

LITHIUM AMERICAS CORP.

Quaffing a Fine Argentinian Brine

INITIATING COVERAGE

LAC (TSX): C\$0.92 Stock Rating: Outperform Risk Rating: Speculative 12-Month Target: C\$1.40 12-Month Total Return: 52% Shares O/S: 325.4 Mln Market Cap: \$230 Mln

HIGHLIGHTS

- Emerging lithium carbonate producer, moving to construction: LAC is an emerging supplier of Li₂CO₃, with strategic investments and offtake agreements from Ganfeng Lithium (China) and Bangchak Petroleum (Thailand). With that, it is fully financed and moving towards construction of a US\$425 million, 25,000 tpa facility. With strong investors and visibility on production, LAC appears to be a lower risk play than most of the other junior developers.
- Well positioned with good resources and experienced partner: LAC's Cauchari-Olaroz salar has proven and probable reserves at 1.5 mt of Li₂CO₃ equivalent (LCE) with an average concentration of 698 mg/L of Lithium. This is a relatively high-grade brine resource in Argentina that is close to existing infrastructure. LAC's partner, SQM, is one of the world's largest producers of lithium salts and has significant experience operating a brine producing facility in the nearby Atacama (Chile).
- Battery demand puts pressure on supply chain: With growth in demand for lithium batteries for electric vehicles and grid power storage, demand is soaring for lithium salts, like Li₂CO₃ and LiOH. Falling battery costs could drive demand growth for years to come. Spot prices for Li₂CO₃ remain high, at more than \$18,000/t. The price should come back to the long-term average (at <\$8,000 / t), but the market could be in short supply for a few years.</p>
- Risks and headwinds: Lithium markets are at risk of oversupply in the future, with a number of emerging developers. Commissioning of a lithium brine operation can take time and is subject to some uncertainty given weather conditions.
- Valuation and recommendation: Our C\$1.40 target is based on a DCF analysis using a 10% discount rate and a relatively conservative lithium carbonate price deck. Compared to the universe of junior lithium developers, we believe that LAC is well positioned with a solid resource, access to capital, experienced partners and near-term visibility on production.

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Industry Rating (Utilities): Underweight (NBF Economics & Strategy Group) All dollar amounts in US\$ unless otherwise noted. All pricing as at July 20, 2017. All NBF research mentioned in this document is available at www.nbfm.ca/en/research/



FINANCIAL & OPERATING SUMMARY TABLE

(all figures in US\$ unless otherwise noted)			
Ticker	LAC	Daily LAC.TO 7/18/2016 - 8/9/2017	(TOR)
Market Price (CAD\$)	\$ 0.92	ULine, LAC.TO, 7/20/2017, 0.92+0.02, (+2.22%)	CAD
Shares Outstanding (FD mln)	325.4	/\/\	-1.2
Market Cap (\$min)	\$ 230		-1.1
Enterprise Value (\$mln)	\$ 224	Mr La Mult	-1
52-week High (CAD\$)	\$ 1.26	m. Vinn I and Maria	0.92
52-week Low (CAD\$)	\$ 0.52		-0.8
Stock Rating	Outperform		-0.7
Risk Rating	Speculative		-0.6
12-Mth Target Price (CAD\$)	\$ 1.40		
12-Mth Total Return	52%	18 02 16 01 16 03 17 01 16 01 16 03 17 01 16 01 16 03 16 01 16 01 16 03 17 01 16 01 16 04 17 01 Aug 16 Sep 16 Oct 16 Nov 16 Dec 16 Jan 17 Feb 17 Mar 17 Apr 17 May 17 Jun 17 Jun 17 Jun 17 Jun 17 Apr 17 May 17 Jun 17	(GMT-5)

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Select	ea Result	s (All figu	res in US	s uniess	otherwis	e notea)				
	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
Income Statement	2016A	Q117A	Q217E	Q317E	Q417E	2017E	2018E	2019E	2020E	2021E
Production Li ₂ CO ₃ (tpy)	-	-	-	-	-	-	-	3,125	14,375	25,000
Proportional share Li ₂ CO ₃ (tpy)	-	-	-	-	-	-	-	1,430	6,577	11,438
Average price Li ₂ CO ₃ (\$/t)	\$ 18,000	18,000	19,000	18,620	18,248	18,248	13,344	8,561	6,968	7,073
Prop. Adj. Revenue (\$mln)	1.2	1.2	1.2	1.2	1.2	4.7	4.7	17.6	53.4	85.1
Prop. Adj. Revenue Growth yoy (%)	0%	0%	0%	0%	119%	305%	0%	277%	203%	60%
Sales/Share (FD)	0.00					0.01	0.01	0.04	0.12	0.19
Gross Margin (\$mln)	(1.5)	(0.4)	(0.3)	(0.3)	(0.3)	(1.2)	(1.0)	5.7	23.8	43.8
SG&A (\$min)	17.6	4.4	2.6	2.4	2.4	11.8	9.7	9.5	12.6	8.6
Prop. Adj. EBITDA (\$mln)	(15.4)	(4.3)	(2.4)	(2.2)	(2.2)	(11.0)	(8.7)	3.5	23.3	46.9
Net Interest Expense (\$min)			(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(7.9)	(12.8)	(9.5)
Net Income (\$min)	(28.9)	(4.7)	(2.9)	(2.7)	(2.7)	(12.9)	(10.7)	(11.7)	(1.7)	25.7
Adj. Net Income (\$mln)	(27.7)	(5.0)	(2.9)	(2.7)	(2.7)	(13.2)	(10.7)	(11.7)	(1.7)	25.7
EPS (diluted)	(0.10)	(0.02)	(0.01)	(0.01)	(0.01)	(0.03)	(0.02)	(0.03)	(0.00)	0.06
Adj. EPS (diluted)	(0.10)	(0.02)	(0.01)	(0.01)	(0.01)	(0.03)	(0.02)	(0.03)	(0.00)	0.06
Balance Sheet (\$mln)	2016A	Q117A	Q217E	Q317E	Q417E	2017E	2018E	2019E	2020E	2021E
Cash & S.T. investments (\$min)	8.1	7.4	44.9	85.3	82.1	82.1	13.3	32.5	37.2	37.4
Book Value (\$min)	42.4	45.8	83.1	113.7	111.3	111.3	101.5	90.7	90.0	116.6
Book Value / sh	0.14	0.14	0.21	0.26	0.25	0.25	0.23	0.21	0.20	0.27
Debt (\$min)	1.0	0.9	0.9	29.6	58.3	58.3	159.9	198.1	193.4	238.1
Net Debt (\$min)	(7.1)	(6.4)	(44.0)	(55.7)	(23.8)	(23.8)	146.5	165.5	156.2	200.8
Working Capital (\$mln)	8.6	9.6	47.2	87.6	84.4	84.4	15.6	47.3	52.0	52.1
Capital (Assets) (\$mln)	45.3	48.5	85.8	145.1	171.4	171.4	263.2	290.6	285.2	356.6
Debt to Capital	2%	2%	1%	20%	34%	34%	61%	68%	68%	67%
Cash Flow (\$mln)	2016A	Q117A	Q217E	Q317E	Q417E	2017E	2018E	2019E	2020E	2021E
Cash and st investments start of period	5.6	8.1	7.4	44.9	85.3	8.1	82.1	13.3	32.5	37.2
Operating Activities	(11.3)	(2.8)	(2.4)	(2.2)	(2.2)	(9.6)	(8.8)	(17.0)	10.4	37.4
Investing Activities	10.5	(5.3)	0.0	(19.1)	(29.8)	(54.2)	(161.6)	(2.0)	(1.1)	(85.5)
Financing Activities	3.6	7.7	40.0	61.7	28.7	138.1	101.5	38.2	(4.6)	48.3
Change in Cash	2.5	(0.7)	37.5	40.4	(3.2)	74.0	(68.8)	19.2	4.7	0.2
Cash and st investments end of period	8.1	7.4	44.9	85.3	82.1	82.1	13.3	32.5	37.2	37.4
Valuation Metrics	2016A	Q117A	Q217E	Q317E	Q417E	2017E	2018E	2019E	2020E	2021E
EV (\$min)	223.2	223.9	186.3	174.6	206.5	206.5	376.9	395.9	386.5	431.1
Price/Book Value	5.17					2.79	3.06	3.43	3.45	2.67
Adj. EV/EBITDA	nmf				· · · · · · · · · · · · · · · · · · ·	nmf	nmf	nmf	16.6	9.2
W.avg shares outstanding (basic mln)	291.8	311.5	347.3	404.2	429.2	388.2	429.2	429.2	429.2	429.2
W.avg shares outstanding (fd mln)	291.8	311.5	357.3	414.2	439.2	398.3	439.2	439.2	439.2	439.2
Shares outstanding - end (basic mln)	301.9	315.4	379.2	429.2	429.2	429.2	429.2	429.2	429.2	429.2
Shares outstanding - end (fd mln)	310.0	325.4	389.2	439.2	439.2	439.2	439.2	439.2	439.2	439.2
*LAC changed its Fiscal Year From Septem	ber 30 to Dec	cember 31								7/21/2017

Source: Company data and Thomson with NBF estimates and analysis



EXECUTIVE SUMMARY: QUAFFING A FINE ARGENTINIAN BRINE

Lithium Americas is positioned as a near-term, low cost lithium salt producer

Lithium Americas Corp. (LAC: TSX) currently has a 50% ownership in Minera Exar S.A, which is ramping up 25,000 tpa of LCE (lithium carbonate equivalent) from lithium-bearing brines at its Cauchari-Olaroz salars, in Jujuy Province, Argentina. LAC's feasibility study estimates an after-tax NPV of \$1.113 billion (using an 8% discount rate) and an after-tax IRR of 28.4% for a 40-year mine plan with a \$425 million capex.

Fully financed by strategic partners and a JV with leading brine producer, SQM

LAC has entered into a 50/50 joint venture (JV) with lithium industry leader SQM on Minera Exar S.A. SQM is one of the world's largest producers of Li_2CO_3 from its Atacama salar in Chile. With SQM bringing its operational know-how, LAC has a lower risk path to production in 2019E. LAC has signed off-take agreements for its share of output with two strategic investors, Ganfeng Lithium and The Bangchak Petroleum Public Company Ltd. Together the partners have subscribed for 100% of LAC's production, invested US\$81 million into LAC's shares and committed US \$205 million in debt to finance construction of the production facility.

Large and rich brine resource could support higher production, at a competitive cost

With a relatively high lithium concentration of 698 mg/L (Li) in its brine, LAC forecasts a lithium carbonate (Li_2CO_3) production cost of US\$2,495 /tonne of Li_2CO_3 , which is competitive with industry leaders in China and South America. This could make LAC one of the world's lowest cost producers of lithium salts and reduce the risk that LAC would be impacted by incremental production coming on line in China using Australian hard rock resources. Minera Exar could double production to 50,000 tpa of LCE in the next few years.



Source: Company reports with NBF Analysis



LAC also driving forward with plans to develop lithium resources in Nevada

Although we are not giving LAC much credit today for its developments in Nevada, it continues to advance technology to extract lithium from a large clay resource. It is planning to move forward with feasibility studies, engineering and permitting and achieve production post 2021 (as appropriate).

Demand for lithium is growing and prices have spiked, but we assume they come back down

With rising demand for lithium ion batteries to supply electric cars and grid power storage, the demand for lithium salts has soared and prices have risen. Prices today for lithium hydroxide and lithium carbonate are over US\$18,000 /tonne, which is much higher than the long-term average of about US\$6,000 to US\$8,000/tonne. With hundreds of prospective projects being brought forward, lithium supply will increase in time and we believe that prices will normalize. However, peers may find it increasingly difficult to source capital without a competitive advantage and it takes several years to ramp up production.



Source: Company reports, Metal Pages, with NBF estimates and analysis

New technologies could bring lower cost product to market

A number of companies are developing processes that could produce lithium salts within 48 hours from the time the brine is pulled from a salar. Using filtration and precipitation techniques, these processes could ultimately turn marginal salars into economically viable resources and put additional pressure on lithium prices. However, if the technology is brought forward, we believe that LAC should also be able to benefit from the implementation of new processes.

SQM has yet to obtain board approval for its portion of development costs

SQM has recently re-affirmed its commitment to moving forward with the Minera Exar JV, although formal board approval has not yet been received. In a rapidly changing environment and with multiple priorities for SQM (including its recent investment in Australian hard rock lithium), it could change its mind. However, we believe that final approval should come in a couple of months and could be a positive catalyst for LAC.

Initiating coverage with a 12-month target price of C\$1.40 /sh and an Outperform rating. Our target is based on a DCF analysis using a 10% discount rate and a relatively conservative lithium carbonate price deck. Compared to the universe of junior lithium developers, we believe that LAC is well positioned with a solid resource, access to capital, experienced partners and near-term visibility on production.



LITHIUM INDUSTRY: DEMAND GROWTH INEVITABLE

A changing world: electrification increasing demand for lithium

Lithium demand will be shaped by the battery market

With rapidly declining costs for renewable energy and batteries and with concern over carbon emissions, an electrification of global energy supply is driving demand for batteries and lithium. In 2006, only about 19% of the world's lithium supply was used for batteries, but it more than doubled to 39% in 2016. Lithium demand for batteries should continue to grow rapidly over a number of years, with the rapid growth in demand for electric vehicles and power storage.



Source: USGS, NBF Analysis

Lithium demand driven by the rapid growth of EVs

Traditional applications for lithium, including ceramics, glass and greases, could grow with global GDP, but we believe significant growth should come from the electric vehicle (EV) and energy storage markets. In June 2014, Tesla, Inc. provided visibility on accelerated growth in demand with the announcement of its Gigafactory 1 (capacity of 35 GWh) which would be used to produce 500,000 EVs /yr. Since then, we have seen many large corporations follow in its footsteps, including Samsung, BYD Co. Ltd., Foxconn Technology Group and LG Chem Ltd. Based on our estimates, we believe there could be an incremental 180 GWh of battery production capacity coming online by the end of 2020E which may require more than 200,000 tpa of lithium carbonate equivalent (LCE). With this, demand from batteries could comprise almost 60% of the lithium market by 2020E.

Cumulative EV sales, globally, reached two million in 2016 with sales of more than 750,000 in the year, but they still represent less than 1% of total vehicle sales. Up to the end of May, global EV sales increased by about 46% y/y. We believe EVs can continue to increase market share primarily because of declining costs, improving range and an increasing number of options for consumers, relative to the internal combustion engine. According to Bloomberg New Energy Finance (BNEF), cumulative EV sales could reach 20 million by 2030E, which is a 10x increase over 13 years, representing a CAGR of about 20%.

We have also seen evidence of car manufacturers stepping up their commitment and becoming increasingly positive towards EVs. Recently, Volvo announced its intention to sell only hybrid and pure EVs starting in 2019E. Volkswagen also recently announced that it believes the market may need up to 40 Tesla Gigafactories (each producing 35 GWh/yr of cell capacity) based on an assumption of 25% EV penetration by 2025E.





Source: Company Reports, USGS, NBF Analysis









Source: IEA, InsideEVs, NBF Analysis



Political support still strong for clean energy

Despite the United States withdrawing from the Paris Agreement, many jurisdictions remain committed to reducing carbon emissions and fast-tracking the switch to clean energy. In fact, California, which is the world's sixth largest economy, is working towards a carbon reduction target of 40% from 1990 levels by 2030E. The European Union (EU) has also set a binding target of 20% of final energy consumption to be from renewable sources by 2020 (currently at about 16%).

One of the largest emitters of greenhouse gases is the transportation sector which accounts for approximately 23% of global emissions. With a global push to reduce emissions, some countries have announced electric vehicle targets. The 14 nations listed in the following figure are targeting a total of 13 million EVs by 2020E, which we believe would exceed our lithium supply scenario. News from China



suggests that it alone could target 1.5 million new EVs by 2018E. A recent announcement from France also shocked the world with its plan to ban sales of internal combustion engines by 2040E.

Countries with announced targets to 2020 or later	2015 EV stock (thousand vehicles)	2020 EV stock target (million vehicles)	EV share of all cars sold between 2016 and 2020	EV share in the total 2020 stock	Source
Austria	5.3	0.2	13%	4%	BMVIT, 2012
China*	312.3	4.6	6%	3%	State Council, 2012
Denmark	8.1	0.2	23%	9%	ICCT, 2011
France	54.3	2.0	20%	6%	MEEM, 2011
Germany	49.2	1.0	6%	2%	IA-HEV, 2015
ndia	6.0	0.3	2%	1%	LBNL, 2014
reland	2.0	0.1	8%	3%	SEAI, 2014
lapan	126.4	1.0	4%	2%	METI, 2016
Netherlands**	87.5	0.3	10%	4%	EVI, 2016a
Portugal	2.0	0.2	22%	5%	IA-HEV, 2015
South Korea	4.3	0.2	4%	1%	MOTIE, 2015
Spain	6.0	0.2	3%	1%	MIET, 2015
United Kingdom	49.7	1.6	14%	5%	EC, 2013 and CCC, 2013
United States ***	101.0	1.2	6%	2%	IA-HEV, 2015
Total of all markets listed above	814.1	12.9	7%	3%	
Notes: This target includes 4 taxis, buses and speci- Estimate based on a 1 Estimate based on th this table refer to the market and stock.	.3 million cars an al vehicles by 202 0% market share e achievement of eight US states; r	d 0.3 million taxi 0 (EVI, 2016b). target by 2020. the 3.3 million E narket share and	s and is part of a V target announc stock share are a	n overall deployr ed to 2025 in eig ssumed to accour	nent target of 5 million car ht US states. All indicators ht for 25% of the total US ca

Declining costs are key to driving growth in EVs

The average cost of batteries has declined about 70% to less than \$300/kWh in 2016 from above \$900/kWh in 2009. We believe electric vehicles reach cost parity with internal combustion engines at approximately \$100/kWh. Tesla may already be below \$200/kWh and is targeting a cost of \$100/kWh by 2020E. The mass market for EVs could come soon, with vehicles like the Chevy Bolt and Tesla Model 3 just the first of many new, lower price EVs coming to market. Along with lower cost, new vehicle models are also bringing a range of 150-200 miles (240-320 km) which is ample for most drivers and should increase consumer interest.





Grid energy storage could be the second wave of growth for lithium

Over the past several years, we have seen a rapid decline in the cost of solar and wind power, especially for jurisdictions with strong resources. Once considered uneconomic, renewable power has become competitive and in some cases, has reached cost parity with traditional fossil fueled generation. Given the intermittent generation of renewable power, energy storage could be a viable solution to normalize the power demand and supply profiles.

With ample amounts of excess ("free") power, demand for grid storage is also growing. Tucson Electric Power recently signed a 20-year power purchase agreement (PPA) for a solar-plus-storage system (100 MW solar array and a 30 MW, 120 MWh energy storage system), at an all-in cost of less than \$0.045 /kWh. This price was approximately 60% less than the solar-plus-storage system contract signed in Hawaii in January 2017 (28 MW solar array with a 20 MW, 100 MWh battery system). According to GTM and the U.S. Energy Storage Association, the United States recorded the largest installations of energy storage (234 MWh) in Q1 2017.



Source: GTM, US Energy Storage Monitor

Traditional commercial applications for lithium remain important

We believe traditional applications for lithium are still important and comprise about 60% of the global market demand. These applications could contribute moderate growth (we are modeling about 3%) over the longer term, but batteries should remain the main driver of growth.

Glass & Ceramics - lithium is usually added to glass and ceramics because of its lower melting point and thermal expansion properties which can improve plant operating efficiencies and reduce energy requirements, leading to lower costs. There are some cases in which energy conservation from the addition of lithium can reach 5-10%. It can also increase the durability, provide improved colour and reduce the amount of NO_x emissions.



Lubricants - lubricating grease typically contains a mixture of oil and soap. However, when lithium is added, the solution adheres more to metal, is non-corrosive and can tolerate higher temperatures. It also resists moisture and can be used in some household products.

Air treatment - lithium can be used in industrial applications such as humidity control (absorbs water in the air) and air treatment because it has the ability to destroy bacteria and other microorganisms.

Casting - lithium can be added to provide thermal insulation and lubrication for steel castings and reduces veining (defect) for iron castings.

Chinese demand for lithium doesn't appear to be slowing down

In 2016, China imported about 85,000 tpa of LCE, while producing about 15,000 tpa of LCE domestically. With exports of about 11,000 tpa, China had net consumption of 89,000 tpa of LCE in 2016, representing growth of 29% y/y. With increasing demand for lithium in China due to the country's EV targets, we believe China could absorb a larger portion of the global lithium supply in the near term (targeting 35 million EV sales by 2025E, representing about 20% of total sales from about 1.4% in 2016).



Source: Pilbara Minerals Presentation, NBF Estimates & Analysis

Supply of lithium is a moving target, but should not be a limitation to growth

The world has an ample supply of lithium to meet the most optimistic growth projections.

Lithium is extracted from hard-rock and brine resources. We believe 2016 global lithium supply was approximately 190,000 tonnes of LCE with the majority of production from Australia, Chile, Argentina and China. Global lithium reserves, which are defined as economically extractable, totaled more than 80 million tonnes of LCE in 2016, which is more than enough to satisfy our growth expectations for some time. If we assumed 80 million tonnes of LCE was produced at a rate of 190,000 tonnes/yr, the world would have more than 400 years of supply.





Source: USGS, NBF Analysis



The "Big 4" producers rule the lithium world and are adding capacity...

In 2016, more than 70% of lithium supply came from the "Big 4" which includes Albemarle Corp. (NYSE: ALB), Sociedad Quimica y Minera de Chile (SQM) (NYSE: SQM), FMC Corp. (NYSE: FMC) and Tianqi Lithium Industries Inc. (SHE: 002466). These companies currently control a large share of the market and have the advantage of current production in a high priced commodity market. The incumbents are also adding capacity, in some cases, as partnership agreements.



	FIGURE 15: BI	G 4 LITHIUM PRODUCE	RS	
Company Name	Operation	Type of Operations	Location	Estimated Annual Production (tonnes LCE)
Producers				
Albemarle	Salar de Atacama	Brine	Chile	23,800
	Silver Peak	Brine	Nevada	4,600
	49% ow nership in Greenbushes	Hard rock	Western Australia	27,000
SQM	Salar de Atacama	Brine	Chile	33,000
FMC	Salar del Hombre Muerto	Brine	Argentina	16,600
Tianqi	51% ow nership in Greenbushes	Hard rock	Western Australia	28,000

Source: Company Reports, NBF Analysis

Albemarle Corporation (NYSE:ALB):

Based in Charlotte, North Carolina, ALB is a global specialty chemicals company which serves a wide range of industries such as petroleum refining, consumer electronics, energy storage, aerospace and pharmaceuticals. It trades on the New York Stock Exchange with a market capitalization of more than US\$11 billion and employs almost 7,000 individuals. In January 2015, the company acquired Rockwood Holdings, Inc. for \$5.7 billion, to become a relevant player in the lithium business. ALB produces lithium from the two largest and highest grade reserves in the world: the Atacama brine and the Greenbush hard rock deposit. Some of its key customers include Panasonic, Syngenta, Umicore and Samsung. Last year, ALB produced about 55,000 tonnes of LCE, but it has announced its intention to increase capacity to 165,000 tonnes of LCE/yr by the end of 2021E with expansion of the Greenbush mine in Australia. The company should see a steady increase in output until that time.

Sociedad Quimica y Minera de Chile (NYSE:SQM):

Headquartered in Santiago, Chile, SQM is a global integrated producer of industrial minerals and chemicals with products sold in over 100 countries. It is listed on both the Santiago Stock Exchange and New York Stock Exchange with a market capitalization of about US\$9 billion. The company produces about 44,000 tonnes of LCE from its brine operation at Salar de Atacama which is sold to more than 210 customers in over 50 countries (about 67% of the exports were to Asia in 2015) through a global distribution network. The lithium and derivatives business had sales of about US\$592 million (LTM as of Q1 2017), which is about 25% of total corporate revenues, and SQM expects demand growth of more than 10% over the next several years. The company has a 50/50 JV with Lithium Americas (Minera Exar), to develop the Cauchari-Olaroz brine project in South America with estimated production of 25,000 tpa of LCE (Stage 1) with expected production in 2019E. They could add another 25,000 tpa of LCE for Stage 2 in the future. It recently made an investment into an emerging hard rock lithium producer in Australia (Kidman Resources Ltd.) for US\$30 million in cash and US\$80 million in CAPEX funding in exchange for a 50% stake in the project. This project is in the early stages, but we believe this reinforces SQM's commitment to expanding its lithium production globally.

FMC Corp. (NYSE: FMC):

FMC is a globally diversified chemicals company which develops products for the agricultural, consumer and industrial markets. It is listed on the New York Stock Exchange with a market capitalization of almost US\$10 billion. The lithium business segment generated about \$264 million in revenue in 2016, representing about 8% of the company's revenue with its main asset being the Salar del Hombre Muerto



brine operation in Argentina. The company is targeting revenue growth of 10-15%/yr to 2020E and earnings growth of 20-25%/yr to 2020E.

Tianqi Lithium Industries Inc. (SHE:002466):

Tianqi is listed on the Shenzhen Stock Exchange and is an integrated global supplier of lithium products. The company has a 51% equity stake (49% owned by Albemarle) in the Greenbushes spodumene mine in Western Australia which is the world's largest lithium producer (~30% of total lithium production, globally). It has two processing plants in China (Shehong and Zhangjiagang) with a combined design capacity of about 34,000 tpa of LCE and is currently constructing another plant in Western Australia (Kwinana) with a designed capacity of 24,000 tpa of lithium hydroxide and could be operational in 2018E.





Source: Company Reports, NBF Analysis



Other producers (or projects in construction) in the lithium industry, with existing or near-term expansion potential

There are multiple projects around the globe which are in advanced stages of development and could add 200,000 tonnes of LCE/yr over the next several years.

Orocobre Ltd. (TSX / ASX: ORL):

The company is based in Australia and is listed on both the TSX and ASX with a market capitalization of about C\$740 million. It is a producer and refiner of lithium and borax which have applications in a wide range of industries. The key assets are both located in Argentina with its lithium facility producing about 12,000 tpa of LCE (nameplate capacity of 17,500 tpa of LCE) from the Salar de Olaroz brine resource and the borax mine operating for over 50 years in the Salta-Jujuy region. Orocobre is planning to expand production at its Olaroz lithium facility to about 35,000-42,500 tpa of LCE. The Olaroz lithium facility is operated under a joint venture in which ORL owns 66.5%, Toyota Tsusho Corporation owns 25% and JEMSE (a state-owned entity) owns 8.5%.

Jiangxi Ganfeng Lithium Co., Ltd. (SHE: 002460):

The company was founded in 2000 and is an integrated chemicals company with over 450 employees. It is listed on the Shenzhen stock exchange with a market capitalization of about US\$5 billion. Ganfeng is headquartered in the Jiangxi Province in China and sells a number of products to countries such as the United States, Germany, South Korea, the Netherlands and India. It has a 43.1% interest in the Mt. Marion hard rock project (estimated production to be ~30,000 tpa of LCE) and recently acquired a 17.5% interest in Lithium Americas which has a 50/50 JV in the Cauchari-Olaroz brine project in Argentina with SQM. Ganfeng could become one of the top four lithium carbonate producers in the world, ramping from 30,000 to 60,000 tpa.

Neometals Ltd. (ASX: NMT):

Neometals operates the Mount Marion spodumene mine in Western Australia, in a joint venture (13.8% to NMT) with Jiangxi Ganfeng Lithium Co. (43.1%) and Mineral Resources Ltd. (43.1%). The mine is currently producing 6% concentrate at a capacity run rate of more than 240 ktpa (roughly 27,000 tpa LCE). The concentrate is currently being shipped to Ganfeng in China, but NMT could look to add capacity to produce lithium salts in the future.

Galaxy Resources Ltd. (ASX: GXY):

Galaxy operates the Mount Cattlin spodumene mine in Western Australia. The mine is currently producing 5.5% to 6% concentrate at a capacity run rate of 160 ktpa (roughly 20,000 tpa of LCE). The concentrate is being shipped to China under a contract for roughly US\$900 /tonne. Galaxy also owns the Sal de Vida brine project in the Lithium Triangle which could produce about 25,000 tonnes of LCE/yr over the next several years. This project has completed a revised definitive feasibility study. Galaxy is also advancing the James Bay Pegmatite project in Quebec.

Lithium Americas (TSX: LAC):

The topic of this report, LAC is headquartered in Vancouver. Its main asset is the Cauchari-Olaroz brine project located in Argentina that is owned through a 50/50 JV with SQM. The company is targeting production of 25,000 tpa of LCE in 2019 and could expand to 50,000 tpa thereafter. LAC is also exploring a clay deposit in Northern Nevada, which could be the second largest lithium resource in North America.

Lithium X Energy Corp. (TSV: LIX):

Lithium X is a lithium resource explorer and developer headquartered in Vancouver, with a focus in Argentina. The company's main asset is the Sal de los Angeles project (located in Argentina); it is ultimately targeting production of 15,000 to 20,000 tpa (feasibility study is expected to be completed in Q4 2017E). However, the company could see production up to 2,500 tpa of LCE by 2019E.



Nemaska Lithium Inc. (TSX: NMX):

A Quebec-based company, targeting 28,000 tpa of lithium carbonate and lithium hydroxide by 2019E. NMX is building a mine at Whabouchi, Quebec to produce 213,000 tpa of spodumene concentrate. It plans to convert this to lithium salts at a hydrometallurgical facility in Shawinigan, Quebec. NMX has a unique process, utilizing electrolysis to produce LiOH directly from Li₂SO₄.

North American Lithium Inc. (Private):

Revived from Canada Lithium, this hard rock project is located in Quebec and could produce about 23,000 tpa of LCE in the next 12 months.

Pilbara Minerals Ltd. (ASX: PLS):

An Australian development-stage company targeting production of spodumene concentrates by Q1 of 2018. Pilbara has 100% ownership of the Pilgangoora Lithium project in Western Australia. It is targeting US\$200 /t (net of credits) for production of 314 ktpa of 6% concentrate (44 ktpa of LCE) and has secured offtake agreements with Ganfeng Lithium and General Lithium (China).

Altura Mining Ltd. (ASX: AJM):

The company is developing the Pilgangoora Lithium Project in Western Australia and is targeting production of 219,000 tonnes/yr of spodumene concentrate (29,000 tpa of LCE), commencing in Q4 2017E. Altura also plans on selling the 6% concentrate to the market.

A large universe of development-stage companies

The market includes a number of development-stage companies, targeting new lithium sources from brine and hard rock. Industry estimates suggest that there are more than 300 lithium projects in development and we count more than a dozen public companies on the TSX alone that are pre construction. There is limited differentiation between some of the junior developers and we suspect that access to capital will be an issue for many. Consolidation in the space would be healthy, to support access to capital and to reduce the number of companies competing over mineral rights on some of the larger salars in the lithium triangle.

There are also some companies that are bringing forward new processing technologies to reduce the cost and process time to produce lithium salts. At this stage, we do not have visibility on the commercial viability or time to market for some of these new technologies.



Company	Ticker		Last Price Dividend		Rate Of P	eturn (%)	Market Cap	LV (Şillil)	-	.,				•
		Rating	2017-07-20	Yield	1 mo	3 mo	(\$mm)	Current	Last Fiscal Yr	Fiscal Yr +1	Fiscal Yr +2	Last Fiscal Yr	Fiscal Yr +1	Fiscal Yr +2
TSX / TSXV-Listed Producers & Developers														
Advantage Lithium Corp	AAL.V		C\$0.46		-5.2%	-13.2%	62	62	nmf	nmf	nmf	nmf	nmf	nmf
Bacanora Minerals Ltd	BCN.V		C\$1.45		8.2%	-6.5%	191	163	nmf	nmf	nmf	nmf	nmf	nmf
Bearing Lithium Corp	BRZ.V		C\$0.84		-11.6%	-6.7%	23	23	nmf	nmf	nmf	nmf	nmf	nmf
Critical Elements Corp	CRE.V		C\$1.23		12.8%	59.7%	183	183	nmf	nmf	nmf	nmf	nmf	nmf
International Lithium Corp	ILC.V		C\$0.09		-26.1%	-37.0%	8	8	nmf	nmf	nmf	nmf	nmf	nmf
LiCo Energy Metals Inc	LIC.V		C\$0.12		-7.7%	-17.2%	13	13	nmf	nmf	nmf	nmf	nmf	nmf
Liberty One Lithium Corp	LBY.V		C\$0.67		26.4%	17.5%	0	0	nmf	nmf	nmf	nmf	nmf	nmf
Lithium X Energy Corp	LIX.V		C\$2.15		13.2%	22.2%	170	170	nmf	nmf	48.7x	nmf	nmf	nmf
LSC Lithium Corp	LSC.V		C\$1.22		1.7%	-18.7%	142	142	nmf	nmf	nmf	nmf	nmf	nmf
Millennial Lithium Corp	ML.V		C\$1.41		3.7%	6.0%	62	62	nmf	nmf	nmf	nmf	nmf	nmf
Neo Lithium Corp	NLC.V		C\$1.03		-12.0%	-19.5%	93	93	nmf	nmf	nmf	nmf	nmf	nmf
Orocobre Ltd	ORL.TO		C\$3.36		-7.7%	21.3%	707	673	37.6x	35.6x	29.4x	nmf	nmf	nmf
Standard Lithium Ltd	SLL.V		C\$0.88		-14.6%	10.0%	1,111	1,111	nmf	nmf	nmf	nmf	nmf	nmf
Pure Energy Minerals Ltd	PE.V		C\$0.58		-1.7%	13.7%	53	53	nmf	nmf	nmf	nmf	nmf	nmf
Wealth Minerals Ltd	WML.V		C\$1.72		5.5%	36.5%	153	153	nmf	nmf	nmf	nmf	nmf	nmf
Average					-1.0%	4.5%			37.6x	35.6x	39.0x	nmf	nmf	nmf
Nemaska Lithium Inc	NMX.TO	OP	C\$1.06		1%	-12%	338	281	nmf	nmf	16.7x	nmf	nmf	29.6x
Lithium Americas Corp	LAC.TO	OP	C\$0.92		-2%	-2%	299	293	nmf	nmf	nmf	nmf	nmf	nmf
NYSE-Listed Producers														
Albemarle Corp	ALB		US\$117.91	1.1%	9.7%	12.0%	13,059	13,158	5.0x	4.6x	4.3x	17.7x	15.6x	14.3x
FMC Corp	FMC		US\$75.79	0.9%	0.2%	3.7%	10,156	11,985	3.7x	4.5x	2.9x	16.8x	21.5x	11.7x
Sociedad Quimica y Minera de Chile SA	SQM		US\$38.38	3.7%	15.2%	7.8%	10,101	10,680	5.5x	5.1x	4.8x	nmf	12.3x	11.7x
Average				1.9%	8.4%	7.8%			4.7x	4.7x	4.0x	17.3x	16.5x	12.6x
ASX-Listed Producers & Developers														
Altura Mining Ltd	AJM.AX		AU\$0.15		11.1%	7.1%	185	182	nmf	nmf	16.8x	nmf	nmf	nmf
Galaxy Resources Ltd	GXY.AX		AU\$1.93		10.6%	-5.9%	761	792	nmf	5.1x	2.9x	nmf	12.9x	5.1x
Lithium Consolidated Mineral Exploration Ltd	LI3.AX		AU\$0.12		20.0%	20.0%	4	4	nmf	nmf	nmf	nmf	nmf	nmf
Lithium Power International Ltd	LPI.AX		AU\$0.31		19.2%	19.2%	51	51	nmf	nmf	nmf	nmf	nmf	nmf
Neometals Ltd	NMT.AX		AU\$0.30		11.1%	-7.7%	169	169	nmf	nmf	nmf	nmf	nmf	nmf
Orocobre Ltd	ORE.AX		AU\$3.23		-12.0%	17.9%	679	647	37.6x	35.6x	29.4x	nmf	nmf	nmf
Pilbara Minerals Ltd	PLS.AX		AU\$0.40		9.6%	9.6%	505	499	nmf	nmf	7.3x	nmf	nmf	23.7x
Prospect Resources Ltd	PSC.AX		AU\$0.02		-13.0%	-16.7%	32	32	nmf	nmf	nmf	nmf	nmf	nmf
Average					7.1%	5.5%			37.6x	20.3x	14.1x	nmf	12.9x	14.4x
Other-Listed Producers														
Jiangxi Ganfeng Lithium Co Ltd	002460.SZ		CNY63.70	0.1%	43.2%	60.3%	46,431	46,933	0.2x	12.6x	8.9x	0.7x	nmf	23.8x
Tiangi Lithium Industries Inc	002466.SZ		CNY68.44	0.1%	29.5%	44.6%	67,472	69,484	0.5x	14.5x	12.5x	nmf	23.0x	19.6x

Source: Bloomberg, Thomson One, NBF Analysis

With incremental production, the market could see supply shortage eliminated

While the supply picture could outpace our demand *(overlaid below)*, we believe there is some uncertainty with the timing of supply and more demand growth could come. We believe some of the projects could produce less than capacity, experience challenges with financing and could be delayed because of operational issues. For the near term, we still believe that a shortage of lithium supply exists.



Source: Company reports, NBF Analysis

Prices should come back to normal, but could stay high in the near term

The price of lithium carbonate and lithium hydroxide has spiked and settled at about US\$15,000/tonne since the end of 2015 (a three-fold increase in prices). We believe that pricing could stay high in the near term with increasing demand for batteries and lagging supply. However, we believe supply should catch up and prices should eventually normalize. We are forecasting a price decline from 2017E to 2021E, with lithium hydroxide prices dropping to US\$8,000/tonne and lithium carbonate prices falling to US\$7,000/tonne. We believe that this price would cover the typical production costs from high cost brines and hard rock operations (\$4,000 to \$5,000 /t LCE) and provide an ample return on capital to incentivize new facilities that are built at \$15,000 to \$20,000 /tonne LCE of capacity.



Source: Company reports, Metal Pages, with NBF estimates and analysis



Lithium represents a small proportion of battery costs

In a typical EV, the lithium carbonate required can be less than 10% of a battery's weight. For example, the Nissan leaf uses a lithium ion battery which weighs about 300 kg and the lithium content is about 20 kg (44 lbs), while the Tesla 85 kWh lithium ion battery weighs about 600 kg and the lithium required is about 50 kg (112 lbs) LCE. With the cost of batteries now below US\$200 /kWh and spot prices for lithium of about US\$15,000/tonne (LCE), lithium should cost about US\$9/kWh, or less than 5% of the cost of the battery. This means that the cost of the battery is relatively insensitive to lithium prices.

Application	Lithium Carbonate Content		
Cell Phone	3 grams ~ 0.1 oz		
Notebook	30 grams ~ 1.0 oz		
Power Tool	30-40 grams ~ 1.0-1.4 oz		
Hybrid (HEV) 3kWh	3.5 lbs		
Plug-in Hybrid (PHEV) 15 kWh	26 lbs		
Electrical Vehicle (BEV) 25 kWh	44 lbs		
Tesla 85 kWh	112 lbs		

Source: Company Reports, Industry Data

Production of lithium from brines has advantages and disadvantages

There are both advantages and disadvantages for the two types of lithium extracting operations (brine and hard rock). Hard rock operations typically have higher operating costs, but can have lower capital costs (depending on mine location and method of scaling) and faster lead time to production (which helps the producers respond to market conditions more quickly). *We wrote about hard rock processing in February, with our launch report on Nemaska Lithium (NMX), available at <u>www.nbcn.ca</u>.*

Brine deposits occur in salt flats which are usually in arid and barren areas. With vertically integrated operations and low energy extraction processes, brine operations tend to have lower operating costs than hard rock operations. Like hard rock operations, brine operations can also sell an intermediate product, such as lithium chloride, directly to third parties at an attractive margin so brine operations can de-risk on the way to full lithium carbonate production.

Traditional extraction of lithium from brine requires small amounts of energy and catalysts

Brine-based lithium deposits are accumulations of groundwater, which typically contain high concentrations of lithium, magnesium, potassium and sodium. They are usually found in tectonically active basins with arid climates such as the Lithium Triangle (an area located in the Andes that includes Hombre Muerto in Argentina, Uyuni in Bolivia and Atacama in Chile). Brine comprises about 50% of global lithium production with the majority of it located in Argentina, Chile and the United States.





Source: Company reports

The lithium bearing brines in South America are located in regions that are difficult to access and have challenging living conditions. This creates barriers to entry for companies that look to exploit lithium from brines. The logistical challenges for operating in these locations include locating skilled workers (for construction and for operations), providing care to employees on site and the challenges of bringing materials or reagents in and out of the region. It is also a specialized type of operation which benefits from experience.

With brine-based lithium, the process for extracting the lithium varies by resource and by operator (*a typical process is shown below*). Typically, the target brines contain lithium in a concentration that ranges from a few hundred ppm to thousands of ppm.

In the first step of the process, the brine solution is pumped from underground to the surface where it enters a series of solar evaporation ponds and concentration occurs over a number of months. This technique is successful because of very low precipitation levels in the regions where the brines are located. After concentration, solution is pumped through multiple stages to precipitate and filter deleterious elements, such as boron and magnesium. Typically, the solution is treated with sodium carbonate (soda ash) to precipitate lithium carbonate (similar to hard rock processing). This can also be processed into other products such as lithium hydroxide. The products are then filtered and dried and transported for delivery.





Source: Company Reports

CAPEX for brines production appear to be similar to that of hard rock

The estimated total CAPEX for Lithium Americas' production facility in Argentina (lithium carbonate from brine) is US\$675 million, including US\$425 million for Stage 1 and US\$250 million for Stage 2, with total production of 50,000 tpa of LCE (US\$13,500 /t of capacity). Stage 1 should achieve 25,000 tpa of LCE, but CAPEX is front loaded because most of the infrastructure and equipment would be built with a design that incorporates the full 50,000 tpa of LCE. As a comparison, Nemaska's hard rock processing facility is forecasted to cost C\$550 million (US\$407 million) for 28,000 tpa of LCE (US\$15,000 /t of capacity).

Brines are usually cheaper to operate than hard rock

Total production costs for brine are typically around US\$2,000-\$4,000/tonne of LCE and are usually more than US\$3,000/tonne for hard rock. The benefit is derived from the fact that lithium is more easily extracted from brine than it is from hard rock. The main cost component for brines are reagents which are used in the refining process to increase the concentration of lithium and reduce the impurity levels. For hard rock, a significant portion of the cost is from the refining of lithium concentrate (more than 50%). With that, LAC's targeted production cost, though higher than some of the existing brine producers, is lower than the cost of production from hard rock.



Source: Company reports with NBF Analysis



New processing technologies could reduce time to production and variability

With rising demand for lithium, we believe that the industry will undergo a revolution not just in the scale of supply and demand, but also in the technology that brings lithium to market. With relatively low production historically, the industry has had limited economies of scale and relatively immature processing technology. About half of the world's lithium is produced from brines in South America (using solar evaporation ponds, at the mercy of Mother Nature) and the other half from hard rock in Australia, which is shipped to China for extraction using processes that are heavy on reagents.

Now, with growing demand, higher prices and an influx of new capital into the industry, we believe that the lithium supply chain could see some significant changes in the coming years. New brine processing technologies from a range of developers could emerge in the next five years. Processes being developed by POSCO, ERAMET, Enirgi Group Corp. and others, target extraction of lithium using filtration and hydro-metallurgical processes that can go from brine to bag in less than two days (versus a year or more with traditional processes). This processing technology could prove to have lower operating costs and a lower operating footprint as well, with an opportunity to return spent brine back to the salars. However, these systems are likely to be more capital intensive.

What makes a good brine deposit?

Factors that impact the cost of extracting lithium from brine include the grade of lithium and other byproducts (like potash), the level of impurities or contaminants that must be removed from the solution (for example, magnesium) and the rate of natural evaporation at the site required to concentrate the brines.

- High lithium concentration: This is measured in grams per litre, milligrams per litre or ppm. Higher concentrations of lithium make it easier to extract the material from the brine, ultimately leading to lower costs. Typically, higher concentration should also lead to higher purity (unless there are equally high levels of other materials). The highest concentration is found in the Atacama salar, at 1.8 g/l.
- Low ratio of impurities: Salars typically measure K/Li or Mg/Li ratios as indicators of impurity levels. Mg and K are close to Li on the periodic table and can be difficult to separate.
- Low precipitation and high evaporation: With the salars occurring in dry locations, the most favoured process to concentrate the brine is natural evaporation. Areas with higher evaporation rates and lower precipitation will have higher production throughputs and lower residence times.

	FIGURE	25: WHAT MAK	ES A GOOD BR		?	
Salar		Atacama	Maricunga	Olaroz	Hombre Muerto	Cauchari
Country		Chile	Chile	Argentina	Argentina	Argentina
Operator		SQM, ALB, WMI	BRZ, Li3	ORE	FMC, GXY	LAC, SQM, ORE
Lithium	(g/l)	1.840	1.250	0.690	0.740	0.590
Potassium	(g/l)	22.630	8.970	5.730	7.400	4.850
Magnesium	(g/l)	11.740	8.280	1.660	1.020	1.420
Mg/Li	(ratio)	6.400	6.630	2.400	1.400	2.430
K/Li	(ratio)	12.330	7.180	8.300	9.950	8.300
K/Mg	(ratio)	1.930	1.080	3.460	7.260	3.580
Elevation	(m)	2,300	3,800	3,900	4,000	3,940
Precipitation	(mm/yr)	20	125	100	77	223
Evaporation	(mm /yr)	2,341	2,400	2,600	2,710	2,040

Source: Company Reports



LITHIUM AMERICAS: A WELL ADVANCED, LOW RISK PLAY

Lithium Americas entering the market with battery growth on the horizon

Lithium Americas (TSX: LAC) is a Vancouver-based company that intends to produce commercial grade lithium carbonate for a variety of industrial applications, but primarily for the growing battery market. LAC's headquarters are located at Suite 1100 - 355 Burrard Street, Vancouver, British Columbia, V6C 2G8.

The company was incorporated on November 27, 2007 under the name Western Lithium Canada Corporation. On June 30, 2015, Western Lithium and former Lithium Americas entered into a merger agreement to combine the companies in which Western Lithium acquired all issued and outstanding shares of former Lithium Americas in an all-stock deal at a ratio of 0.789. On March 22, 2016, Western Lithium was rebranded as Lithium Americas Corporation. On March 28th, LAC and Sociedad Química y Minera de Chile S.A (SQM) entered into a 50/50 JV in the operating company, Minera Exar, which has a 100% stake in the Cauchari-Olaroz lithium brine project in Argentina. SQM acquired a 50% stake in Minera Exar for \$25 million.

The Cauchari-Olaroz project is located in the Northwest province of Argentina, Jujuy, and is in close proximity to Orocobre's Olaroz project and SQM's Salar de Atacama project. LAC plans to produce 50,000 tpa of LCE in two separate stages with Stage 1 set for construction in 2017E and production in 2019E. Stage 2 should be in the planning stages and should use cash flow from Stage 1 as a potential source of funding. Based on LAC's updated feasibility study (2017) for Stage 1, the project has an after-tax NPV of \$1.113 billion (8% discount rate) and an after-tax IRR of 28.4%.



Source: Company Reports

Partnership with SQM increases confidence in outlook

SQM is one of the world's largest lithium brine producers with its Salar de Atacama asset producing more than 40,000 tpa of LCE in 2016 (global supply was about 190,000 tonnes of LCE in 2016). It has also been in the lithium market for greater than 20 years and can provide years of engineering and operating experience and relationships with vendors to the Cauchari-Olaroz project. Every salar is unique, which can require engineering expertise to optimize production. This need for experience was highlighted by some of the operational issues that Orocobre (producing from a neighbouring salar) has exhibited over the previous three years. Orocobre has a nameplate capacity of 17,500 tpa of LCE, but



bottlenecks in its facilities, severe weather conditions and pond management issues have contributed to reduced production, which led to higher costs (more than \$3,500/tonne compared with a potential \$2,500/tonne) as the company learned to produce lithium salts from its salar.



Source: Industry Data, Company Reports

Cauchari-Olaroz located in the heart of the Lithium Triangle

The Cauchari-Olaroz project is located in the Northwest province of Argentina, Jujuy, near Orocobre's Olaroz project and SQM's Salar de Atacama project. It is situated in the heart of the Lithium Triangle where most of the world's lithium brine production originates. The main incumbents are FMC, SQM and Albemarle who have been operating in the region for many years and have accumulated in-depth experience on production of lithium salts from brine.

This project should be developed in two stages (each at 25,000 tpa of LCE) with development of Stage 1 underway and commercial operations targeted for 2019E. Stage 2 should use the free cash flow from Stage 1 as a source of financing and is in the planning process.

The project is located near existing infrastructure, with high quality roads and rail, which could be used for transportation of lithium carbonate and reagents. LAC plans to transport lithium carbonate by road to the Antofagasta Port, approximately 530 km west of the salar, which could then be shipped to target markets. Approximately 50 km north of the project, LAC has access to natural gas from the Rosario compression station and approximately 60 km south of the project, LAC has access to electricity from a 345 kV transmission line. Both the natural gas pipeline and transmission system would be sufficient for the full 50,000 tpa of LCE.

LAC intends to source labour from local regions. The closest town of Susques with a population of fewer than 2,000 people is located about 60 km from the project. However, we believe LAC may need to look to San Salvador for labour needs, which is about 250 km southeast of the project, given its population of about 250,000 people.





Source: Company Reports

Political change has improved the outlook for harvesting lithium in Argentina

Argentina's President, Mauricio Macri, was elected in November 2015, replacing Cristina Kirchner. Macri moved quickly to introduce reform, including the removal of currency controls, capital controls and tariffs (including a 5-10% tax on mining exports), making the country more business friendly. This brought a number of lithium companies to Argentina to look at investment opportunities, with proposed production capacity of up to 165,000 tpa of LCE by 2020E.

In Argentina, the provinces own the mineral rights, which makes for a patchwork of regulation across the country. Macri's policies are also looking to create federal standards for mining policies, including a maximum 3% royalty to the provinces. Today, the royalty paid by Orocobre, LAC's peer in Jujuy, is around 1% of sales. The government should also improve best practices for environmental management, public consultations and local investment.

Argentina has experienced political instability over a number of decades, and suffered from economic policies (including capital controls, tariffs and high spending) that discouraged investment and increased inflation. While the outlook has improved under Macri, some are concerned that the country could return to its old ways. With that, the outcome of mid-term elections in October could be important. If Macri's Cambiemos coalition loses power to Peronist factions, it could lead to uncertainty for investment in the country.

Resource and reserves highlight a high-grade brine

This Cauchari-Olaroz project had a feasibility study conducted in 2012 with a resource estimate of 11.752 million tonnes of LCE using a cutoff concentration of 354 mg/L. In the updated 2017 feasibility report, the resource estimate remains unchanged. The average grade of the resource is approximately 585 mg/L.



The lithium reserves have been updated from the 2012 feasibility study and now total 1.499 million tonnes of LCE (sum of proven and probable) at an average grade of 698 mg/L. With estimated production of 25,000 tpa of LCE, the reserves exceed the amount required for the 40-year project life. Given the size of the Salar, the average concentration of Li only decreases by a small amount from years 1-5 to 6-40 (712 mg/L to 695 mg/L).

Excluding Salar de Atacama, which is an outlier with a lithium concentration of over 1,500 mg/l, Cauchari-Olaroz has a comparable lithium grade to the best salars in Argentina, like the Hombre Muerto, Rincon and Sal de Vida. The Cauchari and Olaroz salars also benefit from relatively low levels of impurities, with a Mg:Li ratio of below 3 that should support an efficient solar evaporation process (higher levels of magnesium can create a film on top of the pond which inhibits solar evaporation). Despite a K:Li ratio of over 8, LAC does not plan on commercially producing and selling potash because of low market prices. However, this could be a possibility in the future if prices recover.

	FIGURE 29: RESOURCE	SUMMARY				
	LITHIUM RESOURCE	SUMMARY				
Duradation	Average Mass C Lithium (cut-of		Average Mass C Lithium (cut-off		1mulated ¹ 354 mg/L)	Brine
Description	Concentration (mg/L)	Li (tonne)	Li ₂ CO ₃ (tonne)	(m ³)		
2012 Measured Resource	630	576,000	3,039,000	9.1 x 10 ⁸		
2012 Indicated Resource	570	1,650,000	8,713,000	2.9 x 10 ⁹		
Total	585	2,226,000	11,752,000	3.8 x 10 ⁸		

Source: Company Reports

FI	GURE 30: RESERVES \$	SUMMARY		
L	ITHIUM RESERVE S	UMMARY		
	Average	Mass Cu	imulated	Duine
Description	Lithium Concentration (mg/L)	Li (tonne)	Li2CO3 (tonne)	Volume (m ³)
Proven Reserves (Years 1-5) ¹	712	35,159	187,000	4.9 x 10 ⁷
Probable Reserves (Years 6-40) ¹	695	246,474	1,312,000	3.5 x 10 ⁸
Total (Years 1-40)	698	281,633	1,499,000	4.0 x 10 ⁸

Source: Company Reports

	FIGURE 31: IN	MPURITY RATIO	bs
	Proven	Probable	Combined
K/Li	8.01	8.04	8.16
Mg/Li	2.35	2.36	2.39
B/Li	1.57	1.59	1.62
SO4/Li	27.84	28.07	28.45

Source: Company Reports



Plain vanilla brine processing, reduces risk to ramp-up

Solar evaporation and concentration process planned

LAC has elected to follow a conventional processing flow sheet, with solar evaporation ponds and a processing plant to precipitate out impurities. This is the same processing technique that SQM uses at its Salar de Atacama project, which is proven and should ease concerns about any technology risk.

To start, there should be about 26 producing wells, equipped with submersible electric pumps, to draw down brine at a rate of approximately 334 L/s to the evaporation ponds. Up to 12 additional wells could be drilled over the 40-year life of the project to maintain a production rate of 25,000 tpa of LCE. The ponds are arranged sequentially and brine flows from lower concentration to higher concentration with the assistance of pumps and a pipeline system. They were designed with an evaporation rate of 2.52 mm/day (about 920 mm/yr) with a total pond surface area of 11.4 km² and an additional 0.6 km² for salt harvesting and maintenance. As the brine concentrates, the saturation point for salt is achieved, precipitates out of solution and settles to the bottom of the pond. This salt is recovered on a year-round basis with bulldozers, front-end loaders and dump trucks. Before the solution is processed in the plant, slaked lime has been added at two points in the pond system to reduce magnesium, sulfate and boron impurity levels. Special provisions should be arranged to remove the precipitation muds.

Processing plant uses typical reagents

In lithium salt production from brines, the main impurities to be removed are boron, magnesium, calcium, sulfate and potassium.

- Boron is removed using a solvent extraction, primarily with the use of sodium hydroxide (NaOH).
- Magnesium is then removed with the addition of lime (CaOH) and soda ash (Na₂CO₃) which should form magnesium hydroxide and calcium carbonate (both are insoluble).
- Excess calcium should be precipitated out with additional soda ash.
- Excess sulfate should be precipitated out by introducing barium chloride to form gypsum (calcium sulfate dihydrate).
- Potassium should be reduced by evaporative crystallization and filtration.

Lithium carbonate is retrieved by precipitating it out of solution, after removal of impurities, by controlling the temperature and adding soda ash to the mixture. The lithium carbonate should then be micronized and packaged for customers. The residual solution should be neutralized by hydrochloric acid (HCL) and fed through a recycle circuit.





Source: Company Reports

Capital and operating costs should put LAC at the low end of the cost curve

LAC's capital and operating cost estimates were based on quotes from third-party vendors and verified with SQM, which has experience building and operating facilities in the area. We believe these estimates should be representative of actual costs, especially with the high level of due diligence.

Capital cost of \$425 million is split with SQM

Stage 1 of the Cauchari-Olaroz project is expected to have a total capital cost of \$425 million (LAC's 50% share is about \$212.5 million). The majority of capital costs are from the construction of the evaporation ponds and the processing facility. The on-site infrastructure costs include estimates for the camp, building, maintenance and tools. The off-site infrastructure costs include the natural gas pipeline and the transmission system for power. The indirect costs include engineering & procurement, construction management and other third-party services. The total \$425 million does not include the valued-added tax (VAT) which could be more than \$50 million (10.5% on local supplied equipment, bulk materials, construction labour and subcontracts and 21% on project indirect costs) and working capital which should be about \$12.5 million.

Operating cost should be helped by SQM's experience and scale

Lithium Americas recently released results from its Stage 1 detailed feasibility study with total operating costs of \$2,495/tonne of LCE. More than 50% of the operating costs are from reagents and pond harvesting & tailing management. There are a variety of reagents used during solar evaporation, processing and cleaning including burnt lime (CaO), hydrated lime (Ca(OH)₂), soda ash (Na₂CO₃), barium chloride (BaCl₂), hydrochloric acid (HCl), sodium hydroxide (NaOH) and sulfuric acid (H₂SO₄). These should be transported by truck and stored in varying concentrations on site. Pond harvest & tailing management involves removing and disposing of the salt precipitate from the solar evaporation process. With SQM's scale in operations in the Atacama, we believe that the project could benefit from operating experience and lower feedstock costs.



We believe the estimated operating cost is comparable to incumbents that produce brine from the Lithium Triangle (such as Albemarle, SQM and FMC), but it should be at the low end of the cost curve when factoring in hard rock producers in Australia and China. We believe this is an important advantage for LAC because it provides a large cushion to withstand volatility in the pricing of lithium carbonate.

Despite the recent spike in pricing of lithium salts, we believe the long-term average for lithium carbonate should fall back to normalcy (we model over US\$7,000/tonne for Li₂CO₃ and over US\$8,000/tonne for LiOH, rising with inflation) to cover operating costs and an appropriate return on capital to incentivize new production. Even at these prices, LAC should be able to generate margins of over \$4,500/tonne of LCE. With the completion of Stage 2 (currently modeling production in 2023E), we would expect the total operating cost to be less than 2,495/tonne of LCE as some of the costs are fixed, such as G&A and labour.

	Ī
Direct Cost	US\$ M
Brine Wells and Piping	14.8
Evaporation Ponds	129.1
Lithium Carbonate Plant and Aux.	121.5
On-Site Infrastructure	26.3
Off-site Services	41.3
Fotal Direct Cost	333.0
Indirect Cost	
Fotal Indirect Cost	37
Total Direct And Indire	ct Cost
Fotal Direct And Indirect	370
Contingencies (15%)	55

Source: Company Reports

Description	Total 000 US\$/Year	US\$/Tonne Li2CO3	
Direct Co	osts		
Reagents	24,775	991	
Maintenance	5,250	210	
Electric Power	4,675	187	
Pond Harvesting & Tailing Management	8,625	345	
Water Treatment System	950	38	
Natural Gas	2,125	85	
Manpower	4,150	166	
Catering, Security & Third Party Services	2,425	97	
Consumables	1,275	51	
Diesel	1,725	69	
Bus-in/Bus-out Transportation	875	35	
Product Transportation	3,375	135	
Direct Costs Subtotal		2,409	
Indirect C	osts		
G&A	1,895	76	
E&C	250	10	
Indirect Costs Subtotal		86	



LAC has entered into several agreements, required to produce brine

Source: Company Reports

Los Boros Agreement: On March 28th, Minera Exar (the JV company) entered into an option agreement with Grupo Minero Los Boros for a transfer of title for certain mineral properties in the project area. Minera Exar paid US\$100,000 (LAC's portion was \$50,000) upon signing the agreement and has the option to exercise any time within 30 months for an additional US\$12 million (LAC's portion would be US\$6 million) to be paid over 60 quarterly installments and a US\$300,000 (LAC's portion would be US\$150,000) payment within 10 days of construction. Upon exercise, there would also be a 3% net profit interest for



40 years, but could be cancelled with two separate payments of US\$7 million each (LAC's portion would be US\$3.5 million each).

Jujuy Energia y Mineria Sociedad del Estado (JEMSE) Agreement: The JV has granted JEMSE, a mining investment company owned by the Argentinian government, the right to acquire an 8.5% equity interest in the project for US\$1 and the provision of management services. JEMSE can exercise its right upon completion of project financing and would cover its proportion of capital costs by repaying a loan to SQM and LAC through one-third of its dividends to be received over the life of the project. If JEMSE acquires its 8.5% equity interest, LAC's interest in the project would be reduced to 45.75%.

Borax Agreement: Minera Exar acquired usufruct rights to Borax Argentina S.A.'s properties in the project area on May 11, 2011 which should allow LAC to produce and exploit lithium brine. As a result, Minera Exar should be required to pay an annual royalty of US\$200,000 in May each year.

Project economics look attractive with lower price assumptions

Based on the medium scenario with a lithium carbonate price of \$12,000/tonne of LCE, Stage 1 of the Cauchari-Olaroz project could have an annual EBITDA of \$233 million (LAC's 50% share would be \$116.5 million), an after-tax NPV of \$1.113 billion (LAC's 50% share would be \$556.5 million) at an 8% discount rate and an ATAX IRR of 28.4%. The company has also run scenarios with higher pricing at \$14,000/tonne of LCE and lower pricing at \$10,000/tonne of LCE (*shown below*). The economics include a provincial government royalty of 1% which is consistent with Orocobre's current payments, but the royalty could be up to 3% of the value of the mineral at the wellhead. We are currently modeling a 1% royalty, based on precedent in the area. It also includes a 2.5% of sales incentive refund for the region, a US\$67,000/yr mining license fee and a 35% corporate tax rate.

FIGURE 36: PROJECT ECONOMICS SUMMARY									
DROW CT EVALUATION DESITING SUBDARDY									
High Medium Low									
Price Case	\$14,000	\$12,000	\$10,000						
CAPEX	425	425	425						
Max Negative Cash Flow	265	265	265						
Average Year	rly Values	(US\$ M)	•						
Revenue	350	300	250						
OPEX	62.3	62.3	62.3						
Other Expenses	8.2	7.2	6.2						
EBITDA	282	233	184						
Before 7	axes (US\$	M)							
NPV (6%)	3,064	2,450	1,837						
NPV (8%)	2,190	1,728	1,266						
NPV (10%)	1,626	1,266	907						
DCF (8%) Payback ¹	2Y, 11M	3Y, 4M	3Y, 11M						
IRR	39.50%	34%	28.10%						
Aft	er-Taxes								
NPV (6%)	2,015	1,609	1,204						
NPV (8%)	1,420	1,113	807						
NPV (10%)	1,042	803	564						
DCF (10%) Payback ¹	3Y	3Y, 5M	4Y						
IRR	33%	28.4%	23.5%						

Source: Company Reports





Stage 1 fully financed with support of strategic investors

The total cost of Stage 1 should be approximately \$425 million and LAC has secured a financing package for its 50% share. LAC entered into strategic investment agreements with both Ganfeng Lithium and Bangchak Petroleum which should provide up to \$286 million in financing (should require about \$212.5 million for its share of development costs).

On January 17, 2017, LAC entered into a strategic investment agreement with Ganfeng Lithium for a private placement of 75 million common shares at a price of C0.85/sh for gross proceeds of C64 million (49 million). Pro-forma, Ganfeng should own about 17.5% of LAC. Ganfeng has also agreed to a 125 million project debt facility which has a term of six years with an interest rate of 8.0% for the first three years, 8.5% for the fourth year, 9.0% for the fifth year and 9.5% for the sixth year. The project debt facility should be secured by 70% of LAC's interest in the lithium brine project. During the construction and commissioning phase of the project, LAC is not required to repay principal on the debt facility. Concurrently, LAC has agreed to an offtake agreement with Ganfeng for up to 80% of its share of lithium carbonate production from the Cauchari-Olaroz project at market pricing. This investment agreement closed on June 7th.

On January 19, 2017, LAC entered into a strategic investment agreement with Bangchak Petroleum for a private placement of 50 million common shares at a price of C\$0.85/sh for gross proceeds of C\$42.5 million (\$32 million). Pro-forma, Bangchak should own about 16.4% of LAC. Bangchak also agreed to supply an \$80 million project debt facility which has a term of six years with an interest rate of 8.0% for the first three years, 8.5% for the fourth year, 9.0% for the fifth year and 9.5% for the sixth year. The project debt facility should be secured by 30% of LAC's interest in the lithium brine project. During the construction and commissioning phase of the project, LAC is not required to repay principal on the debt facility. Concurrently, LAC has agreed on an offtake agreement with Ganfeng for up to 20% of its share of lithium carbonate production from the Cauchari-Olaroz project at market pricing. This investment agreement closed on July 17th.

Ganfeng should have the following rights, assuming it holds no less than 15% of the common shares of LAC:

- Right to add a nominee to the Board of Directors
- Anti-dilution rights of 17.5%

Bangchak should have the following rights, assuming it holds no less than 15% of the common shares of LAC:

- Right to add a nominee to the Board of Directors
- Anti-dilution rights of 16.4%

	FIGURE 37: SUMMARY OF FINANCING								
	Ganfeng Lithium	Bangchak Petroleum	Combined						
Equity Investment	\$49 million	\$32 million	\$81 million						
Shares Issued (at C\$0.85/share)	75 million	50 million	125 million						
Project Debt Facility	\$125 million	\$80 million	\$205 million						
Offtake - Stage 1	80% ¹	15%	95%						

Source: Company Reports



Project schedule puts LAC in front of most new suppliers

With the strategic investment agreements, LAC has the capital in place to fund its portion of development costs with commercial production expected in 2019E. We are currently modeling production to begin in Q3 2019E at about 25% of capacity and slowly ramping up. We believe the project may take some time to ramp up to full capacity, but should be running at full utilization by Q1 2021E, which is consistent with the production schedule from the 2017 updated feasibility study.



Source: Company Reports

Putting it all together - How does LAC stack up?

Although demand for lithium should climb rapidly, the world does not have a shortage of lithium. In fact, we believe that there are ample hard rock and brine resources to handle the most optimistic demand growth scenarios. With more than a dozen junior developers in Canada and Australia that are targeting hard rock and brine developments, we have developed a framework to measure success beyond modelled profitability. This framework could evolve in time, with increasing demand, changing prices, political changes and evolution in extraction technology. In any case, at this time, based on our assessment of the following factors, we rate LAC a B+ (a good score in a competitive landscape).

- Access to resource: Is the resource large and economical (high concentration of lithium, relatively low levels of impurities). Is the resource consolidated or is it fragmented among multiple players?
- **Time to market:** The further the company is along in its development process, the more likely it is to be successful.
- Access to capital: With a high level of competition to access equity for development and uncertainty of future market conditions, demonstrated access to capital is critical.
- Site Access: Is the location easily accessible by road and rail? Does the site have access to gas and electricity?
- **Strong management and track record of execution**: Will the team be able to move the development of the assets forward, to reduce the time to market?
- **Mining-friendly jurisdiction**: Most of the jurisdictions targeted by lithium developers appear to be mining friendly, although some have a stronger track record in the long run.
- **Permitting issues:** If the site is not permitted yet, we need to determine the level of risk to gaining permits in the future.
- **Ease of processing:** Does the company have access to processing capability? If solar evaporation ponds are used, is the net evaporation of the site competitive?



Company Name	Lithium Americas	Grade
Near term projects:	Cauchari-Olarox (Argentina)	B+
Resource quality:	Resource is large and economical (1.5 mln tonnes LCE at 698 mg/L Li). Cauchari-Olarox is one of the few brine projects, using a conventional solar evaporation process, with permits in place and funded to production.	В
Time to market:	In March 2016, LAC entered a strategic 50/50 JV with SQM to develop and operate the Cauchari- Olaroz project. Hence it can leverage SQMs technical and operating expertise. Commissioning and first production expected in 2019.	A
Access to capital:	The March 2017 updated feasibility study is modelled on an initial stage of 25,000 tpa of lithium carbonate.	A
Site accessibility:	Cauchari-Olarox is located on an international highway with access to power, water and a large local labour force. Close proximity to current producers (ORE, FMC, SQM, ALB). How ever, the site it relativley remote and subject to some weather risk.	В
Management team:	Management has a long track record in Argentina and developed Cauchari-Olarox from exploration stage. Also could leverage SQMs operating expertise.	A
Jurisdiction risk:	Argentina is a favorable mining jurisdiction w hich hosts some of the w orld's largest lithium resources. How ever w e will be w atching closely for changes in the political landscape. In any case, w e do not think that future governments w ould do much, outside of increasing taxes.	С
Permitting issues:	Cauchari-Olaroz is permitted for construction and operations. Also received letter of support from Jujuy government in March 2017 (reaffirming the EIS from 2012). LAC still needs final approval for its updated production plans	В
Processing plan:	Stage 1 construction targeted for H1 2017 with start of production in 2019. With its SQM partnership, we believe that LAC's assets will be brought to production. How ever, the site is not as attractive as the Atacama for lithium production.	В

Source: NBF Analysis

Lithium Nevada project still in the exploration phase

The clay-based lithium project was acquired in 2011 and is currently in the exploration phase. The property is owned 100% by LAC and comprises an area of 15,233 hectares within the Humboldt County in Nevada. LAC completed a pilot plant program at its demonstration plant in 2016 and has been developing a deeper understanding of processing and engineering required to produce lithium from the Lithium Nevada asset. The company continues to work on a new flowsheet with a target of reaching commercial operations in the 2021E-2022E time frame. With limited visibility on reserves, process and timing of this project, we have not included it in our valuation.





RheoMinerals, a legacy asset for LAC

This business began in 2011 under the name "Hectatone" with the initial objective of selling chemicals to the oil and gas industry for fracking purposes. However, with the decline of activity in this market beginning in 2014, LAC diversified its product mix to serve four markets: environmental, animal feed, industrial coatings and alternative drilling fluid additives for the oilfield market.

RheoMinerals Inc. currently has a manufacturing facility (Fernley, Nevada) and established distribution channels to sell its products. It reported sales of US\$1.2 million in 2016.

Risks to LAC

To supplement the risks to LAC that are identified in its disclosures, we highlight a number of risks for the company and the lithium market:

Superior technology - there are alternatives to the lithium ion battery which are being explored, including flow batteries, sodium ion batteries and magnesium ion batteries. One of these could eventually become a superior option to lithium ion, potentially reducing the demand for lithium.

Demand is less than forecast - EVs and other electronics could have lower growth or delayed growth which decreases demand for lithium.

Oversupply in the market - supply could come on sooner or additional players could enter the market which could place downward pressure on pricing.

Regulatory barriers - Argentina has a history of placing tariffs on exports and imposing capital controls. LAC received an Environmental Impact permit in 2012 which is still valid for construction of infrastructure and production of 20,000 tpa of LCE. The company has submitted an updated Environmental Impact Report for exploitation which is currently in evaluation by the authority and would apply to the new production plan.

FX volatility - most of the costs are in U.S. dollars, but some costs are in Argentinian pesos. Variability in FX rates could impact earnings.

Variability of conditions, with relatively low evaporation rates - net evaporation (difference between evaporation and precipitation) can be variable and has a dramatic impact on the rate at which the brines concentrate. This is also out of LAC's control.



Leverage position - LAC has a net debt-to-capital ratio of 68% in 2019E (NBF estimate), which may burden the company if the company is somehow unable to run the operation at full capacity.

SQM acquiring board approval for committed funds – SQM has not fully committed funds to the Cauchari-Olaroz project because it requires board approval. In the event this is delayed or approval is not granted, the project may be delayed.

Valuation - C\$1.40 /sh Target and Outperform Rating

Our target is derived using a combination of a DCF on Free Cash Flow (FCF) and a price/NAV multiple. Our model assumes contribution from both Stage 1 and Stage 2 for a total of 50,000 tpa of LCE by the end of 2024E.

Assumptions for Stage 1:

- LAC's proportion of CAPEX is \$212.5 million
- Construction begins in Q2 2017E and reaches commercial operations in Q3 2019E
- Production ramps up at 25% in 2019E, 60% in 2020E and 100% in 2021E
- Debt facilities are refinanced upon commercial operations
- Equity requirements have been raised
- JEMSE exercises its right to acquire 8.5% equity interest

Assumptions for Stage 2:

- LAC's proportion of CAPEX is \$125 million
- Construction begins in Q1 2022E and reaches commercial operations in Q3 2023E
- Production ramps up at 75% in 2023E and 100% in 2024E
- Debt facilities are refinanced upon commercial operations
- Equity can be financed without dilution
- JEMSE exercises its right to acquire 8.5% equity interest

We believe the long-term average prices could be over US\$8,000 /tonne for lithium hydroxide and over US\$7,000/tonne for lithium carbonate. However, we believe the short-term pricing should stay strong with a lack of supply in the near term. We are currently forecasting about US\$18,000 /tonne for the remainder of 2017E for lithium carbonate and about US\$15,000 /tonne for 2018E. We are also forecasting about US\$20,000 /tonne for the remainder of 2017E for lithium hydroxide and about US\$17,500 /tonne for 2018E.

DCF valuation and sensitivity

Our DCF analysis was derived from free cash flow, net of maintenance capex and debt amortization, discounted at 10% (average of Stage 1 and 2). We believe an 8% equity discount rate would be reasonable for Stage 1 since it is fully financed and LAC has a high quality partner (SQM), but we believe a 12% equity discount rate would be reasonable for Stage 2 because of reduced certainty. We model the cash flows over the life of the project (40 years) and assume the terminal value is zero. With our forecasted price deck, we derive a target price of C\$1.40 /sh at a CAD/USD of 1.30. The figure below presents a sensitivity of our DCF-based target to lithium carbonate prices and discount rates.



FIG	FIGURE 41: SENSITIVITY OF TARGET PRICE TO DISCOUNT RATE AND MARKET PRICES											
	Lithium Carbonate Price (US\$/MT)											
		6,000	7,000	8,000	10,000	12,000	14,000					
	5%	2.37	3.25	4.07	5.79	7.53	9.27					
	6%	1.94	2.69	3.38	4.84	6.31	7.79					
, ste	7%	1.60	2.25	2.84	4.09	5.36	6.63					
Ŧ	8%	1.34	1.91	2.41	3.50	4.60	5.70					
100	9%	1.13	1.63	2.07	3.02	3.98	4.95					
Dis	10%	0.96	1.40	1.79	2.63	3.48	4.33					
	11%	0.83	1.22	1.56	2.31	3.07	3.83					
	12%	0.72	1.07	1.38	2.04	2.73	3.41					

Source: NBF Analysis

Price to NAV

Based on the updated feasibility study and our own analysis, we derive a project NAV of \$502.6 million for LAC's 45.75% share of Stage 1 and Stage 2 production (assumed that JEMSE would acquire its 8.5% equity interest in the project). Adjusting the project NAV with corporate costs and a multiple of 0.9x (average of the base metal comparables), we arrive at an implied target of C\$1.34/sh using a CAD/USD of 1.30.

FIGURE 42: VALUATION ON NAV												
	US	\$/share										
Phase 1 NAV (8%)	\$	213	mln	\$	0.49							
Phase 2 NAV (8%)	\$	359	mln	\$	0.82							
Corporate adjustments	-\$	69.4	min	\$	(0.16)							
Implied NAV	\$	502.6	mln	\$	1.14							
Multiple on NAV		0.90	х									
Implied Enterprise Value	\$	452.3	mln	\$	1.03							
Debt commitments			mIn	\$	-							
Implied Market Capitalization	\$	452.3	mln	\$	1.03							
Shares (FD)		439.2	mln									
USD/CAD		1.30										
Implied Value per Share	\$	1.34	/sh									

Source: NBF Analysis

FIGURE 43: BASE METAL COMPS									
Company Name	Price (\$/sh)	Price/NAV [1]							
Producers:									
Capstone Mining	\$1.12	0.75 x							
First Quantum Minerals	\$13.27	0.83 x							
Hudbay Minerals	\$8.76	0.95 x							
Lundin Mining	\$8.07	1.00 x							
Teck Resources	\$24.31	0.76 x							
Taseko Mines	\$1.67	1.34 x							
Developer:									
Arizona Mining	\$3.15	0.64 x							
[1] NBF Research Estimates									

Source: NBF Analysis



Combined, we arrive at a 12-month target price of C\$1.40 /sh, Outperform

Taking an average of the two valuation methods, we derive a 12-month target of C\$1.40 /sh for LAC. We are currently using a 10% equity discount rate on our DCF and an 8% weighted average cost of capital on NAV, but we believe these could move lower as the project begins construction and milestones are achieved. We are moving ahead with a Speculative risk rating given the project is entering the construction stage and has yet to start commercial operations. We are initiating with an Outperform rating with a return to target of 52%. With strong partners, access to capital, a strong resource and relatively near-term visibility on production, we believe that the return potential for LAC is attractive.

FIGURE 44:	DERIVING A TA	RGET OF C\$ [^]	.40 /	SH
METHOD	MULTIPLE	DISCOUNT	TA	RGET
DCF	N/A	10.0%	\$	1.40
NAV	0.90x	8.0%	\$	1.34
		Average	\$	1.37

Source: NBF Analysis



APPENDIX 1: MANAGEMENT AND BOARD OF DIRECTORS

Name	Position	Background
George Ireland	Non-Executive Chairman and Director	Mr. Ireland has over thirty-five years of experience in the mining and metals industry in positions ranging from field geologis to banking and venture capital. Mr. Ireland founded Geologic Resource Partners in 2004 and serves as Chief Investment Officer and CEO. From 2000 to 2004, he was General Partner of Ring Partners, LP, a predecessor investment partnership GRP. From 1993 to 2000, Mr. Ireland was an analyst for and a partner in Knott Partners. LP where he specialized in resource investing. Prior to 1993, Mr. Ireland held a variety of positions at Cleveland-Cliffs Inc. The Chase Manhattan Bank, ASARCO Inc. and VenturesTrident LP. Mr. Ireland graduated from the University of Michigan with a BS from the School of Natural Resources and is a Fellow in the Society of Economic Geologists. Mr. Ireland also serves on the boards of Árico Resource Ltd, Amerigo Resources Ltd, Rathdowney Resources Ltd., Taseko Mines Ltd. and Merrill & Ring Inc, a private timber companying to LIS.
Wang Xiaoshen	Director	Wr. Wang is currently Vice Chairman and Executive Vice President of Ganfeng Lithium. Mr. Wang has a strong understandii of the lithium industry and market through his experience in sales and marketing of lithium products in China and around t world. Mr. Wang graduated from the North China University of Technology in Beijing in 1990 and holds executive MBA from the China Europe International Business School in 2002.
Jonathan Evans	Director	Mr. Evans serves at the Chief Operating Officer of Diversitech Corporation; a portfolic company of the private equity firm Permira. He has more than 20 years of operations and executive management experience across businesses of various sizes and industries. Before joining DiversiTech he was the EVP of Global Operations and Supply Chain and later the inter President/CEO at Arysta LifeScience, a \$2B+ global agrochemical manufacturer formerly owned by the private equity firm Permira. Prior to that he served as the vice president and general manager for the Lithium Division at FMC Corporation, a leading global lithium supplier. Evans spent more than a decade with General Electric in the earlier part of his career in various global supply chain and executive management roles in their Advanced Materials and Plastics businesses. After earning a bachelor's of science degree in mechanical engineering from Clarkson University, Evans served in the United States Army as an Armor/Cavalry officer. He subsequently earned a master's of science in business management from Reensselaer Polytechnic Institute.
John Macken	Director	John Macken acted as President of Ivanhoe Mines Ltd. (now Turquoise Hill Resources) between January 2004 and April 2012, as Chief Executive Officer between March 2006 and October 2010 and as a Director from December 2003 to Februa 2011 while Ivanhoe Mines was focused on the development of the multi-billion dollar copper/gold Oyu Tolgor inine in Mongolia. Prior to Ivanhoe Mines, John was Senior Vice President of Strategic Planning at Freeport McMoran, where he wa involved with the development and operations of the copper/gold Grasberg Mine in Indonesia for over a nineteen year perior lobb holds as negrinegation decree BA Ref from Trivity College. Durblin Iraland
Gary Cohn	Director	Prior to his recent consulting work on corporate development matters, Garyhad a lengthy career with Magna International Inc. which began in 1989. His roles with Magna included overseeing the mergers and acquisitions function, serving as in- house legal counsel and acting as corporate secretary. During his career, he also practiced corporate and securities law with two large national law firms in Canada. He was a member of the Board of Directors of the former Lithium Americas Corp. from 2014 until its merger with the Company. He holds a Bachelor of Mathematics degree from the University of Waterloo, a Master of Business Administration degree from York University, and a Juris Doctor degree from the Osgoode Hall Law School.
Chaiwat Kovavisarach	Director	Mr. Kovavisarach is the President and Chief Executive Officer of Bangchak Corporation Public Company Limited. Prior to th position, Mr. Kovavisarach acted as an advisor to Avantgarde Capital Company Limited. Mr. Kovavisarach has a Master of Business Administration from Thammasat University, Thailand, and a Master of Engineering from Asian Institute of Technology, Thailand and a Bachelor of Engineering (Honors) from King Mongjut's Institute of Technolog.
W. Thomas Hodgson	CEO and Director	Tom Hodgson was Executive Chairman and a member of the Board of Directors of Lithium Americas Corp. from pre-IPO to the merger with Western Lithium. Before being actively involved with Lithium Americas, Mr. Hodgson had a career in bankin finance, and money management, and has served as COO or CEO on the Board of Directors of a number of public and private companies in Canada and the United Kingdom, including Central Guaranty Trustco, GlobalNetFinancial.com, Marathon Asset Management, and Magna Entertainment Corp. Tom holds a Bachelor of Arts degree in Economics and La from Carleton University in Ottawa, Canada and a Master of Business Administration in Finance and Accounting from Queen's University in Kingston, Canada.
John Kanellitsas	President, Vice- Chairman and Director	John Kanellitsas served as the CEO of Lithium Americas Corp until its September 2015 merger with Western Lithium US/ Corporation. He has over twenty five years of business experience with positions at prominent investment banks and asse management firms in San Francisco, New York, Boston and Sun Valley, Idaho. John has a Masters of Business Administration from the University of California at Los Angeles and a BS degree in Mechanical Engineering from Michigan State University.
Franco Mignacco	Director and President - Minera Exar S.A.	Franco Mignacco, has been the President of the Company's wholly owned subsidiary Minera Exar S.A., a 50/50 Joint Ventu with SQM (est. March 2016) since September 2015. He was the Vice Chairman of Lithium Americas Corp., from June 25, 2013 to September 2015. Franco holds an MBA from San Andres University, Buenos Aires, Argentina and his honours in mining at Universidad Austral, Buenos Aires, Argentina.
Gabriel Rubacha	Director, President of South American Operations	Gabriel Rubacha was previously the Commercial Director of Techint Engineering and Construction. Prior to this position, I Rubacha served as the Managing Director of the Southern Cone Region (Argentina, Chile and Uruguay), General Manage Techint Chile, Project Director for the Pascua Lama Project, Business and Contract Manager at Veladero Project and Business Development, and Commercial Manager for Techint Engineering and Construction. Mr. Rubacha has an MBA fro the Universidad de Belgrano/Ecole des Ponts et Chaussees, Paris, France, graduated from the Executive Program at the Darden School of Business of the University of Virginia, and has an Aeronautical Engineering degree from the Universidad Tecnologica Nacional, Argentina.
David Deak	Chief Technical Officer & SVP; President of Lithium Nevada Corp.	Dr. David Deak is an engineer who has built his career on emerging technologies and supply chain development in renewable energy, energy storage, and electric vehicles. He joins Lithium Americas Corp. after spearheading special sup chain projects and battery engineering programs at Tesla Motors Inc. Prior to working in the electric vehicles business, he worked for Ambri Inc., a Bill Gates-backed start-up spun out of MIT, where he managed product and process development programs. Dr. Deak has also consulted for multi-national engineering conglomerates, start-ups, government entities and institutional investors, covering projects from technology scouling to materials supply chain analysis. His professional career started in the CTO's office at Siemens Wind Power in Denmark, where he focused on supplier technology development and component warranty cases. Dr. Deak holds a D.Phil. in Materials Science from Oxford University and a B.A.Sc. in Engineering Science from the University of Toronto.
Myron Manternach	EVP, Finance and Corporate Development	Myron Manternach has over 20 years of experience in corporate finance, mergers and acquisitions, and investment management. Mr. Manternach worked as an investment banker for JPMorgan and as an analyst and manager of global alternative investment funds with significant experience in natural resources and emerging market credit and equity. Most recently he was a Managing Director and Senior Portfolio Manager of Ambac Assurance Corp., a subsidiary of Ambac Financial Group (NASDAQ: AMBC). He is Chairman of Weilgreen Platinum Ltd. (TSX: WG) and was previously a director of Lithium Americas Corp. prior to its merger with Western Lithium. Mr. Manternach holds a BS degree in Electrical Engineen with distinction from Iowa State University and an MBA from the Wharton School of the University of Pennsylvania.
Eduard Epshtein	CFO	Chief Financial Officer of the Company since May 2008; Chief Financial Officer, Concordia Resource Corp. (now Kaizen Discovery Inc.), October 2006 to December 2013.
Tracy Hansen	VP and Corporate Secretary	Corporate Secretary of the Company since January 2010 and Vice President of the Company since March 2011; Corporate Secretary of Concordia Resource Corp. (now Kaizen Discovery Inc.), March 2011 to December 2013 and Vice President, February 2012 to December 2013.



APPENDIX 2: FINANCIAL STATEMENTS

BALANCE SHEET												
(Fiscal Quarter End)	Sep-15	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	De c-17	De c-18	Dec-19	Dec-20		
Period Ending	2015A	2016A	Q117A	Q217E	Q317E	Q417E	2017E	2018E	2019E	2020E		
Assets												
CURRENT ASSETS												
Cash and cash equivalents	5.552	8.056	7.365	44.914	85.322	82,106	82,106	13.310	32,506	37.209		
Escrow deposit	-	833	1.667	1.667	1.667	1.667	1.667	1.667	1.667	1.667		
Receivable from Joint Venture		-	-	-	-	-	-	-	-	_		
Receivables	823	979	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830		
Restricted cash	-	-	-	-	-	-	-	-	-	-		
Prepaid expenses and deposits	254		-	-	-	-	-	-	-	-		
Inventories	426	531	481	481	481	481	481	481	12.981	12.981		
Total Current Assets	7,055	10,399	11,343	48,892	89,300	86,084	86,084	17,288	48,984	53,687		
NON-CURRENT ASSETS												
Capital assets	18,713	18,502	18,066	17,815	28,190	49,189	49,189	175,687	222,531	212,450		
Restricted cash	150	150	150	150	150	150	150	150	150	150		
Escrow deposit	-	1,667	833	833	833	833	833	833	833	833		
Receivable from Joint Venture	-	-	-	-	-	-	-	-	-	-		
Prepaid transaction costs	-	-	-	-	-	-	-	-	-	-		
Exploration and evaluation assets	42,623	1,447	1,457	1,457	1,457	1,457	1,457	1,457	1,457	1,457		
Investment in Joint Venture	-	13,136	11,649	11,649	11,649	11,649	11,649	11,649	11,649	11,649		
Other	-	-	5,019	5,019	13,536	22,052	22,052	56,119	5,019	5,019		
Reclamation bond	-	-	-	-	-	-	-	-	-	-		
Total Non-Current Assets	61,486	34,902	37,174	36,923	55,815	85,331	85,331	245,895	241,639	231,558		
TOTAL ASSETS	68,541	45,301	48,517	85,816	145,115	171,414	171,414	263,183	290,623	285,244		
Liabilities												
CURRENT LIABILITIES												
Accounts payable and accrued liabilities	3,285	1,637	1,552	1,552	1,552	1,552	1,552	1,552	1,552	1,552		
Convertible security	2,772	-	-	-	-	-	-	-	-	-		
Current portion of long-term borrow ings	117	125	127	127	127	127	127	127	127	127		
Obligation under finance leases	41	44	44	44	44	44	44	44	44	44		
Total Current Liabilities	6,215	1,806	1,723	1,723	1,723	1,723	1,723	1,723	1,723	1,723		
LONG-TERM LIABILITIES												
Long-term borrowing	988	833	800	766	29.482	58,198	58,198	159,729	197,926	193.303		
Obligation under finance leases	123	69	57	57	57	57	57	57	57	57		
Decommissioning provision	300	170	179	179	179	179	179	179	179	179		
Total Long-Term Liabilities	1,411	1,072	1,036	1,002	29,718	58,434	58,434	159,965	198,162	193,539		
Shareholder's Equity		105			105	105 1-	105.15	100 17	100.100	100 101		
Snare capital	99,318	108,670	117,154	157,154	190,154	190,154	190,154	190,154	190,154	190,154		
Contributed surplus	10,847	11,948	11,501	11,735	11,969	12,203	12,203	13,139	14,075	15,011		
Accumulated other comprehensive loss	- 903	- 2,124	- 1,866	- 1,866	- 1,866	- 1,866	- 1,866	- 1,866	- 1,866	- 1,866		
	- 48,347	- 76,071	- 81,031	- 83,932	- 86,583	- 89,234	- 89,234	- 99,932	- 111,625	- 113,316		
TOTAL SHAREHOLDER'S EQUITY	60,915	42,423	45,758	83,091	113,674	111,257	111,257	101,495	90,738	89,983		
	60 544	45 004	40 54-	05 040	445 445	474 44 4	474 444	262.400	200.000	205 044		
	68,541	45,301	48,517	85,816	145,115	171,414	171,414	263,183	290,623	285,244		
Common shares outstanding (basic - end)	266,485	301,866	315,417	379,167	429,167	429,167	429,167	429,167	429,167	429,167		
Common shares outstanding (diluted - end)	266,485	301.866	325,445	389,195	439,195	439,195	439,195	439,195	439,195	439,195		
Weighted average number of shares outstanding (basic)	133,168	291,801	311,537	347,292	404,167	429,167	388,230	429,167	429,167	429,167		
Weighted average number of shares outstanding (diluted)	133,168	291,801	311,537	357,320	414,195	439,195	398,258	439,195	439,195	439,195		



Name Particle State Market Market Market Caster Caster </th <th colspan="11">INCOME STATEMENT</th>	INCOME STATEMENT										
Avenue Grongo 2010A 2010A 2017A 2017B 2017B 2017B 2018B 2018B 2018B BEXIME EXCLUSION Classes -	(Fiscal Quarter End)	Sep-15	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Dec-17	Dec-18	Dec-19	Dec-20
Barter Lat. Lat. <thlat.< th=""> Lat. Lat. <t< th=""><th>Period Ending</th><th>2015A</th><th>2016A</th><th>Q117A</th><th>Q217E</th><th>Q317E</th><th>Q417E</th><th>2017E</th><th>2018E</th><th>2019E</th><th>2020E</th></t<></thlat.<>	Period Ending	2015A	2016A	Q117A	Q217E	Q317E	Q417E	2017E	2018E	2019E	2020E
The model base (LADs share) - - - - - - - - - 10.55	REVENUE										
instruction	TTL Lithium Carbonate Sales (LAC's share)	-	-	-	-	-	-	-	-	12,919	48,683
Taul Production1.1111.1121.1121.1121.1101.11	Organoclay sales	-	1,154	1,167	1,167	1,167	1,167	4,668	4,668	4,668	4,668
CONTORING 1	Total Revenue	-	1,154	1,167	1,167	1,167	1,167	4,668	4,668	17,587	53,351
TL Production cosis - 1487 1.187 1.187 1.187 4.187 4.888 5.567 118.400 Deprediction A Amerization - 4476 224 221 221 1.070 6.288 11.117 Tead Cost of Sales - - 4476 1.242 1.141 1.448 1.448 1.448 1.448 5.65 6.53 6.53 2.237 2.207 2.202 2.201 2.201 2.201 2.201 2.201 2.201 2.201 2.201 2.201 2.201 2.201 </td <td>COST OF SALES</td> <td></td>	COST OF SALES										
interform - - - -<	TTL Production costs	-	1,497	1,286	1,167	1,167	1,167	4,787	4,668	5,567	18,409
Depresentation - 475 524 251 1.07 5.00 6.201 11.177 Detra Cast of States 2.07 3.44 563 563 5.63 5.63 5.63 2.257 1.187 Detra Cast of States 2.007 3.446 693 563 563 563 2.527 2.252 2.523 2.523	Inventories w rite dow n	-	648	-	-	-	-	-	-	-	-
Total Cert of Sales - 2.621 1.610 1.418 1.418 1.418 1.418 5.463 5.670 113.44 23.464 Deptasion expendiates 2.087 3.446 650 663 663 663 2.252 2.253 2.255<	Depreciation & Amortization	-	476	324	251	251	251	1,076	1,002	6,281	11,177
BEEPSIGN Dipursion yearshamed and administrative Low Low<	Total Cost of Sales	-	2,621	1,610	1,418	1,418	1,418	5,863	5,670	11,849	29,586
Bipber independences 2.007 3.448 683 673 683 <td>EXPENSES</td> <td></td>	EXPENSES										
Ogenomic and enversement 4.44 5.56 117 </td <td>Exploration expenditures</td> <td>2,087</td> <td>3,448</td> <td>563</td> <td>563</td> <td>563</td> <td>563</td> <td>2,252</td> <td>2,252</td> <td>2,252</td> <td>2,252</td>	Exploration expenditures	2,087	3,448	563	563	563	563	2,252	2,252	2,252	2,252
General administrative - 6.648 1,381 1,381 1,381 5,344 5,44 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444 5,444	Organoclay research and development	434	536	117	117	117	117	468	468	468	468
Investming 1/2 - - - <th< td=""><td>General and administrative</td><td>-</td><td>6,448</td><td>1,361</td><td>1,361</td><td>1,361</td><td>1,361</td><td>5,444</td><td>5,444</td><td>5,444</td><td>5,444</td></th<>	General and administrative	-	6,448	1,361	1,361	1,361	1,361	5,444	5,444	5,444	5,444
mm and Citica and Administration 0.00 (33) 1 <th1< th=""> 1</th1<>	Investor relations	172	-	-	-	-	-	-	-	-	-
Three statutes and the set of th	Office and administration	538	-	-	-	-	-	-	-	-	
Inspattory and thing fees International fees	Professional fees	333		-		-	_	-			
Sateries and benefits 1,460 - <td>Regulatory and filing fees</td> <td>64</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td>	Regulatory and filing fees	64	_	_	_	_	_	_	_	_	_
Sheer of tas is, bert Venture i 3.897 1.746 i i 1.746 i i i i Depreciation & Amortization 567 3.193 234 224 234 2 232 1217 100	Salaries and benefits	1,460	-	-	-	-	-	-	-	-	
Depresention & Anortization i<	Share of loss in Joint Venture	-	3,987	1,746	-	-	-	1,746	-	-	-
Stock Associ Compensation 567 3,183 224 124 124 124 124 14 14 14 14 14 145 14 14 145	Depreciation & Amortization	-	-	-	-	-	-	-	-	-	-
Transaction costs <t< td=""><td>Stock-based compensation</td><td>567</td><td>3,193</td><td>234</td><td>234</td><td>234</td><td>234</td><td>936</td><td>936</td><td>936</td><td>936</td></t<>	Stock-based compensation	567	3,193	234	234	234	234	936	936	936	936
Other - <td>Transaction costs</td> <td>-</td>	Transaction costs	-	-	-	-	-	-	-	-	-	-
Province Royally (1% of sales) - <th< td=""><td>Other</td><td>-</td><td>-</td><td>369</td><td>-</td><td>-</td><td>-</td><td>369</td><td>-</td><td>-</td><td>-</td></th<>	Other	-	-	369	-	-	-	369	-	-	-
Export Refund (25% of sales) <	Provincial Royalty (1% of sales)	-	-	-	-	-	-	-	-	129	487
Ming Lense - - - - - - - - - 33 67 Los Boro Ryments - - - 250 100 <td>Export Refund (2.5% of sales)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>- 323</td> <td>- 1,217</td>	Export Refund (2.5% of sales)	-	-	-	-	-	-	-	-	- 323	- 1,217
Los Bors Payments - - 280 100 100 400 400 300 300 Aboriginal Programs - - 100 - 100 - 100 10	Mining License	-	-	-	-	-	-	-	-	34	67
Loral Argeman Hoyany Hammer I<	Los Boros Payments	-	-	-	250	100	100	450	400	400	3,900
ADD guils I	A bariated Bragram	-	-	-	100	-	-	100	100	100	100
Total Expenses 6,603 17,612 4,390 2,389 2,389 11,806 9,655 9,494 12,615 LOSS BEFORE OTHER ITEMS - - 6,603 19,079 - 4,833 - - - 13,001 10,687 - 3,756 111,151 OTHER ITEMS - - - - - 138 - <td></td> <td>- 305</td> <td>-</td> <td>-</td> <td>- 14</td> <td>14</td> <td>14</td> <td>41</td> <td>- 55</td> <td>55</td> <td>170</td>		- 305	-	-	- 14	14	14	41	- 55	55	170
LOSS BEFORE OTHER ITEMS - 6,603 • 19,079 • 4,833 • 2,889 • 2,639 • 13,001 • 10,657 • 3,756 11,151 OTHER ITEMS - <td>Total Expenses</td> <td>6,603</td> <td>17,612</td> <td>4,390</td> <td>2,639</td> <td>2,389</td> <td>2,389</td> <td>11,806</td> <td>9,655</td> <td>9,494</td> <td>12,615</td>	Total Expenses	6,603	17,612	4,390	2,639	2,389	2,389	11,806	9,655	9,494	12,615
OTHEN ITEMS - - - - - - 138 - - - 138 -	LOSS BEFORE OTHER ITEMS	- 6,603	- 19,079	- 4,833	- 2,889	- 2,639	- 2,639	- 13,001	- 10,657	- 3,756	11,151
Original Convertible Security accretion - 284 351 - 138 - - - - - 138 - - - - - 138 - - - - 138 - - - - 138 - - - - - 138 - - - - 138 - - - - 138 - - 138 - - 138 - - 138 - <t< td=""><td>OTHERITEMS</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	OTHERITEMS										
Convertible sourchy accretion 746 806 -	Foreign exchange gain	- 284	351	- 138	-	-	-	- 138	-	-	-
Loss on sale of 50% interest in Minera Exar - 9,015 - <	Convertible security accretion	- 748	- 806	-	-	-	-	-	-	-	-
Financing expenses - - - 12 - 12 - 11 - 35 - 42 7,937 12,842 Gain on royalty sale -	Loss on sale of 50% interest in Minera Exar	_	- 9,015	-	-	-	-	-	-	-	-
Gain on royalty sale -	Financing expenses	-	-	-	- 12	- 12	- 11	- 35	- 42	- 7,937	- 12,842
Other income 51 825 11 - - 11 - - - - - 11 - - - - 11 -	Gain on royalty sale	-	-	-	-	-	-	-	-	-	-
Interest income 29 -	Other income	51	825	11	-	-	-	11	-	-	-
10tal Other Herrins - 552 - 6,643 - 12 12<	Interest income	29	-	-	-	-	-	-	-	-	-
LOSS BEFORE INCOME TAXES - 7,555 - 27,724 - 4,960 - 2,901 - 2,651 - 2,650 - 13,163 - 10,698 - 11,693 - 1,691 Current Taxes -		- 952	- 0,045	- 12/	- 12	- 12	- 11	- 102	- 42	- 1,931	- 12,042
Current Taxes	LOSS BEFORE INCOME TAXES	- 7,555	- 27,724	- 4,960	- 2,901	- 2,651	- 2,650	- 13,163	- 10,698	- 11,693	- 1,691
Deferred Taxes .	Current Taxes	-	-	-	-	-	-	_	-	-	-
Total Tax .	Deferred Taxes	-	-	-	-	-	-	-	-	-	-
NET LOSS/GAIN FOR THE PERIOD -	Total Tax	-	-	-	-	-	-	-	-	-	-
OTHER COM PREHENSIVE LOSS - <td>NET LOSS/GAIN FOR THE PERIOD</td> <td>- 7,555</td> <td>- 27,724</td> <td>- 4,960</td> <td>- 2,901</td> <td>- 2,651</td> <td>- 2,650</td> <td>- 13,163</td> <td>- 10,698</td> <td>- 11,693</td> <td>- 1,691</td>	NET LOSS/GAIN FOR THE PERIOD	- 7,555	- 27,724	- 4,960	- 2,901	- 2,651	- 2,650	- 13,163	- 10,698	- 11,693	- 1,691
Unrex Compresentation to reporting currency - 566 - 16,319 258 - - - - 258 -											
One alized loss on translation of peptiding currency - 500 - 10,319 258 - - - 258 - <t< td=""><td></td><td>500</td><td>10.040</td><td>050</td><td></td><td></td><td></td><td>050</td><td></td><td></td><td></td></t<>		500	10.040	050				050			
TOTAL COMPREHENSIVE LOSS FOR THE PERIOD - 0.06 - 0.01 - 0.01 - 0.01 - 0.03 - 0.00 - - 0.01 - 0.01 - 0.01 - 0.01 - 0.01 - 0.03 - 0.00 - 0.01 - 0.01 - 0.01 - 0.01 - 0.02 - 0.01 - 0.01 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.02 - 0.01 - 0.03 - 0	On early on translation to reporting currency	- 566	- 10,319	258	-	-	-	258	-	-	-
LOSS PER SHARE - BASIC - 0.06 - 0.10 - 0.01 - 0.01 - 0.01 - 0.02 - 0.01 - 0.01 - 0.02 - 0.01 - 0.01 - 0.02 - 0.01 - 0.01 - 0.02 - 0.01 - 0.02 - 0.03 - 0.02 - 0.01 - 0.01 - 0.01 - 0.02 - 0.03 - 0.02 - 0.01 LOSS PER SHARE - DILUTED - 0.06 - 0.10 - 0.01 - 0.01 - 0.02 - 0.03 - 0.02 - 0.03 - 0.03 - 0.02 - 0.03 - 0.02 - 0.03 - 0.02 - 0.03 - 0.03 - 0.03 - 0.03 - 0.03 - 0.03 - 0.03	TOTAL COMPREHENSIVE LOSS FOR THE PERIOD	- 8,121	- 28,945	- 4,702	- 2,901	- 2,651	- 2,650	- 12,905	- 10,698	- 11,693	- 1,691
LOSS PER SHARE - DILUTED - 0.06 - 0.10 - 0.02 - 0.01 - 0.01 - 0.01 - 0.03 - 0.02 - 0.03 - 0.00	LOSS PER SHARE - BASIC	- 0.06	- 0.10	- 0.02	- 0.01	- 0.01	- 0.01	- 0.03	- 0.02	- 0.03	- 0.00
	LOSS PER SHARE - DILUTED	- 0.06	- 0.10	- 0.02	- 0.01	- 0.01	- 0.01	- 0.03	- 0.02	- 0.03	- 0.00



CASH FLOW STATEMENT											
(Figure Auguston Engl)	Son 15	Da.a. 16	Mor 17	lup 47	San 17	Da a 17	Da.a. 17	Dag 18	Da.a. 10	Do o 20	
	2015A	20164	0117A	0217E	0317E	0417E	20175	20185	20105	20205	
	2013A	2010A	QUITA	QZ I / L	QUITE	Q417L	2017	2010	2013	2020	
Net loss for the period	- 7.555	- 27 724	- 4.960	- 2 901	- 2.651	- 2.650	- 13 163	- 10.698	- 11 693	- 1 691	
tems not affecting cash:	- 1,000	21,124	4,000	2,001	2,001	2,000	10,100	10,000	11,000	1,001	
Gain on royalty sale					_						
Stock based compensation	567	3 103	- 234	- 234	- 234	- 234	036	036	036	036	
Depreciation	151	804	360	251	251	251	1 112	1 002	6 281	11 177	
Ecreian Exchange gain	284	351	139	201	201	201	138	1,002	0,201	11,177	
Chara of loss of lost Venture	204	- 301	1 740	-	-	-	130	-	-	-	
Share of loss of Joint Venture	-	3,987	1,746	-	-	-	1,746	-	-	-	
Convertible security accretion	748	806	-	-	-	-	-	-	-	-	
Loss on sale of 50% interest in Mera Exar	-	8,374	72	-	-	-	72	-	-	-	
Inventories w rite dow n	-	648	-	-	-	-	-	-	-	-	
Other income	- 51	- 627	430	-	-	-	430	-	-	-	
	-	-	-	-	-	-	-	-	-	-	
Changes in non-cash working capital items:	-	-	-	-	-	-	-	-	-	-	
(Increase)/Decrease in receivables	- 98	40	- 883	-	-	-	- 883	-	-	-	
(Increase)/Decrease in prepaid expenses and deposits	116	-	-	-	-	-	-	-	-	-	
(Increase)/Decrease in inventories	- 382	88	191	-	-	-	191	-	- 12,500	-	
Increase/(Decrease) in accounts payable and accrued liabilities	- 493	- 640	- 165	-	-	-	- 165	-	-	-	
Net cash used in operating activities	- 6,713	- 11,312	- 2,837	- 2,417	- 2,166	- 2,166	- 9,586	- 8,760	- 16,976	10,422	
INVESTING ACTIVITIES											
Additions to exploration and evaluation assets	- 502	- 991	- 50	-	-	-	- 50	-	-	-	
Cash disposed on sale of 50% interest in Minera Exar	-	-	-	-	-	-	-	-	-	-	
Cash received from Joint Venture	-	14,661	-	-	-	-	-	-	-	-	
Escrow deposit	-	- 2,500	-	-	-	-	-	-	-	-	
Cash acquired from plan of arrangement	66	-	-	-	-	-	-	-	-	-	
Reclamation bond	-	-	-	-	-	-	-	-	-	-	
Deferred merger expenses	-	-	-	-	-	-	-	-	-	-	
Restricted cash	-	-	-	-	-	-	-	-	-	-	
Additions to capital assets	- 3,858	- 640	- 243	-	- 10,625	- 21,250	- 32,118	- 127,500	- 53,125	-	
Sustaining CAPEX	-	-	-	-	-	-	-	-	-	- 1,096	
Other	-	-	- 5,000	-	- 8,517	- 8,517	- 22,033	- 34,067	51,100	-	
Net cash used in investing activities	- 4,294	10,530	- 5,293	-	- 19,142	- 29,767	- 54,201	- 161,567	- 2,025	- 1,096	
FINANCING ACTIVITIES											
Net proceed from royalty sale	-	-	-	-	-	-	-	-	-	-	
Net proceeds from subscription receipts	1,404	-	-	-	-	-	-	-	-	-	
Net proceeds from financing	5,827	3,482	7,233	40,000	33,000	-	80,233	-	-	-	
Line of credit execution fee	-	-	-	-	-	-	-	-	-	-	
Proceeds from stock option exercise	202	806	356	-	-	-	356	-	-	-	
Proceeds from w arrants exercise	86	1,149	195	-	_	_	195	_	_	_	
Net proceeds from convertible security	2.613	- 1.653	_	-	-	-	-	-	-	-	
Finance lease repayments	- 36	- 52	- 11	-	-		- 11	-	-	-	
Proceeds from long-term borrow ing	-	-		-	28,750	28,750	57.500	101.667	38,333	-	
Repayment of long-term borrowing	- 111	- 147	- 31	- 34	- 34	- 34	- 133	- 136	- 136	- 4.623	
Net cash used in financing activities	9 985	3 585	7 742	39 966	61 716	28 716	138 140	101 531	38 197	- 4 623	
not onen abeu in minneng uenniteb	3,305	3,305	1,142	53,300	51,710	20,710	100,140	101,001	55,157	4,023	
Effect of Foreign Exchange on Cash	- 586	- 200	- 303	_			- 303				
	508	235	303	-	-		503			-	
Change in Cash and Cash Equivalente	1 609	2 50.4	- 604	37 540	40.409	- 3.017	74.050	68 706	10 107	4 702	
Cash and Cash Equivalente - Reginning of Period	7 160	2,504	- 031	7 365	40,400	- 3,217	8 056	82 106	13 340	-+,703	
Cash and Cash Equivalents - Beglinning Of Period	7,100	3,552	0,000	1,305	95 200	03,322	0,050	42 240	33,510	32,508	
Cash and Cash Equivalents - End of Period	5,552	0,006	1,305	44,914	05,322	02,106	02,106	13,310	32,506	37,209	



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