

Avalon Advanced Materials Inc. (TSX:AVL, OTCQX:AVLNF)

March 1, 2017

Price (as of Feb 28, 2017) (CDN\$): \$0.18

Beta: 2.44

Price/Book: 0.2

Debt/Equity Ratio: N/A

Listed Exchange: TSX, OTCQX



Recent News

06-Feb-16: Avalon announced positive test work results of the Separation Rapids lithium project, confirming the ability to extract battery grade Lithium Carbonate from lepidolite mineralization.

23-Dec-16: Avalon raised gross proceeds of \$375,000 through the issuance of shares and provided update on Separation Rapids project.

27-Sep-16: Avalon announced in its Separation Rapids project's PEA that this project could produce up to 14,600 metric tons per year.

25-July-16: The Company provided an update on the Separation Rapids project's 2016 work program, completing a detailed Lithium Hydrometallurgical process.

25-May-16: Avalon continues to advance metallurgical work on the Separation Rapids Lithium Project, Kenora, Ontario.

05-April-16: Avalon Completes Pilot Plant Processing of Bulk Sample from Separation Rapids Lithium Project, Kenora, Ontario.

Shares Outstanding:
Market Cap:
52 Week High:
52 Week Low:

187.6 million CAD \$33.76 million CAD \$0.33 CAD \$0.13

Note: All currency is in Canadian dollars (CAD) throughout this report unless otherwise specified.

Well Poised to Benefit from Growing Lithium Market

Avalon Advanced Materials Inc. ("Avalon" or the "Company") is a Canada-based mineral development company, headquartered in Toronto, Canada. The Company's stock is listed on the Toronto Stock Exchange (TSX: AVL) and the US OTCQX (OTCQX: AVLNF). Avalon is mainly focused on lithium, given the high demand in the market, and will look to advance its tin asset to establish cash-flow in the near term. The Company is presently advancing two of its six 100% owned projects, namely Separation Rapids (lithium) located in Kenora, Ontario, Canada as well as its East Kemptville (tin-indium) project situated in Yarmouth, Nova Scotia, Canada. Separation Rapids is an advanced project hosting a large, high purity lithium deposit providing confidence that it can become a producer of lithium battery materials by 2020-21. As an integral part of Avalon's approach, it plans to establish a demonstration plant in 2017-2018 to produce sufficient quantities of lithium product samples for testing and acceptance in both the glass ceramic market and the battery market.

A unique lithium resource with potential for expansion and several by-products

Avalon's Separation Rapids project hosts a very large lithium-cesium-tantalum-rubidium pegmatite deposit. The Separation Rapids pegmatite is enriched in the rare lithium mineral petalite (lithium aluminum silicate). Petalite is well-suited for glass and ceramics manufacturing and its high purity level also makes it useful in the production of lithium chemicals for batteries. This near-surface deposit is amenable to low-cost, open-pit mining and has potential to produce numerous valuable by-products including feldspar, rubidium, cesium and tantalum. Growing demand for lithium chemicals utilized in batteries, coupled with limited supply, is expected to increase the lithium price and create new opportunities for lithium producers. Recently, the project's Preliminary Economic Assessment results presented an initial model showing that the project could produce up to 14,600 metric tons per year of lithium hydroxide for ten years. The project's NPV is estimated to be \$343 million pre-tax, at an attractive IRR of 19%. On December 23, 2016, Avalon announced that it expects to conduct a drilling campaign in early 2017, in order to define the lepidolite (high-grade lithium mineral containing 8% Li₂O) rich sub-zones which could add substantial recoverable lithium resources to the known lithium (petalite) resource.

Global demand for lithium-ion batteries should augment Avalon's growth prospects

Currently, there is a growing demand for lithium batteries, which is expected to increase in the future with the transition to Electrical Vehicles (EV) and home energy storage. Lithium batteries are also increasingly used in various types of electrical tools, grid and portable electronic devices. The lithium market is expected to grow more than 7.4% each year until 2025. Additionally, China is expected to continue its dominant position in the lithium market. China utilizes lithium batteries in almost all road transportation modes such as buses, cars, scooters and specialty vehicles. For instance, according to the International Energy Agency (IEA), the global electric bus stock in 2015 is estimated at 173,000 vehicles, mostly from China. Such an increasing demand scenario for electric vehicles from both developed and developing economies is expected to drive demand for lithium in the years to come. Further, companies using lithium batteries such as Tesla motors ("Tesla"), Samsung, BYD, etc. are looking for new suppliers like Avalon with capability to produce high-quality lithium battery materials for the long term.

East Kemptville tin project's near-term redevelopment scenario should provide some positive cash flow

Tin is another technology metal of strategic importance with wide industrial usage, primarily in consumer electronic products. Avalon's East Kemptville project is a brownfield site, with operations discontinued in the 1980's due to collapse in tin prices. The project's initial resource estimates highlighted an indicated and inferred mineral resource of 18.47 million metric tons and 16.95 million metric tons respectively. Further, approximately 6 million metric tons of stockpiled ore at the site offer near-term production potential at low capital costs. Avalon is actively involved in establishing a small-scale redevelopment plant at 2,400 tons per day (tpd) capacity in order to process the existing stockpiled ore and produce near-term cash flow at a

low initial capital cost (\$20 million). As of Jan 3, 2017, the Company has sent tin concentrate samples to one interested customer and is in negotiations with other parties. Additionally, the project is strategically located with excellent infrastructure facilities including grid power, highway connectivity and deep water port facility. The project can attract the local skilled labor force and enables workers to commute to the project area. Despite short-term volatility in tin prices, the project's long-term attractive mineral resource estimate and strategic location place the Company at an advantageous position to grow production over time. The deposit also offers potential for by-product lithium production, along with indium, zinc and copper.

Ability to access capital market for fundraising

Avalon needs to raise sufficient capital in order to fund its upcoming growth plans. The Company's ambitious plans for expanding its mineral base and constructing a processing plant at the Separation Rapids lithium project require significant capital investment. Avalon has been successful in raising funds through the capital markets in the past. For instance, between November 1, 2016, and December 31, 2016, the Company successfully raised \$1.375 million in gross proceeds through non-brokered private placements for advancing its Separation Rapids lithium project. Such strong fundraising competence boosts investor confidence and aids in rapid progress of the Company's projects. The Company has also indicated that it may be able to access funding for its proposed lithium pilot plant from a number of Canadian government programs established to support clean technology start-ups.

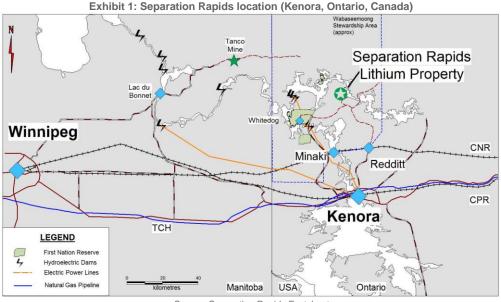
Company Overview

Avalon is a mineral exploration and development company operating in Canada. The Company is focused on exploring niche industrial metals and minerals such as lithium, tin, indium and the heavy rare earth elements ("HREE"). Avalon is presently developing two of its six 100% owned projects, namely Separation Rapids (lithium) located in Kenora, Ontario, Canada as well as its East Kemptville (tin-indium) project situated in Yarmouth, Nova Scotia, Canada. The Company's tin asset has potential to generate near term cash-flow from its stockpiles which would assist the development of its lithium project. Lithium is a material that is in high demand from China and around the world due to growth in the energy storage, electric vehicle and electronics sectors. The Company's Nechalacho Rare Earth Elements (REE) project located in the Northwest Territories of Canada, although advanced, is largely inactive at the present time due to reduced market interest in rare earths. However, it is worthwhile noting that recent work has indicated potential to develop lithium resources on the property.

Separation Rapids Lithium Project

Location and Geology

The Separation Rapids project is located 70 kilometers north of Kenora, Ontario in Canada. Avalon owns 100% of this project. The project covers 1,413 hectares approximately, including a 448-hectare mining lease. Lithium mineralization occurs in the form of zoned pegmatite deposits, rich in the rare lithium mineral petalite and other lithium minerals including lepidolite. Exhibit 1 shows the location of Separation Rapids in Northwestern Ontario. (Please refer to RB Milestone Group's previous report dated October 17, 2016, for further details on the project).



Source: Separation Rapids Factsheet



Recent Developments & Future Strategy

Avalon has significantly advanced the project towards the production of battery grade lithium hydroxide. Recently on February 6, 2017, Avalon released lepidolite laboratory test work results confirming the potential to extract 99.8% pure battery grade lithium carbonate from lepidolite mineralization (lithium-rubidium mica containing an attractive 8% Li₂O, compared to petalite's 4.0-4.5% Li₂O) in the Separation Rapids project area. Lepidolite boosts the Company with a second source of lithium battery material in addition to the existing petalite source. The test work also revealed opportunities to recover valuable by-products such as caesium, rubidium and tantalum. The study was conducted by Lepidico Ltd, an ASX listed lithium exploration and development company using its patented L-Max technology. Subsequently, Avalon entered into a non-binding letter of intent ("LOI") agreement with Lepidico to sell approximately 15,000 metric tons of lepidolite for processing in Lepidico's planned production facility and also expects to undertake construction of its own lithium carbonate processing plant in 2018.

On September 27, 2016, Avalon released the Preliminary Economic Assessment (PEA) results, which revealed it had developed an economic hydrometallurgical extraction process to recover a high purity lithium hydroxide product from the petalite in the resource along with a feldspar by-product. With the successful completion of the PEA, the Company sent highly pure lithium hydroxide (>99.5%) samples to a major Canadian research facility in order to test its compatibility in usage as a battery cathode material. Further, the Company now plans to establish a demonstration-scale pilot plant to produce trial quantities of its lithium products and complete a Feasibility Study in order to commence commercial operations by 2020.

On the mineral resources front, Avalon plans to conduct a drilling campaign in order to test lateral and depth extensions of the pegmatite in an effort to expand the recoverable lithium mineral resources, including sub-zones enriched in lepidolite. This should significantly increase the Company's lithium producing mineral resources.

A Staged approach towards lithium production - Strategy aimed at sustainable mining

Avalon intends to advance its lithium project through a staged approach in order to reduce capital investment risk. Avalon initially expects to serve its glass ceramic customers with the petalite industrial mineral product, which is the mineral concentrate produced at the site (Stage 1). The lithium battery material product (lithium hydroxide) would be produced from a second plant (Stage 2) designed to recover lithium from the petalite (and potentially lepidolite) mineral concentrate feeds. As an integral part of the Company's approach, the Company has planned to establish a demonstration plant in 2017-2018 to produce sufficient quantities of lithium product samples for testing and acceptance in both the glass ceramic market and the battery market. The scale and operational parameters of the demonstration plant would be based on a "mini pilot plant" and market development study carried out in early 2017. The demonstration plant will be scaled so that it can serve as an interim production facility until the full-scale plant is operational. The staged approach would improve the Company's operational functionalities and enable it to scale up to full scale production with reliable product quality. Avalon's staged approach also builds investor confidence, reduces risk and enhances its ability to source capital to finance the project.

Work Plan: 2017-2018

- Identify potential customers for all lithium product offtake agreements
- Undertake "mini pilot" study of the lithium chemical process
- Construct and begin operating demonstration plant to define products and markets
- Undertake further drilling operations to expand the underlying mineral resources
- Complete project engineering and feasibility study

2018-19

Lithium production scale up

2020-21

Commence full scale commercial operations

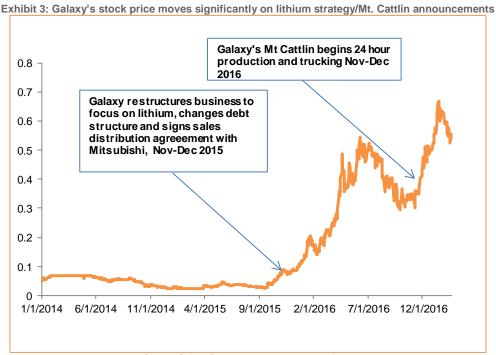
Comparable development stage lithium companies

There are a number of lithium companies in Australia, Argentina and Canada developing hard rock lithium deposits that are at various stages of the mining cycle. Two we'd like to focus on are Nemaska Lithium and Galaxy Resources. Both are more advanced than Avalon's Separation Rapids; however, we provide an overview of each to what could potentially be ahead for Avalon.

Galaxy has initiated production and off-take agreements at its Western Australian asset, and Nemaska has completed a Feasibility Study, established a pilot plant to begin producing lithium hydroxide and has secured off-take agreements. Galaxy has achieved a market valuation of about AUD\$1 billion while Nemaska has achieved a valuation of about CAD\$350 million. Both stocks have seen strong price movement over the past 1-2 years due to growing lithium demand and higher prices as supply shortages loom. Exhibits 2 and 3 show how Nemaska's and Galaxy's stock prices reacted to significant milestones at their lithium projects.

Advancements in Offtake aggrement and Phase-1 plant development 2 Positive NI 43-101 1.8 technical feasibility 1.6 study 1.4 Positive PEA study 1.2 1 0.8 0.6 0.4 0.2 Dec-13 Mar-15 Source: Nemaska corporate press release

Exhibit 2: Nemaska's stock price on the rise after positive Feasibility Study results



Source: Galaxy Resources corporate press release

The Nemaska and Galaxy examples provide an indication of what sort of valuation Avalon could potentially achieve if it follows the same project development path over the next two years and demonstrates a comparable business opportunity. While it is still early, Avalon has demonstrated with its positive PEA results that it now clearly has the potential to do so. With a valuation of over \$30 million and drilling planned to expand the resource along with pilot plant optimization of its process flowsheets, Avalon is in a good position to have comparable growth to what Nemaska and Galaxy have experienced thus far.



Comparable PEA results brighten the prospect of a successful 2017 Feasibility Study for Avalon

The results of Avalon's PEA (discussed above in Recent Developments & Future Strategy) are comparable to Nemaska's PEA results released in October 2012. Exhibit 4 shows some of the PEA highlights side by side.

Exhibit 4: Comparison of Avalon's competitors, with the emphasis on their project advancements

Parameters	Avalon (>4% Li ₂ O)	Nemaska (6% Li ₂ O)
Pre-tax NPV at 6% discount rate	CAD\$343 million	CAD\$567 million
IRR (pre-tax)	19%	23%
Mine life	10 years	18 years
Lithium hydroxide production (full mine life) (Metric tons)	145,200	366,000
Lithium Hydroxide price	US\$11,000/metric ton	US\$8,000/metric ton
Lithium hydroxide production cost	US\$4900/metric ton	US\$3400/metric ton

Source: Nemaska and Avalon Corporate press release

These PEA results show that Avalon's Separation Rapids project could be developed into an economically healthy mining project, and is well-positioned to advance towards the production of battery grade lithium hydroxide. Further, Avalon also plans to extend its exploration to include western and eastern extensions of the project area by conducting a 10,000 meter diamond drilling program. This should help increase Avalon's resource base and provide it with additional feed material for processing to high grade lithium hydroxide. This should further enhance the Company's project economics.

Exhibit 5 below shows the close proximity to Nemaska's production plant in Shawinigan, Quebec, Canada, which is located 2,187Km (or 1,358 miles) to the east of Avalon's Separation Rapids project in Kenora, Ontario, Quebec. Nemaska's lithium project is located in Chibougamau, Canada, which is 1,865Km or 1,158 miles east of Avalon's asset.



Source: Google Earth

Environmentally friendly operations promotes sustainability

Avalon has integrated a number of measures into its development plans to mitigate any environmental impacts from the proposed operations. The deposit contains no toxic materials, such as acid generating sulphides, that could create a disposal issue and the tailings are expected to be chemically inert. The waste rock is also inert and the Company contemplates that it could be used for crushed aggregate, which is scarce in the general area of the mine site. The Company has also commenced measures to design the tailings management facility and assess potential waste and air emissions that could emanate from the proposed hydrometallurgical plant. These environmental measures should mitigate any risks of delays on receiving regulatory approvals and permits.

Active community engagement creates positive vibe

Avalon renewed an MOU agreement with Wabaseemoong Independent Nations (WIN), a First Nation band government of Ojjbwe indigenous people in Kenora, Ontario in 2013. As a part of the agreement, Avalon is actively engaging the local community in the Company's project operations and business partnerships. This strengthens the relationship between the Company and the local community, which could prove beneficial for Avalon's current operations and future endeavors. The Company has also engaged with other indigenous peoples with rights in the area, notably the Métis Nation of Ontario.

As discussed in the Separation Rapid project's future strategy, Avalon plans on completing a project Feasibility Study in 2017 and advancing its project systematically through suitable offtake agreements, making the project feasible and economically sustainable.



East Kemptville Tin-Indium Project

Location and Geology

Avalon's East Kemptville project is located approximately 45 km northeast of Yarmouth, Nova Scotia, Canada. Avalon owns 100% interest in the East Kemptville Tin-Indium Project. The project area covers 4,000 hectares of four contiguous exploration licenses. The Company also claims 356 hectares through a special mining license. (*Please refer to RB Milestone Group's previous report dated October 27, 2016, for further details on the project*). Exhibit 6 displays the location of the East Kemptville Tin-Indium project.



Source: East Kemptville Factsheet

Avalon is making significant progress in its East Kemptville Tin-Indium project and is well poised to achieve cash flow in the near term. Avalon is now envisioning a small-scale redevelopment scenario, which could provide cash flow to the Company in the near term. This would involve establishing a small-scale 2,400 tpd (metric tons per day) processing facility in order to process approximately 6 million metric tons of previously-mined and stockpiled low-grade tin ore (from historic operations). Initial work conducted on the stockpiled ore revealed positive results. The test work produced tin concentrate of 44.6% tin and subsequent optimization work has confirmed the potential to increase the grade to greater than 50% tin through a flotation process. This scenario has the benefit of relatively low capital costs (CAD\$20-25 million) a simple permitting process and short timelines to production (12-18 months). The operation life can be extended by processing fresher higher grade from the Baby Zone pit, once the stockpiled ore gets exhausted.

Avalon finds this small-scale development plant model to be attractive, since it provides the Company with near term cash flow at low capital costs. Avalon expects to scale up production in the near future with higher demand for tin. Additionally, processing of existing ore stockpiles contributes to the environmental remediation of the project site.

Exhibit 7 displays the inferred mineral resource of the ore stockpiles. Mineral resource and grade estimates were based on historical data and further confirmed by Avalon's sampling campaign conducted in the stockpile area in 2016.

Exhibit 7: Mineral Resource estimate of ore stockpiles at East Kemptville

Stockpiled ore (Million metric tons)	Grade (%)		
5.87	Sn	Zn	Cu
	0.11	0.10	0.06

Source: Company's annual report 2016

The Company has successfully sent samples of tin concentrate to one interested customer. The Company is also in discussion with potential customers for offtake agreements. These positive moves could provide the Company with a near term cash flow, which could be further utilized for future project developments.

Future plans: The Company intends to complete the process to secure full tenure to the site through a Mining Lease and undertake a drilling campaign on the stockpiles to confirm grade distribution, while preparing for plant construction later in 2017.

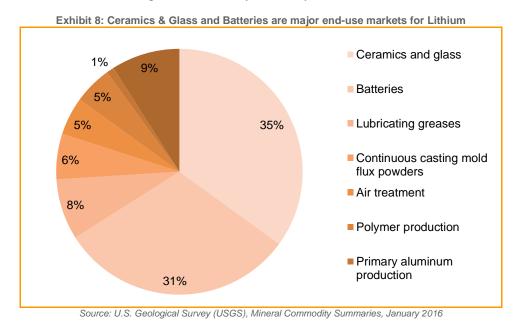


Industry Overview

Traditionally, lithium has been used in electronics, lubricating greases, ceramics, aluminum production and others. In recent years, there is an increasing demand for lithium ion batteries due to growing awareness for clean energy. Tin, which is widely used as protective coating, solders to join pipe, glass making and others, has also continued to experience decent demand as well.

Lithium: Growth in Electric Vehicles (EV) Industry and batteries to drive demand

In early 1980's, the lithium industry experienced a resurgent growth, when new applications for lithium ion batteries were introduced to the market. Due to technological advancements in the lithium industry, the lithium ion battery has become the preferred energy storage solution. The energy storage solutions utilized for Electric Vehicles (EV) and Home Energy Storage Solution (ESS) markets have an ability to create huge global lithium demand. Exhibit 8 shows global end use markets for lithium. According to the US Geological Survey (USGS), consumption for lithium batteries has grown considerably in recent years.



Over the past ten years, governments across the globe, specifically in the automotive sector, have been taking steps towards clean energy and promoting usage of electrical vehicles. According to the International Energy Agency (IEA), in 2015, global electric car sales stood at 1.26 million - exceeding estimates of 1 million. However, the contribution of electric vehicles was a meagre 0.6% in the global automobile sales in 2015. This scenario is expected to change in the near future as governments are increasingly adopting clean energy solutions. At present, Hybrid Electric Vehicles (HEVs) and Plug-In Hybrids Vehicles (PHEVs) dominate the EV market. However, sales of EV are expected to grow to 16 million by 2025 and account for 3% of global automotive sales. Due to this surge in EV demand, electric vehicle battery sales are expected to grow significantly, leading to increased demand for lithium. Further, the demand for EVs is expected to drive lithium consumption from 25 kilotons in 2015 to 205 kilotons in 2025, a CAGR growth of 23%. Exhibit 9 shows Deutsche Bank's estimate of sales of vehicles in different categories.

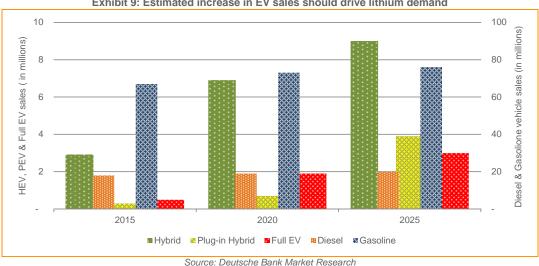


Exhibit 9: Estimated increase in EV sales should drive lithium demand

Long-term Demand Supply mismatch to boost lithium prices

With the above-mentioned growth in the EV segment, global demand for lithium is expected to increase significantly and surpass existing tight supply. As supply is expected to also increase, a short-term price correction may be expected near-term, according to Jon Hykawy of Stormcrow Capital. However, global demand for lithium should continue to exceed future supply, boosting or at least maintaining lithium prices in the coming years. Exhibit 10 shows the demand-supply forecast for lithium in hundreds of metric tons.

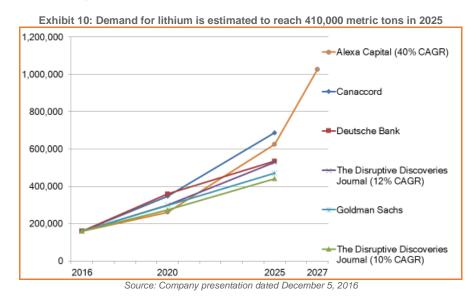
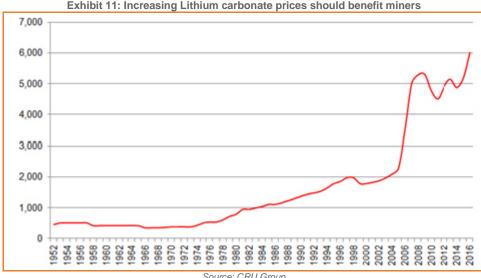


Exhibit 11 below shows the rise in prices of lithium carbonate in recent years has been explosive. The demand-led price hike has even led to registered deal prices for more than USD\$10,000 per ton in China, also making lithium based mining projects more feasible and profitable to explore.

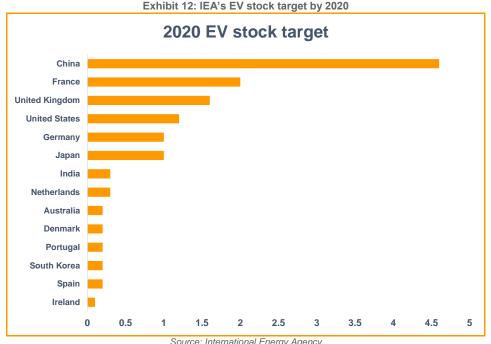


Source: CRU Group

Specifically, with increasing usage of lithium-ion batteries, demand for lithium hydroxide is forecast to grow to 186,000 metric tons LCE (Lithium Carbonate Equivalent) in 2025 from 82,000 metric tons LCE in 2016. Generally, lithium hydroxide sells at a premium price of USD \$2-3 per kg to lithium carbonate as lithium hydroxide incurs higher production costs. Thus, a premium for lithium hydroxide over lithium carbonate would also add to Avalon's bottom line, as lithium hydroxide is the primary target mineral for the Company.

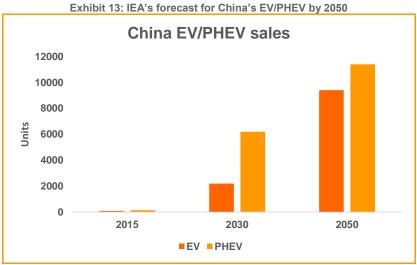
China - A leading demand source for the lithium market

China's electrical vehicle market is led by electrical buses then followed by cars, taxis, two wheelers and special vehicles. Galaxy Resources Lithium's (ASX: GXY) Investors presentation dated December 2016, shows that China's lithium chemical demand dominated at 70 kilo ton (kt), followed by Japan (21 kt), Korea (18 kt) and rest of the world (53 kt). According to IEA, in 2015, the global electric bus stock was approximately 173,000 vehicles, mostly located in China. From 2014 to 2015, the global electric bus stock surged almost six-fold, backed by China's shift to electrical vehicle in a bid to reduce air pollution levels. Further, in order to continue China's journey towards clean energy, the government has introduced various policies such as tax relief and financial subsides, which would encourage more usage of electrical vehicles in China. As per IEA analysis, the Electric Vehicles Initiative (EVI) has set a target of 20 million EVs on road by 2020, as depicted in Exhibit 12. China leads the EV stock target and aims to produce an average market share of electric car between 5-10% by 2016-2020. China's EV targets include 4.3 million cars and 0.3 million taxis and which is part of the country's deployment target of 5 million cars, taxis, buses and special vehicles by 2020.



Source: International Energy Agency

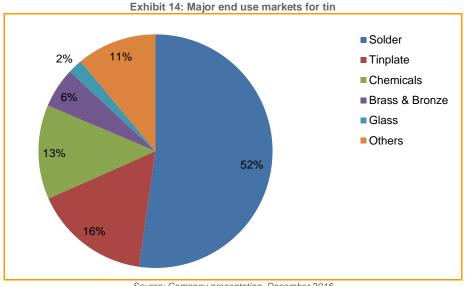
China government's initiative for clean energy would continue to keep the country as the global leader of EV and PHEV as shown in Exhibit 13.



Source: International Energy Agency

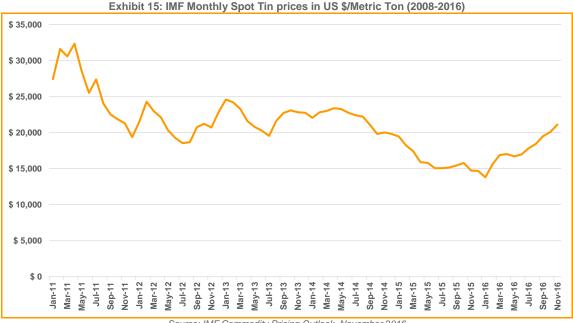
Tin: Long term demand to offset short term excess supply

Tin is primary used as solders in consumer electronics (which accounts for 52% of tin demand), tinplate production (16%), chemical production (13%), brass & bronze (6%) and glass (2%). According to the data from the Economist Intelligence Unit, tin consumption is expected to grow by 0.7% in 2016 and 1.5% per year in 2017-18 on recovering global economic conditions. Further, tin is also used in automobile production for seat cushion, plastics, fuel tank coating, brake pads additives, wiring and others. Exhibit 14 shows the demand for tin in various end use markets.

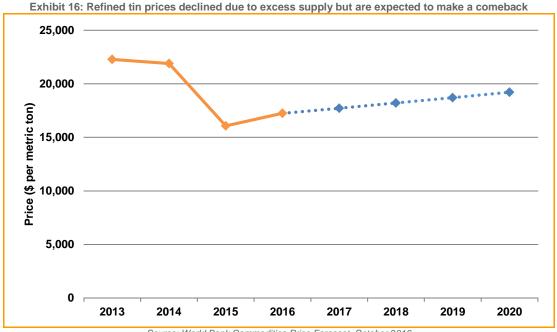


Source: Company presentation, December 2016

As shown in Exhibit 15, LME monthly average standard grade tin prices in 2016 has increased due to lower supply. Shipments from Myanmar to China have also fallen due to declining ore quality. Further, production of tin from Indonesia's PT Timah may not reach the target of 30,000 MT levels. On the other hand, several smelters in China have curtailed production of tin as the Chinese government has taken strict steps due to environmental issues.



Source: IMF Commodity Pricing Outlook, November 2016



Source: World Bank Commodities Price Forecast, October 2016

Exhibit 16 shows that tin prices are expected to increase in the coming years owing to shrinking inventories. Avalon should benefit from such a supply-deficit scenario and therefore, enhance its potential revenue stream.

Financial Performance

We now discuss the financial performance of Avalon Advanced Materials Inc. for the year ended August 31, 2016. The Company's fiscal financial period runs from September to August. All monetary units in the following sections are denoted in Canadian dollars unless otherwise noted.

Exhibit 17 shows the cash burn analysis and financial sustainability of Avalon. The Company's average cash burn stood at \$0.67 million per month, with an average survival rate of 6.59 months. We have calculated the cash burn based on operating and investing activities for the last nine quarters. The cash burn analysis takes investing activities into the calculation as the Company is in the initial stages of



exploration, which requires significant capital expenditures. As of August 31, 2016, the Company's cash and cash equivalents stood at \$1.36 million. Further, Avalon's fundraising capabilities have been good in the past as the Company raised approximately \$3 million during the twelve months ended August 31, 2016, primarily from the issuance of shares. In addition, on December 23, 2016, the Company raised \$375,000 from the issuance of shares at \$0.15 per share. As a result, the Company is funded to initiate its drilling program in early 2017.

Exhibit 17: Historical burn rate estimates imply a survival of 6.59 months

Quarters	Aug-14	Nov-14	Feb-15	May-15	Aug-15	Nov-15	Feb-16	May-16	Aug-16	Average
Net operating cash flow	(\$1.17)	(\$1.06)	(\$1.08)	(\$0.78)	(\$0.92)	(\$0.82)	(\$0.80)	(\$0.85)	(\$0.79)	(\$0.92)
Net investing cash flow	(\$1.96)	(\$1.83)	(\$0.71)	(\$0.49)	(\$1.25)	(\$1.50)	(\$1.13)	(\$0.42)	(\$0.60)	(\$1.10)
Net financing cash flow	\$5.97	\$0.28	\$3.30	\$3.89	(\$0.17)	\$0.22	\$0.69	\$2.09	\$0.02	\$1.81
Cash position (quarter end)	\$6.02	\$3.42	\$4.96	\$7.58	\$5.25	\$3.16	\$1.91	\$2.73	\$1.36	\$4.04
Burn Rate per month	(\$1.04)	(\$0.96)	(\$0.59)	(\$0.42)	(\$0.72)	(\$0.77)	(\$0.65)	(\$0.42)	(\$0.46)	(\$0.67)
Survival period (in months)	5.77	3.56	8.34	17.98	7.27	4.09	2.96	6.44	2.93	6.59

Source: RB Milestone Group's Research

Exhibit 18 displays Avalon's income statements for the years ended August 31, 2016, and 2015. During the twelve months ended August 2016, the Company did not generate revenues from its core mineral exploration operations. The Company's interest income decreased by 47% due to lower cash and cash equivalents available during the year ended August 31, 2016, compared to the year ended August 31, 2015. Avalon's continued efforts to cut overhead costs enabled it to reduce corporate and administrative expenses by 18% to \$3.2 million for the year ended August 31, 2016. This cost reduction was mainly due to lower consulting and professional fees, salary benefits, filing and directors' fees. Further, the Company incurred impairment loss of \$0.2 million, as the Company had written off expenditures related to the Miramichi Tin Property, New Brunswick. Additionally, Share-based compensation decreased significantly by 56% to \$0.35 million due to fair value adjustments. The Company's loss per share stood at \$0.021 per share for the year ended August 31, 2016, compared to -\$0.023 per share for the year ended August 31, 2015.

Exhibit 18: Income Statements for the years ended August 31, 2016 and 2015

Income Statement	Year ended August 31, 2016	Year ended August 31, 2015	Y-o-Y % Change
Revenue			
Interest	\$35,160	\$66,014	-47%
Expenses			
Corporate and administrative expenses			
Impairment loss on exploration and evaluation assets	223,938	6,425	NA
Write- off of land acquisition option payments	-	212,960	
General exploration	37,987	33,782	12%
Depreciation	38,282	55,730	-31%
Share based compensation	345,435	788,880	-56%
Foreign exchange loss (gain)	(9,274)	(25,355)	63%
Financing transaction costs	10,598	-	
Increase (Decrease) in fair value of warrants denominated	122,561	(1,431,765)	109%



Total Expenses	3,990,945	3,589,977	11%
Net Loss before Income Taxes	(3,955,785)	(3,523,963)	-12%
Deferred Income Tax Recoveries	416,140	347,589	20%
Net Loss and Total Comprehensive Loss for the year	(3,539,645)	(3,176,374)	-11%
Loss per Share - Basic and Diluted	\$(0.021)	\$(0.023)	7%
Weighted Average Number of Common Shares Outstanding,	167,184,272	139,893,312	

Source: Company Filings

Exhibit 19 displays Avalon's balance sheets as of August 31, 2016, and August 31, 2015. As of August 31, 2016, the Company's cash balance and adjusted working capital stood at \$1.36 million and \$1.16 million respectively for financing its operating expenditures. Both accounts payable and receivables decreased significantly by 54% and 47% respectively. Further, prepaid expenses also decreased by 56% to \$0.29 million on August 31, 2016, from \$0.68 million on August 31, 2015. With respect to non-current assets, exploration and evaluation assets increased by 40% to \$12.6 million. This is attributable to increased exploration expenditures incurred at the Separation Rapids Lithium Project and the East Kemptville Tin-Indium Project. Warrants denominated in foreign currency increased by 42% to \$0.41 million from \$0.29 million due to fair value adjustments.

Exhibit 19: Balance Sheets as of August 31, 2016, and August 31, 2015

Balance Sheet	As of August 31, 2016,	As of August 31, 2015	Y-O-Y % change
Assets			
Current Assets:			
Cash and cash equivalents	\$1,360,487	\$5,247,738	-74%
Other receivables	226,485	424,259	-47%
Prepaid expenses and deposits	299,894	680,008	-56%
Non-Current Assets:			
Exploration and evaluation assets	12,567,244	9,003,980	40%
Property, plant and equipment	104,060,940	103,867,289	0%
Total Assets	\$118,515,050	\$119,223,274	-1%
12-kgg.			
Liabilities			
Current Liabilities:			
Accounts payable	\$223,661	\$488,719	-54%
Accrued liabilities	502,734	600,070	-16%
Deferred flow-through share premium	96,617	293,808	-67%
Warrants denominated in foreign currency	411,418	288,857	42%
Non-Current Liabilities:			
Site closure and reclamation provisions	263,600	263,600	-
Total Liabilities	\$1,498,030	\$1,935,054	-23%
Shareholders' Equity			
	A.O	0.0	
Share Capital	\$167,181,354	\$164,695,991	2%
Reserve for Warrants	4,313,701	4,020,968	7%
Reserve for Share Based Payments	16,700,417	16,244,942	3%
Reserve for Brokers' Compensation Warrants	254,112	219,238	16%
Accumulated Deficit	(71,432,564)	(67,892,919)	-5%
Total Shareholder's Equity	\$117,017,020	\$117,288,220	0%
Total Liabilities and Shareholder's Equity	\$118,515,050	\$119,223,274	-1%

Source: Company Filings



Exhibit 20 shows Avalon's cash flow statements for the twelve months ended August 31, 2016, and August 31, 2015. During the twelve months ended August 31, 2016, the Company raised \$3 million primarily through the issuance of shares, compared to \$7.3 million during the same period in 2015. Further, the Company also decreased its investment in property, plant, and equipment significantly to \$0.2 million from \$2.3 million in the same period in 2015, due to write-downs of inactive projects.

Exhibit 20: Cash Flow Statement for the years ended August 31, 2016 and 2015

Cash flow statement	Year ended August 31, 2016	Year ended August 31, 2015	Y-o-Y % Change
Cash Flow from Operating Activities			
Cash paid to employees	\$(1,669,257)	\$(2,020,914)	-17%
Cash paid to suppliers	(1,646,458)	(1,866,686)	-12%
Interest received	50,374	62,019	-19%
Cash Used by Operating Activities	\$(3,265,341)	\$(3,825,581)	-15%
Cash Flow from Financing Activities			
Proceeds from equity offerings	2,955,112	7,290,345	-59%
Proceeds from exercise of stock options	-	11,000	
Proceeds from exercise of warrants	18,750	-	
Proceeds from exercise of brokers' compensation warrants	45,000	-	
Share issuance costs	-	-	
Cash Provided by Financing Activities	\$3,018,862	\$7,301,345	-59%
Cash Flow from Investing Activities			
Exploration and evaluation assets	(3,439,231)	(1,947,465)	77%
Property, plant and equipment	(210,815)	(2,323,514)	-91%
Cash Used by Investing Activities	\$(3,650,046)	\$(4,270,979)	-15%
Change in Cash and Cash Equivalents	\$(3,896,525)	\$(795,215)	390%
Foreign Exchange Effect on Cash	9,274	25,355	-63%
Cash and Cash Equivalents – beginning of year	\$5,247,738	\$6,017,598	-13%
Cash and Cash Equivalents – end of year	\$1,360,487	\$5,247,738	-74%

Source: Company Filings



Shareholder information

Exhibit 21 shows the shareholder information of the Company. Management and Board members currently own approximately 15% of the total shares outstanding. Exhibit 22 presents Avalon's insiders outstanding shares as of November 28, 2016.

Exhibit 21: Shareholders information as of January 10, 2017

Particulars	Description
Shares Outstanding	187.6 million
Fully Diluted	222 million
Shareholders	Insiders (15%), Institutional (15%) Retail (70%)

Source: Company Investor presentation

Exhibit 22: Avalon's insiders' shares outstanding as of November 28, 2016

Name of Beneficial Owner	Number of Shares	%
R. James Andersen	300,000	0.2%
Donald Bubar	5,111,100	2.8%
Alan Ferry	225,000	0.1%
Brian D. MacEachen	340,000	0.2%
Peter McCarter	80,000	0.0%
William Mercer	106,234	0.1%
Pierre Neatby	23,500	0.0%
Kenneth G. Thomas	49,000	0.0%

Source: Annual report 2016



Sources

- Company Website and press releases
- Company Investor Presentation
- SEDAR filings of the Company
- Global Market Outlook for Photovoltaics 2015-2019, EPIA
- IHS Global Information Company
- U.S. Department of Energy
- U.S. Energy Information Agency
- China National Energy Administration
- National Renewable Energy Laboratory website

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"Forward looking statements" as defined under Section 27A of the Securities Act of 1933, Section 21B of the Securities Exchange Act of 1934 and the Private Securities Litigation Act of 1995 include words such as "opportunities," "trends," "potential," "estimates," "may," "will," "could," "should," "anticipates," "expects" or comparable terminology or by discussions of strategy. These forward looking statements are subject to a number of known and unknown risks and uncertainties outside of the company's or our control that could cause actual operations or results to differ materially from those anticipated. Factors that could affect performance include, but are not limited to those factors that are discussed in each profiled company's most recent reports or company filings or registration statements filed with the SEC or other actual government regulatory agency. 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Subsequently, RBMG's new principal ("Principal"), through a controlling interest in RBME, exercised all of its warrants to purchase 400,000 common shares of Avalon from Avalon. Currently, Principal, through a controlling interest in RBME, indirectly owns shares of Avalon. Principal will directly or indirectly buy, sell, hold or exercise shares, options, rights, or warrants to purchase shares of Avalon at its lawful discretion and this can happen at any time.