Rock Tech Lithium Inc.

Canada / Mining
Primary exchange: Toronto/ Secondary exchange: Frankfurt
Bloomberg: RCK CN
ISIN: CA77273P1027

Initiating Coverage

RATING	**BUY**
PRICE TARGET	**CAD 1.50**
Return Potential	54.6%
Risk Rating	High

HARVESTING THE WHITE GOLD

Lithium demand growth is accelerating due to the metal's increasing usage in batteries for electric vehicles, electric bicycles and electricity storage. We expect demand for lithium carbonate to rise from 205k tonnes in 2016E to 586k tonnes by 2026E - i.e. at a CAGR of 11.1%. Rock Tech Lithium's (RCK) current NI 43-101 compliant resource estimate shows 9.5m tonnes of resource (3.19 million tonnes grading 1.10% Li_2O indicated and 6.31 million tonnes grading 1.00% Li_2O inferred) - equivalent to 98,000 tonnes of Li_2O in situ. Adjusting for existing dilutive securities, we calculate that the market currently values each tonne of Li_2O at RCK's Georgia Lake lithium project at CAD283. Newsflow from a full 2017 development program should ensure that this figure is at least stable. We expect RCK to publish an updated NI 43-101 compliant resource estimate of 15.8m tonnes (163,000 tonnes of Li_2O in situ) over the next twelve months. The increase will stem from bringing historically documented resource into compliance with current NI 43-101 standards but also through adding new resource from claim blocks which have so far been underexplored. On this basis, we set a twelve month price target of CAD1.50. Our recommendation is Buy.

Past operator's positive production decision A decision to proceed with production at Georgia Lake was taken in the 1950's but cancelled when hydrogen substituted lithium's then main application as a rocket fuel additive. The decision taken in the 1950s strengthens our confidence in the property's viability.

RCK has achieved target spodumene concentrate grade RCK has demonstrated production of a high grade spodumene concentrate (a lithium-containing mineral) of 6.2% lithium oxide (Li_2O) from both high and low grade ore. 6.0% is regarded as the grade necessary for economic viability.

Production start scheduled for 2021 Management has outlined a timeline for bringing Georgia Lake into production by 2021. This includes completion of a preliminary economic estimate and release of an expanded NI 43-101 compliant resource estimate by end 2017/early 2018.

FINANCIAL HISTORY & PROJECTIONS

	2012	2013	2014	2015	2016	2017E
Revenue (CADm)	0.00	0.00	0.00	0.00	0.00	0.00
Y-o-y growth	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
EBIT (CADm)	-1.44	-0.53	-0.73	-0.47	-1.19	-0.88
EBIT margin	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net income (CADm)	-5.21	-5.22	-1.43	-0.12	-1.15	-0.88
EPS (diluted) (CAD)	-0.56	-0.53	-0.15	-0.01	-0.06	-0.03
DPS (CAD)	0.00	0.00	0.00	0.00	0.00	0.00
FCF (CADm)	-2.85	-0.70	0.06	0.29	-1.03	-2.85
Net gearing	-1.4%	36.6%	29.0%	0.5%	-62.4%	-5.8%
Liquid assets (CADm)	0.10	0.01	0.27	0.14	3.09	0.24

RISKS

If the ongoing penetration of the automotive market by electric vehicles slows or comes to a halt, the lithium price is likely to fall.

COMPANY PROFILE

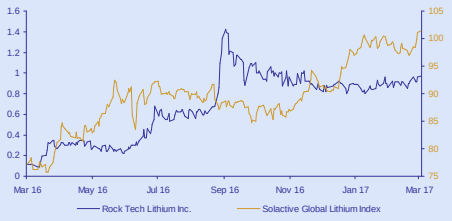
Rock Tech Lithium Inc. is a Canadian-based mineral exploration company focused on the Georgia Lake lithium property in Ontario. Georgia Lake's NI 43-101 resource estimate shows an indicated resource of 3.19 million tonnes grading 1.10% Li2O and an inferred resource of 6.31 million tonnes grading 1.00% Li2O. Production is scheduled to start in 2021.

MARKET DATA

As of 3/20/2017	
Closing Price	CAD 0.97
Shares outstanding	27.05m
Market Capitalisation	CAD 26.24m
52-week Range	CAD 0.09 / 1.45
Avg. Volume (12 Months)	50,161

Multiples	2015	2016	2017E
P/E	n.a.	n.a.	n.a.
EV/Sales	n.a.	n.a.	n.a.
EV/EBIT	n.a.	n.a.	n.a.
Div. Yield	0.0%	0.0%	0.0%

STOCK OVERVIEW



COMPANY DATA

As of 31 Dec 2016	
Liquid Assets	CAD 3.09m
Current Assets	CAD 3.24m
Intangible Assets	CAD 0.00m
Total Assets	CAD 5.25m
Current Liabilities	CAD 0.31m
Shareholders' Equity	CAD 4.94m

SHAREHOLDERS

BTI International	11.3%
Dirk Harbecke	7.8%
Martin Stephan	6.3%
Apeiron Investment Group	7.2%
Other cornerstone investors	37.4%
Free float and other	30.0%

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INVESTMENT CASE

Stock market and car industry expect electric vehicles to become mainstream… Increasing demand for lithium-ion batteries for electric vehicles (EV)'s has sparked sharp increases in lithium commodity prices since early 2016 as well as a strong rally in the shares of lithium mining companies. Since its low in February 2016, the Solactive Global Lithium Index, which tracks the performance of the largest and most liquid listed companies active in exploration and/or mining of lithium or the production of lithium batteries, has risen over 50%. The shares of most junior lithium miners i.e. lithium exploration companies, have strongly outperformed this. At USD43bn, Tesla's current market capitalisation is in the same order of magnitude as established major automotive companies such as BMW (USD59bn), Ford (USD49bn) and GM (USD53bn). Meanwhile, recent months have seen a flurry of announcements of new EV capacity from car companies. This suggests that both the stock market and the car industry now firmly expect EVs to gain a significant share of the car market over the next decade.

…thus driving accelerating lithium demand growth Lithium demand has grown at a brisk pace over the past two decades. During the period 1995-2015 annual demand grew at a CAGR of 6.9% from 9,000 tonnes to 35,000 tonnes driven primarily by usage of lithium ion batteries in digital cameras, mobile phones and laptops. The lithium content in digital cameras and smart phones is ca. 1-3g and in laptops 30-40g. But in fully electric vehicles such as the Tesla Roadster, it is 40kg. If, as is now widely expected, EVs become part of the automotive mainstream, demand for lithium will accelerate strongly.

Falling battery costs, environmental laws, purchase quotas helping EV adoption Accelerating demand for lithium ion batteries is being driven primarily by falling unit costs. Over the past five years, costs have fallen from USD900/kWh to around USD200/kWh. EVs are leading this development. Demand for EVs is further helped by subsidies and vehicle purchase quotas (particularly in China) as well as increasingly strict regulation of diesel and internal combustion engines. We expect the lithium-ion battery industry will realise further economies of scale through the addition of new large scale manufacturing capacity in both the US (Tesla/Panasonic) and China (LG, Panasonic, Samsung and local producers), thereby pushing costs down to USD150/kWh by the end of this decade.

We expect lithium carbonate demand to grow at 11.1% CAGR during 2016-2016 Rapidly increasing lithium demand is a tremendous opportunity for RCK. We expect annual demand for the most widely supplied lithium commodity - lithium carbonate - to grow from an estimated 205,000 tonnes in 2016 to 586,000 tonnes by 2026 - i.e at a CAGR of 11.1% - with EVs accounting for 49% of the incremental demand. Falling costs are also opening up electric bicycles and energy storage to lithium ion batteries. We expect these applications to account for 21% and 10% respectively of the incremental demand we forecast by 2026.

If financing can be arranged in the near term, production could start as early as 2019 The upturn in the lithium price allowed RCK to raise gross proceeds of CAD3.89m from two capital raises in H2 2016 - the company's first equity raises since 2014. RCK is using this money to fund a full development program at Georgia Lake this year. Completion of a drilling program to increase the existing NI 43-101 compliant resource estimate, further metallurgical work, basic engineering, a preliminary economic assessment and an environmental study are all scheduled over the next twelve months. Management has outlined a timeline for bringing Georgia Lake into production by 2021. This timeline entails the standard steps including metallurgical work, environmental studies, a bankable feasibility study and financing. However, if RCK is able organise financing in the near term, it may be able to skip some of these steps and start production as early as 2019.

Adjusted for existing dilutive securities, we calculate that the market currently values each tonne of Li_2O resource at Georgia Lake at CAD283. In our view, continued lithium commodity price strength and news flow generated by the development program scheduled for the next twelve months should ensure that valuation per tonne remains at least at this figure.

We set a twelve months price target of CAD1.50. Our recommendation is Buy. The Nama Creek claim block received the bulk of historic exploration spending at Georgia Lake and accounts for 86% of the current 9.5m tonne resource estimate. Previous operators published a historic resource estimate (non-compliant with current NI 43-101 standards) based on 1950s drilling results showing 8.9m tonnes grading 1.18% Li_2O. 3.7m tonnes of the historic resource estimate remain unverified as compliant with NI 43-101 standards. Meanwhile, based on the overall size and underexplored status of the Georgia Lake property (93km^2), management is confident of identifying further lithium-containing pegmatite dykes. This suggests that there is potential not just to advance the non-compliant 3.7m tonne portion of the historic resource estimate to NI 43-101 compliance, but also to add tonnage which did not feature in the historic resource estimate. We expect RCK to publish a 66% increase in the current resource estimate to 15.8m tonnes over the next twelve months. This is the basis of our Buy recommendation and price target of CAD1.50. If RCK is able to obtain the ca. CAD30m in financing necessary to bring the project into production, there could be further upside potential to above CAD3.00 per share.

SWOT ANALYSIS

STRENGTHS

- **Past operator's positive production decision and extensive exploration** Nama Creek Mines (NCM) took the decision to go into production at Georgia Lake in the late 1950's. One of the main applications for lithium at this time was as an additive in rocket fuel. When hydrogen emerged as a substitute for lithium in this application, the lithium price fell sharply and NCM decided not to proceed. In our view, the positive decision taken by NCM in the 1950's is a signal that mining is viable at the property at current lithium prices. Past operators drilled over 33,000 metres on RCK's claim blocks at Georgia Lake in the 1950's. The drilling carried out in the 1950s was the basis for the historic resource estimate of 8.9m tonnes grading 1.18% Li_2O. RCK succeeded in advancing over half of this total to NI 43-101-compliant status as well as adding 4.3m tonnes in the current resource estimate first published in 2012.
- **Lithium carbonate produced is battery quality** Battery manufacturers' specifications for lithium carbonate purity vary but are usually at least 99.5%. In 2011 RCK was able to produce material at a purity of 99.963% on its first attempt without any optimisation of samples. Two bicarbonate steps were completed to remove excessive sodium, calcium and iron. The resulting material met all battery grade product specifications and had a Li_2CO_3 grade of 99.998%.
- **Lower cost heavy liquid separation process should be viable for Georgia Lake** The lithium at RCK's properties is contained in a mineral known as spodumene. Two techniques are commonly used in the extraction of lithium from spodumene - floatation and heavy liquid separation (HLS). Floatation is the more costly of the two processes as it involves much higher electricity consumption than HLS. However, the lithium recovery rate is usually higher with floatation than HLS. Tests carried out by RCK in 2011 showed a recovery rate using HLS sufficiently high to suggest that this method will be viable at Georgia Lake, thereby sparing RCK significant capital and operating expenses.
- **Chairman has strong fundraising track record** RCK Board Chairman Dirk Harbecke was the co-founder and CEO of ADC African Development Corporation AG (ADC). Mr Harbecke together with co-founder and then ADC Chairman Christian Angermayer orchestrated the raising of USD300m in equity and USD350m in debt for the ADC holding company and its subsidiaries. Christian Angermayer is a 7.2% shareholder in RCK via his Apeiron Investment Group. Mr Harbecke has also raised USD35m in equity for resources projects of which USD10m so far for RCK. The investment required to bring the Georgia Lake project into production is likely to exceed CAD30m.

WEAKNESSES

- **Hard rock competitors ahead of RCK** Among aspiring hard rock lithium miners, Australian (Altura and Pilbara Minerals) and Canadian (Critical Elements, Nemaska) companies are well ahead of RCK in the race to start lithium production. RCK has still to produce a preliminary economic assessment (scheduled for later this year). Altura, Nemaska and Pilbara Minerals have all published definitive feasibility studies while Critical Elements has completed a preliminary economic assessment. Subject to the successful completion of feasibility studies and financing, RCK expects to be able to bring Georgia Lake into production in 2021. As we have recently seen with Galaxy Resources' Mount Cattlin project (delay of nine months) and to a lesser extent with Neometals' Mount Marion mine (delay of three months), lithium mines often come into production behind schedule. However, the peers mentioned above look set to reach production well before

RCK. Altura and Pilbara Minerals both expect to begin production later this year. Nemaska has scheduled the start of production for Q1 2018 (subject to financing). Critical Elements has not set a date, but both it and Nemaska have already secured off-take agreements.

- **RCK's position on the cost curve is uncertain** RCK has yet to complete a preliminary economic assessment and so its position on the lithium production cost curve relative to lithium miners from both hard rock and lithium brine is uncertain.

OPPORTUNITIES

- **New applications drive accelerating lithium demand growth** Rapidly increasing lithium demand is a tremendous opportunity for RCK. We expect annual lithium carbonate demand to grow from an estimated 205,000 tonnes in 2016 to 586,000 tonnes by 2026 i.e. at a CAGR of 11.1% with the EV, electric bicycle and electric storage markets respectively accounting for 49%, 21% and 10% of the 401,000 tonnes of incremental demand.
- **Production may start before 2021 if financing can be found in the near term** Management has outlined a timeline for bringing Georgia Lake into production by 2021. This timeline entails the standard steps including metallurgical work, environmental studies, a bankable feasibility study and financing. However if RCK is able organise financing in the near term, it may be able to skip some of these steps and start production as early as 2019.
- **Potential for substantial increase in resource estimate** The Nama Creek claim was the target of two thirds of the c. 12,000 metres RCK drilled at the Georgia Lake property in 2010 and 2011. Nearly all the rest of the drilling in 2010/11 took place at the Conway claim. The consequence of this is that the current resource estimate tonnage of 9.5m tonnes splits 86:14 between Nama Creek and Conway. 3.7m tonnes of the historic 8.9m tonne resource estimate contributed by the other RCK claims – Jean Lake, Aumacho, Newkirk-Vegan, McVittie, MNW and also parts of Conway – have still to be verified as NI 43 101-compliant. Based on the overall size of the Georgia Lake property (93km^2), much of which is underexplored, management is confident of identifying further lithium-containing pegmatite dykes. This suggests that there is potential not just to advance the non-compliant 3.7m tonne portion of the historic resource estimate to NI 43-101 compliance, but also to add tonnage which did not feature in the historic resource estimate.

THREATS

- **EVs fail to establish themselves** There is a risk that if EVs fail to achieve significant market share, lithium prices will fall and production at Georgia Lake will not be viable.
- **RCK is dependent on raising capital through the markets** Management estimates the total cost of the outstanding items on its roadmap to production at CAD33-34m, of which the largest item at CAD30m is a spodumene concentrate plant. There is no assurance that RCK will be able to raise this money.
- **Emergence of substitutes for lithium** Given its status as the metal with the highest electrochemical potential it is hard to imagine future electric automotive power trains dispensing with lithium. However the emergence of substitutes cannot be ruled out.

VALUATION

We expect 66% increase in RCK's resource estimate over next twelve months RCK is scheduled to publish a preliminary economic estimate (PEA) for the Georgia Lake project later this year. In the absence of the guidance on cash flows both before and after the start of production that the preliminary economic estimate will give, we have based our valuation on our expectation that RCK will be able to increase its current resource estimate of 9.5m tonnes (98,000 tonnes of Li_2O in situ) by 66% to 15.8m tonnes (163,000 tonnes of Li_2O in situ) over the next twelve months. We expect nearly 60% of this 6.3m tonne increase to stem from RCK bringing the historically documented but non-NI 43-101 compliant resource of 3.7m tonnes into compliance with NI 43-101. Based on the overall size of the Georgia Lake property (93km^2), much of which is underexplored, we also expect RCK to identify further lithium-containing pegmatite dykes which are not in the historic resource.

Figure 2 shows current resource estimates for RCK and its peer group while figure 3 shows the enterprise valuation accorded by the market to each tonne of Li_2O resource. The peer group consists of aspiring hard rock lithium miners in Australia and Canada scheduled to start production between 2017 and 2021. We have also included Sayona Mining (Sayona) which published a preliminary feasibility study (PFS) in February 2017 but has not yet set a date for the start of production.

Figure 1: RCK and peers' project status

	Project location	Latest study	Date	Next study	Expected date of next study	Expected production start	Offtake agreement	Offtake partner	Lastest cash position
Altura Mining	Australia	DFS	Sep 2016	-	-	Q1 2018	Yes	J&R Optimum	AUD11.5m
Critical Elements	Canada	PEA	Dec 2011	DFS	H1 2017	2019	Yes	Helm - take or pay offtake	CAD6.1m
Kidman Resources	Australia	-	-	PFS	Q2/Q3 2017	Dec 2017	-	-	AUD8.8m
Nemaska Lithium	Canada	DFS	June 2016	-	-	2018	Yes	Johnson Matthey; FMC	CAD56.1m
Pilbara Minerals	Australia	DFS	Sep 2016			Q1 2018	Yes	General Lithium; Shandong Ruifu	AUD80.4m
Sayona Mining	Canada	PFS	Feb 2017	DFS	2017	-	-	-	AUD1.0m
Rock Tech Lithium	Canada	-	-	PEA	H2 2017	2021	-	-	CAD3.1m

Source: Rock Tech Lithium; peers

Figure 1 above provides information on how close each of the peers is to production and whether an offtake partner, which usually goes hand in hand with financing, has been secured.

Figure 2: RCK and peers' resource estimates

	Measured tonnes (m)	Measured grade (%)	Measured tonnes Li_2O in situ (m)	Indicated tonnes (m)	Indicated grade (%)	Indicated tonnes Li_2O in situ (m)	Inferred tonnes (m)	Inferred grade (%)	Inferred tonnes Li_2O in situ (m)	Total tonnes (m)	Average grade (%)	Total tonnes Li_2O in situ (m)
Altura Mining	-	-	-	40.30	1.00%	0.40	2.30	0.90%	0.02	42.60	0.99%	0.42
Critical Elements	-	-	-	26.50	0.98%	0.26	10.70	0.86%	0.09	37.20	0.95%	0.35
Kidman Resources	-	-	-	78.50	1.44%	1.13	49.50	1.43%	0.71	128.00	1.44%	1.84
Nemaska Lithium	13.00	1.60%	0.21	14.99	1.54%	0.23	4.69	1.51%	0.07	32.68	1.56%	0.51
Pilbara Minerals	17.60	1.39%	0.24	77.70	1.31%	1.02	61.10	1.13%	0.69	156.40	1.25%	1.95
Sayona Mining	4.72	1.03%	0.05	7.13	1.10%	0.08	1.90	1.05%	0.02	13.75	1.07%	0.15
Rock Tech Lithium	-	-	.	3.19	1.10%	0.04	6.31	1.00%	0.06	9.50	1.03%	0.10

Source: Rock Tech Lithium; peers

In figure 3, we have adjusted the market and hence the enterprise valuation of each company to reflect the number of dilutive securities and their issue price. This raises the EV/tonne figure for companies (such as RCK) which have a relatively high number of dilutive securities. RCK's dilutive securities are shown in figure 4 overleaf. The EV/tonne figures broadly reflect the market's degree of confidence that a project will go into production. The most highly valued companies in our peer group are those that have already secured offtake partners and more importantly are well financed. All other things being equal, big projects such as Kidman Resources and Pilbara Minerals tend to have lower EV/tonne valuations than smaller projects because of the volume of financing that is required.

Figure 3: Current valuation of RCK and peers

	Share price (CAD)	Mkt. Cap. (CADm)	Dilution factor (x)	Mkt. Cap. CADm (adjusted)	Net debt (CADm)	EV CADm (adjusted)	Total tonnes Li_2O in situ (m)	EV/tonne adjusted (CAD)
Altura	0.170	261.8	1.002	262.4	-50.03	212.35	0.424	501
Critical Elements	0.900	126.3	1.051	132.8	-5.01	127.77	0.352	363
Kidman Resources	0.443	144.7	1.105	159.9	-1.54	158.39	1.838	86
Nemaska	1.300	446.4	1.055	471.0	-59.80	411.22	0.510	807
Pilbara Minerals	0.489	622.0	1.015	631.4	-82.63	548.82	1.953	281
Sayona Mining	0.026	22.6	1.000	22.6	-1.03	21.60	0.147	147
Rock Tech Lithium (current)	0.960	26.2	1.177	30.9	-3.10	27.78	0.098	283
Rock Tech Lithium (price target)	1.459	39.5	1.177	46.4	-0.24	46.20	0.163	283

Source: Rock Tech Lithium; peers

As figure 3 shows, adjusted for future dilution the market currently values each tonne of Li_2O resource at RCK at CAD283. We expect news flow generated by the metallurgical work, basic engineering, PEA and environmental study scheduled for the next twelve months to ensure that valuation per tonne remains at least at this figure. The publication of an updated resource estimate is also scheduled over the next year.

Figure 4: Dilutive securities in RCK

		Exercise price (CAD)	Remaining life
Shares			
Total shares outstanding	**27,047,864**	-	-
Options			
	500,000	0.05	3.23 years
	1,300,000	0.55	1.38 years
Total options	**1,800,000**		
Warrants			
	4,457,312	0.2	0.81 years
	1,970,000	0.5	1.32 years
	1,505,556	1.45	1.79 years
Total warrants	**7,932,868**		
Fully diluted shares	**36,780,732**		

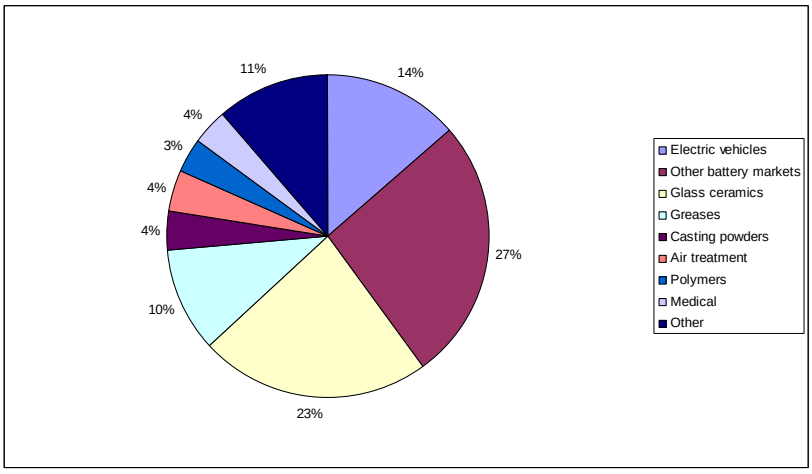
Source: Rock Tech Lithium

We set a 12 month price target of CAD1.50 The current NI 43-101 compliant resource estimate shows 3.19 million tonnes grading 1.10% Li_2O indicated and 6.31 million tonnes grading 1.00% Li_2O inferred. Total current resource in situ is 98,000 tonnes Li_2O. The historic resource estimate, which is non-compliant with current NI 43-101 standards, and was compiled in the 1960's on the basis 1950s drilling results, shows 8.9m tonnes grading 1.18% Li_2O. Most of the tonnage in the historic resource, in particular at the Nama Creek claim block, has since been brought into compliance with NI 43-101. However, 3.67m tonnes of the historic resource estimate on claim blocks beyond the Nama Creek area remain unverified as NI 43-101 compliant. We expect the updated resource estimate due later this year to show 15.8m tonnes of compliant resource (163,000 tonnes of resource in situ) as RCK brings most of the remaining non-compliant historic resource into compliance and adds further tonnage not incorporated in the historic resource estimate. On this basis, and assuming a stable EV/tonne of CAD283, we arrive at a price target for RCK of CAD1.50 per share (see figure 3). However, as we have pointed out above, if RCK is able to obtain the ca. CAD30m in financing necessary to bring the project into production, there should be upside potential to above CAD3.00 per share.

THE LITHIUM MARKET

Li_2CO_3 most widely used form of Li; 2015 demand: 184,000 tonnes Lithium is a soft silvery metal belonging to the group one elements in the periodic table known as the alkali metals. Like the other alkali metals, lithium is highly reactive. For this reason it never occurs free in nature but appears in compounds. The main applications for lithium (see figure 5 below) are also primarily based on various compounds of the metal such as lithium carbonate (Li_2CO_3), lithium hydroxide (LiOH) and lithium oxide (Li_2O). Lithium carbonate is the most widely used of these compounds and the overall size of the lithium market is often expressed in terms of lithium carbonate equivalent (LCE). In 2015 world LCE demand was 184,000 tonnes of which Li_2CO_3 accounted for around 50%, LiOH for 20% and technical grade Li_2O concentrate for 15%. Other compounds such as lithium chloride (LiCl) and butyllithium (C_4H_9Li) made up the balance. Lithium carbonate at a purity of 98.5%-99% is used in industrial products while battery applications require a purity of over 99.5%. Lithium hydroxide is typically used in lithium nickel manganese cobalt oxide (NMC) and lithium nickel cobalt aluminium oxide (NCA) batteries. Technical grade lithium oxide concentrate is supplied at a grade of at least 6.5% Li_2O and is used in the glass and ceramics industries.

Figure 5: Lithium applications 2015



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Demand for EV batteries drives increase in LCE demand growth World annual LCE consumption increased from less than a hundred tonnes in the early twentieth century to 40,000 tonnes by the mid-1990s. The main applications for LCE in the mid-1990s were in the air conditioning, aluminium, battery, ceramics, glass, lubricants, pharmaceuticals, plastics and synthetic rubber industries. Annual consumption jumped to 68,000 tonnes by 2000 spurred by new applications in monochromatic computer monitors, mobile phones and digital cameras. The latter two applications continued to push demand in the early years of the 21st century and consumption reached 150,000 tonnes by 2012. Demand was flat in 2013 and by historical standards grew by only a relatively modest 4% to 156,000 tonnes in 2014. The coming on stream of new capacity during this period caused lithium prices to soften and put the further development of many projects, including Georgia Lake, on hold. However, demand jumped by 28,000 tonnes (+18%) in 2015 to 184,000 tonnes with electric vehicles accounting for 15,000 tonnes or over half of incremental demand. We expect electric vehicles (EVs) as well as two other new applications - electric bicycles and energy storage - to be the main drivers of lithium demand over the next decade.

We see EVs, e-bikes, electricity storage together making up 60% of LCE demand by 2026 We expect annual LCE consumption to grow from an estimated 205,000 tonnes in 2016 to 586,000 tonnes by 2026 i.e. at a CAGR of 11.1% with the EV, electric bicycle and electric storage markets respectively accounting for 49%, 21% and 10% of the 401,000 tonnes of incremental demand. By 2026 we expect these three applications to account for 60% of demand with today's established applications making up the balance of 40%.

Figure 6: Forecast lithium carbonate demand growth

	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	CAGR 16-26E
Electric vehicles	38	49	67	88	112	138	160	178	195	210	222.5	19.3%
% Δ	51.4%	28.9%	36.7%	31.3%	27.3%	23.2%	15.9%	11.3%	9.6%	7.7%	6.0%	
Electric bicycles	6.8	15	27	40	50	60	67	73	78	83	87	29.0%
% Δ	134.5%	120.6%	80.0%	48.1%	25.0%	20.0%	11.7%	9.0%	6.8%	6.4%	4.8%	
Energy storage	0.6	1.2	2	4	9	13	18	24	31	37	40	52.2%
% Δ	50.0%	100.0%	66.7%	100.0%	125.0%	44.4%	38.5%	33.3%	29.2%	19.4%	8.1%	
Batteries (established markets)	45.0	48.0	50.0	52.5	55.0	57.5	60.0	62.5	65.0	67.5	70.0	4.5%
% Δ	-1.3%	6.7%	4.2%	5.0%	4.8%	4.5%	4.3%	4.2%	4.0%	3.8%	3.7%	
Other	114.9	121.8	127	132.5	137	141.4	146.5	150.9	156.9	161.7	166.3	29.3%
% Δ	4.5%	6.0%	4.3%	4.3%	3.4%	3.2%	3.6%	3.0%	4.0%	3.1%	2.8%	
Total	205.3	235	273	317	363	409.9	451.5	488.4	525.9	559.2	585.8	11.1%
% Δ	11.6%	14.5%	16.2%	16.1%	14.5%	12.9%	10.1%	8.2%	7.7%	6.3%	4.8%	

Source: First Berlin Equity Research estimates

Falling costs, subsidies, stricter regulation of conventional cars drive EV battery demand Recent growth in battery demand for EVs has been driven by falling unit costs, subsidies and purchase quotas, as well as increasingly strict regulation of diesel and internal combustion engines. Lithium-ion battery costs have fallen from USD900/kWh to around USD200/kWh over the past five years prompting a sharp rise in demand for batteries. Electric vehicles have led this development. We expect the lithium-ion battery industry will realise further economies of scale through the addition of new large scale manufacturing capacity in both the US (Tesla/Panasonic) and China (LG, Panasonic, Samsung and local producers), thereby pushing costs down to USD150/kWh by the end of this decade.

China is now the world's largest EV market China overtook the USA as the world's largest EV market in 2015. The Chinese authorities are stimulating EV demand through the use of subsidies and vehicle purchase quotas. We expect these measures to remain in place as the country progresses towards the government target of 5m EVs on the road by the end of 2020.

EV's likely to become cheaper than internal combustion engine cars in early 2020s While electric power train costs are falling, internal combustion engine-based power train costs are likely to rise as the costs of compliance with more demanding fuel economy regulations become increasingly onerous. Indeed, it is realistic to expect that costs for EVs and internal combustion engine-powered cars will converge during the first half of the next decade. Once this happens, EVs are likely to supplant internal combustion engine-powered cars in the mainstream.

Car manufacturers' EV plans coming thick and fast Recent months have seen a slew of car manufacturers' announcements of plans for the EV market. VW has stated that it plans to develop 30 electric models by 2025 and is targeting annual EV sales of 2-3 million vehicles by 2025 (ca. 20-25% of sales). BMW and Daimler have announced plans to offer electric variants of their high-volume models while Audi, Mitsubishi, Renault-Nissan and Volvo have set EV sales targets of 10-20% of sales by 2020, or 25% by 2025. Toyota has also stated that it plans to begin mass production of EVs by 2020. In our view these announcements demonstrate that there is a growing conviction within the automotive industry that the trend towards electrification is sustainable.

Falling battery costs also opening up e-bicycle and electric storage markets Falling costs are also opening up applications such as electric bicycles and energy storage to lithium-ion batteries. These applications were previously the preserve of lead acid batteries and pumped hydroenergy storage respectively.

China is the largest market in the world for e-bicycles and e-tricycles with about 30m units sold annually. Lead acid batteries are currently predominant on this market. Lithium-ion batteries currently have a market share of under 25%. However, it is reasonable to expect the penetration of lithium-ion batteries to rise sharply in coming years as their cost falls.

We estimate that the worldwide capacity of energy storage installations reached 200GWh in 2016. Pumped-hydro energy storage accounted for over 90% of the market last year. However, in this market too, falling costs have resulted in a doubling in installation of lithium-ion batteries from 0.8GWh in 2014 to 1.6GWh in 2016. We expect this figure to reach 50GWh by 2025.

Most of the world's lithium sourced from lithium brine and hard rock deposits The two major sources of lithium are brine deposits and hard rock deposits. Lithium was historically sourced predominantly from hard rock but in the early 1980's large scale production began from south American brine deposits.

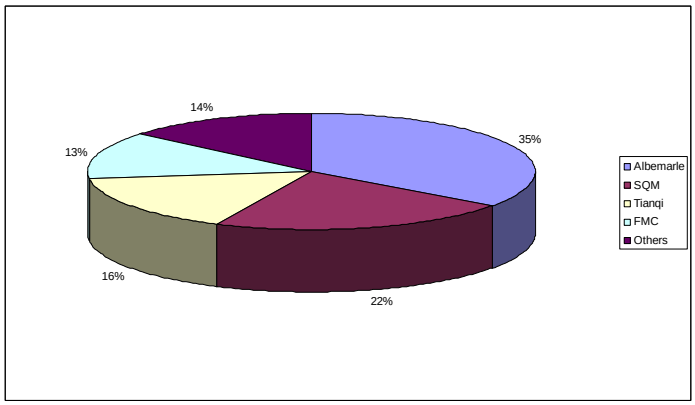
Brine deposits accounted for 67% of 2015 lithium production and 75% of reserves We estimate that brine deposits accounted for around 67% of world lithium production in 2015, with hard rock sources accounting for most of the balance. Lithium brine deposits make up around 75% of world lithium reserves and are located in the salt flats of Chile, Argentina, China and Tibet. The most productive lithium brine deposits in the world are located in the so-called lithium triangle which extends over parts of Chile, Argentina and Bolivia.

Hard rock lithium deposits usually hosted in pegmatite/spodumene Most hard rock lithium deposits are hosted in pegmatite which is a coarse-grained intrusive igneous rock formed from crystallized magma below the earth's crust. Lithium in pegmatite is usually found in the mineral spodumene. Australia, Alaska, Ireland, Finland, Ontario and Quebec all have significant pegmatite/spodumene deposits. The world's largest producing pegmatite/spodumene-based lithium mine is Greenbushes in Australia which in 2015 accounted for one third of world LCE output.

Economics of brine and hard rock deposits In general terms lithium brine operations are more capital intensive than their hard rock counterparts but have lower operating costs and greater economies of scale. Lithium brine deposits' lower operating costs stem from the fact that the lithium is already in solution within the deposit. Pegmatite on the other hand is a very hard ore and crushing and grinding costs are correspondingly high. Another important consideration is that it takes longer to increase capacity at lithium brine operations due to technical issues. Lead times are further extended by the evaporation process which is also weather-dependent.

The lithium market is currently an oligopoly Four producers - Albermarle, SQM, FMC, and Tianqi - accounted for over 80% of global lithium supply in 2014. Albermarle is the market leader and the only major producer with significant exposure to both hard rock and brine deposits. Albermarle has a 49% stake in Greenbushes in Australia (Tianqi controls the other 51%) and along with SQM also mines the Salar de Atacama in Chile. FMC's main operation is extraction from the Salar de Hombre Muerto in Argentina.

Figure 7: 2014 lithium supply by producer



Source: SAI Report 2015, Albemarle

THE GEORGIA LAKE PROPERTY

Georgia Lake is an exploration-stage lithium property. RCK's current NI 43-101 compliant resource estimate was first published in 2012 and shows an indicated resource of 3.19 million tonnes grading 1.10% Li_2O and an inferred resource of 6.31 million tonnes grading 1.00% Li_2O.

Figure 8: Georgia Lake Project Location

Source: Rock Tech Lithium

Total project area ca. 93km^2 Georgia Lake is located in the Thunder Bay Mining District approximately 145 km northeast of Thunder Bay, Ontario and 6 km east of Lake Nipigon. RCK acquired Georgia Lake's constituent properties in three stages in 2009, 2010, and 2011. In late 2009, RCK acquired 100% of the shares in a private company, James Bay Midarctic Developments Inc. (JBMD). JBMD put its properties together with a property owned by RCK's competitor, Lithium One (which later merged with Galaxy Resources). The

total land package covered 47km^2 comprising 23 mining claims covering 36km^2 and 61 mining leases covering 11km^2 over eight claim blocks. In April 2010 RCK announced that the Ontario Ministry of Mines had granted it 41 claims covering an additional 68km^2. In 2011 RCK staked a further 17 claims covering 12km^2 taking the total land package to 127km^2. The acquisition of the new claims meant that RCK was able to consolidate the 8 original claim blocks into 3 larger claim blocks and one stand-alone claim block. Georgia Lake currently stands at 81 leases and 293 claim units covering a total of nearly 93km^2.

Extensive drilling completed by past operators 33,000 metres of drilling on RCK's claim blocks was completed by past operators in the 1950s. In 1965 E.G. Pye published a resource estimate covering seven of RCK's original eight claim blocks in Ontario Department of Mines Geological report No. 31 titled "Geology and Lithium Deposits of Georgia Lake Area". The historic resource estimate is shown as part of figure 9 below.

Figure 9: Historic and NI 43-101 compliant resource estimates for Georgia Lake

Claim Block	Historic Resource (m tonnes)	Historic Grade (%)	Historic Resource to be Verified (m tonnes)	NI43-101 Resource (m tonnes)
Nama Creek	3.894	1.06	0.000	8.190
Conway	1.660	0.96	0.350	1.310
Jean Lake	1.532	1.30	1.532	0.000
Aumacho	0.777	1.65	0.777	0.000
Newkirk-Vegan	0.680	1.38	0.680	0.000
McVittie	0.237	1.03	0.237	0.000
MNW	0.091	4.00	0.091	0.000
Total	**8.871**	**1.18**	**3.667**	**9.500**

Source: Rock Tech Lithium

Positive production decision taken at Nama Creek claim block in 1950's Nama Creek Mines, the operator of the Nama Creek Claim block in the late 1950s, took the decision to go into production. A four compartment mine shaft was sunk to a depth of 155 metres for this purpose. The main application for lithium in the late 1950's was as an additive in rocket fuel. When hydrogen emerged as a substitute for lithium in this application, the lithium price fell sharply and Nama Creek Mines decided not to proceed.

Current resource estimate first published in October 2012 In 2010/11 RCK conducted soil sampling and metallurgical work, completed a drill program initiated by the previous claim holders and also carried out its own 43 hole, 7,682 metre diamond core drilling program in order to produce a maiden NI 43-101 compliant resource estimate for the property. This resource estimate was published in November 2011 and showed an indicated resource of 2.36 million tonnes grading 1.17% Li_2O and an inferred resource of 4.36 million tonnes grading 1.07% Li_2O. RCK's above-mentioned current resource estimate was published in October 2012 based on data from further exploration work including an additional twenty drill holes.

Figure 9 illustrates how the historic resource estimate for the Georgia Lake project split between the 7 claim blocks mentioned in the Pye Report. RCK has succeeded in advancing all the 3.89m tonnes of the historic resource estimate for the Nama Creek claim block as well as an additional 4.30m tonnes to NI 43-101 compliant status taking the compliant total for the claim block to 8.19m tonnes comprising an indicated resource of 2.47m million tonnes grading 1.11% Li_2O and an inferred resource of 5.72 million tonnes grading 1% Li_2O.

At the Conway claim block, RCK succeeded in verifying 1.31m tonnes of the 1.66m tonne historic resource estimate. The 9.50m tonne NI 43-101 resource estimate presented for Georgia Lake is the sum of the resource so far verified as compliant at the Nama Creek and Conway claim blocks.

3.67m tonnes of the historic Georgia Lake resource estimate is still to be verified The unverified portion of the historic Georgia Lake resource estimate amounts to 3.67m tonnes distributed between the Aumacho, Conway, Jean Lake/Parole Lake, McVittie, MNW and Newkirk-Vegan properties. Recent channel sampling has targeted Parole Lake, McVittie, Newkirk-Vegan and Aumacho and visual inspection and channel sample logs indicate the presence of high grade lithium oxide over significant widths.

2012 drop in $LiCO_3$ price prompted deferment of development at Georgia Lake A rally in lithium commodity prices around the turn of the current decade prompted increases in south American lithium brine capacity as well as in Chinese capacity for the conversion of hardrock lithium feedstock. By the end of 2012, the lithium carbonate price had fallen to USD5,000/tonne and RCK's management decided to defer further development of the Georgia Lake lithium project.

Acquisition of Lochaber graphite property in May 2012 In May 2012 RCK enlarged its asset base through the acquisition of a 100% interest in the Lochaber graphite property in north western Quebec. The Lochaber property is prospective for large flake crystalline graphite used in lithium-ion batteries and fuel cells. Large flake graphite is also used in carbon fibre in the automotive and aviation sectors.

Kapiwak and Lacorne claims expired/holding subsidiaries wound down During 2009 and 2010 RCK acquired the Kapiwak and Lacorne early stage lithium exploration projects in Quebec. Kapiwak comprised 499 100% owned claims with a total area of 263km^2 while Lacorne comprised 630 claims over 310km^2.

In view of the low lithium price and its focus on the Georgia Lake lithium and Lochaber graphite properties, in 2012 RCK fully wrote off the Kapiwak and Lacorne properties. RCK continued to consolidate Brandon Exploration and 0853998 BC, the entities which held the Kapiwak and Lacorne mineral claims, until Q3 2016. But the Kapiwak and Lacorne claims have now expired and Brandon Exploration and 0853998 BC have been wound down.

Lochaber sale proceeds plus RCK share issue used to repay BTI International loan RCK completed over 7,000 metres of drilling and seven trenches at the Lochaber graphite property during 2012. The results of this work were promising and in late 2012 management was optimistic that a maiden NI 43-101 compliant resource estimate could be prepared for the property by the end of 2013. However, in 2014 RCK sold the property to Great Lakes Graphite (GLK) for C$300,000 in cash and 15million GLK shares. 3.5m of the 15m shares were issued directly to a creditor of RCK, BTI International, in partial repayment of a C$600,000 loan made to RCK in February 2013. Proceeds from the sale of most of the other BTI shares were used to cover operating costs and maintain RCK as a going concern. The last C$151,105 of the BTI loan was settled in February 2016 through the issue to BTI of 3,022,096 RCK shares at C$0.05. At end September 2016 RCK still owned 75,000 GLK shares with a fair value of CAD6,000.

Planned reverse takeover of Brainworks terminated In November 2013 Rock Tech announced that it had signed a share purchase agreement to implement a reverse takeover of Brainworks Capital Management (Private) Limited (Brainworks). Brainworks is one of Zimbabwe's leading private equity investment and advisory companies with a focus on the financial services, tourism, real estate and energy sectors. The transaction was initiated on the basis of Dirk Harbecke's (then a Director of RCK, currently Chairman of the Board) prior membership of the Brainworks Board.

Ultra Lithium deal also fell through because conditional on Brainworks transaction In the expectation that the Brainworks deal would go through, in November 2014 RCK signed a Letter of Intent to sell its Georgia Lake project to the Canadian listed company Ultra

Lithium Inc. However, in February 2015, RCK announced the termination of the planned reverse takeover because it and Brainworks had determined the probability of receiving near term regulatory approval for the deal to be low and time was of the essence for both parties. The scuppering of the Brainworks deal also effectively ended prospects of a deal with Ultra Lithium as the negotiations had begun on the basis that Georgia Lake would not fit with the Brainworks portfolio.

Significant exploration work resumed in 2016 following a rise in lithium prices As mentioned above, towards the end of 2012 management decided to defer exploration expenditure at Georgia Lake against the backdrop of low lithium commodity prices. During the three year period 2013-2015, RCK spent only C$0.06m on exploration and evaluation work. However, the recovery of the lithium price and the receipt of gross proceeds of C$3.89m from two capital raises completed in July and December 2016 respectively - the company's first equity raises since 2014 - have prompted the resumption of significant exploration work. Exploration work is targeting nine of the known lithium-bearing pegmatite occurrences (MZSW, Harricana, West, Line 60, Newkirk-Vegan, Aumacho, Parole Lake, Conway, McVittie) and includes trenching, channel sampling and also Differential Global Positioning System ("DGPS") surveys of historic drill collars and spodumene-bearing pegmatite outcrops.

In October 2016 RCK published initial results of eight surface samples collected from various outcrops and boulders occurring in the Jean Lake and McVittie areas of the Georgia Lake property. Six samples taken from the Jean Lake area showed grades up to 2.89% Li_2O. One deposit in the Jean Lake area - the Parole Lake deposit - was investigated in 1956 and has a historic resource estimate of 1,532,235 tonnes grading 1.30% Li_2O contained within one pegmatite dyke. The surface samples collected last year are from other occurrences in the Jean Lake area and indicate the potential for the discovery of additional high grade lithium-bearing pegmatite dykes. Two surface samples collected from the McVittie area showed grades of 2.24% Li_2O and 2.00% Li_2O. Investigation of the McVittie lithium deposit in 1955 and 1956 produced an initial historical resource estimate showing 236,775 tonnes with a grade of 1.03% Li_2O.

In November 2016 RCK published assay results of 31 surface samples taken in the Nama Creek area which showed grades of up to 2.82% Li_2O. In January 2017 the company announced the discovery of a previously undocumented lithium-bearing pegmatite dyke 200m south east of the Nama Creek area. Three samples from the dyke showed grades of up to 1.81% Li_2O. As described above, RCK carried out extensive exploration work in the Nama Creek area in 2010/11. Most of this investment aimed was geared towards confirming and upgrading historic resources, bringing them into compliance with NI 43-101. January's discovery demonstrates the possible extension of the known lithium-bearing dykes and the potential presence of additional lithium-bearing pegmatite dykes, and suggests that further exploration is warranted.

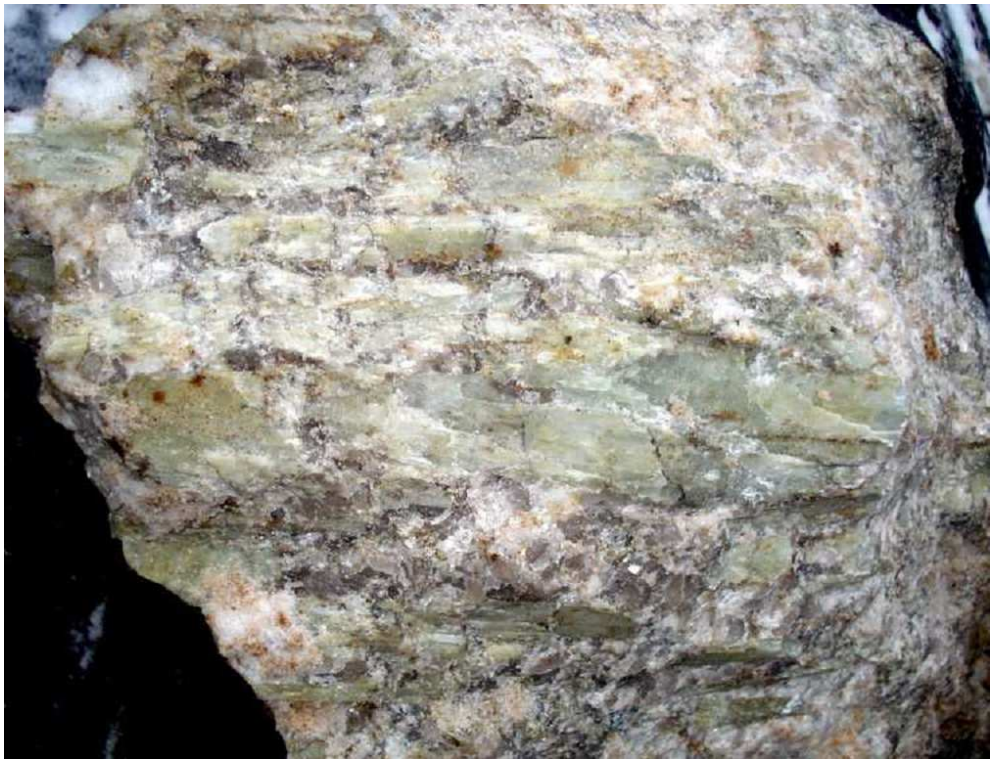
Current exploration work focused on verifying and expanding the historic resource The Nama Creek area received the bulk of historic exploration spending at Georgia Lake and accounts for 86% of the tonnage in the current NI 43-101 resource estimate. However, as figure 9 shows, 3.67m tonnes of the historic resource estimate remain unverified as compliant with NI 43-101 standards. All this tonnage is outside the Nama Creek area at the Conway, Jean Lake, Aumacho, Newkirk-Vegan, McVittie and MNW deposits. While the current exploration program entails some work at Nama Creek, the bulk of spending is directed towards bringing the non-Nama Creek historic data into compliance with NI 43-101 standards and also increasing the historic resource. To this end recent channel sampling has been focused on the Parole Lake, McVittie, Newkirk-Vegan and Aumacho claims.

On 1 March RCK published channel sample assay results from its McVittie claim. Samples ranging in length from 1.10 metres to 7.28 metres from seven channels showed grades of between 1.0% and 1.7% Li_2O. As figure 9 above shows, the historic resource estimate for McVittie is 236,775 tonnes. The latest sample results confirm that further exploration work at McVittie is warranted. One of the aims of further testing will be to determine whether the provenance of the material sampled in the recent test is a splay from the pegmatite drilled in the 1950s or a hitherto undiscovered dyke.

GEOLOGY AND MINERALISATION

The Georgia Lake Project is underlain by metasediments and metavolcanics of Achaean age, trending eastwest to east-northeast and steeply dipping along the south flank of a regional syncline. These metasediments were invaded by large masses of Algoman granitic rocks and by numerous sills and dykes of genetically related porphyry, pegmatites and aplite. The metasediments are overlain by a thin cover of Sibley sediments which were subsequently intruded by diabase dykes and sills of Proterozoic age. The Georgia Lake pegmatites contain spodumene at many places in the area.

Figure 10: Spodumene from Georgia Lake



Source: Rock Tech Lithium

ACCESSIBILITY AND INFRASTRUCTURE

Ontario Provincial Highway No. 11 is the principal means of access to the area of the Georgia Lake property. Gravel and tertiary bush road provides access to all of the claim groups, and power and water are readily available.

RCK is managing its current exploration work at Georgia Lake from an office in the nearby town of Beardmore. A deep lake port is also available at Thunder Bay - 145km from Georgia Lake. There is also a major train yard in Thunder Bay which allows for rail transport of materials to ports with direct access to the Pacific and Atlantic Oceans. RCK also envisages use of the existing 4 compartment mine shaft once mining starts.

METALLURGY

RCK has achieved target spodumene concentrate grade RCK has demonstrated production of a high grade concentrate spodumene (a lithium-containing mineral) containing 6.2% lithium oxide from both high and low grade ore. Grades of 6-7% Li_20 and 75-87% spodumene are generally considered suitable for lithium carbonate production.

Spodumene recovery is an important factor in determining the economic viability of a run of mine ore. In case of Georgia Lake sample heavy liquid separation (HLS) results, a recovery of 60.8% lithium with a concentrate grade of 6.29% lithium oxide is considered very good recovery. A floatation concentrate grade of 6.15% lithium oxide with 81.5% lithium recovery is also good. Heavy liquid ore is crushed to -6 mesh which is significantly coarser than -48 mesh size required for floatation, a big saving in energy cost. In the case of Georgia Lake pegmatites processing, around 60% lithium can be recovered using HLS and the remaining 40% can be recovered by putting a floatation circuit at a later stage, may be in the 3rd or 4th year of production.

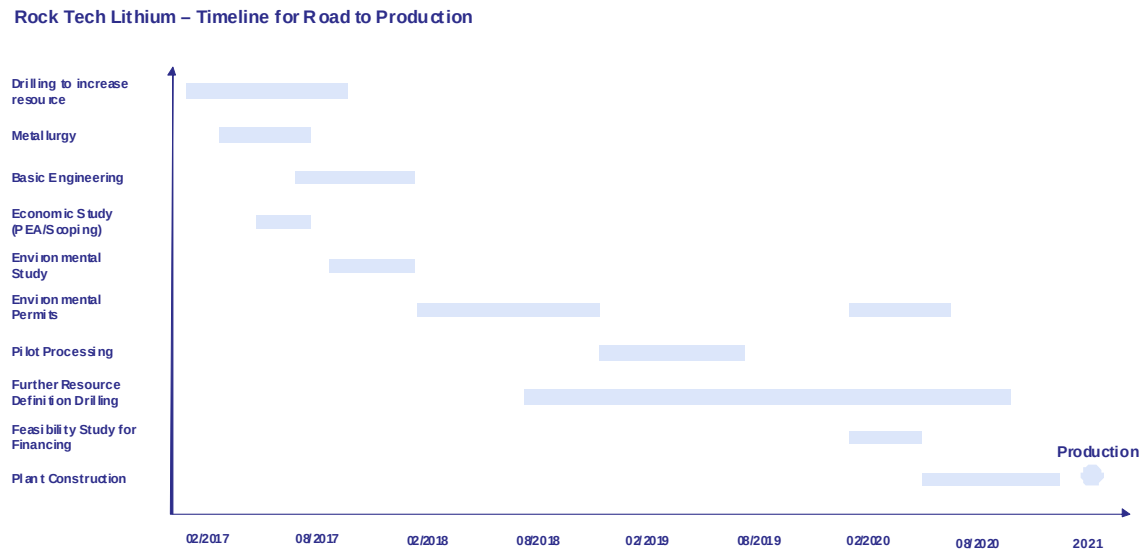
Tests suggest lower cost HLS process will be viable for Georgia Lake In 2011 RCK released results of metallurgical testing conducted on a bulk sample taken from Georgia Lake. The object of the test was to produce a first market sample of lithium carbonate. Two processing methods were used, heavy liquid separation (HLS) and floatation. Floatation is the more expensive of the two processes as it involves much higher electricity consumption than HLS. The advantage of floatation over HLS is that the recovery of the lithium bearing mineral spodumene from pegmatite is usually higher. Results of RCK's 2011 tests showed a higher spodumene recovery rate for floatation (81.5%) than for HLS (75.5%). But the recovery rate using HLS was high enough to suggest that this method will be viable at Georgia Lake, thereby saving RCK significant capital and operating expenses.

Lithium carbonate produced is battery quality Battery manufacturers' specifications for lithium carbonate purity vary, but are usually at least 99.5%. In 2011 RCK was able to produce material to a purity of 99.963% at its first attempt without any optimisation of the Georgia Lake bulk samples. However, sodium and calcium levels within this material exceeded maximum thresholds for a battery grade product. After application of the bicarbonate polishing procedure, all solids met battery grade product specifications except iron. A second bicarbonate polishing step was completed and the resulting material met all product specifications and had a Li_2CO_3 grade of 99.988%.

TIMELINE TO PRODUCTION

Management has outlined a timeline for bringing Georgia Lake into production by 2021 as shown in figure 11 below. Completion of a drilling program to increase the existing NI 43-101 compliant resource, further metallurgical work, basic engineering, a preliminary economic assessment and an environmental study are all scheduled over the next twelve months. The drilling program will be guided by the recently completed prospecting and channel sampling work and is expected to cost CAD2m. RCK completed a very detailed metallurgical study in 2011, as described above. This study focused on material taken from Nama Creek.

Figure 11: Timeline to production



Source: Rock Tech Lithium

The aim of the 2017 study will be to ascertain whether the 2011 results apply to the pegmatite dykes outside Nama Creek. This will be done by comparing the mineralogy of the dykes. If the mineralogy is similar across the various dykes, the 2011 results can be projected across the entire property. This study is expected to cost up to CAD40k. Management estimates of the cost of the various elements of the future Georgia Lake development program are show in figure 12.

Figure 12: Key elements of planned 2017 expenditure (CAD 000s)

Key elements of planned 2017 expenditure (CAD 000s)	
Basic engineering	75
Drilling to increase resource	2,000
Environmental study	75
Environmental permits	50
Metallurgy	40
Preliminary economic estimate/scoping	200
Total	**2,440**

Source: Rock Tech Lithium

FINANCIAL POSITION

During the five year period from the beginning of 2012 until end 2016 - i.e. since the peak of the previous lithium cycle - RCK had an operating cash outflow of CAD3.1m. Most of this figure stemmed from standard operating expenditure including general and administration costs, professional and management fees and travel and promotion costs.

Cash used in investing activities was CAD1.1m of which expenditure on exploration and evaluation produced an outflow of CAD2.3m, while the disposal of the Lochaber graphite property generated proceeds of CAD1.1m.

Cashflow from financing was CAD4.6m with proceeds from equity issuance and loans from related parties accounting for CAD4.0m and CAD0.2m of this figure respectively.

The net cash inflow over the period was CAD0.3m and cash and cash equivalents accordingly increased from CAD2.7m to CAD3.1m.

End 2016 cash position is sufficient to fund 2017 operations RCK raised gross proceeds of CAD4.0m from the issue of new shares and option and warrant conversion in 2016. The FY2016 cash position was CAD3.1m. We forecast a free cash outflow of CAD2.9m for 2017 – the key elements of which are shown in figure 12 above. RCK should thus be able to finance 2017 operations without further recourse to the capital markets.

Figure 13: Cash flow summary 2012 – 2016 (CAD)

	2012	2013	2014	2015	2016	Total
Net cash flows used in operating activities	-1,230,558	-483,370	-303,522	-438,988	-687,427	-3,143,865
Net cash flows from/used in investing activities	-1,624,191	-221,598	368,088	731,304	-339,989	-1,086,386
Net cash flow from/used in financing activities	200,799	616,403	198,500	-420,000	3,971,865	4,567,567
Increase/(decrease) in cash and cash equivalents	-2,653,950	-88,565	263,066	-127,684	2,944,449	337,316
Cash and cash equivalents, beginning	2,749,334	95,384	6,819	269,885	142,201	2,749,334
Cash and cash equivalents, ending	95,384	6,819	269,885	142,201	3,086,650	3,086,650

Source: Rock Tech Lithium

MANAGEMENT

Dirk Harbecke, MBA, Chairman of the Board

Mr. Harbecke has more than twenty years of experience as a manager, entrepreneur and investor with international experience in Africa, China, the Middle East, Europe and the United States. He worked at the Boston Consulting Group where he planned the establishment of new financial services institutions in Western Europe and the Middle East. Most recently, Mr. Harbecke was the founder and CEO of ADC African Development Corporation AG, a German-listed investment company with a strong footprint in the banking industries in Botswana, Mozambique, Tanzania, Zambia, Zimbabwe and Nigeria. In parallel, ADC focused on private equity investments in the emerging sub-Saharan African financial services sector. Under his leadership, ADC became a leading pan-African financial services group and was acquired in August 2014 by Atlas Mara Ltd., a financial services holding company co-founded by former Barclay's chief executive officer, Robert Diamond. Mr Harbecke has a strong record of raising finance for the companies with which he has been involved. Mr Harbecke together with co-founder and then ADC Chairman Christian Angermayer orchestrated the raising of USD300m in equity and USD350m in debt for the ADC holding company and its subsidiaries. Mr Harbecke has also raised USD35m in equity for resources projects of which USD10m so far for RCK and a further USD30m in equity and USD20m in debt for internet and biotech startups. Mr. Harbecke holds an MBA degree from St. Gallen University in Switzerland.

Martin Stephan, Director & Chief Executive Officer

Mr. Stephan is a successful manager and investment advisor with thirty years of experience. Over the past fifteen years he has focused on investments in the natural resources and exploration sector. While focusing primarily on exploration companies in North America, Mr. Stephan has built a strong network in Asia, Australia and Latin America. In the late 1990s, Mr. Stephan founded and was the CEO of one of Germany's most popular internet companies providing stock market analysis. The website was purchased by one of the biggest telecommunications companies in Germany. Mr. Stephan occasionally contributes analyses and commentaries to leading internet portals in Europe.

Brad Barnett, M.Sc., Director, Chief Financial Officer and Corporate Secretary

Mr. Barnett has extensive experience in the areas of regulatory filings, compliance and finance and holds a Master of Science in Corporate Finance, a Bachelor of Business Administration (Honours) and a Diploma in Financial Management (Honours).

SHAREHOLDERS & STOCK INFORMATION

Stock Information	
ISIN	CA77273P1027
WKN	73P102
Bloomberg ticker	RCK CN
No. of issued shares	27,047,864
Transparency Standard	Tier 2
Country	Canada
Sector	Mining
Subsector	-

Source: TSX Venture Exchange, First Berlin Equity Research

Shareholder Structure	
BTI International	11.3%
Dirk Harbecke	7.8%
Martin Stephan	6.3%
Apeiron Investment Group	7.2%
Other cornerstone investors	37.4%
Free float and other	30.0%

Source: Rock Tech Lithium Inc.

INCOME STATEMENT

	2012 CAD	2013 CAD	2014 CAD	2015 CAD	2016 CAD	2017E CAD
Expenses						
Amortisation	21,993	17,382	9,601	2,633	3,423	3,960
Consulting	90,500	15,000	0	0	35,050	250,000
General administration	278,336	291,142	91,643	47,431	52,190	220,000
Interest	0	0	258,191	47,263	1,615	0
Management fees	179,584	12,500	0	80,000	177,379	120,000
Professional fees	105,385	121,712	60,844	51,750	36,508	100,000
Reverse takeover costs	0	0	183,349	0	0	0
Salaries and wages	0	0	105,121	124,410	109,448	
Stock-based payments	0	0	0	68,325	648,139	0
Transfer agent & filing fees	37,783	57,038	23,313	19,534	25,004	65,000
Property investigation	245,892	0	0	0	0	
Travel & promotion	476,125	14,752	647	27,446	105,267	120,000
EBIT	**-1,435,598**	**-529,526**	**-732,709**	**-468,792**	**-1,194,023**	**-878,960**
Other items						
Interest income	24,214	390	0	0	0	0
Gain on settlement of debt	0	0	13,080	130,940	0	0
Gain on disposition of exploration and evaluation assets	0	0	8,586	0	0	0
Loss on disposition of equipment	0	0	-15,422	0	0	0
Mineral property impairment	-4,534,182	-4,688,800	-653,673	0	0	0
Mineral property recovery	0	0	0	51,008	0	0
Realized gain/(loss) on investments	0	0	-42,891	171,829	45,498	0
Write down of equipment	-10,354	0	-6,240	0	0	0
Flow-through premium liability recovery	745,571	0	0	0	0	0
Result for the period	**-5,210,349**	**-5,217,936**	**-1,429,270**	**-115,014**	**-1,148,525**	**-878,960**
Other comprehensive income that may be reclassified to net income: Unrealized gain/(loss) on investments	0	0	0	0 278,230	-39,556	0
Other comprehensive income that may be reclassified to net loss: Unrealized gain/(loss) on investments	0	0	-237,655	0	0	0
Comprehensive income/(loss) for the period	**-5,210,349**	**-5,217,936**	**-1,666,924**	**163,216**	**-1,188,081**	**-878,960**
Earnings/(loss) per share - basic and diluted	**-0.56**	**-0.53**	**-0.15**	**-0.01**	**-0.06**	**-0.03**
Weighted av. no. shares outstanding - basic and diluted	9,343,963	9,911,984	10,860,284	15,752,874	20,736,263	27,033,420

BALANCE SHEET

	2012 CAD	2013 CAD	2014 CAD	2015 CAD	2016 CAD	2017E CAD
ASSETS						
Current assets, total	**289,778**	**70,862**	**495,708**	**269,050**	**3,241,531**	**392,162**
Cash and cash equivalents	95,384	6,819	269,885	142,201	3,086,650	235,037
Receivables	174,725	8,275	4,001	776	105,681	30,000
Investments	0	0	221,812	120,613	5,250	7,125
Prepaid expenses and deposits	19,669	55,768	10	5,460	43,950	120,000
Non-current assets, total	**7,860,114**	**3,419,530**	**1,694,750**	**1,528,032**	**2,008,402**	**4,004,442**
Equipment	86,912	69,530	19,750	17,117	13,693	9,733
Exploration and evaluation assets	7,773,202	3,350,000	1,675,000	1,510,915	1,994,709	3,994,709
TOTAL ASSETS	**8,149,892**	**3,490,392**	**2,190,458**	**1,797,083**	**5,249,933**	**4,396,604**
LIABILITIES AND SHAREHOLDERS' EQUITY						
Current liabilities, total	**1,424,579**	**1,889,015**	**1,083,839**	**458,922**	**306,244**	**330,000**
Accounts payable and accured liabilities	1,184,140	1,039,844	403,542	205,944	306,244	330,000
Convertible debt	0	592,329	0	0	0	0
Loan payable	0	0	590,602	148,405	0	0
Flow-through premium liability	0	0	0	0	0	0
Due to related parties	240,439	256,842	89,695	104,573	0	0
TOTAL LIABILITIES	**1,424,579**	**1,889,015**	**1,083,839**	**458,922**	**306,244**	**330,000**
SHAREHOLDERS' EQUITY						
Share Capital	22,980,932	23,024,932	24,171,105	24,171,105	28,362,125	28,362,125
Reserves	2,551,302	2,601,302	2,627,296	2,695,621	3,298,210	3,298,210
Accumulated other comprehensive income/(loss)	0	0	-237,655	40,576	1,020	2,895
Deficit	-18,806,921	-24,024,857	-25,454,127	-25,569,141	-26,717,666	-27,596,626
TOTAL SHAREHOLDERS' EQUITY	**6,725,313**	**1,601,377**	**1,106,619**	**1,338,161**	**4,943,689**	**4,066,604**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**8,149,892**	**3,490,392**	**2,190,458**	**1,797,083**	**5,249,933**	**4,396,604**

CASH FLOW STATEMENT

	2012 CAD	2013 CAD	2014 CAD	2015 CAD	2016 CAD	2017E CAD
Operating activities						
Net income/(loss) for the period	-5,210,349	-5,217,936	-1,429,270	-115,014	-1,148,525	-878,960
Adjustments for non-cash items						
Amortisation	21,993	17,382	9,601	2,633	3,423	3,960
Accretion	0	0	33,665	0	0	0
Stock-based payments	0	0	0	68,325	648,139	0
Mineral property impairment (recovery)	4,543,182	4,688,800	653,673	-51,008	0	0
Write down of equipment	1,354	0	6,240	0	0	0
Flow-through premium liability recovery	-745,571	0	0	0	0	0
Accretion	0	42,329	0	0	0	0
Loss on disposition of equipment	0	0	15,422	0	0	0
Gain on settlement of debt	0	0	-13,080	-130,940	0	0
(Gain)/loss on sale of investments	0	0	42,891	-171,829	-45,498	0
Non-cash interest	0	0	9,205	47,263	1,615	0
Unrealized (gain)/loss on sale of investments	0	0	0	0	0	0
Foreign exchange loss	0	0	0	0	0	0
Shares issued for service	0	0	0	0	0	0
Changes in non-cash working capital items						
Receivables	-9,914	166,450	4,274	3,225	-104,903	75,681
Prepaid expenses and deposits	170,152	-36,099	55,758	-5,450	-38,490	-76,050
Accounts payables and accured liabilities	-1,405	-144,296	475,246	-101,071	101,385	23,756
Due to related parties	0	0	-167,147	14,878	-104,573	0
Net cash flows used in operating activities	**-1,230,558**	**-483,370**	**-303,522**	**-438,988**	**-687,427**	**-851,613**
Investing activities						
Disposition of investments	0	0	53,244	666,210	121,305	0
Disposition of equipment	0	0	18,517	0	0	0
Disposition of exploration and evaluation assets	0	0	300,000	0	0	0
Recovery (expenditures) on exploration and evaluation assets	0	0	-3,673	65,093	0	0
Expenditures on exploration and evaluation assets	-1,622,990	-221,598	0	0	-461,294	-2,000,000
Expenditures on property, plant, equipment	-1,201	0	0	0	0	0
Net cash flows from/used in investing activities	**-1,624,191**	**-221,598**	**368,088**	**731,304**	**-339,989**	**-2,000,000**
Financing activities						
Loan payments	0	0	0	-420,000	0	0
Proceeds from stock option exercise	0	0	0	0	50,000	0
Proceeds from warrant exercise	0	0	0	0	55,071	0
Proceeds from equity issuance	0	0	150,000	0	3,866,794	0
Proceeds from convertible debt	0	600,000	48,500	0	0	0
Due to related parties	200,799	16,403	0	0	0	0
Net cash flow from/used in financing activities	**200,799**	**616,403**	**198,500**	**-420,000**	**3,971,865**	**0**
Increase/(decrease) in cash and cash equivalents	**-2,653,950**	**-88,565**	**263,066**	**-127,684**	**2,944,449**	**-2,851,613**
Cash and cash equivalents, beginning	**2,749,334**	**95,384**	**6,819**	**269,885**	**142,201**	**3,086,650**
Cash and cash equivalents, ending	**95,384**	**6,819**	**269,885**	**142,201**	**3,086,650**	**235,037**

FIRST BERLIN RECOMMENDATION & PRICE TARGET HISTORY

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	21 March 2017	CAD 0.97	Buy	CAD 1.50

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