SAYONA MINING LIMITED

Research Note

A BOARD WITH LITHIUM STRIPES

- **Sayona Mining Limited (SYA) is an Australian lithium developer with projects in Australia and Canada. SYA's board has significant experience in the development of brine and hard-rock lithium projects. The Authier project is SYA's flagship project, located in Quebec, Canada, with a Pre-Feasibility Study (FPS). Authier has shown encouraging economic results with a simple (and scalable) solution to generate early cash-flows from the production of lithium concentrate targeting its first spodumene production in 2019. We initiate coverage on SYA as a Speculative Buy with a price target of $0.043/share.**

- **Experienced Board**: SYA has experienced Board members with both past and present lithium company experience. SYA Board members were part of the co-founding of Orocobre and are Directors of Altura Mining Limited (AJM) which has a Definitive Feasibility Study (DFS) on the Pilgangoora Lithium Project in Western Australia. We believe the Board's experience is key to the potential success in the execution of the Authier Project.

- **Authier PFS**: SYA released the Authier PFS on 16 February 2017. The PFS highlights a 15-year project with c.99ktpa of lithium concentrate at 5.75% Li_2O and has a pre-tax NPV of C$140m (discounted at 8%) with a 39% IRR and a payback period of 2.2 years.

- **Low Capex and Quick to Production**: SYA is setting up the Authier production in-line with the Quebec legislation (2,000tpd) to obtain permits faster than a larger scale project requires, which attracts lower capex (C$66m), less risk and is quicker to production, leaving the door open to scale-up in the future.

- **Scalable Project**: Authier has c.2.2Mt@0.99%Li_2O in Inferred Resources that could potentially converted to reserves to increase the production capacity of Authier. SYA has identified that the Authier deposit is open at depth and strike, suggesting future further tonnage could be added

- **PFS improvements**: There is potential to reduce mining cost by increasing the angle of the mining walls. As a result, the strip ratio ore would be reduced. Also, there is scope for increasing lithium recovery and a new JORC Reserves update, which would improve the Project's economics.

- **Swift Production to Lithium Concentrate**: The mining and processing of lithium concentrate is a quick process relative to lithium brines production, which take an average of nine months to produce lithium carbonate. Hence SYA has the opportunity to receive earlier cash flows thereby minimising working capital requirements for Authier.

- **Downstream - Potential Upside**: Authier's average production is equivalent to 13.6ktpa of lithium carbonate equivalent (LCE). We believe once SYA proves the viability of Authier, there exist the potential to capture the downstream value by adding an extra US$60m in revenue and potentially supply LCE to the US battery factories.

- **Lithium Market:** recent studies indicate lithium demand will increase more than 4-5 fold to 2026. The change is driven by the growth in new electric vehicles providing a case for LCE prices to remain high given the market could potentially experience challenges in meeting demand.

- **Valuation:** We value the Authier Project with an NPV of A$104m discounted at 9%. We used SYA's FPS as a base for our valuation. We assume a higher long term flat price of US$550/t (vs.US$515/t) for SYA's 5.75%Li_2O concentrate.

- **Catalyst:** (1) PFS improvements by 3Q CY2017, (2) off-take agreement, (3) Bankable Feasibility Study (BFS) in CY2018 (4) project finance and 5) Project Construction 2H CY2018.

28 June 2017

12mth Rating		Speculative Buy
Price	A$	0.014
Target Price	A$	0.043
RIC: **SYA.AX**		BBG: **SYA.AU**
Shares o/s	m	967
Free Float	%	61.5
Market Cap.	A$m	13.5
Net Debt (Cash)	A$m	0
Net Debt/Equity	%	n/a
3mth Av. D.	A$m	0.02
52wk High/Low	A$	0.038/0.012
Valuation:		
Methodology		DCF
Value per share	A$	0.043

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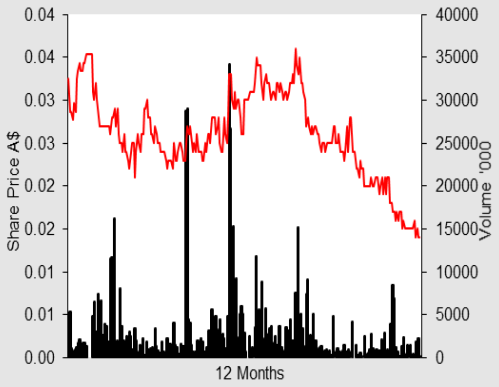
Disclosure: Patersons Securities Limited was Lead Manager and Underwriter to a share Issue that raised $1.5m at $0.017/sh in May 2017 and received fees for these services.

12 Month Share Price Performance



INTRODUCTION

Sayona Mining Limited (SYA) is an Australian resources company focused on the exploration, evaluation and development of its lithium portfolio in Quebec and Western Australia. SYA is currently focused on its 100% owned Authier Lithium Project ("Authier"), with a JORC Mineral Resources of 17.4Mt @ 1.02% for 177,212t of Li_2O (or 438kt of LCE). The Company released a Pre-Feasibility Study (PFS) in February 2017, with an expected project life of 15 years from an Ore Reserve estimation of 10.2Mt @. 1.02% Li_2O. The Company is currently working on the optimisation of the PFS.

The PFS concluded that the Authier Project could start production with a small footprint of 2,000tpd (730ktpa). The production profile is driven by the simpler permitting requirements by the Quebec Government when producing <2,000tpd; which suggests a potential reduction in the time to production and cash flows. The PFS highlights that, despite what could be considered as a relatively small project, it can still provide significant return on the investment on a Project which still can be scalable in the future (2-3 years after first production). A capital investment of C$66m with cash costs of C$367/t (US $280/t) FOB Montreal Port, can potentially have a 2.2 years investment payback and an pre-tax NPV of C$140m @ 8% discount rate, with a 39% IRR. Based on this, we believe that the SYA thesis of further study and de-risking Authier remains sound.

The Company has commenced the environmental and mining approval process (results are expected within the next six months) whilst advancing its metallurgical and geotechnical work programs (to be included as improvements) on the previous released PFS. SYA expects to complete these studies by August 2017. Following this, SYA expects to commence the Bankable Feasibility Study (BFS) and advance on the project finance and off-take agreement(s) for a planned commencement of construction in CY2018 and first production in CY2019. A map of the Authier project and its vicinity to other lithium project is illustrated below on Figure 1.

SYA is also advancing the Mallina lithium project in Western Australia. On 3 May 2017 SYA announced a "Large Strike Length Spodumene Pegmatite Discovered at Mallina (East)" indicating that a new zone with outcropping within an area of 1.3km by 3-20m was discovered. The area is 5km away from a swarm area that returned rock chip samples up to 3.47%Li_2O. The Mallina Project is located in the Pilgangoora lithium district that host also AJM's Pilgangoora Lithium Project which has a Definitive Feasibility Study.

On 8 May 2017 rock chip samples from Mallina East returned up to 3.98% Li_2O. On 13 June 2017, SYA announced that the maiden drilling at Mallina had commended targeting 2,500m with 30 holes programmed. We estimate that results could be available by late July or early August if no major operational delays are faced.

SYA's Board has significant experience within the exploration and development of lithium projects. In our view, this is the key for SYA's potential success. We believe that the current set-up and timing to bring the Authier Project in to production is sound, and the valuation is also supported by the current and expected high demand for lithium.

We also see potential for value-add at the Authier Project. Authier remains open along strike and depth, and it has the flexibility to be scaled up (potentially doubling the current proposed capacity). Furthermore, opportunities exist to integrate the downstream process (annual lithium concentrate production equates to 13.6ktpa of LCE) by potentially producing lithium carbonate/hydroxide product. In the interim, the prospectively of the Mallina Project seems to be evolving positively, showing encouraging results to date. We initiate coverage on SYA as a **Speculative Buy** with a price target of **A$0.043/share**.

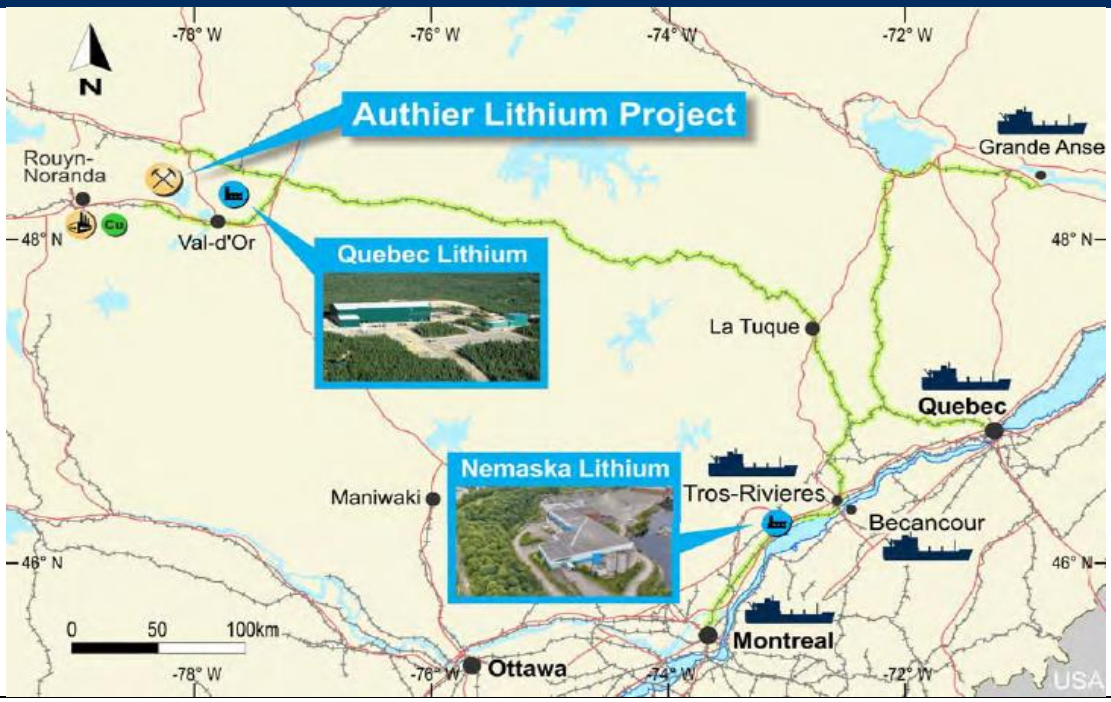
AUTHIER LITHIUM PROJECT (QUEBEC, CANADA)

The Authier Lithium Project, is located in the province of Quebec in Canada with a Resource of 17.4Mt @1.02% Li2O. As illustrated below in Figure 1, Authier lays within a lithium district along Galaxy Resources' (GXY) James Bay Lithium Project (Resource of 22Mt @ 1.29% Li2O) and close to Quebec Lithium (Resource of 47Mt @1.29% Li_2O).

Authier could potentially benefit from nearby infrastructure, i.e, the Project is close to a sealed road (5km), rail connecting to port (20km), power and gas (5km). Quebec is a well-known mining district with over of $8.7b of mineral exports from 25 mines in 2015. According to the Fraser Institute, the province of Quebec ranks No 6 in the world mineral investment. Power is available from the nearby hydro power plant at a low cost (5c kw/h); and gas can be purchased for <$3/GJ. The province offers a stable taxes regime with no royalties.

Authier was purchased by SYA in July 2016 for C$4m. We believe that the acquisition was a fair price considering the Project had 15,000 metres drilled and an NI 43-101 of 9.2Mt @ 0.96 Li_2O. We estimate that the replacement cost of drilling, sampling, metallurgical testing and wages invested in the Project could exceed the purchase price (without taking into consideration the time to achieve this).

Figure 1: Auther Project Location – Regional Lithium District in Quebec



Source: Sayona Mining Limited

Since the time of the purchase, SYA has drilled a further 8,100 metres, increased the known strike from 825m to 1,300m and infill drilled the Project (Authier remains open at depth and strike). As result of the previous work, on 14 June 2017 SYA released a new JORC Resource update with higher Li_2O grade and tonnage (17.4Mt @ 1.02% Li_2O) with Reserves via a PFS with 10.2Mt @ 1.02% Li_2O (with a cut-off grade of 0.5% Li_2O) containing 102.7kt of Li_2O (or 254kt of LCE) with an estimated mine life of 13 years. Given the recent Resource update, a new Reserve estimate is being undertaken and will be announced along with the PFS optimisation results.

The PFS was prepared using conservative assumptions, i.e a spodumene concentrate price of US$515/t with lithium recovery of 80% and mining walls angled 45% which returned an average strip ratio of 6:1. The product is lithium concentrate grading on average 5.75% Li_2O. The Study concluded that C$66m was required to invest to develop a project constrained at the maximum production rate per day of 2,000t. The production constraint is self-imposed by SYA in order to receive all required government permits to start production earlier. The 2,000tpd cap is a legislative initiative by the Quebec government to fast-track small projects to production.

In order to receive the necessary mining approvals, SYA needs to initiate and hold public consultations and submit environmental approvals. The timing of these consultations and approval appears to be quick, as SYA is indicating that it expects production to commence by 2019 (subject to obtaining funds).

The economics of the PFS indicated that Authier Project is potentially viable. The Project's discounted cash flows (8%) yield a pre-tax NPV of C$140, with an IRR of 39% from a modest capital expenditure of C$66m and a relative short payback period of 2.2 years. The PFS suggests the Autier Project could produce on average 99ktpa of lithium concentrate for c.15 years. The expected annual revenue is C$67m and an EBITDA of C$31m with cash cost of C$367/t (US$280/t) FOB Montreal Port.

We believe that metrics presented on Authier in the PFS provide a good starting point for the potential development of the Project. We do not see major technical or commercial concerns with SYA's proposal (excluding off-take and Project Funding). One of the main advantages of the Authier Project is that the orebody is found very close to surface which minimises the working capital requirement as well as pre-stripping expenditure which should translate in to early cash flow (c. one year). We notice that despite the strip ratio, the NPV remains positive (it could also have been possible to develop it as an underground project at c$21/t). This is due to the low capital intensity of the project to return positive result (2.2 years).

SYA is currently working on the optimisation of the PFS, aiming to increase the value of the Authier Project. The current programme is building from the Phase 2 drilling programme completed earlier this year. The Company's focus is on the modelling and study of Authier's geotechnical and hydrogeological areas with the aim to improve pit wall slopes (potentially to 60 degrees) and reduce the movement of waste material throughout the life of mine. As a result, we estimate that the potential strip rate could be reduced from 6:1 to 5:1 or 4:1. SYA is also conducting further metallurgical tests to optimise lithium recoveries and grade in concentrate. As a result of the PFS optimisation and the conservative assumptions previously used, SYA expects to improve on the previous Ore Reserves estimate (released in February 2017) by 3Q CY2017.

Figure 2: Authier Location - Quebec Lithium District

Source: Sayona Mining Limited

In addition, the Company is actively evaluating value-adding opportunities in the downstream lithium sector. SYA is evaluating the technical and economic viability of building a lithium carbonate and/or hydroxide production conversion facility at Authier to enhance the project value, and improve the long-term competitive position of the project. Quebec is uniquely positioned with a number of significant commercial and market advantages, e.g, it has excellent infrastructure, low-cost gas and electricity prices, skilled labour, good road and rail transport networks, a supportive government, and is in close proximity to the US markets including, the Tesla Giga factory in Nevada. Given its proximity to the US, SYA could potentially sell its concentrate and potentially LCE in the US market.

NEXT STEPS

The Company has commenced the environmental and mining approval process for Authier (expected within the next six-twelve months) whilst advancing metallurgical and geotechnical work programs to be included as improvements on the previous released PFS, are expected to be completed in August 2017. Once the PFS's conclusions are finalised, SYA expects to commence the BFS and advance on the project finance and off-take agreement(s) for a planned commencement of construction in CY2018 and first production in CY2019. Beyond the production of lithium concentrate, SYA is assessing the trade-off analysis of integrating the Authier Project into producing lithium carbonate (battery grade or >99.5%). We assess the potential impact of lithium carbonate integration in our valuation section.

MALLINA LITHIUM PROJECT (WESTERN AUSTRALIA)

SYA owns 100% of the leases on the Mallina Lithium Project in Western Australia. The ground has shown to be prospective for pegmatite (lithium bearing rocks) found on rock-chip samples within mapped structures that are close to each other in a swarm as illustrated in Figure 3 below. We highlight that work to date indicates that the project can potentially host lithium deposits from surface.

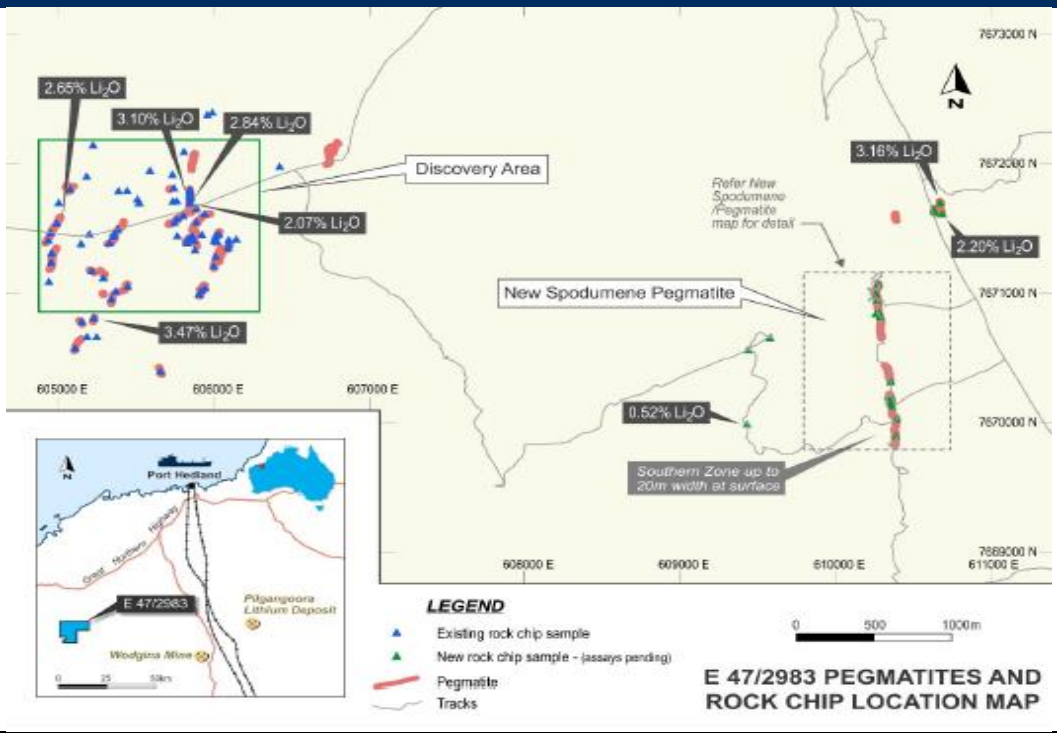
Current developments show encouraging results within Mallina, on 3 May 2017 SYA announced a large strike length spodumene pegmatite was discovered at Mallina (East), indicating that a new zone with outcropping within an area of 1.3km (in length) by 3-20m (in width) was discovered. The area is 5km away from a swarm area that returned rock chip samples up to 3.47%Li_2O. The Mallina Project is located in the Pilgangoora lithium district that also host AJM's Pilgangoora Lithium Project which has a Definitive Feasibility Study with a JORC resource of 35.7Mt @1.05 Li_2O, reserves of 18.5Mt @1.07 Li_2O and an expected life of mine of 14 years.

On 8 May 2017, SYA announced that rock chip samples from Mallina East returned up to 3.98% Li_2O. SYA indicated that exploration and permitting is being fast-tracked to allow drill testing. For clarity, we believe that the Mallina project is not in competition with AJM's Project given the different advancing stages of these projects. In addition, the lithium market seems to be in short supply in the near to mid-term to compete for lithium concentrate buyers.

On 9 June 2017, SYA announced that rock chip samples from Eastern No2 (1,300m strike) pegmatite results with up to 3.55% Li_2O. In parallel, the mapping at the Eastern No3 Pegmatite was identified over 1,400m strike with rock chip assays up to 1.98% Li_2O. SYA completed an airborne geophysics survey and a maiden drilling campaign with 30 hole and 2,500m has been designed to test six of the spodumene pegmatite targets identified at Mallina to date. A map showing the work to June 2017 with all areas of the Mallina Project is illustrated below in Figure 3.

Despite the encouraging news to date, Mallina remains an early exploration play. However, if work proves successful, Mallina could potentially rank amongst the West Pilbara lithium Projects in Western Australia. SYA drilled Mallina during June 2017 and awaiting results.

Figure 3: Mallina Project Location



Source: Sayona Mining Limited

CAPITAL STRUCTURE

Figure 4: Current Capitalisation

Price in AUD	0.014
Shares Outstanding	**967.3**
Market Capitalisation	13.5
- Cash (estimate)	1.5
+ Total Debt	0.0
+ Preferred Equity	0.0
+ Minority Interest	0.0
Enterprise Value	**12.0**

Source: Sayona Mining Limited, Patersons Securities Limited

At the time of this report, SYA has no debt or minority interests. However, SYA will potentially need to accommodate a large debt position to fund the development of Authier Project.

SYA currently has 967.3m shares on issue and trades with a market capitalisation of $13.5m (@ $0.017/sh). Adjusting for the net cash position of $1.5m as at closing of SPP, SYA has an enterprise value of $12.0m. The Company currently has four tranches of unquoted options, which expire on 30 June 2017.

Figure 5: Unquoted Options

Exercise Price	On Issue (m)	Exercise Date
1.5c	6.0	30-Jun-17
3c	18.5	30-Jun-17

Source: Sayona Mining Limited, Patersons Securities Limited

CORPORATE

SYA's cash position as at 31 March 2017 was approximate $1.0m, after exploration, evaluation and administration costs. On 25 May 2017 SYA raised $1.5m.

SYA estimate a cash burn of $0.8m for next quarter. Thus, we estimate that the Company is funded for the near term (6 months) However, the pre-production capital cost of C$66m highlighted in the PFS, represents a large funding hurdle, which will need to be supported by an off-take agreement for lithium to enable project finance or a third party to finance Authier. We believe that Authier is likely to find an off-taker during, or after, the feasibility study at Authier. This is due to the current positive expectations in the lithium market driven by constraints around product availability and increasing demand driven by growth in the electric vehicle market.

Finally, if results at Mallina are positive, further exploration work will be required to assess the new discovery. Hence, further funds will be needed.

VALUATION

We have valued of SYA's Authier Project using the available and disclosed information from the PFS in regards to mining cost (average C$2.88/t), processing cost (average C$20/t), G&A (average C$2/t) and 2% royalties.

We have valued SYA at $0.043/share (after dilution), using a sum-of-parts methodology. The main component of SYA's value comes from the Authier Project worth an estimated A$104m or A$0.043 per share and SYA's cash position as 31 March 2017 of A$1.5m into our estimate at closure of SPP.

We have discounted the Project's cash flows at a 9% rate (SYA's assumption is 8%) to account for uncertainties. Our valuation includes the diluted shares from an assumed capital raising to fund the estimated capex of A$19.7m using 30% equity (we assumed this due to the hot lithium market conditions, we see this as realistic) and using a raising price of 90% of the current share price.

We have assumed a long-term flat price for lithium concentrate (US$550/t @ 5.75% Li_2O.), however we note current spot prices indicated by Galaxy Resources for 6% Li_2O are >US$800/t.

The Project's capex is modest compared to other lithuim projects in the market; current estimates by SYA of C$66m (c.A$66m). There is a possibility to expand the current operations to a Stage 2, however we have not included expansion in our valuation as it is currently too distant to forecast with any high degree of certainty. We will review Stage 2 as Authier progresses in to production.

We do note the potential negative implications and hazards of this relative larger debt burden on the Company's Balance Sheet (compared to SYA's market size of A$13.5m), should SYA finance a large part of the capital requirements for the Authier Project. Hence, we believe that it is important for SYA to optimise and reduce the capital & working capital requirements given the large size of the Project compared to its market cap.

The value effect on potential for expansion and integration to produce LCE on the Authier Project is shown in the Sensitivities section below.

Figure 6: Valuation Matrix

	Authier Project Summary	SYA	PSL
NPV	C$m	140 (Pre-Tax)	104
IRR	%	39 (Pre-Tax)	32
Discount Rate	%	8	9
Capex	C$m	66	66
Opex	C$	367	390
Life of Project	Years	15	15
Concentrate Price	US$/t	515	550
Concentrate grade	Li_2O %	5.75	5.75
EBITDA	Annual C$m	31	34.5

Source: Sayona Mining Limited and PSL estimate

SENSITIVITIES

We have run the following sensitivities:

- **Base Case:** assumes parameters discussed in the valuation section.
- **Higher Waste Removal**: We assume a 1/3 higher waste removal compared to the PFS
- **High Capex/ Opex**: We a 50% in Capex and 30% more Opex.
- **PFS Improvement**: We have assumed a reduction in the strip ratio from 6:1 to 5:1 and increased lithium recovery from 80% to 85%. We have not reduced Capex, however its likely to be reduced by SYA new estimate.
- **Stage 2**: This scenario assumes the base case plus doubling capacity, assuming 85% conversion of the current Inferred Resources to Reserves.
- **100% debt Funding**: This scenario assumes the previous case without risking the value of the project
- **Downstream Integration:** We test the upside value of integrating Authier to producing LCE assuming total lithium recovery of 75% and a capital intensity of US$15m per tonne of LCE and Opex of $4,500/t There is no expansion, production at 13ktpa of LCE, starting in year 5.

Figure 7: SYA Share Price Sensibility Table

Cases	Base Case	Higher Waste R.	High Capex & Opex	PFS Improvement	Stage 2	100% Debt Funding	Downstream Integration
Company Value A$m	104	82	13	139	169	119	154
Discount rate %	9	9	9	9	9	8	9
Opex C$/t	390	462	531	355	330	390	4,500
Initial Capex A$m	66	66	99	66	122	66	66/260
Issued Shares m	2,486	2486	n/a	2486	2486	967	2,486
SYA A$/share	0.043	0.033	n/a	0.056	0.068	0.12	0.062

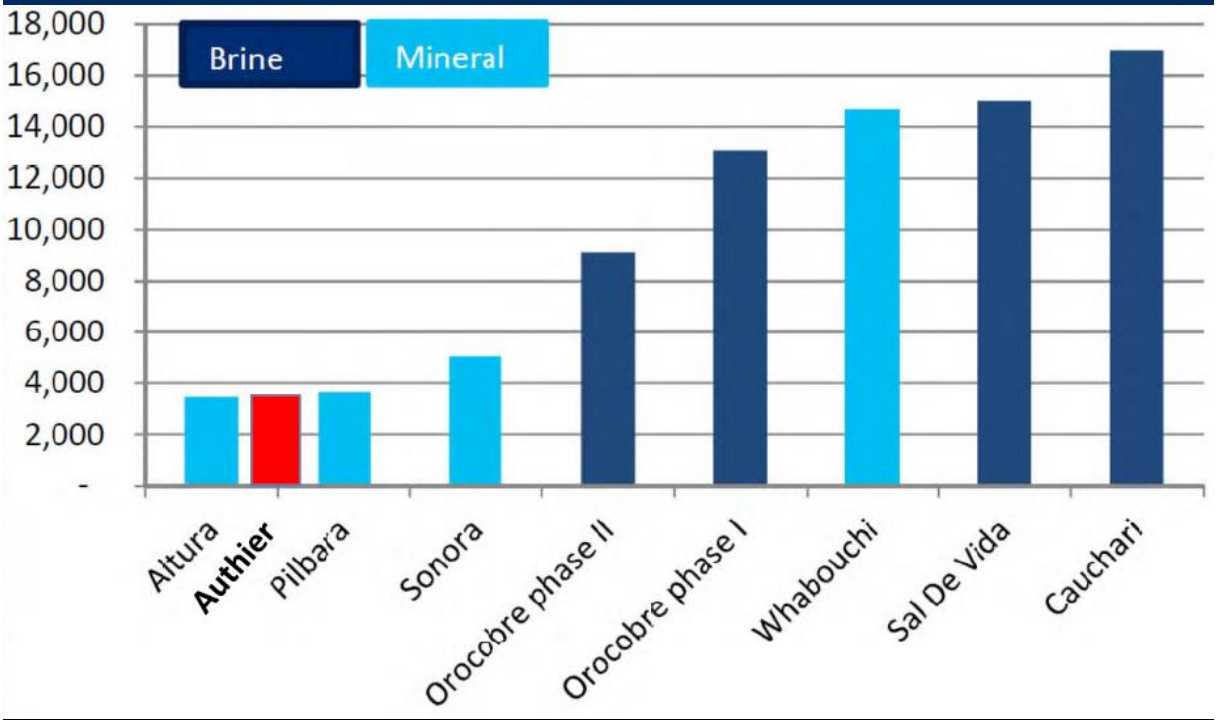
Source: Patersons Securities Limited Estimate

The sensitivities show that SYA is highly susceptible to capex requirements. This is due to SYA's market value being significantly lower than the capital requirements to fund Authier (A$13.5m vs. A$66m). We note that SYA's value is significantly improved with the expected PFS improvements (A$104m vs. A$139m). If the mineral resource is increased, SYA could contemplate a hybrid solution of Stage 2 and a downstream integration combined scenario for production in the future.

Peer Review

The capital intensity of Authier (c.US$3,800/t) for the required capital in US$/t of LCE is low when compared to its Mineral Peers (light blue), this is illustrated on Figure 8 below. We relate these lower costs base due to the location and accessibility to gas and power in the province of Quebec despite being a small project and not benefiting from scale economies. The above gives a good indication for a Stage 2 in Authier which can potentially reduce this capital intensity when increasing production. The difference on the capital intensity between Brine and Mineral lies in the end product - brine operators produce actual LCE as end product, whereas Mineral producers generally produce lithium concentrate as product.

Figure 8: Capital Intensity of New Projects in US$/t of LCE of Installed Capacity



Source: Sayona Mining Limited

The operating cost from the PFS indicates that Authier is competitive (before PFS optimisation) among its industry peers as illustrated on Figure 9 below. Authier has an average operating cost of US$4,4450/t LCE. We believe that this cost is competitive at current market prices. We note that the cost curve is relatively flat between the 2nd and 3rd quartiles among lithium hard-rock producers. This suggests that there the new industry cost structure indicates that prices below US%5,000/t are less likely as a significant part of the lithium supply could be removed from the market.

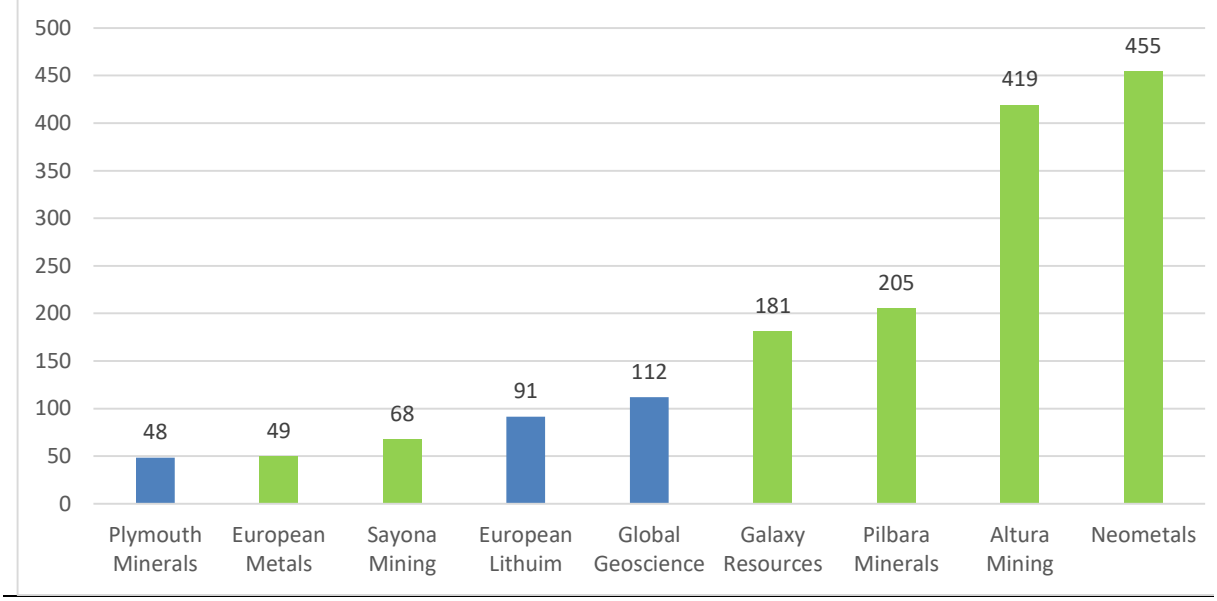
Figure 9: New Lithium Projects Cost Curve

Source: Sayona Mining Limited

We have estimated the EV/t for ASX companies with exposure to hard rock mining (except for Galaxy), the green bar colouring denotes companies with projects that have moved to PFS or BFS. Our estimates indicate that SYA has room to mature in value. The average EV/t value for our sample indicates A$181/t, if we use this

value for SYA, the market cap of SYA would be c.A$34m (current market cap c.A$13.5m) or a share price of A$0.035/share.

Figure 10: EV A$/t - ASX Lithium Companies (Measured, Indicated and Inferred Resources)

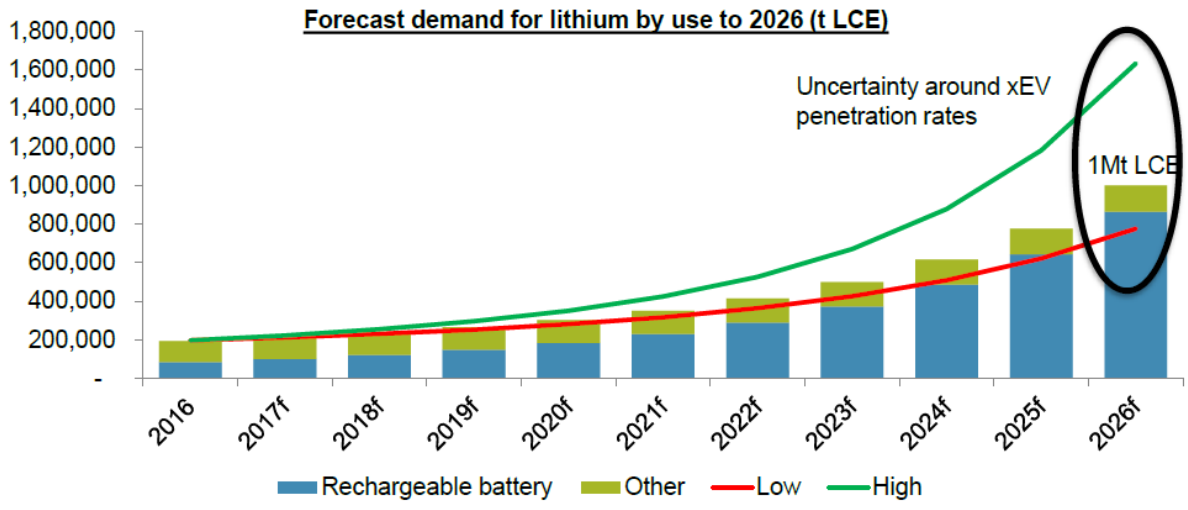


Source: Patersons Securities Limited Estimate – Galaxy Resources includes Sal de Vida brines

Lithium Market

The lithium market is experiencing significant growth. Demand has almost doubled from 2009 to 2016 and is forecast to increase slightly more than four times current production (850ktpa-1Mt) by 2025-2026 as illustrated below on Figure 10. The main driver for new lithium demand comes from the new batteries needed to power the electric vehicles (EV). We see a strong uptrend in the production EV, due to the Chinese Government phasing out the internal combustion engine for small vehicles and new legislation in Europe to come effective from 2025 onwards. Estimates by Roskill indicates that by 2030, 40% of the global vehicle fleet will be electrical.

Figure 10: Global Lithium Demand Forecast 2016-2026



Source: Roskill

Meanwhile, the production of EVs is showing that growth is increasing rapidly with sources indicating that the year-on-year growth rate for lithium demand ranging from 15-20%pa. If the changes happen as expected, the growth curve is expected to plateau (and return to the global market average demand for vehicles) by the end of the next decade. With this is mind, the demand for lithium batteries is expected to follow a similar trend.

Why is this time different to the previous lithium boom?

If we look at the historical data, the increase in demand (driven by laptop and mobile phone batteries) from 2000 to 2009 was met by the large lithium producers in Australia (spodumene), Argentina and Chile (brines) being Albemarle, FMC and SQM. These companies had spare capacity to increase production and match demand whilst competing in a market with LCE below US$5,000/t. The lithium market it is not an open market and is driven by contracts in a relatively small market. Hence, the barriers of entry on a tight market were high. This time around the expected growth for lithium demand is significantly higher.

In a global context, in 2009 the total lithium market was worth c.US$500m, in 2017 the market is estimated to be worth US$2.4b (assuming 200kt of LCE at US$12,000/t) and US$8.5b by 2025 (assuming 850kt of LCE at US$10,000/t). Overall, this growth is significant, reviewing past market experience as a proxy, we see that the market could potentially experience challenges to meet demand. It is not often that a mineral commodity can be expected to grow more than four folds in seven years to meet demand. As a result, the current lithium prices may remain as we see them today due to supply constraints.

Furthermore, despite lithium being a relative abundant element on Earth, the extraction of lithium meeting purity requirements remains a challenge. The metallurgy of lithium operations does not appear to be simple. On the other hand, as there are a few lithium companies, there could be a human factor involved in terms of direct experience in lithium operations. This is yet to be demonstrated in time as new operations will come on-line.

On the supply side of the equation, the future production is expected to be met initially by (1) the Western Australian spodumene producers (Talison's Grenbushes, Galaxy's, Mt Caitlin, Neometals' Mt Marion) and advanced projects; and (2) the Argentinian brine producers (FMC and Orocobre) plus new projects in the same region. It is unclear if new Chilean producers will join the trend due to the Chilean government's restrictions on lithium production. However, SQM and Albemarle have already indicated that they will increase production from their salt flat operations in Chile. Canada has a new emerging region in Quebec for lithium projects, Europe is also seeing a pipeline of projects (hard rock) to potentially supply the European batteries for the car manufactures with advanced projects in Austria, Czech Republic, Serbia and Spain. The US also have a pipeline of brine projects concentrated in Nevada.

With this in mind, we believe that the expansion of the current Chilean and Argentinean operations will be firm as they are well known deposits. Whilst in Australia the production and brownfields from current operations have a stable handle with their concentrate product. Thereafter, we believe that the new lithium projects (hard rock or brines) will supply lithium with a level of certainty in construction however, the time to reach production nameplate remains uncertain due to the technical chemical complexity of the lithium in a maturing industry. As a result, the time it takes for production to come to the market could take longer than initially planned.

A potential short term risk in lithium oversupply could emerge from the production of direct shipping lithium ore (DSO) from Australia to China. However, we believe there are a number of technical factors (recovery, impurities and product specifications) and learnings that need to be proven, before DSO becomes a secure alternative to lithium supply. If this source is successful, we believe that by the time the new DSO is processed, refined and used in the battery market, then up to two years could have passed thereby minimising its oversupply effect on the market in the short term. Meanwhile, given the estimated strong medium to long term growth in lithium demand, implementation of DSO could actually be of benefit to the lithium producers as it may prevent the price rising too quickly and too high, which would open the door to new technologies, including substitutions.

Price wise, we forecast a US$10,000/t (real) for long term forecast for LCE (battery grade) and US$550/t (real) for lithium concentrate at 5.75% Li_2O. As previously mentioned, the potential for price spikes as seen between 2015-2017 remain open in the future driven by undersupply or an underestimated growth of the electric vehicle car industry.

We believe that the lithium batteries will continue to be used as a power supply to EVs. This trend is expected to remain in place for the next 10 years as the battery producers do not move too quickly once the investment for the battery plant has been made. We see that the improvement in lithium battery performance will continue in the future providing a longer range, reduced weight, and more power to the EVs. We believe one risk of substitution for lithium batteries comes from the fuel cell hydrogen batteries currently used with a few car manufactures.

CATALYSTS

In our view, SYA has the potential to develop a small project with a potential ramp up under sound economic returns. The perception that small is not necessary good can be turn around as the project has fewer risks and can potentially produce cash-flows quicker than a larger project in the same area due to longer approvals for permitting.

SYA has moved from being a graphite explorer to a lithium developer within 12 months, perhaps a short time frame for the market to catch up with the changes. As a result, we believe that the Company's low share price is a reflection of the market not keeping up with the change in strategy and commodity. The market capitalisation of SYA represents an opportunity, in our view, for an undervalued stock.

We estimate that the key catalysts in the near-term are PFS Improvements, which will trigger; 2) the off-take negotiation agreement(s), 3) release of BFS, 4) finalisation of project financing arrangements, and then; 5) commencement of Project construction.

RISKS

- **Resource risk**. There is a risk that, in the future, Mineral Resources may be negatively revised, impacting the size and quality of the Project, and that any exploration targets may not be confirmed.
- **Commodity price risk**. Declines in lithium prices would negatively impact the revenues and profitability of SYA's project.
- **Exchange rate risk.** SYA share price is denominated in A$ and yet its commodities are priced in C$. Any rise in the A$ may reduce translational impact of C$ into A$.
- **Operating risk.** Problems may occur during the mining, processing, transporting and selling of products that may negatively impact revenues, costs, and profit. These problems may or may not be foreseen in any feasibility, economic assessment, scoping, or conceptual studies undertaken by the company or other parties.
- **Funding risk.** The Company may not be able to source the necessary funding for developing its Authier Project, so may require highly dilutive equity raising and/or debt that may dilute shareholders or cause SYA to not meet debt payments.
- **Technology risk.** Changes in technology may reduce the demand for lithium affecting growth, prices and the profitability of SYA.

BOARD OF DIRECTORS

Mr Dennis O'Neill - Managing Director

Dan is a geologist with over 30 years of international mining experience, having worked across Australasia, Africa, Asia and North America. Dan has held positions with a number of Australian and multinational exploration companies, as well as managed exploration programs in a diverse range of environments and locations, including Botswana, North America, South East Asia, North Africa and Australasia. During his career, Dan has held executive management positions with ASX listed companies and has worked on a range of commodities including diamonds, gold, base metals, coal, oil and gas. He was appointed a director on 10 March 2000.

Mr Alan Buckler - Non-Executive Director

A qualified mine manager with more than 40 years coal experience in Australia and Indonesia, Allan joined Sayona on 5 August, 2013.He has had key roles in the establishment of several large mining and port operations in both Australia and Indonesia. Allan is a former Director and Chief Operations Officer of New Hope Corporation Limited and has led the development of significant operations including PT Adaro Indonesia, PT Indonesia Bulk Terminal and PT Mult Harapan Utama in Indonesia.

Mr James Brown - Non-Executive Director

Mr Brown holds formal qualifications in Mining Engineering with more than 25 years' coal experience in Australia and Indonesia, and is the Managing Director of ASX listed Altura Mining Limited. His coal development and operations experience includes the New Acland and Jeebropilly mines in South East Queensland, the Adaro and Multi Harapan Utama operations in Indonesia and Blair Athol in Central Queensland. Mr Brown was appointed to the Board on 12 August, 2013.

Mr Paul Crawford -Executive Director and Company Secretary

Paul is an accountant with over 30 years of commercial experience in various technical and management roles within the minerals, coal and petroleum industries. He has also had significant corporate experience in the management and governance of ASX listed resource and mining companies.

He is the principal of a corporate consultancy firm he established in 2001, offering a range of commercial and corporate governance services to corporate clients. Paul is currently an Executive Director and Company Secretary of ASX-listed companies ActivEx Limited and Company Secretary of Elementos Limited. He was appointed to the Board on 10 March 2000.

Mr Corey Nolan -Chief Executive Officer

Mr Nolan is the Chief Executive Officer of Sayona Mining and is responsible for leading the development and execution of the Company's long term strategy to create shareholder value. This includes responsibility for all the day-to-day management decisions and implementing the Company's strategic plans, and engagement with shareholders and stakeholders.

Mr Nolan is an experienced public company director and senior executive with more than 23 years' experience in advisory, commercial and business development roles focused on the acquisition, funding, and development of resource projects.

Most recently, Mr Nolan was Managing Director (Feb 2014 – May 2015) of ASX/AIM listed Leyshon Resources Limited, and Executive Director (Oct 2013 – Jan 2014) and Managing Director (Sept 2009 – Sept 2013) of ASX listed, Elementos Limited. In 2011, Elementos completed a merger to become an advanced developer of tin and tungsten resources in Tasmania, Australia. Mr Nolan was instrumental in the identification, negotiation, due diligence, structuring and execution of the merger.

From 2006 to 2009, Mr Nolan was Business Development and Commercial Manager for Aviva Corporation, responsible for the identification, evaluation and negotiation of coal and energy related acquisition and merger opportunities in Australia and Southern Africa.

Mr Nolan commenced his career in the financial services industry as a resources equities analyst at firms including Wilson HTM and Morgan Stanley, and as a Director of the Corporate Finance practice of global advisory firm PWC. Mr Nolan's qualifications include a Bachelor of Commerce, and a Masters Degree in Mineral and Energy Economics. Mr Nolan is also a diploma graduate of the Australian Institute of Company Directors.

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