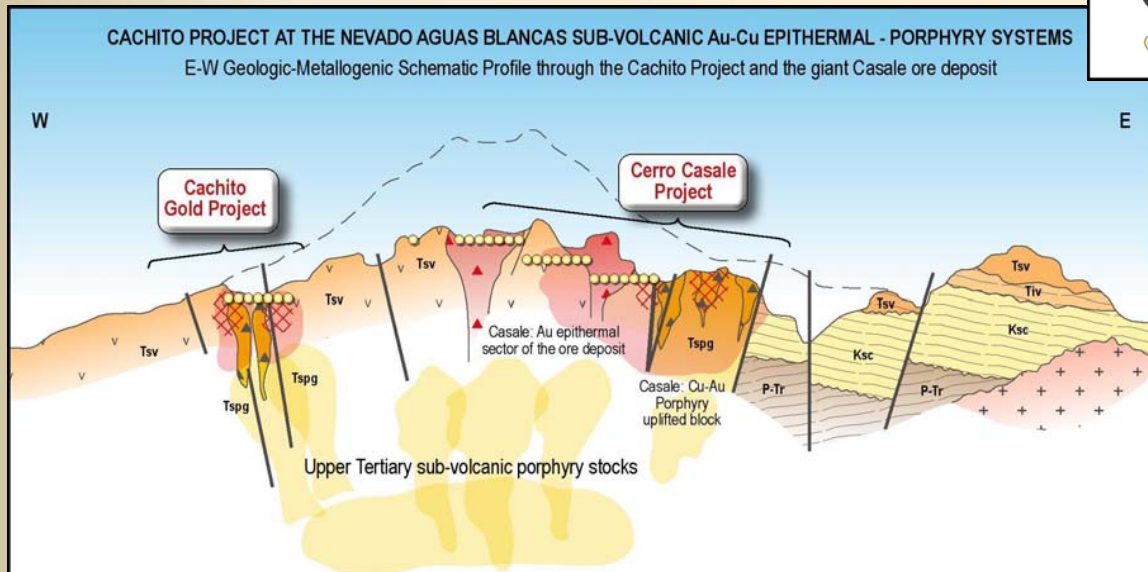
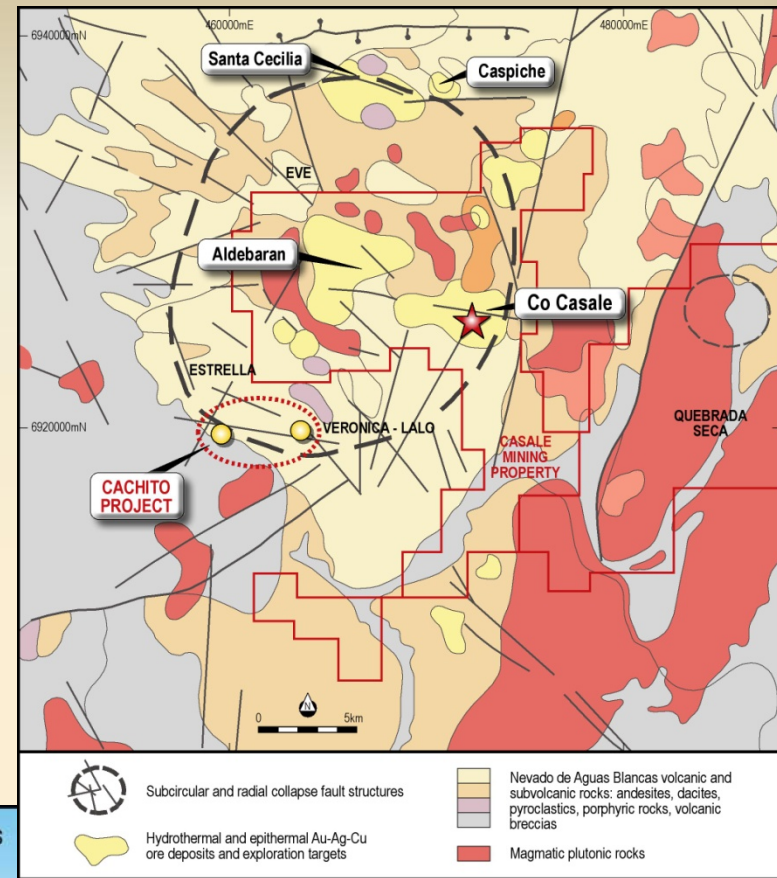
# New Business: Southern Maricunga

- 70 Moz Au equiv. in Cerro Casale & Caspiche → zone of mega-deposits



# Cachitos - 4 Moz gold target

- Option for 2000 hectares over iron-clay anomaly, unexplored
- Part of a large sub-circular collapse structure, host to several important gold deposits
- Cluster of gold-mineralised bodies: breccias chip-sampled with 1 to 2 g/t Au





# LAGUNA RESOURCES CONTACTS

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**Dr Nicholas Lindsay** is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation 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 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Lindsay is the Managing Director of Laguna Resources NL and consents to the inclusion in this release of the matters based on his information and information presented to him in the form and context in which it appears

The **Mineral Resource** has been estimated by Mr P Ball (Director of DataGeo Geological Consultants) from information provided by Laguna Resources NL and its agents. Mr Ball is a member of the Australian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation under consideration to qualify as a competent person as defined in the 2004 edition of the "Australian Code of Reporting of exploration results, mineral resources and ore reserves". Mr Ball consents to the inclusion of the mineral resource estimate in the form and context in which it appears based on the information presented to him.

## DISCLAIMER

This release contains certain **forward-looking statements**. These forward-looking statements are based on management's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, some of which are outside the control of Laguna Resources NL, that could cause actual results to differ materially from such statements.

The **Exploration Target** presented at **Arqueros** is 1 to 2 million gold equivalent ounces of potential gold-silver mineralisation grading between 1.5 and 2.0 g/t gold equivalents. The potential quantity and grade is conceptual in nature. There has been insufficient exploration to define a Mineral Resource under the JORC Code and it is uncertain if further exploration will result in the determination of a Mineral Resource.

The **Exploration Target** presented at **Cachitos** is 2 to 4 million gold equivalent ounces of potential gold-silver mineralisation grading between 1.0 and 1.5 g/t gold equivalents. The potential quantity and grade is conceptual in nature. There has been insufficient exploration to define a Mineral Resource under the JORC Code and it is uncertain if further exploration will result in the determination of a Mineral Resource.

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