TSX: V NLC NEOLITHIUM • CA

# TRES QUEBRADAS(3Q) LITHIUM PROJECT CORPORATE PRESENTATION

May 2019



#### FORWARD-LOOKING AND CAUTIONARY STATEMENTS

#### Scientific and Technical Information

The scientific and technical information of this presentation has been reviewed and approved by Dr. Waldo Perez, Ph.D., P. Geo., a qualified person pursuant to National Instrument 43-101 of the Canadian Securities Administrators. Mr. Perez is the President and CEO of the Company, and is a Ph.D in Geology with a technical background in mineral exploration, including lithium brines. Additional technical and exploration information on the 3Q Project is available in the Company's technical report entitled "Updated Mineral Resource Estimate Technical Report on the Tres Quebradas Lithium Project Catamarca Province, Argentina", with an effective date of August 15, 2018 (the "Technical Report"). Information about the potential economic viability of the 3Q Project included in this presentation is based on the previously announced results of a preliminary economic assessment ("PEA") conducted on the development of the 3Q Project by the Company. The Company has reported an increase in its estimates of mineral resources since the PEA was completed and the results announced, and has not yet completed an economic study of the 3Q Project taking the larger mineral resource estimate into account. While the Company does not expect mineral extraction methods to change as a result of the increased mineral resource estimate, and therefore considers the PEA relevant as a preliminary indication of the potential economic feasibility of the 3Q Project, as a result of the increase in the larger mineral resource estimate and developments in the lithium market from the effective date of the Technical Report to the date of this presentation, certain economic and other parameters that apply to the PEA may no longer be current. Therefore the Company is, and readers should, treat the PEA only as a relevant preliminary indicator of the economic potential of, and not a current economic assessment of, the 3Q Project, subject to the assumptions and parameters of the PFA.

#### Cautionary Note Regarding Forward-Looking Information

This presentation contains "forward-looking information" within the meaning of applicable Canadian securities laws, which may relate to the Company's future outlook and anticipated events or results. In some cases, but not necessarily all cases, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "targets", "expects" or "does not expect", "is expected", "an opportunity exists", "is positioned", "estimates", "intends", "assumes", "anticipates" or "does not anticipate" or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might", "will" or "will be taken", "occur" or "be achieved". In addition, any statements that refer to expectations, predictions, indications, projections or other characterizations of future events or circumstances contain forward-looking information. Statements containing forward-looking information are not historical facts but instead represent management's expectations, estimates and projections regarding future events.

Forward-looking statements in this presentation may include statements regarding management's beliefs, expectations or intentions regarding lithium production, electric vehicle and energy storage industry trends, market growth rates and the Company's future growth rates, plans and strategies, projections of commodity prices and costs, the future financial or operating performance and condition of the Company, including its business, operations and properties, planned exploration and development activities and the costs and timing thereof, trends in lithium usages and applications, future global battery consumption, the use of the PEA (as defined below) as an indication of potential positive economic outcomes from the development of the 3Q Project, the adequacy of the Company's financial resources, Argentina as an attractive place to conduct business, and the timing, receipt and maintenance of approvals, consents and permits under applicable legislation. The foregoing list of forward looking statements should not be construed as exhaustive.

These statements and other forward-looking information are based on opinions, assumptions and estimates made by the Company in light of its experience and perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate and reasonable in the circumstances as of the date of this presentation, including, without limitation, assumptions about the ability to raise additional capital; future prices of lithium; the Company's competitive advantages; current market and end-user and product dynamics; and the timing and results of drilling and pilot testing programs. There can be no assurance that such estimates and assumptions will prove to be correct. If any of the assumptions or estimates made by management prove to be incorrect, actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking information. Accordingly, readers are cautioned not to place undue reliance on such information. The foregoing list of assumptions should not be construed as exhaustive.

While such opinions, assumptions and estimates are considered reasonable by the Company as of the date such statements are made, they are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information, including but not limited to future requirements for additional capital, a limited operating history, the demand for and prices of lithium, property title risk, exploration risk, mineral processing risk, uncertainty in relation to mineral resource estimation, and governmental regulation of the mineral exploration and development industry. These factors and assumptions are not intended to represent a complete list of the factors and assumptions that could affect the Company.

The Company does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable securities laws.

#### WHY NEO LITHIUM?

Size and ownership of any Lithium brine project is important. 3Q is one of the few large project that 100% owned

# THE RIGHT STRUCTURE & INVESMENTS

>C\$40M in cash

Best in class institutional ownership

Strong research coverage

Over \$30M invested

Pilot ponds and pilot plant in place
Strong PFS results

THE RIGHT PROJECT

100% owned

6th largest brine resource and top 3 reserve base in the world

High grade core makes it 2<sup>nd</sup> in the world (~1Mt and over 1,000mg/L)

Average reserve grade makes it #4 in the world (794 mg/L)

Lowest combined sulfate and magnesium impurities in the world

People
in the team have
significant in-country and
Lithium experience and have
financed multi-billion projects
in the mining industry

Unique project qualities of high grade and low impurities make it easier to process with off the shelve technologies

# THE RIGHT INTANGIBLES

All technical people including CEO/COO are in-country and have strong experience and local knowledge

Charmain and CFO have proven capital market expertise

**EIA** submitted

Government support and tax stability granted for 30 years

Strong community program



#### HISTORY TIMELINE – TRACK RECORD

- Neo Lithium has been able to achieve numerous key milestones in a short period of time
  - From project discovery to listing on the TSXV in only 7 months



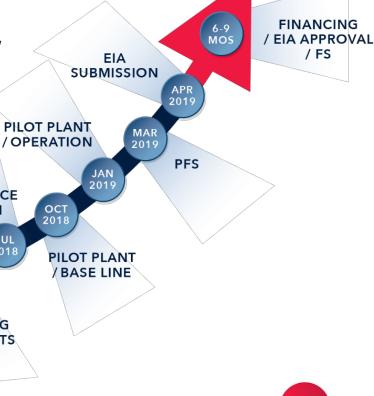
Neo Lithium is one of the few lithium developers that is investing the money raised back into the project and now has an 18 month work plan which is fully funded to FS

FINANCING

\$25M

FEB

2017





JAN

2016

**NLC IS** 

**CREATED** 

**RTO** 

~\$20M

JUL

2016

OCT

CAMP / **INFRASTRUCTURE** 

DISCOVERY

DEC

2015

PEA

OCT

2017

MAY

2017

RESOURCE

43-101

RESOURCE 43-101

NOV

2017

FINANCING

+ WARRANTS

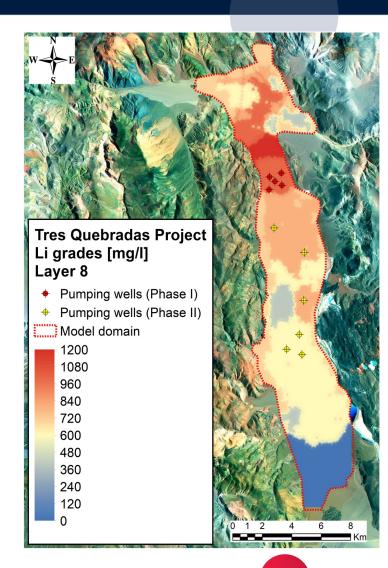
\$45M

JUL

2018

#### **3Q PROJECT OUTLINE**

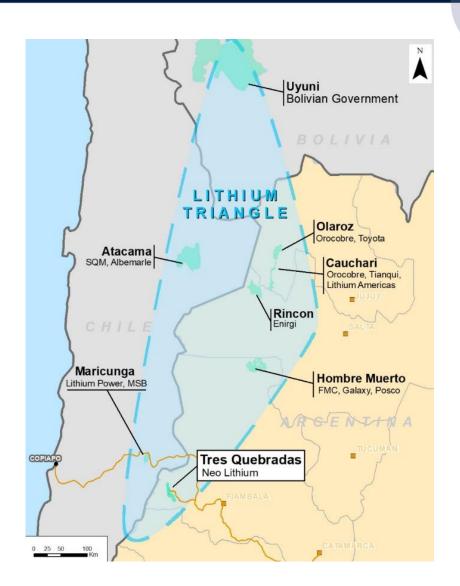
- Proven and Provable Mineral Reserve: 1.3Mt Lithium Carbonate
   @ 794 mg/L Lithium
- Measured and Indicated Resource: 4Mt Lithium Carbonate @ 614 mg/L Lithium
- Inferred Mineral Resources : 3Mt Lithium Carbonate @ 584 mg/L Lithium
- The salar contains a high grade core in the north with average lithium grade higher than 1,000 mg/L Lithium, grades in the south drop to 600 mg/L Lithium
- The PFS demonstrates that extracting the northern brine first, requires a smaller initial investment in ponds and maximizes project value and returns
- This strategy requires only 406ha of ponds to produce 20,000 tonnes of Lithium Carbonate
- The high yield aquifer only requires 5 wells for full production
- Long mine life of 35 years with additional throughput and/or mine life expansion capacity
- Pond expansions required in year 10 and 20 help differ capital requirements to a later in the mine life





#### LOCATION

- Project is located 30km from the Chilean border in the Province of Catamarca, Argentina, with direct road to pacific ports
- The company controls a total of 350km2 up to the border with Chile
- Project is easily accessed through a provincial highway and a recently upgraded project road
- 100% ownership of the entire salar complex with no option payments
- No inhabitants or aboriginal communities in the area
- Surface easement for mine construction granted by mining authorities





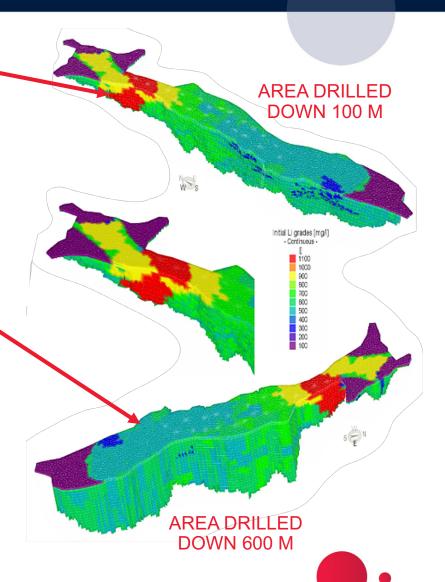
# 3Q PROJECT 2018 RESOURCE ESTIMATION

	800 mg/L Lithium Cut-off			
	Avg. Lithium (mg/L)	Li <sub>2</sub> CO <sub>3</sub> Equivalent (tonnes)	Mg/Li	Sulfate/Li
Total M&I	1,007	746,000	1.71	0.38
Inferred	1,240	186,000	1.68	0.35

#### 400 mg/L Lithium Cut-off

	Avg. Lithium (mg/L)	Li <sub>2</sub> CO <sub>3</sub> Equivalent (tonnes)	Mg/Li	Sulfate/Li
Total M&I	614	4,000,000	3.3	0.5
Inferred	584	3,000,000	4.5	0.6

Numbers Rounded-up for ease of reference

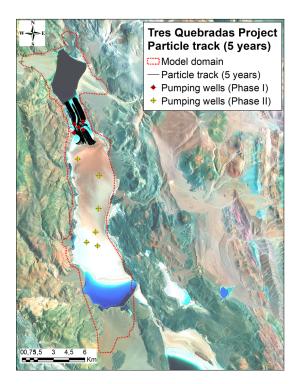


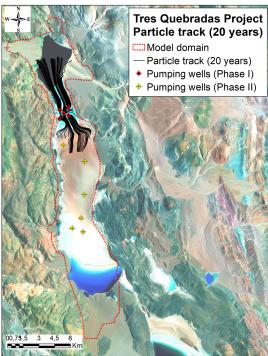
**NEO**LITHIUM

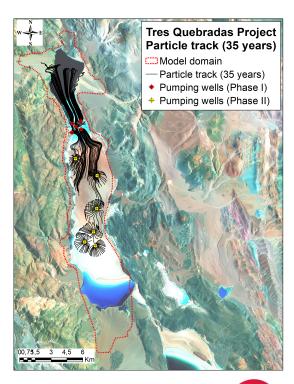
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#### NUMERICAL GROUNDWATER MODEL

- FEFLOW numerical model demonstrates that the project can sustain 35 years of production at high grade and still have ~70% of the resource untouched
- Only the upper 100 metres of the aquifer is mined (utilised in the model)
- This model allows us to define the reserve









#### **3Q PROJECT RESERVE ESTIMATION**

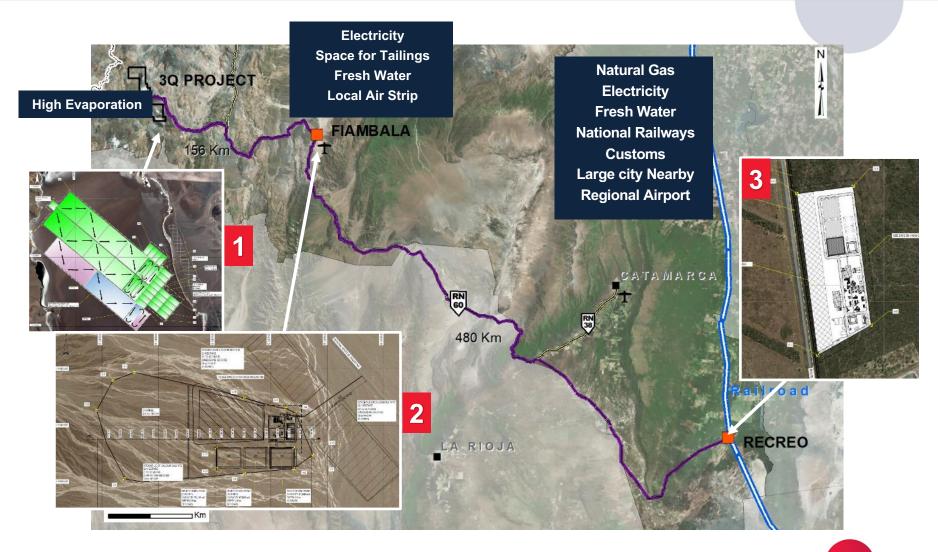
- Proven and Probable Reserves of 1.294 Million Tonnes of Lithium Carbonate
- Process efficiency on par with major producers
- Large throughput and/or mine life expansion capabilities
- The reserves only go down to the upper aquifer in the shallow 100 metres depth

Year	Brine Volume [Mm3]  Average Li concentration [mg/l]		Li metal [tonnes]		LCE [tonnes]		*Resources [%]
		[1119/1]	Proven	Probable	Proven	Probable	
1	3.3	1,177	1,113	2,542	5,923	13,526	0.5%
2-10	73	1,000	21,549	44,038	114,642	234,282	9%
11-20	101	841	20,211	53,472	107,524	284,472	10%
21-35	183	670	18,694	81,513	99,453	433,651	13%
Total 35 years production**	360	790	61,600	182,000	328,000	966,000	32%

<sup>\*</sup>Total M&I resources 4,005,000 tonnes LCE @ 400 mg/l cut-off / \*\* Rounded



#### PRELIMINARY FEASIBILITY STUDY CONCEPTUAL OUTLINE





#### 3Q PROJECT – PRELIMINARY FEASIBILITY STUDY HIGHLIGHTS

- The economic analysis of the PFS is based on the following assumptions:
  - Construction commencing in 2019 with a two year ramp-up from 2021 to 2022
  - All numbers based on a constant USD basis.
  - Average lithium carbonate pricing over the life of mine is ~US\$11,882/t

PFS Highlights and Results		
After-Tax Net Present Value ("NPV") @ 8% Discount Rate	\$1,144 million	
After-Tax Internal Rate of Return ("IRR")	49.9%	
Initial Capital Expenditures	\$319 million	
Cash Operating Costs (per tonne of LCE)	\$2,914	
Steady-state Annual Production (lithium carbonate)	20,000	
Mine Life	35 years	
Average annual EBITDA*	\$167 million	
Payback Period (from commencement of production)	1 years 8 month	

<sup>\*</sup>EBITDA is a non-IFRS earnings measure which does not have any standardized meaning prescribed by IFRS and therefore may not be comparable to EBITDA presented by other companies. EBITDA represents earnings before interest expense, income taxes, depreciation and amortization. Investors are cautioned that this non-IFRS financial measure should not be construed as an alternative to other measures of financial performance calculated in accordance with IFRS.



# PFS - VALUATION RESULTS (LITHIUM CARBONATE PRICING SENSITIVITIES)

- The results of the PFS are robust on a base case level with significant leverage to lithium carbonate price
- Due to low cash cost, strong results are obtained even at low lithium carbonate pricing

Description	+10% Base Case	Base Case	-10% Base Case
Average annual Revenue LOM	\$249M	\$226M	\$204M
Average annual EBITDA LOM*	\$189M	\$167M	\$145M
After-Tax NPV @ 6% Discount Rate	\$1,725M	\$1,488M	\$1,252M
After-Tax NPV @ 8% Discount Rate	\$1,331M	\$1,144M	\$956M
After-Tax NPV @ 10% Discount Rate	\$1,053M	\$900M	\$746M
After Tax IRR	55.8%	49.9%	43.7%
Payback Period	1 Y, 6 M	1 Y, 8 M	1 Y, 11 M

<sup>\*</sup>EBITDA is a non-IFRS earnings measure which does not have any standardized meaning prescribed by IFRS and therefore may not be comparable to EBITDA presented by other companies. EBITDA represents earnings before interest expense, income taxes, depreciation and amortization. Investors are cautioned that this non-IFRS financial measure should not be construed as an alternative to other measures of financial performance calculated in accordance with IFRS.



### PFS – VALUATION RESULTS (LITHIUM CARBONATE PRICING SENSITIVITIES)

- Capital costs are within the industry parameters of capital intensity on a US\$/t of production → ~US\$15,945/t on a 20,000/yr production basis
- Average capital intensity of lithium brine projects are between US\$15k \$20k per tonne of production
- The results of the PFS demonstrates that NLC could be at the low end of the cost curve

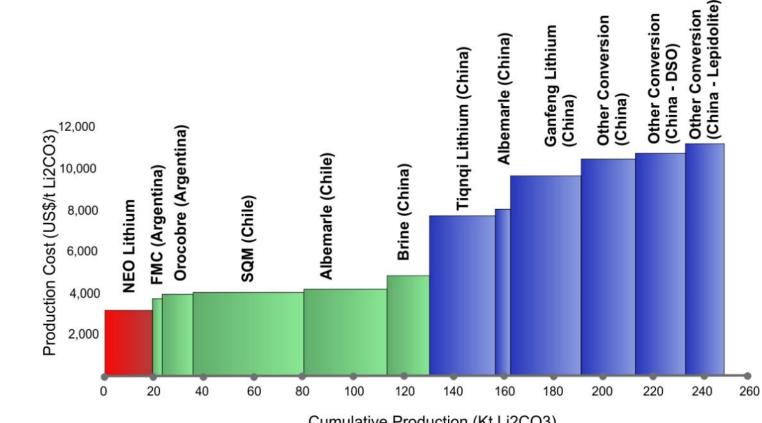
OPEX		
Description	US\$000/yr	US\$/t Li2CO3
Direct Costs		
Chemical Reactives and Reagents	\$27,989	\$1,4 69
Salt Harvesting Equipment	\$1,867	\$98
Energy	\$6,055	\$318
Brine Transport	\$5,075	\$266
Manpower	\$8,019	\$420
Li2CO3 Transport	\$1,694	\$89
Maintenance	\$1,527	\$78
<b>Direct Costs Subtotal</b>	\$52,225	\$2,740
General and Administration	\$3,310	\$174
<b>Production Total Costs</b>	\$55,535	\$2,914

CAPEX			
Description	US\$ Million		
Evaporation Ponds and Wells	\$128.1		
Plant Facilities and Equipment	\$55.8		
Infrastructure and Others	\$63.7		
Direct Costs Subtotal	\$247.7		
Indirect Costs	\$24.1		
Contingency	\$47.1		
Total Initial Capital Costs	\$318.9		
Deferred and Sustaining Capital Costs (life of mine)	\$206.7		



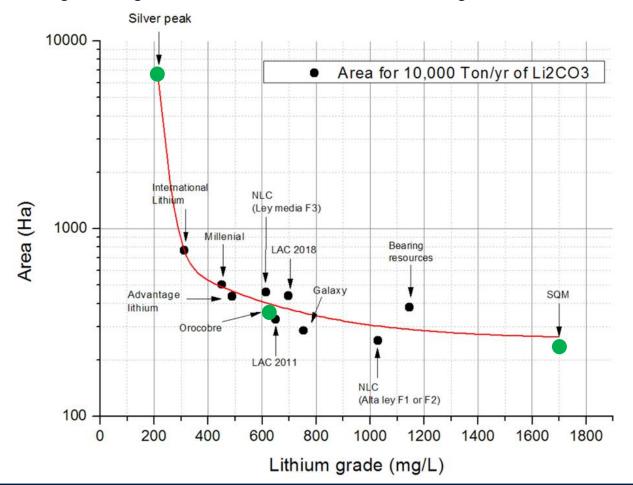
#### COMPARATIVE OPEX

- 3Q Project has one of the lowest operation costs in the market
- Chilean producers heavily influenced by super-royalties
- Hard Rock Miners have much higher cost profile



#### **GRADE AND CAPEX**

- The lithium grade is directly related to the size of the ponds.
- The size of the ponds is typically 50% of the CAPEX in brine projects.
- The higher the grade, the lower the CAPEX, but in a logarithmic scale



#### Other Variables:

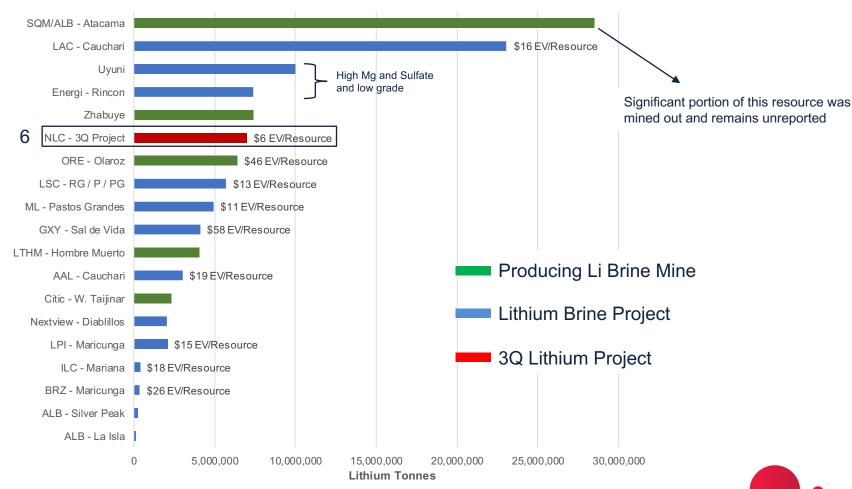
- Evaporation rate
  - Elevation
  - Sun Irradiation
  - Temperature
  - Wind
- Pond design
- Brine Chemistry
- Rain Fall
- Snow Fall

- Producing Li Brine Mine
- Lithium Brine Project
- 3Q Lithium Project



#### SIZE AND ENTERPRISE VALUE COMPARISON

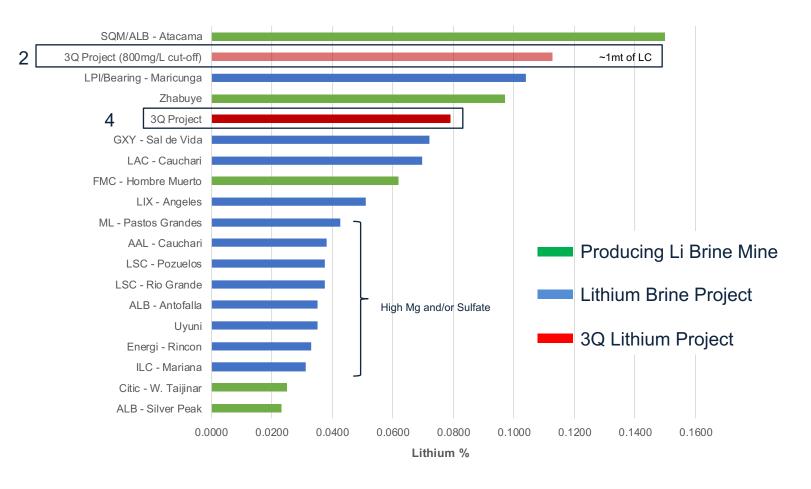
 3Q is now the 6th largest brine project worldwide on a total resource basis, and of those it is the only project with low critical impurities that is not in production





#### **GRADE COMPARISON**

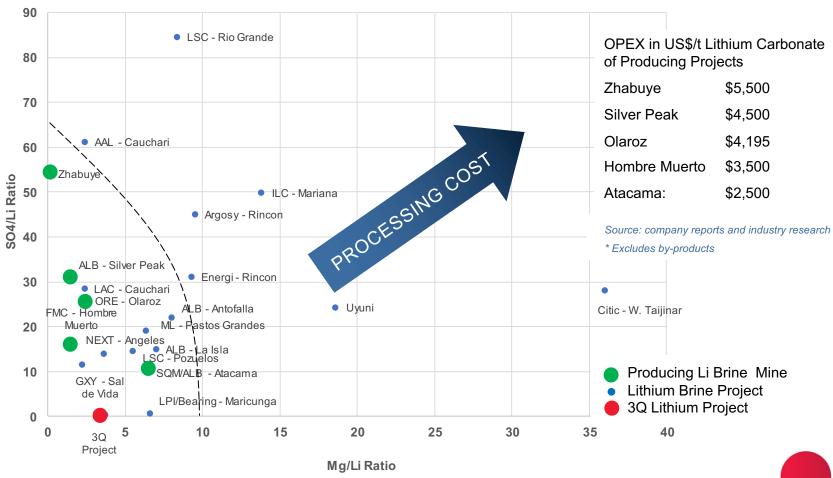
- 3Q is the 4<sup>th</sup> highest grade project worldwide based on 800mg/L Lithium cut-off utilizing proven and probable reserves only with 1.3Mt at an average of 790mg/L Lithium
- High grade core of 1,106mg/L Lithium and ~1mt Lithium Carbonate makes it 2<sup>nd</sup> in the world





#### IMPURITIES & CASH COST - PROJECT COMPARISON

- There are no brine projects in production worldwide with high Sulfate or Magnesium impurities
- 3Q has the lowest combined critical impurities worldwide



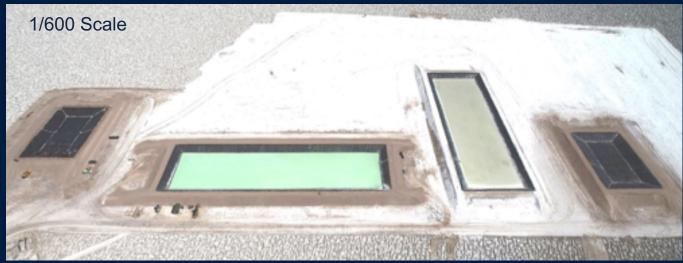
### PRODUCTION SCALE WELL DEVELOPMENT





### PILOT EVAPORATION POND STRINGS



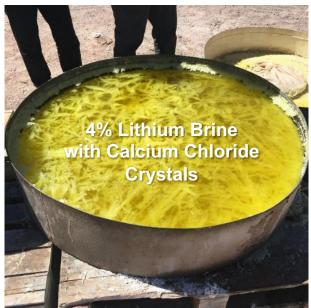




#### 3.8% LITHIUM BRINE PRODUCED

- The brine is calcium rich and calcium chloride precipitates naturally with 6 molecules of water, decreasing the size of the ponds calculated in the PEA
- Losses of impregnation are a serious issue in all projects worldwide because magnesium hydroxide and calcium sulfate, common waste minerals in the brine process, absorb water causing up to 50% lithium losses
  - 3Q does not have that waste, and has calcium chloride waste that does not adsorb water and therefore higher recoveries are expected







#### LITHIUM CARBONATE PILOT PLANT IN FIAMBALA

- 1:500 Pilot plant has started operation
- Fine tuning will take 3 to 6 months to produce battery grade lithium carbonate

FIAMBALA PLANT



1: SX for Boron Removal



2: Sulfatation for Ca Removal





3: Mother Liquor+Soda Ash for Mg



4: Soda Ash+heat = Lithium Carbonate



5: Drying and Packaging and Ca Removal



#### **CURRENT DEVELOPMENT**

- Over \$30 million invested in the 3Q Project
  - Three seasons of drilling with ~10k
  - PFS completed
  - 100 person year-round camp
  - Paved highway access plus 60km all weather road
- +2 years of weather monitoring
- ~2 years of pond operation
- Full geochemical analytical lab
- Ponds, pumps, thickener in full operation













#### **NEXT STEPS**

#### Continue our process to select a "Strategic Partner"

- Strong interest from several parties to develop the 3Q Project
- The company believes a JV is the most logical way for project success

#### News coming at the end of the Q1 2019

- Prefeasibility report DONE
- Reserve estimate DONE
- Lithium carbonate pilot plant to be operational on site – DONE
- Final EIA to be presented to authorities – DONE

#### **3Q Project** 2019 2020 2021 2022 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 **Feasibility Study Detailed Engineering Wells Field Development Contracts & Procurement Constr. Preconcentration Ponds** Const. Pond Concentration Const. SX-B and Sulphate Plant Const. Lithium Carbonate Plant Commissioning Ramp Up First Production

#### News coming on the Q2-Q3 2019

- EIA progress Community consultation process for mine operation (poll completed in the city shows very strong support of local community)
- Drill results for the high grade zone, which is currently underway → drilling focused towards an updated resource and reserve estimation for final feasibility
- Production of lithium battery grade lithium carbonate

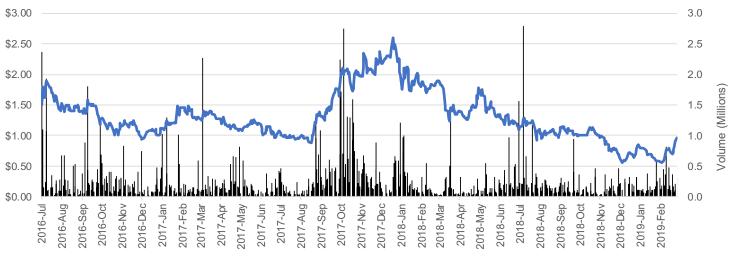


### STRONG CAPITAL STRUCTURE

TSX.V: NLC; OTCQX:NTTHF; FSE:NE2	\$0.85	~\$100M
Ticker	Price (May 6, 2019)	Market Capitalization
117.5M	~\$45M (no debt)	GMP (\$2.45) – Cormark (\$3.35) Canaccord (\$2.75) – VII Capital (\$3.00) Macquaire (\$1.60) – Beacon (\$2.20)
Issued & Outstanding Shares	Net Cash (December 31, 2018)	Research Coverage
128.8M	~45%*	~16%
FD Outstanding Shares	Institutional Ownership	Insider Ownership

Note: all numbers in Canadian dollars except per share data

<sup>\*</sup> Estimated, major shareholders include BlackRock, JPMorgan, RBIM, Manulife, Mackenzie, Sprott, Guardian



#### MANAGEMENT AND DIRECTORS



Waldo Perez, Ph.D., P. Geo. President & CEO

Dr. Perez has 28 years of academic and industry experience in mineral exploration in South America.

Founder and technical leader of the Cauchari project acquired through Lithium Americas Corp., and its President and CEO from inception until its ultimate definitive feasibility study.

Previously he served as CEO of Latin American Minerals Inc (LAT), Senior Geologist for Barrick Gold, IAMGOLD, Apex Geoscience and Opawica Exploration.



#### Constantine Karayannopoulos Chairman

Mr. Karayannopoulos is the Non Executive Chairman of Neo Performance Materials Board of Directors. Director of the Canada China Business Council and is a member of the Advisory Board at the University of Toronto's Department of Chemical Engineering and Applied Chemistry. He holds Bachelor and Master of Applied Science degrees in Chemical Engineering from the University of Toronto.

Previously he served as Chairman and interim President and Chief Executive Officer of Molycorp and President and Chief Executive Officer of Neo Material Technologies. He was Director of Lithium Americas Corp. from 2011 to 2015.



Carlos Vicens, MBA CFO

Over 20 years of experience in financial analysis, corporate development, strategy and investment banking including mergers and acquisitions and corporate finance.

Mr. Vicens previously worked as Vice President in Scotiabank's Investment Banking Mining team and participated in over \$10B of M&A transactions and well over \$5B in equity and debt issuances.



#### **Thomas Pladsen** Director

Mr. Pladsen has over 20 years experience in the exploration and mining industry.

Mr. Pladsen is a director of Carrie Arron Resources Inc., EPM Mining Ventures Inc., KWG Resources Inc., Northfield Capital Corporation and White Pine Resources Inc.



Gabriel Pindar COO and Director

Mr. Pindar has 22 years' experience as a Project Executive in the development of mining projects and large scale infrastructure (rail and port) in Argentina, Peru, Mexico, Australia, Canada, West Africa and United Kingdom.

He has sat on numerous boards and steering committees successfully engaging delivery teams for large scale projects.



#### Estanislao Auriemma Director

Mr. Auriemma currently is the CEO, Director and Country President of Fredonia Management Ltd. and has over 25 years of experience in the mining and energy industries in Argentina. He has served as manager and/or director of several mining companies in Argentina and Canada, including Samco Gold Ltd., Grupo Minero Aconcagua S.A and 5R S.A.

Mr. Auriemma has been actively involved in the promotion, management and financing in several Argentine mining and renewable energy projects.



#### WHY NEO LITHIUM?





# • NEOLITHIUM

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