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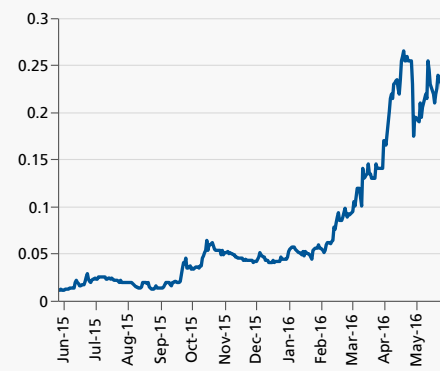
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## SPECULATIVE BUY

**PRICE TARGET** A\$0.35  
**Price (24-May)** A\$0.22  
**Ticker** AJM-ASX

52-Week Range (A\$): 0.01 - 0.28  
 Avg Daily Vol (M) : 5.6  
 Market Cap (A\$M): 213  
 Shares Out. (M) : 977.1  
 Enterprise Value (A\$M): 226  
 Cash (A\$M): 2.84  
 Long-Term Debt (A\$M): (16.9)  
 NAV /Shr (AUC): 0.33  
 Major Shareholders: Shazo Holdings - 16%

FYE Jun	2015A	2016E	2017E	2018E
Production	-	-	-	126
Cash Costs (A\$)	-	0	0	337
EBITDA (A\$M)	(0.5)	(3.2)	(2.1)	43.9
EV/EBITDA (x)	(465.7)	(71.6)	(99.9)	7.8
Free Cash Flow (A\$M)	(5.0)	(5.5)	(85.1)	(31.5)



Source: FactSet

Altura Mining (AJM:ASX) is developing the 100%-owned Pilgangoora lithium project in Western Australia. Production is expected in late 2017 at a run rate of 215ktpa spodumene concentrate for an initial mine life of 14 years. AJM also has interests in Indonesian coal projects which it is looking to divest.

## Initiation of Coverage

## Winning the race in the Pilbara

The Pilbara region in Western Australia has seen a bona fide lithium stampede in the past 12 months, with +20 companies now at various stages of exploration and development in the area. The most advanced of these is AJM's Pilgangoora project, which has held tenure in the region since 2001. AJM has defined resources and reserves adequate to underpin a Definitive Feasibility Study (DFS), which is due in the near term, and we expect the company to make a development decision in the 2H 2016. With binding off-take agreements in place, optionality around production scale and exploration upside potential, we see a bright future for AJM. Accordingly, we initiate coverage with a SPEC BUY recommendation and A\$0.35/sh price target.

## Highlights

**Good mix of the right ingredients.** The current reserve at Pilgangoora (18.4Mt at 1.07% Li2O) supports an initial 14-year mine life, assuming a 1.4Mtpa processing rate as outlined in the April 2016 Feasibility Study. Comparatively lower reserve grades are offset by favorable orebody geometry, with a low strip ratio (~2.7:1 LOM) a key driver in the project's economics. While the envisaged production profile (~215ktpa spodumene concentrate) is smaller than some of its development peers, we see the lower capex and faster timeline to production as key positives underpinning our investment thesis. The modest capital requirement should allow AJM to retain 100% ownership of the project and establish itself early in an increasingly competitive supply environment.

**Binding offtake partner in place.** AJM has executed a Binding Offtake Agreement (BOA) with China-based Lionenergy Ltd (24 April 2016) for an initial 100ktpa over 5 years, with options to extend on negotiation. Completion of the first BOA is a key de-risking factor, and we note that Lionenergy is aligned as a shareholder following the A\$3m placement in March 2016. AJM also has a non-binding MoU for offtake with Chinese battery giant Optimum Nano, an alliance that could be important for AJM as a natural resource supplier into the expanding lithium battery market.

**Coal assets; something is better than nothing.** AJM holds a 33% stake in the Delta coal mine (thermal) in East Kalimantan and a 70% stake in the Tabalong coal project (thermal) in South Kalimantan, Indonesia. AJM is reviewing its position with respect to these assets, including the possible sale or divestment into a special purpose vehicle. We have taken the conservative view and attributed zero value to the assets, noting that a sale which netted off the attached debt relating to Delta would be advantageous to our valuation.

## Valuation

Our A\$0.35/sh price target is based on an NPV10% for the Pilgangoora asset net of corporate and other adjustments. We have also assumed a A\$60m equity raise in the DecQ'16 as part of the 55:45 debt/equity funding for the A\$130m capital requirement on the project. Our valuation is diluted to account for these assumptions.

## FINANCIAL SUMMARY

## Altura Mining Limited

ASX:AJM

Analyst: Tim McCormack  
Date: 25/05/2016  
Year End: June

Rating:  
Target Price:

**SPEC BUY**  
**\$0.35**

## Market Information

Share Price	A\$	0.22
Market Capitalisation	A\$m	210.08
12 Month Hi	A\$	0.28
12 Month Lo	A\$	0.01
Issued Capital	m	977.13
ITM Options	m	150.61
Fully Diluted	m	1,127.75

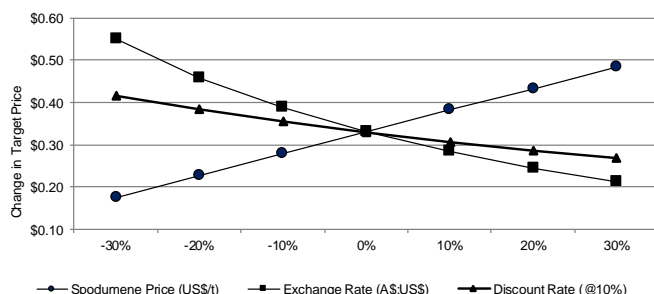
## Valuation

		A\$m	A\$/share
Pilgangoora	NPV <sub>10%</sub>	392.3	0.28
Exploration & Other	Estimate	35.0	0.03
Corporate		(15.0)	(0.01)
Cash		2.8	0.00
Debt (Product Prepayment)		(16.9)	(0.01)
Future equity raised		60.0	0.04
Unpaid capital		3.7	0.00
TOTAL		461.9	0.33
Target Price			<b>0.35</b>
P/NAV			0.61x

## Assumptions

	2016e	2017e	2018e
Lithium Carbonate (US\$/t)	6,813	8,250	8,250
Spodumene Concentrate (US\$/t)	466	600	540
Tantalum (US\$/lb)	75	75	75
AUD:USD	0.75	0.74	0.73

## Valuation Sensitivity



## Production Metrics

	2016e	2017e	2018e
<b>Pilgangoora (100%)</b>			
Spodumene concentrate (kt)	0.0	0.0	126.2
Lithium Carbonate Equivalent production (kt)	0.0	0.0	18.7
Tantalum concentrate (Mlb)	0.0	0.0	0.0
AISC (A\$/tonne)	0.0	0.0	337
AISC (US\$/tonne)	0.0	0.0	248

## Reserves &amp; Resources

	Mt	Grade (Li2O)	Li2O cont.	Ta2O5
<b>Pilgangoora (100%)</b>				
<b>Resources</b>				
Measured	0.0	0.00%	0.00	0.00
Indicated	26.7	1.05%	0.24	0.00
Inferred	9.0	1.02%	0.076	0.00
<b>Total</b>	<b>35.7</b>	<b>1.05%</b>	<b>0.315</b>	<b>0.00</b>
<b>Reserves</b>				
Proven	0.0	0.00%	0.00	0.00
Probable	18.4	1.07%	0.20	0.00
<b>Total</b>	<b>18.4</b>	<b>1.07%</b>	<b>0.20</b>	<b>0.00</b>

## Directors &amp; Management

Name	Position
James Brown	Managing Director
Paul Mantell	Executive Director
Allan Buckler	Non-exec Director
BT Kuan	Non-exec Director
Dan'Neill	Non-exec Director
<b>Substantial Shareholders</b>	<b>%</b>
Shazo Holdings (Allan Buckler affiliated)	16.0%
MT Smith	8.3%
Hartco Nominees (Terry Smith affiliated)	8.3%

## Company Description

Altura Mining (AJM:ASX) is developing the 100% owned Pilgangoora lithium project in Western Australia. Production is expected in late 2017 at a run rate of 215ktpa spodumene concentrate for an initial mine life of 14 years. AJM also has interests in Indonesian coal projects which it is looking to divest.

## Profit &amp; Loss (A\$m)

	2015a	2016e	2017e	2018e
<b>Revenue</b>	<b>4.7</b>	<b>1.0</b>	<b>0.0</b>	<b>83.9</b>
Other income	4.7	1.3	0.0	0.0
Operating Costs	-4.7	-1.2	0.0	-38.0
Corporate & O'heads	-5.1	-3.3	-1.6	-1.7
Exploration (Expensed)	-0.2	-1.1	-0.5	-0.4
<b>EBITDA</b>	<b>-0.5</b>	<b>-3.2</b>	<b>-2.1</b>	<b>43.9</b>
Dep'n	-0.1	0.0	0.0	-11.0
<b>EBIT</b>	<b>-0.6</b>	<b>-3.2</b>	<b>-2.1</b>	<b>33.0</b>
Net Interest	-0.3	-0.7	-0.8	-0.8
Abnormals (pre-tax)	-16.1	0.0	0.0	0.0
Tax	-0.3	-0.1	0.0	-9.9
<b>NPAT</b>	<b>-17.3</b>	<b>-3.9</b>	<b>-3.0</b>	<b>22.3</b>
Abnormals	-12.8	0.0	0.0	0.0
<b>NPAT (reported)</b>	<b>-30.1</b>	<b>-3.9</b>	<b>-3.0</b>	<b>22.3</b>

## Cash Flow (A\$m)

	2015a	2016e	2017e	2018e
<b>Cash Receipts</b>	<b>4.2</b>	<b>2.1</b>	<b>0.0</b>	<b>83.9</b>
Cash paid to suppliers & employees	-7.3	-4.3	-1.6	-39.6
Tax Paid	-0.1	-0.1	0.0	-9.9
Net Interest	0.1	-0.8	-0.8	-0.8
<b>Operating Cash Flow</b>	<b>-3.0</b>	<b>-3.2</b>	<b>-2.5</b>	<b>33.7</b>
Exploration and Evaluation	-0.8	-2.2	-1.6	-1.2
Capex	-0.0	0.0	-75.0	-58.0
Other	-1.1	-0.2	-6.0	-6.0
<b>Investing Cash Flow</b>	<b>-2.0</b>	<b>-2.3</b>	<b>-82.6</b>	<b>-65.2</b>
Debt Drawdown (repayment)	-0.5	0.0	34.4	24.4
Share capital	3.8	6.5	60.0	0.0
Dividends	0.0	0.0	0.0	0.0
Financing Expenses	0.3	0.0	0.0	0.0
<b>Financing Cash Flow</b>	<b>3.6</b>	<b>6.4</b>	<b>94.4</b>	<b>24.4</b>
Opening Cash	3.4	2.1	3.0	12.3
Increase / (Decrease) in cash	-1.4	1.0	9.3	-7.2
FX Impact	0.1	0.0	0.0	0.0
<b>Closing Cash</b>	<b>2.1</b>	<b>3.0</b>	<b>12.3</b>	<b>5.2</b>

## Balance Sheet (A\$m)

	2015a	2016e	2017e	2018e
<b>Cash + S/Term Deposits</b>	<b>2.1</b>	<b>3.0</b>	<b>12.3</b>	<b>5.2</b>
Other current assets	5.1	0.5	0.2	17.7
<b>Current Assets</b>	<b>7.2</b>	<b>3.6</b>	<b>12.5</b>	<b>22.9</b>
Property, Plant & Equip.	1.4	7.5	82.5	129.5
Mining, Expl'n & Develop.	14.9	41.0	42.1	43.0
Other Non-current Assets	22.9	19.5	19.5	19.5
Payables	2.6	0.7	0.2	25.3
Short Term debt	0.4	5.6	5.6	5.6
Long Term Debt	16.9	16.9	51.3	75.6
Other Liabilities	0.8	19.8	14.0	0.6
<b>Net Assets</b>	<b>25.8</b>	<b>28.4</b>	<b>85.4</b>	<b>107.7</b>
Shareholders Funds	78.9	85.4	145.4	145.4
Reserves	0.2	0.2	0.2	0.2
Retained Earnings	-53.7	-57.6	-60.6	-38.2
<b>Total Equity</b>	<b>25.8</b>	<b>28.4</b>	<b>85.4</b>	<b>107.7</b>

## Ratios &amp; Multiples

	2015a	2016e	2017e	2018e
EBITDA Margin	nm	nm	nm	52%
EV/EBITDA	nm	nm	nm	7.8x
Op. Cashflow/Share	\$0.00	\$0.00	\$0.00	\$0.03
P/CF	nm	nm	-98.2x	7.2x
EPS	-\$0.02	\$0.00	\$0.00	\$0.03
EPS Growth	nm	nm	-175%	1088%
PER	-10.5x	-59.0x	78.3x	6.6x
Dividend Per Share	\$0.00	\$0.00	\$0.00	\$0.00
Dividend Yield	0%	0%	0%	0%
ROE	-117%	-14%	-3%	21%
ROIC	-1%	-3%	-1%	10%
Debt/Equity	65%	60%	60%	70%
Net Interest Cover	-2.3x	-3.9x	-1.4x	32.4x
Book Value/share	\$0.03	\$0.03	\$0.08	\$0.10
Price/Book Value	nm	8.5x	2.8x	2.3x

Source: Company reports and Canaccord Genuity estimates

## Overview

### BACKGROUND

- AJM's flagship asset is the Pilgangoora lithium project in Western Australia. The project is expected to be in production by the end of 2017 and is one of only a few projects globally coming online to meet the growing demand for lithium concentrate in the next 2 years.
- AJM is set to deliver a Definitive Feasibility Study (DFS) on the project in the SepQ'16, which will underpin a development decision in the 2H 2016. Pilgangoora is one of the most advanced hard rock lithium projects globally, aiming to join near term spodumene concentrate production from Mt Cattlin (Galaxy Resources [GXY : ASX : A\$0.41 | SPEC BUY] and General Mining [GMM : ASX : A\$0.61 | SPEC BUY]) and Mt Marion (Neometals [NMT : ASX | Not rated] and Mineral Resources [MIN : ASX | Not rated]).
- AJM also has a 33% interest in the Delta coal mine in Indonesia, which is currently producing un-washed coal at a rate of ~500ktpa (nameplate 1.5Mtpa). Further, AJM owns a 70% interest in the Tabalong coal project in south Kalimantan which is in the final permitting and feasibility stages with development options being assessed. In light of the current coal market, AJM has stated its intention to divest its coal interests, allowing for a more streamlined company strategy with a focus on lithium.

### VALUATION

- We value AJM using a Net Asset Valuation (NAV) approach, comprising a 100% equity interest in the Pilgangoora lithium project, nominal exploration value, net of corporate and working capital adjustments. We have not included any value for AJM's coal interests, noting its intention to divest the assets.

**Figure 1: Our sum-of-parts valuation for AJM**

		A\$m	A\$/share
Pilgangoora	NPV <sub>10%</sub>	392.3	0.28
Exploration & Other	Estimate	35.0	0.03
Corporate		(15.0)	(0.01)
Cash		2.8	0.00
Debt (Product Prepayment)		(16.9)	(0.01)
Future equity raised		60.0	0.04
Unpaid capital		3.7	0.00
<b>TOTAL</b>		<b>461.9</b>	<b>0.33</b>
<b>Target Price</b>			<b>0.35</b>
<b>P/NAV</b>			<b>0.66x</b>

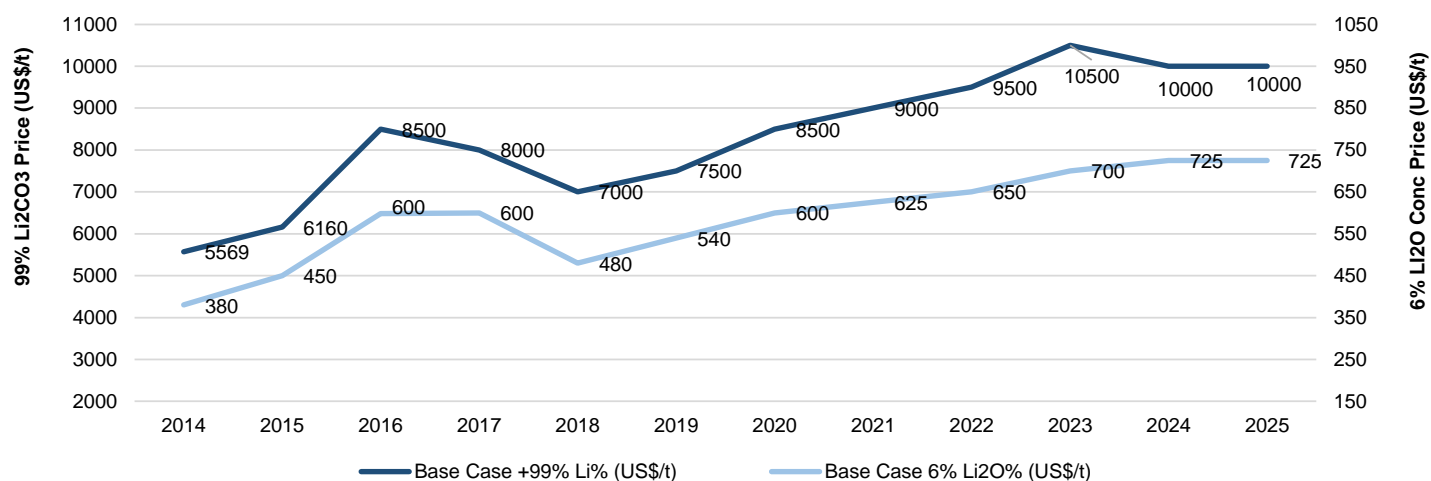
Source: Canaccord Genuity estimates

- Our per share valuation (Figure 1), is based on a diluted share count of 1406m shares, which includes the assumed exercise of 150.6m A\$0.02/sh options (exp. June 2016) and an assumed A\$60m equity raise to fund ~45% of project development costs. We have also assumed the capital raise as likely to be completed in the DecQ'16 at a price of A\$0.22/sh once final project parameters are provided within the DFS.
- In our valuation we also include a nominal A\$35m for exploration upside. The most quantifiable justification comes via the mineralized extensions into Pilbara Minerals (PLS : ASX | Not rated) ground, whereby if a joint mining agreement can be met, an additional 2-3Mt (+15%) could be added to the current reserve base for very little outlay. Together with highly prospective targets on the newly

acquired tenements along the western margin of PLS's main tenement we see our nominal exploration valuation as justified.

- Figure 2 highlights our forward pricing assumptions for spodumene concentrate (RHS) and lithium carbonate (LHS, not relevant to AJM) as derived by our supply and demand model. In terms of currency we assume a long term AUD/USD exchange rate of A\$0.72.

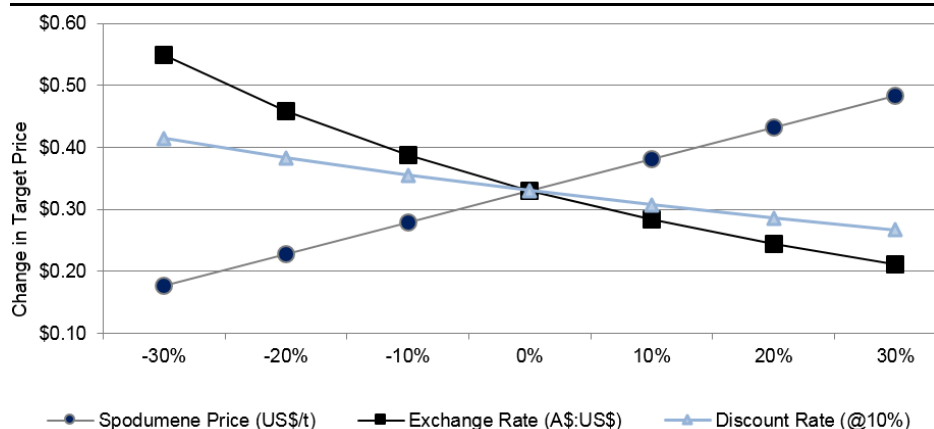
**Figure 2: CG forward price deck for lithium carbonate and spodumene concentrate**



Source: Canaccord Genuity estimates

- We have also completed a sensitivity analysis on our AJM NAV based on the metrics shown in Figure 3. Our analysis shows our valuation to be most sensitive to the AUD/USD FX rate and spodumene prices received at Pilgangoora.

**Figure 3: Sensitivity analysis on our AJM valuation**



Source: Canaccord Genuity estimates

**CORPORATE AND FINANCE**

- AJM's current capital structure is outlined in Figure 4. A key point to highlight is the 150.6m outstanding options which expire at the end of the JunQ'16. These have a strike price of A\$0.02/sh and were issued as part of a capital raise in early 2015. Considering AJM's current share price of ~10x the strike of the options, conversion is unavoidably dilutionary. Positively, however, the options will provide a ~A\$3m injection of funds in the JunQ'16, which should adequately fund the completion of the DFS expected early in the SepQ'16. Together with existing cash of A\$2.8m, we view AJM as adequately funded through to a decision to mine in the DecQ'16.

**Figure 4: Capital structure**

	Expiry/ Vesting date	Number (m)
Ordinary Shares		977.13
Options (listed)	30/06/2016	150.60
Performance Rights	30/11/2016	3.10
Performance Rights	30/11/2017	3.10
Fully diluted		1,133.93
Assumed future equity (A\$60m at A\$0.22/sh)		272.70
Fully diluted post equity raise		1,406.63

Source: Company reports, Canaccord Genuity estimates

- Our funding assumes a 55:45 debt:equity split to address the A\$130m capital requirement to develop the project. While we recognize the debt component will likely involve some pre-payment funding (similar to GMM/GXY:ASX), for simplicity we have assumed bank debt is used at standard mine finance interest rates. As AJM moves towards a decision to mine, we will refine our funding assumptions, but don't view amendments as likely having a material impact on our valuation. Movement in the equity component of our funding assumptions in terms of size and issue price could result in more material changes to our NAV.
- AJM announced on 22 February 2016 that it had agreed on a share placement with Lionenergy Limited for A\$3 million at a price of \$0.081/sh. Lionenergy is a China-based company, specialising in the lithium industry. Its business scope covers spodumene exploration and mine development, spodumene concentrate sales and distribution, Li<sub>2</sub>CO<sub>3</sub> and LiOH manufacturing and sales, lithium metal manufacturing, and cathode materials manufacturing for Li-ion batteries.
- AJM currently has debt totaling ~A\$17m, the majority of which is comprised of A\$16.1 relating to its coal business via a vendor loan with Evora Mining Inc. The company recently re-negotiated the repayment schedule (has done this numerous times) to be 3 equal instalments from June 30, 2017, due annually. We understand that the debt has no re-course back to the AJM parent and if the coal business is successfully divested/sold the debt will likely remain attached. At this stage we include the debt in our valuation and attribute zero value to the coal business. This highlights the divestment as a potential positive catalyst in our overall valuation for AJM.

**BOARD OF DIRECTORS**

- James Brown – Managing Director  
James is a mining engineer with more than 25 years' experience in the coal mining industry in Australia and Indonesia, including 22 years at New Hope Corporation. James was appointed Managing Director of Altura in September 2010 and was previously Group General Manager since December 2008.
- Paul Mantell – Non- Executive Director  
Paul has more than 30 years' corporate experience as an accountant in mining and associated industries, including 28 years at New Hope Corporation, the last 12 years as Chief Financial Officer. His project finance operations experience includes: New Acland (4Mtpa), Jeebropilly (2Mtpa) and New Oakleigh (0.75Mtpa) SE Qld, PT Adaro (25Mtpa) and PT Multi Harapan Utama (2Mtpa) Indonesia and PT Indonesia Bulk Terminal and Queensland Bulk Handling (Brisbane) facilities. He was appointed a director in May 2009.
- Allan Buckler – Non- Executive Director  
A qualified mine manager with more than 40 years' coal experience in Australia and Indonesia, Allan joined AJM in December 2008. 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.
- BT Kuan – Non-Executive Director  
BT is a mechanical engineer with considerable experience in bulk handling and terminal operations, including responsibility for the development and management of the Indonesia Bulk Terminal at Pulau Laut in South Kalimantan, Indonesia.  
He also has experience in Indonesia, Malaysia and Singapore with other minerals and soft commodities including tin dredging operations, managing rubber, palm oil and cocoa processing factories, and managing palm oil bulk terminals. BT was appointed a director in November 2007.
- Dan O'Neill – Non-Executive 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 in December 2008.



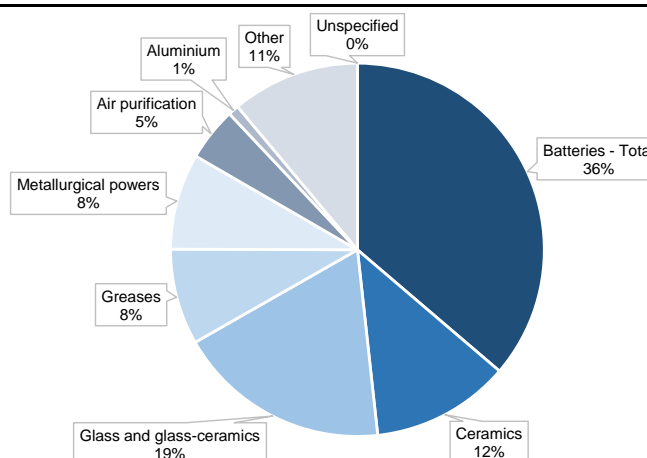
## Lithium market overview

The following industry overview can be found in our most recent research published on 17 May 2016: [Start Me Up - Electric vehicles & grid storage to drive lithium demand](#)

### UNDERSTANDING LITHIUM

- Lithium ("Li") is a soft, silver-white metal belonging to the Alkali group of metals, which under normal conditions is the lightest of all metals and the least dense solid element. Lithium has a number of unique properties including high electrochemical reactivity, a low thermal expansion co-efficient and high specific heat capacity.
- It is these properties which allow Lithium to be used in a wide range of industrial applications (Figure 5) including ceramics, lubricants and glass, but the largest (and highest growth segment) of the global lithium market is its use in the manufacture of Lithium-ion (Li-ion) batteries.

Figure 5: Lithium use breakdown



Source: signumBox, Canaccord Genuity estimates

- Industry typically measures lithium and lithium compounds in terms of lithium carbonate equivalent (LCE), and in Figure 6 we detail the various lithium mineral/compound conversion factors:

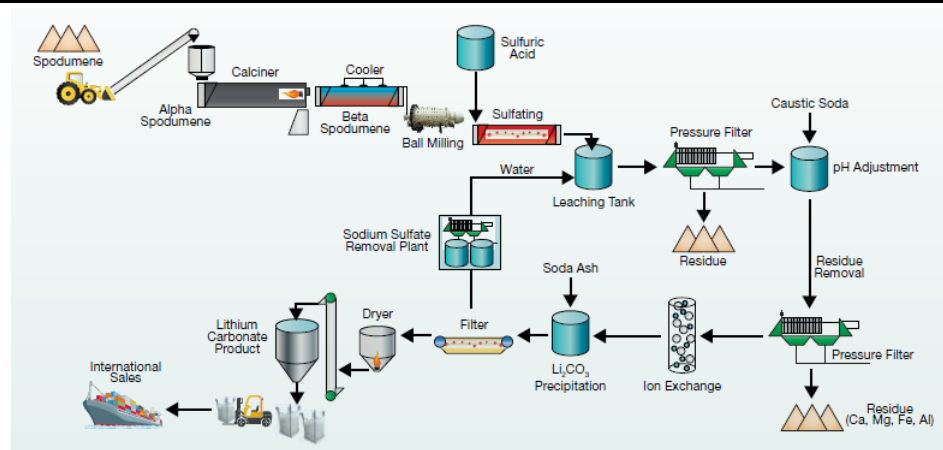
Figure 6: Li mineral/compound conversion factors

		Convert to Li	Convert to Li <sub>2</sub> O	Convert to Li <sub>2</sub> CO <sub>3</sub>
Lithium	Li	1.000	2.153	5.323
Lithium Oxide	Li <sub>2</sub> O	0.464	1.000	2.473
Lithium Carbonate	Li <sub>2</sub> CO <sub>3</sub>	0.188	0.404	1.000
Lithium Hydroxide	LiOH	0.165	0.356	0.880

Source: Canaccord Genuity

**MINERAL SOURCES**

- **Brines:** Lithium brine deposits are formed through the leaching of volcanic rocks in basin depositional environments. Li is extracted from brines via a process involving the pumping of brine from the sediment basin, concentration via evaporation, and purification through solvent extraction, absorption, and ionic exchange, with the end product mainly in the form of refined  $\text{Li}_2\text{CO}_3$ . Lithium is unusually more soluble at lower temperatures than similar Alkali metals such as sodium and potassium, and it is this property that provides the design basis for lithium brine processing.
- **Hard rock (spodumene):** Spodumene is a lithium-bearing, aluminum silicate mineral which mostly occurs in lithium-rich pegmatites (granite-like igneous rock composed of quartz, feldspar and mica). Spodumene is usually recovered through conventional open pit mining methods and beneficiated via gravity techniques where the ore is concentrated from 1-2%  $\text{Li}_2\text{O}$  to a grade of ~6%  $\text{Li}_2\text{O}$ . This concentrate product is then converted to  $\text{Li}_2\text{CO}_3$  (>99.5% purity) through intensive thermal and hydrometallurgical processing (roasting > leaching > ion exchange) conducted at chemical converter plants mostly located within China.

**Figure 7: Flowsheet of conversion process from spodumene concentrate to  $\text{Li}_2\text{CO}_3$** 

Source: Galaxy Resources Presentation

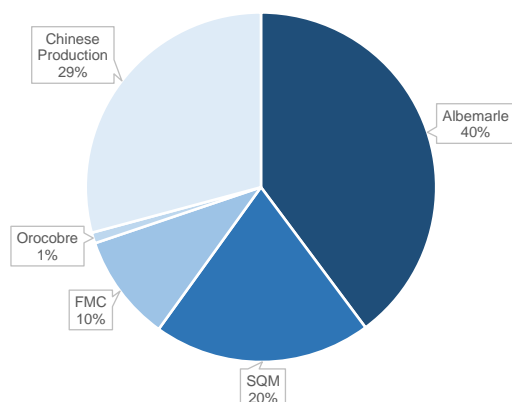
**SUPPLY**

- We estimate global Li supply in 2015 at 176kt LCE, with primary mine production (i.e. extraction of lithium from mineral deposits) dominated by a handful of large, diversified chemical companies. These include Albemarle (ALB : NYSE | Not rated), FMC Corporation (FMC : NYSE | Not rated), and Sociedad Química y Minera de Chile (SQM : NYSE | Not rated). An estimated break-down of their respective share of world production is shown in Figure 8.
- China is also key player in global lithium supply, representing an estimated 29% of global production in 2015. Sichuan Tianqi Lithium Industries (Tianqi) is the largest, based on its 51% ownership of the Greenbushes hard rock operation. It is important to note the distinction between primary mineral and concentrate production from brines/hard rock, versus downstream conversion of mineral concentrates. China produces almost all of the world's refined lithium from mineral concentrates.
- Lithium production has been characterized by low capacity utilization in recent years (both hard rock and brine). The current pricing environment reflects strong



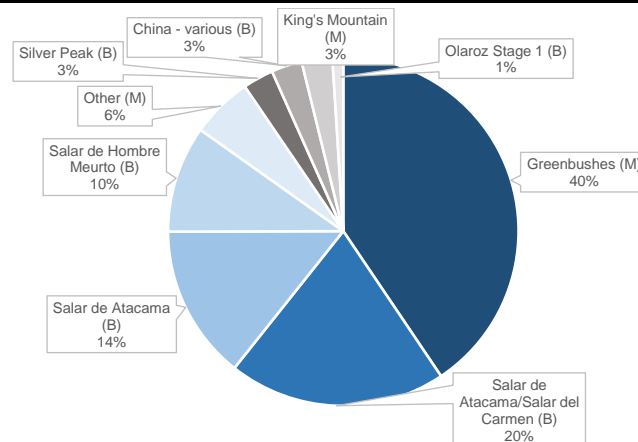
demand, as well a tight supply side whereby existing producers have struggled to expand production (permitting, technical issues, new entrants in ramp up mode).

**Figure 8: 2015 global lithium production breakdown**



Source: Company reports, signumBox, Canaccord Genuity estimates

**Figure 9: 2015 global lithium production by operation**



Source: Company reports, signumBox, Canaccord Genuity estimates; B – brine operation; M – hard rock operation

### HARD ROCK PRODUCTION

- Our research suggests there are relatively few hard rock lithium operations currently in production (Figure 10). We estimate that production from hard rock sources totaled 87kt LCE in 2015 (49% global share), and of this, Albemarle/Tianqi's Greenbushes operation in Western Australia dominates market share with production of 72kt LCE.

**Figure 10: Estimated hard rock production (LCE) – 2014-2015**

Existing Supply - Mineral				2014	2015
Company	Operation	Location			
Albemarle 49% Tianqi (51%)	Greenbushes	Australia	Production	63932	71631
			% global share	36%	41%
			Capacity utilisation	58%	65%
Albemarle	King's Mountain	USA	Production	4400	5000
			% global share	2%	3%
			Capacity utilisation	40%	45%
China - various	China - various	China	Production	10000	10000
			% global share	6%	6%
			Capacity utilisation	25%	
Rest of World	Various	China/Zim/Port.	Production	0	0
			% global share	0%	0%
			Capacity utilisation		
TOTAL MINERAL				78332	86631
Average Utilisation				44%	49%

Source: Company reports, Canaccord Genuity estimates

**Capacity utilisation**

- We estimate that following significant investment in production capacity in recent years, Chinese converter plant capacity utilisation was approximately 46% in 2015. Moving upstream to mine production, the world's largest source of spodumene concentrates, Greenbushes, is estimated to be currently operating at ~65% of capacity.

**Production costs**

- The two key components of production costs for refined lithium compounds from hard rock mineral sources are the purchase of spodumene concentrate (factors in mining, processing, and freight costs, plus mining company margin), and conversion of the concentrate to lithium carbonate/lithium hydroxide.
- In Figure 11, we illustrate how spodumene concentrate prices can influence lithium carbonate production costs, which in itself, can act as a benchmark for lithium carbonate prices given an estimated 49% of the world's LCE is produced from hard rock/converter sources.

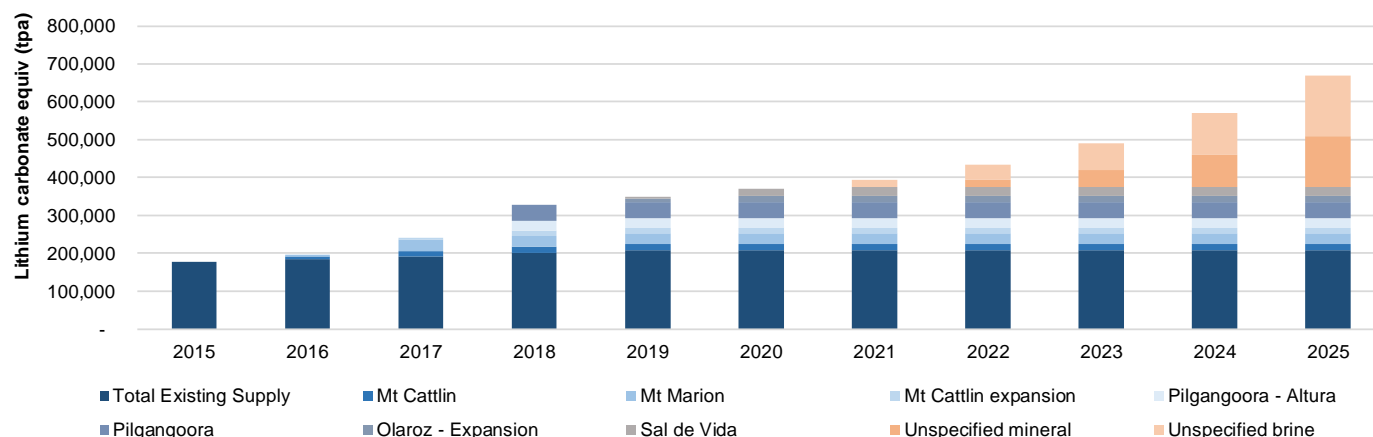
**Figure 11: Spodumene concentrate – converter production costs**

Spodumene concentrate	US\$/t	450	600	750
Factor @ 6% Li <sub>2</sub> O		6.69	6.69	6.69
Conversion recovery	%	93%	93%	93%
Input cost of concentrate	US\$/t	2,800	4,316	5,395
Conversion cost to +99% LCE	US\$/t	2,500	2,500	2,500
<b>Total cost/tonne Li<sub>2</sub>CO<sub>3</sub></b>	<b>US\$/t</b>	<b>5,300</b>	<b>6,816</b>	<b>7,895</b>
Assumed converter margin	%	20%	20%	20%
<b>Effective LCE price</b>	<b>US\$/t</b>	<b>6360</b>	<b>8179</b>	<b>9474</b>

Source: Canaccord Genuity estimates

**PROJECTED MARKET SUPPLY**

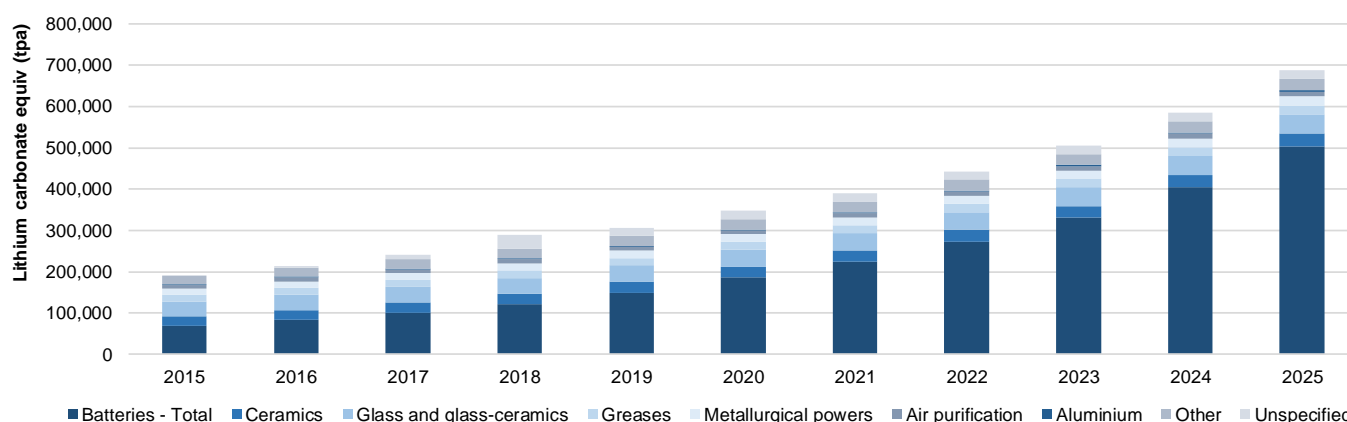
- We estimate existing production capacity at around 210ktpa LCE (includes La Negra expansion and Olaroz brine projects), with potential new supply offered by 19 advanced lithium projects globally. Of these, we see the potential for an additional 130kt of LCE production in 2018 (committed & uncommitted production).

**Figure 12: Lithium supply forecasts**

Source: Canaccord Genuity estimates

**DEMAND**

- Based on our forecasts for increased market penetration for electric vehicles (passenger vehicles, E-buses, other personal mobility) and increasing roll out of grid storage applications, we forecast a significant increase in demand for lithium from the Li-ion battery sector over the coming decade.

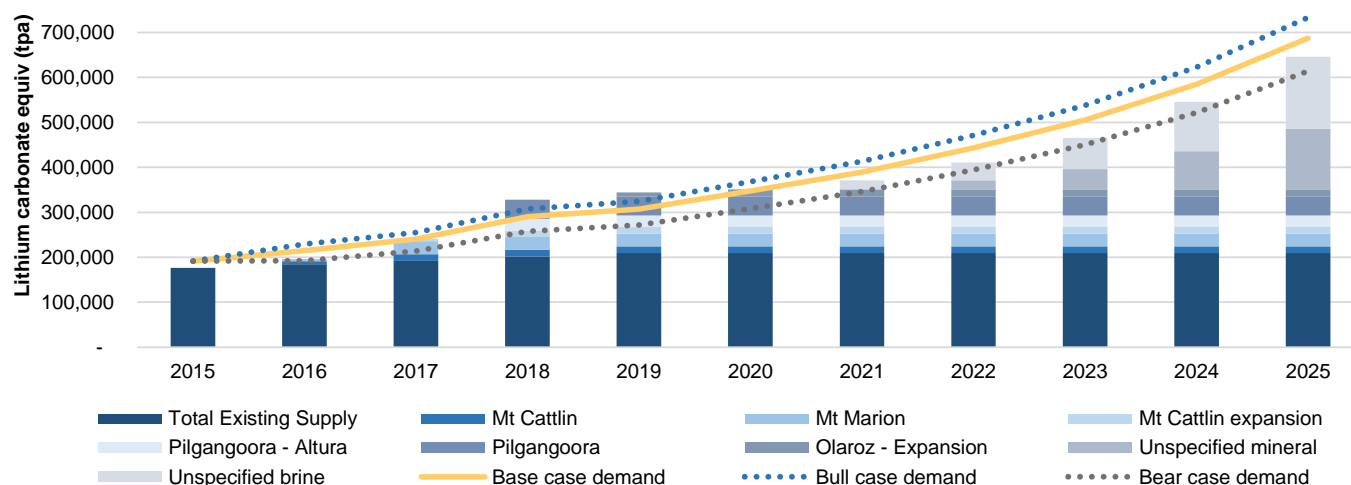
**Figure 13: Lithium demand forecasts**

Source: Canaccord Genuity estimates

- Our forecast lithium market demand projections are shown in Figure 13. Driven by a forecast increase in demand from the lithium-ion (Li-ion) battery sector (electric vehicles, grid storage, personal electronic devices), we estimate an overall growth in lithium demand to 2020 of 81% to 347kt LCE, representing a CAGR of 6% across all demand segments.
  - We forecast demand for lithium for use in Li-ion batteries as a proportion of the overall lithium market to increase from 36% to 54%, requiring an estimated 186kt LCE by 2020 (versus estimated total supply in 2015 of 176kt LCE).
  - Over that same period, we forecast lithium demand for industrial applications to increase by 32% to 161kt LCE based on a CAGR of 2.8% across the various industrial applications.
- Looking further out to 2025, we forecast total lithium demand to grow by 259% to 687kt LCE, representing a CAGR of 14% across all demand segments.
  - By 2025, we forecast demand from the Li-ion battery sector to account for 73% of overall lithium market demand with a total of 503kt required, with an estimated CAGR of 22% from 2016 estimates
  - Of the forecast demand for Li-ion batteries, we estimate demand from the electronic vehicles (EV) sector to account for 28% of all lithium demand, from 5.3% in 2016, and the E-bus sector to account for 10.8% of overall market demand.
- These forecasts and estimates highlight the impact on the lithium market from growth in the EV market (which by 2025 we estimate overall passenger vehicle market share of 13.7% from <1% in 2015), with the growing importance of grid storage applications also expected to play a significant role in the market by 202 (we forecast demand from grid storage applications to be the third largest demand centre (behind consumer electronic products, with 13.6% market share at 93kt LCE (CAGR 41% from 2016) by 2025).

**SUPPLY AND DEMAND OUTLOOK**

- Our forecast lithium market supply and demand projections are shown in Figure 14. While our modelling suggests the potential for modest market oversupply in 2018/2019, we expect that demand should generally outpace supply to 2025.

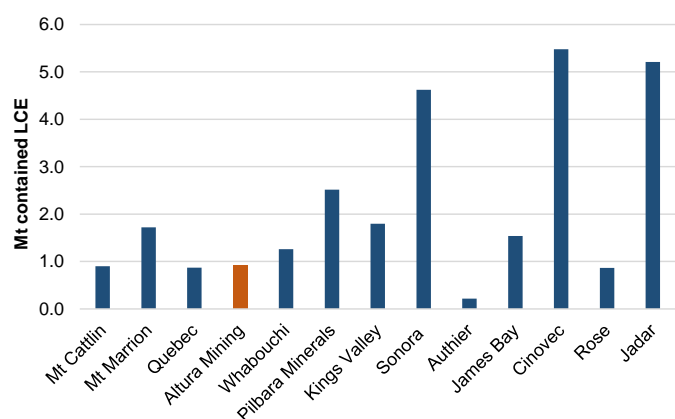
**Figure 14: Lithium supply and demand forecasts**

Source: Canaccord Genuity estimates

**PEER COMPARISONS**

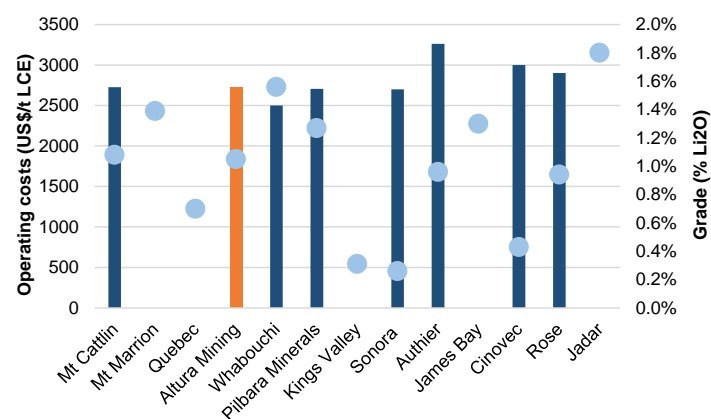
- We have assessed AJM across a number of metrics versus its peers and note the challenge in providing meaningful analysis due to the small sample size and infancy of the market in this cycle. The key advantages, in our view, are that 1) AJM's project exhibits among the lowest quartile capital requirements and 2) it is in an advanced stage, noting a DFS should be complete in the coming months.
- In our view, AJM's Pilgangoora project will be the first of the projects in the Pilbara region to come on line, allowing the company to be negotiating supply agreements over the next 18 months while market conditions are tight.
- AJM and PLS also share effectively the same orebody, which may offer some development synergies that are at this stage difficult to quantify. As discussed previously, mining across tenement boundaries should have mutually beneficial outcomes for both companies in terms of increasing reserves, as should shared access roads, rail crossings and ship-loading facilities.

Figure 15: Contained lithium resources



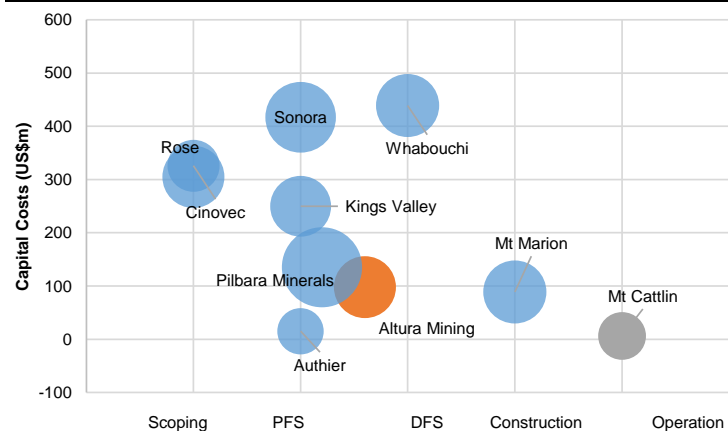
Source: Company reports, Canaccord Genuity estimates

Figure 16: Operating cost and grade



Source: Company reports, Canaccord Genuity estimates

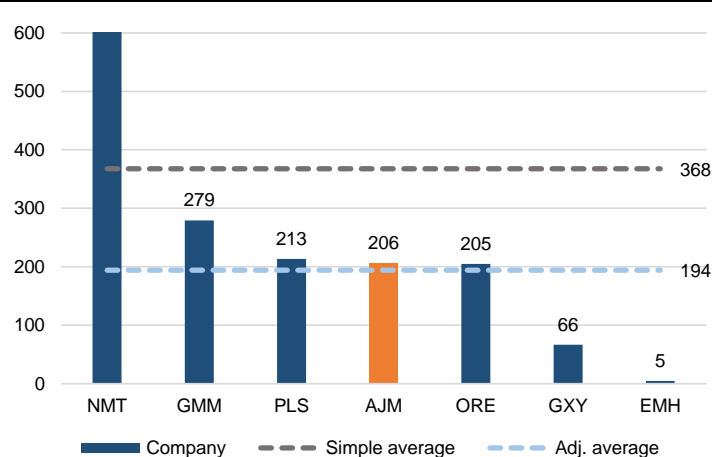
Figure 17: Hard rock development projects – project status vs capex vs LCE production



Source: Company reports, Canaccord Genuity estimates

\*Bubble size relates to LCE production. Note Grey bubbles indicate LCE operating projects

Figure 18: ASX-listed lithium peers (EV/Contain Resource) (A\$/ tonnes of contained Lithium)



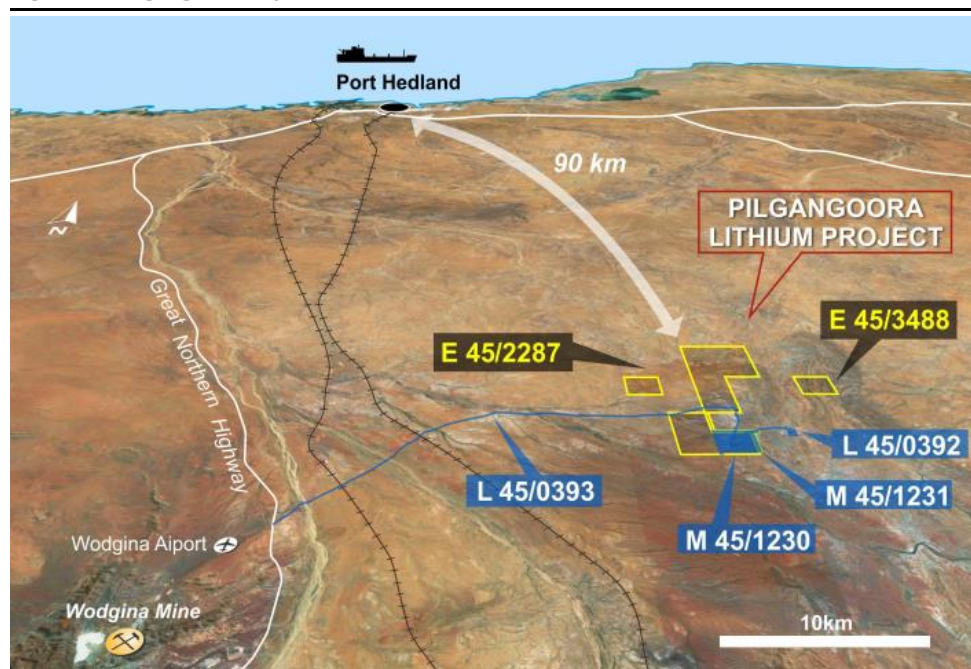
Source: Company reports, Canaccord Genuity estimates

## Pilgangoora asset overview

### PROJECT HISTORY

- AJM acquired the Pilgangoora tenements in 2001. The area was typically explored for gold and tantalum, and it wasn't until a successful mapping and rock chip sampling program in 2009 that the lithium potential was identified. AJM commenced a drilling program in 2010, which supported the initial interpretations. Over a two-year period AJM defined a maiden pegmatite resource and completed a Scoping Study.
- The Pilgangoora project comprises a series of spodumene bearing pegmatites in an area regionally referred to as Pilgangoora. We note that this also includes Pilbara Minerals' (PLS:ASX) project with the same name which is on the adjacent tenement to the north.
- The current resource of 35.7Mt at 1.05% Li<sub>2</sub>O, sits in the top 10 of global sized hard rock lithium deposits (Figure 13). Key advantages of the project are the thick, shallow nature of the orebody which affords low mining costs, and the relative proximity to infrastructure. The current reserve life of the project is 14 years with AJM aiming to extend this to 20 years with ongoing extensional and greenfield drilling programs.

Figure 19: Pilgangoora project location map



Source: Company reports

### LOCATION AND ACCESS

- The Pilgangoora project is located ~120km from Port Headland (by road) in the Pilbara region of Western Australia. The project area is well endowed with infrastructure with access via the Great Northern Hwy and ~20km of station tracks (unsealed road featuring two rail crossings) into the proposed plant site.
- AJM plans to truck concentrate down the Great Northern Hwy to a dedicated storage facility which will be loaded out via the multiuser port facility at Port Headland. The company has indicated that Rotaboxes will be the most efficient means for transport and ship loading. We note that this gives the option of loading



vessels via the shore based cranes system or those on board the ships. Average cargo size is likely to be dependent on shipping availability and customer demand at the time, but we expect shipments to be made in 10-30kt parcels.

- Current access and the envisaged transport route for concentrate crosses the BHP (BLT : LSE : 817p | HOLD, covered by Nick Hatch) and Fortescue Metals (FMG:ASX | Not rated) rail lines upon accessing the Great Northern Hwy. AJM has indicated that it will utilize double road trains (~55t) as opposed to quads on the basis that the cost of infrastructure upgrades to meet the government standards is cost prohibitive. The round trip for a truck is 254km.
- AJM recently announced the signing of an Access and Compensation Deed with the pastoral lease holders for the Pilgangoora project. The Deed is a key component of progressing AJM's two Mining Lease (ML) applications (M45/12230 and M45/1231) which cover the planned mining operations, process plant and site facilities. We expect the ML application to be complete and submitted to the Department of Mines and Petroleum in June 2016.
- Stakeholder support has been strong throughout the permitting process. AJM has progressed meetings with the Department of Water and Department of Mining and Petroleum and has indicated that a mining proposal will be ready for submission in June 2016. Finalisation and granting of the MLs is expected in the 2H 2016.

## GEOLOGY, RESERVES AND RESOURCES

- The Pilgangoora deposit is a typical shear/faulted initiate pegmatite dyke swarm, with numerous, relatively narrow shallow dipping spodumene (lithium oxide mineral) bearing pegmatite dykes with outcropping at surface. The Pilgangoora pegmatite field lies within amphibolite units of mafic to ultramafic volcanic origin contained in the Pilgangoora greenstone belt. The main pegmatite dykes are broadly oriented north-northeast to south-southwest over a strike of 1.6km, and zones up to 300m wide. Dyke thickness ranges from 5-40m over the strike length.
- A staged series of drilling programs commenced in August 2010 and extended through to March 2013. The programs have covered the majority of the pegmatite field with 282 RC and 8 Diamond holes completed. Drilling is aligned on a 40x40m grid covering the pegmatite field. The mineral resource and reserve has been calculated using a 0.40% Li<sub>2</sub>O cut-off, with only the Indicated portion resource used to calculate the reserve.

**Figure 20: Current resource and reserve for the Pilgangoora project (both at 0.4% Li<sub>2</sub>O cutoff)**

JORC Resource	Mt	Li2O%	FE2O3%	Li2O contained (kt)
Measured	0	0	0	0
Indicated	26.7	1.05	1.73	239
Inferred	9	1.02	1.68	76
Total	35.7	1.05	1.72	315

JORC Reserve	Mt	Li2O%	FE2O3%	Li2O contained (kt)
Proven	0	0	0	0
Probable	18.4	1.07	1.7	198
Total	18.4	1.07	1.7	198

Source: Company reports, Canaccord Genuity estimates

- We see good potential for AJM to increase the reserve based mine life with the conversion of Inferred resource material into Indicated on the back of planned drilling programs. Further, if an agreement can be reached with PLS regarding

- The company has recently commenced a new drilling program at Pilgangoora. Key objectives of the program include:
  - Upgrading existing Inferred resources to Indicated within the initial pit shell. This should allow the upgraded Indicated resources to be incorporated in an updated ore reserve estimate.
  - Resource extension and exploration drilling. With improved understanding of the spodumene rich pegmatite trends, AJM plans to expand its focus in the northern and western tenement sections of E45/2287 with an aim to adding resources to the existing inventory.
  - Additional metallurgical testing and geotechnical assessment to support the mine development.

The map displays the Pilbara region with a grid from 690000 to 705000 Easting and 7665000 to 7680000 Northing. A legend identifies various mineral holders and their exploration status. Key features include:

- Resource Target Areas:** Three red oval areas labeled E45/2287, E45/2287, and E45/2363. Arrows point from these areas to callouts:
  - Pilbara Minerals:** 80.2 Mt @ 1.26% Li<sub>2</sub>O
  - Altura Mining:** 35.7 Mt @ 1.05% Li<sub>2</sub>O
- Mineralised Trends:** A dashed red line labeled "Spodumene Mineralised Trendlines" runs through the central area.
- Mineral Holders:** Various companies are labeled across the map, including SLIPSTREAM RESOURCES INVESTMENTS PTY LTD, FMG PILBARA PTY LTD, ASGARD METALS PTY LTD, VENUS METALS, DAKOTA MINERALS PTY LTD, TRIBAL MINING PTY LTD, DYNASTY RESOURCES LIMITED, METALICITY LIMITED, and ALTURA EXPLORATION.

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**FEASIBILITY STUDY**

- AJM has completed a Feasibility Study (11 April 2016) on the Pilgangoora project with capital and operating costs expected to have an accuracy range of greater than +/-20%. Both capital and operating costs have been peer reviewed by project service group Aquenta Consulting Pty Ltd. We expect a follow up DFS to be completed in the SepQ'16 which will incorporate additional drilling and firm up the tolerance of the key inputs.
- The Feasibility Study envisaged a 1.4Mtpa process plant delivering annual production of ~215ktpa of spodumene concentrate grading 6% Li<sub>2</sub>O. The current LOM plan is based on direct feed of ore from Years 1-12, whilst building a low-grade stockpile (2.9Mt at 0.69% Li<sub>2</sub>O) which will be feed for 2 years following the cessation of mining. This grade streaming strategy over the mine life allowed AJM to achieve slightly higher head grades through the mill of ~1.15% Li<sub>2</sub>O compared to the current reserve grade of 1.07% Li<sub>2</sub>O.

**Figure 22: Key inputs in the Pilgangoora Feasibility Study (Apr'16) versus the Mining Study (Feb'16)**

Description	Units	FS Results	Mining Study	Variance
Average Annual Ore Feed to Plant	Mtpa	1.4	1.0	+40.0%
Total Ore Mined	Mt	18.47	18.92	-2.4%
Annual Spodumene Concentrate Production (steady state, years 1 -11 @ 6% Li <sub>2</sub> O)	tonnes	215,000	150,000	+43.3%
Life of Mine (LOM)	years	14	19	-26.3%
Total Spodumene Concentrate Produced	Mt	2.74	2.89	-5.2%
LOM Strip Ratio	waste:ore	2.7:1	2.82:1	-4.3%
Spodumene Concentrate Market Price	US\$	494	445	+11%
Capital Cost Estimate	A\$M	129.3	97.6	+32.5%
Total Net Revenue	A\$M	1,562	1,350	+15.7%
Project EBITDA	A\$M	774	609	+27.1%
Total C1 Cash Cost *	A\$M	690	707	-2.5%
Total Cash Cost FOB / tonne product **	A\$	297.90	320.60	-7.6%
Net Present Value (NPV)	A\$M	382	277	+37.9%
Internal Rate of Return (IRR)	%	59.5	42.5	+40.2%
Discount Rate	%	10	8	+25%
Project payback period	years	1.7	2.3	-35.3%
Exchange Rate	AUD:USD	0.7500	0.7500	-

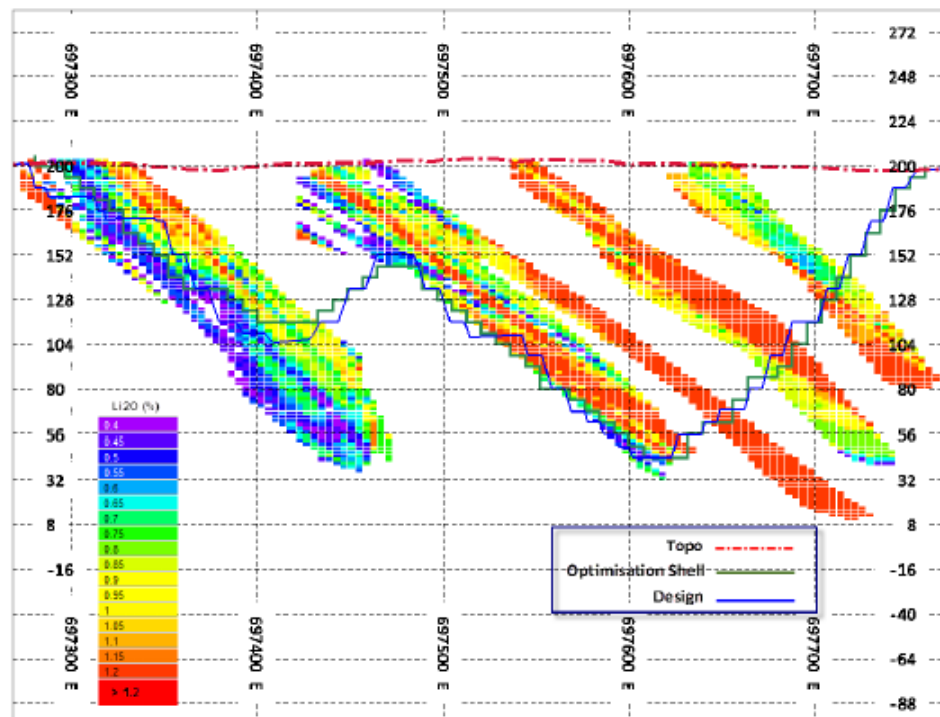
\* C1 Cash Costs are defined as the costs of mining, milling and concentrating, onsite administration and general expenses, property and production royalties not related to revenues or profits, metal concentrate treatment charges, and freight and marketing costs less the net value of the by-product credits.

\*\* Total Cash Cost FOB / tonne product are defined as all cash costs to free on board, including deferred capital expenditure, but excluding interest, tax and depreciation.

Source: Company reports

- The Pilgangoora deposit will be mined via open pit methods, with the project economics enhanced by the shallow, thick mineralisation with negligible pre-strip. The FS has highlighted an attractive LOM strip ratio of 2.7:1, which affords AJM low operational mining costs. The strip ratio is consistent over the mine life, with peak of 4.1:1 in Year 1, primarily driven by the requirement for waste material to be used in development and infrastructure.

Figure 23: Cross section of the Pilgangoora orebody in the context of an optimized pit shell



Source: Company reports

## PROCESSING

- AJM engaged leading consultant DRA Global (DRA) to provide cost and design estimates for the proposed flowsheet at Pilgangoora. These estimates build upon previous metallurgical testwork conducted by METS Engineering which was initially conducted in the 2012 Scoping Study.
- Based on outcomes of the metallurgical testwork program, the flowsheet indicated in Figure 24 has been proposed. This features many of the standard processes for spodumene concentrate production as proposed to be undertaken at Pilgangoora (PLS : ASX), Mt Cattlin (GXY/GMM : ASX) and Mt Marion (MIN/NMT : ASX):
  - Dry Plant: A four stage crush and screening process is designed to reduce ROM material to a product top size ( $P_{98}$ ) of 3.35mm. ROM feed is placed on a static grizzly (600mm spacing) where it is fed to a jaw and toggle crusher. This is then subsequently re-circulated through a further 3 stages of crushing to provide a crushed ore stockpile of -3.5mm material to feed the wet plant at a rate of 1.4Mtpa of ore.
  - Feed Preparation: -3.5mm material is conveyed directly to the feed inlet of an up current classifier where the immediate priority of removing mica is achieved. Up current classifiers use similar operating principles as other gravity separation (clarifiers, jigs etc.) with the difference in specific gravity of the lighter mica (2.5 g/t) compared to spodumene (3.15g/t) being exploited for effective separation via incoming water.
  - Fines Circuit: Test work has indicated that the slurry product from the up-current classifier can be segregated between coarse and fines circuits at a cut point of 0.5mm. The 0.5mm underflow product from the feed preparation screen is then combined with thickened before combining with the secondary DMS floats from the coarse circuit material and ground in a conventional ball

- Coarse Circuit: The oversize product from the feed preparation screen (-3.5mm +0.5mm) is pumped to a series of dense media separation (DMS) stages. As slurry moves through the three DMS stages, the sinks stream containing the denser spodumene increases in concentration with the lighter gangue containing floats being pumped counter currently to enhance recoveries.
- Primary DMS floats are stacked with mica that is floated out of the up current classifier with the reject handling area for subsequent waste disposal.
- An overall metallurgical recovery of 83% of contained  $\text{Li}_2\text{O}$  is expected from the proposed flowsheet with indication of an even proportion of coarse (+0.5mm) material at 86% recovery and fines (-0.5mm) material at 80% recovery expected.
- Potential impurities have been observed at low concentrations within the product based on testwork samples. Iron content (main impurity) within the feed of 1.7% Fe is downgraded to ~0.4% Fe in flotation concentrate and 0.01% in the DMS. This produces a grade that will comply with customers' requests for a low iron product (<0.15% Fe).

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**PERMITTING**

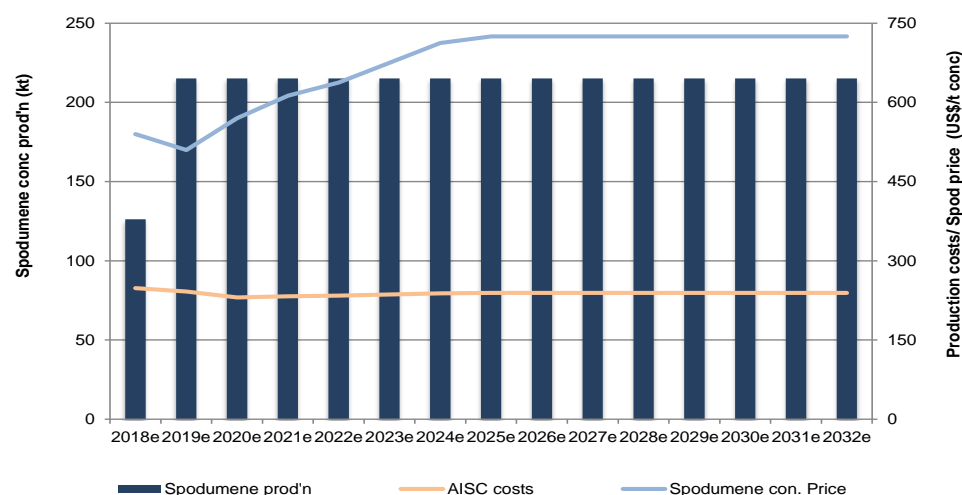
- The recent acquisition of additional tenements has increased AJM's footprint in the Pilgangoora to 11,569 hectares. The total landholding is covered by 3 Exploration Licenses, 2 Mining Licenses (under application) and a Prospecting License.
- AJM recently announced that it had completed the execution of pastoral lease access agreements, with remaining permitting milestones now including finalization of Native Title agreements. We do not expect final permitting to impact the currently proposed project timetable.

**PROJECT TIMETABLE**

- We expect the project to be in production by late 2017 and have allowed a 6 month ramp up before hitting nameplate in the JunQ'18. Our production forecasts are in line with those outlined in the FS, noting that we are slightly more conservative on costs, forecasting AISC's to average A\$320/t versus A\$297/t (per tonne concentrate product) in AJM's FS.

**PRODUCTION**

- Our modelled production estimates are based mostly on the outcomes of the feasibility study completed in Apr'16. Key model assumptions include:
  - Capex of A\$140m, with construction commencing DecQ'16
  - Modelled reserve/mining inventory of 21Mt at 1.08% Li<sub>2</sub>O
  - Mining and processing rate of 1.4 Mtpa, with metallurgical recoveries of 83%
  - Average annual spodumene concentrate production (6% Li<sub>2</sub>O) of 215ktpa over a modelled mine life of 14 years
  - Operating costs broadly in line with feasibility study estimates, with estimated AISC of ~A\$320/t of concentrate product.
- Figure 25 demonstrates our modelled production and AISC profile for the Pilgangoora project, noting that both AISC and spodumene concentrate prices are quoted on a like-for-like basis in US\$/t.

**Figure 25: CG modelled production and AISC profile (US\$/t)**

Source: Company reports, Canaccord Genuity estimates



**OFFTAKE, MARKETING AND SALES**

- AJM has executed a Binding Offtake Agreement (BOA) with China based Lionenergy Ltd (24 April 2016). Completion of the first BOA is a key de-risking factor and significant milestone for AJM.
- Lionenergy is a China based company specialising in the lithium industry. Its business scope covers spodumene exploration and mine development, spodumene concentrate sales and distribution,  $\text{Li}_2\text{CO}_3$  and  $\text{LiOH}$  manufacturing and sales, lithium metal manufacturing, and cathode materials manufacturing for Li-ion batteries.
- The key terms of the contract are:
  - Lionenergy to take a minimum 100kt of 6%  $\text{Li}_2\text{O}$  spodumene concentrate annually for an initial 5 year period with any extensions to be negotiated between AJM and Lionenergy.
  - Any additional offtake beyond 100ktpa needs to be negotiated
  - Conditions Precedent based on the commencement of mining occurring within two years of the date of the signing of the BOA, and AJM obtaining finance for the development of the project within six months of the date of the signing of the BOA.
  - Spodumene concentrate pricing is based on the prevailing US\$ market price and will be negotiated between the parties.
- AJM has also announced (29 February 2016) a Non-Binding Memorandum of Understanding (MOU) for spodumene offtake contract with China based lithium battery and electronic vehicle producing group, Optimum Nano Battery Co. Limited.
- The MOU is based on a minimum annual offtake of 100kt and up to 150kt of lithium spodumene concentrate (vs steady state production of 215ktpa). The MOU paves the way for AJM to enter into an alliance with Optimum Nano as a natural resource supplier into the expanding lithium battery market.
- Optimum Nano was established in 2002 in the city of Shenzhen, China, and is a leader in the lithium iron phosphate ( $\text{LiFePO}_4$ ) battery industry both as a producer of power batteries and electronic vehicles (EV) systems. It is noted that  $\text{LiFePO}_4$  is the incumbent battery technology for use in electric buses by leading manufacturer BYD Electronic International.

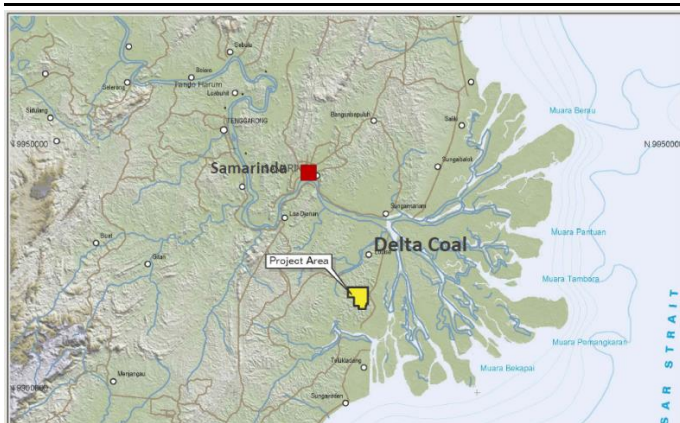
## Coal assets

- Currently AJM holds a 33% stake in the Delta coal mine (thermal) in East Kalimantan and a 70% stake in the Tabalong Coal project in South Kalimantan, Indonesia. Both projects had been planned for a spin-off into a new listed entity; however, during the MarQ'16 it was agreed between the shareholder group and its Issue Manager and Underwriter that the listing process be put on hold. This decision was based on the challenging commodity market and investor interest in the coal sector.
- AJM is reviewing its position with respect to these assets, including the possible sale of the all of the coal assets, comprising the Delta Coal Mine and the Tabalong assets. We have taken the conservative view and attributed zero value to the assets, noting that a sale which netted off the attached debt relating to Delta would be advantageous to our valuation.
- Production at Delta Coal in the MarQ'16, remained below the annual target of 1.5Mt with contracting capacity well below plan. AJM has continued negotiations with various contractors in an effort to increase tonnage and reduce mining costs. The mine continues to focus on cost reductions and efficiency gains in order to

offset historically low coal prices and provide a positive platform to maximise the extraction of the mine's considerable coal resources.

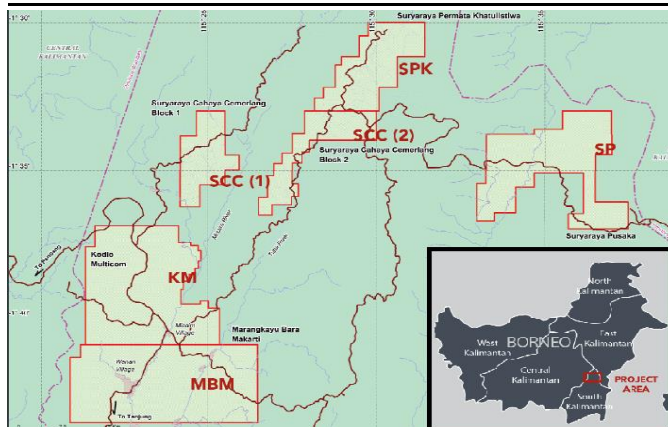
- AJM is continuing to advance forestry approvals process at the Tabalong coal project. The company is currently awaiting the grant of the second in-principal forestry approval, and is currently undertaking programs in order to satisfy the full grant of the final permits. Once this final regulatory approval is received, there is conceptually a lead time of approximately six months from the start of construction until the first production of coal. We see finalisation of the permits as a positive and may increase the sale appeal for the project.

**Figure 26: Location of the Delta Coal project in East Kalimantan**



Source: Company reports

**Figure 27: Location of the Tabalong project in South Kalimantan**



Source: Company reports

## Investment risks

### **FUNDING RISK**

- As a pre-production company with no material income, AJM is reliant on equity and debt markets to fund feasibility studies and development of its various projects. We can make no assurances that accessing these markets will be done without further dilution to shareholders.

### **EXPLORATION RISK**

- Exploration is subject to a number of risks and can require a high rate of capital expenditure. Risks can also be associated with conversion of Inferred resources and lack of accuracy in the interpretation of geochemical, geophysical, drilling and other data. No assurances can be given that exploration will delineate further minable reserves.

### **OPERATING RISK**

- Once in production, the company will be subject to risks such as plant/equipment breakdowns, metallurgical (meeting design recoveries within a complex flowsheet), materials handling and other technical issues. An increase in operating costs could reduce the profitability and free cash generation from the operating assets considerably and negatively impact valuation. Further, the actual characteristics of an ore deposit may differ significantly from initial interpretations which can also materially impact forecast production from original expectations.

### **COMMODITY PRICE AND CURRENCY FLUCTUATIONS**

- As with any mining company, AJM is directly exposed to commodity price and currency fluctuations. Commodity price fluctuations are driven by many macroeconomic forces including inflationary pressures, interest rates and supply and demand factors. These factors could reduce the profitability, costing and prospective outlook for the business

## Appendix: Important Disclosures

### Analyst Certification

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### Sector Coverage

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### Target Price / Valuation Methodology:

Altura Mining Limited - AJM

Our A\$0.35/sh price target is based on an NPV10% for the Pilgangoora asset net of corporate and other adjustments. We have also assumed a A\$60m equity raise in the DecQ'16 as part of a 55:45 debt/equity funding for the A\$130m capital required for the project. Our valuation is diluted to account for these assumptions.

BHP Billiton plc - BLT

Our target price comprises 3 components. We value the shares on the basis of the rounded average of EV/EBITDA (relative to the company's historical performance), rolling P/E relative to the FTSE All Share Index, and our NPV.

General Mining Corporation Limited - GMM

We value GMM on a NAV basis, comprising an estimated NPV<sub>10%</sub> for Mt Cattlin, net of corporate and other adjustments. While our LT spodumene concentrate pricing assumptions have increased, medium term forecasts (2018-2019) have decreased by 20% and 10% respectively. As a result, our valuation/target price moves from A\$0.95 to A\$0.85.

Galaxy Resources Limited - GXY

To reach our target price, we value GXY on a NAV basis comprising our NPV10% for Mt. Cattlin, our blended DCF/market-based value for Sal de Vida, and exploration, net of corporate and other adjustments.

### Risks to achieving Target Price / Valuation:

Altura Mining Limited - AJM

**Funding risk:** As a pre-production company with no material income, AJM is reliant on equity and debt markets to fund feasibility studies and development of its various projects. We can make no assurances that accessing these markets will be done without further dilution to shareholders.

**Exploration risk:** Exploration is subject to a number of risks and can require a high rate of capital expenditure. Risks can also be associated with conversion of inferred resources and lack of accuracy in the interpretation of geochemical, geophysical, drilling and other data. No assurances can be given that exploration will delineate further minable reserves.

**Operating risk:** Once in production, the company will be subject to risks such as plant/equipment breakdowns, metallurgical (meeting design recoveries within a complex flowsheet), materials handling and other technical issues. An increase in operating costs could reduce the profitability and free cash generation from the operating assets considerably and negatively impact valuation. Further, the actual characteristics of an ore deposit may differ significantly from initial interpretations which can also materially impact forecast production from original expectations.

**Commodity price and currency fluctuations:** As with any mining company, AJM is directly exposed to commodity price and currency fluctuations. Commodity price fluctuations are driven by many macroeconomic forces including inflationary pressures, interest rates and supply and demand factors. These factors could reduce the profitability, costing and prospective outlook for the business.

BHP Billiton plc - BLT

The main risks to our view are different commodity prices vs our current forecasts. The company is also exposed to the potentially open-ended liability from the Samarco disaster and the risk of "lower-for-longer" oil prices if we fail to see supply restraint - the onshore US business may be particularly at risk.

General Mining Corporation Limited - GMM

The key investment risks for GMM include:

Funding risk

As a pre-production company with no material income, GMM is reliant on equity and debt markets to fund feasibility studies and development of various projects. We can make no assurances that accessing these markets will be done without further dilution to shareholders.

#### Exploration risks

Exploration is subject to a number of risks and can require a high rate of capital expenditure. Risks can also be associated with conversion of inferred resources and lack of accuracy in the interpretation of geochemical, geophysical, drilling and other data. No assurances can be given that exploration will delineate further minable reserves.

#### Operating risks

Once in production, the company will be subject to risks such as plant/equipment breakdowns, metallurgical (meeting design recoveries within a complex flowsheet), materials handling and other technical issues. An increase in operating costs could reduce the profitability and free cash generation from the operating assets considerably and negatively impact valuation. Further, the actual characteristics of an ore deposit may differ significantly from initial interpretations which can also materially impact forecast production from original expectations.

#### Commodity price and currency fluctuations

As with any mining company, GMM is directly exposed to commodity price and currency fluctuations. Commodity price fluctuations are driven by many macroeconomic forces including inflationary pressures, interest rates and supply and demand factors. These factors could reduce the profitability, costing and prospective outlook for the business.

#### Galaxy Resources Limited - GXY

The key investment risks for GXY include:

#### Funding risk

As a pre-production company with no material income, GXY is reliant on equity and debt markets to fund feasibility studies and development of various projects. We can make no assurances that accessing these markets will be done without further dilution to shareholders.

#### Exploration risks

Exploration is subject to a number of risks and can require a high rate of capital expenditure. Risks can also be associated with conversion of inferred resources and lack of accuracy in the interpretation of geochemical, geophysical, drilling and other data. No assurances can be given that exploration will delineate further minable reserves.

#### Operating risks

Once in production, the company will be subject to risks such as plant/equipment breakdowns, metallurgical (meeting design recoveries within a complex flowsheet), materials handling and other technical issues. An increase in operating costs could reduce the profitability and free cash generation from the operating assets considerably and negatively impact valuation. Further, the actual characteristics of an ore deposit may differ significantly from initial interpretations which can also materially impact forecast production from original expectations.

#### Commodity price and currency fluctuations

As with any mining company, GXY is directly exposed to commodity price and currency fluctuations. Commodity price fluctuations are driven by many macroeconomic forces including inflationary pressures, interest rates and supply and demand factors. These factors could reduce the profitability, costing and prospective outlook for the business.

### Distribution of Ratings:

#### Global Stock Ratings (as of 05/25/16)

Rating	Coverage Universe		IB Clients
	#	%	%
Buy	523	59.23%	34.03%
Hold	276	31.26%	17.75%
Sell	27	3.06%	3.70%
Speculative Buy	57	6.46%	66.67%
	883*	100.0%	

\*Total includes stocks that are Under Review

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**NOT RATED:** Canaccord Genuity does not provide research coverage of the relevant issuer.

"Risk-adjusted return" refers to the expected return in relation to the amount of risk associated with the designated investment or the relevant issuer.

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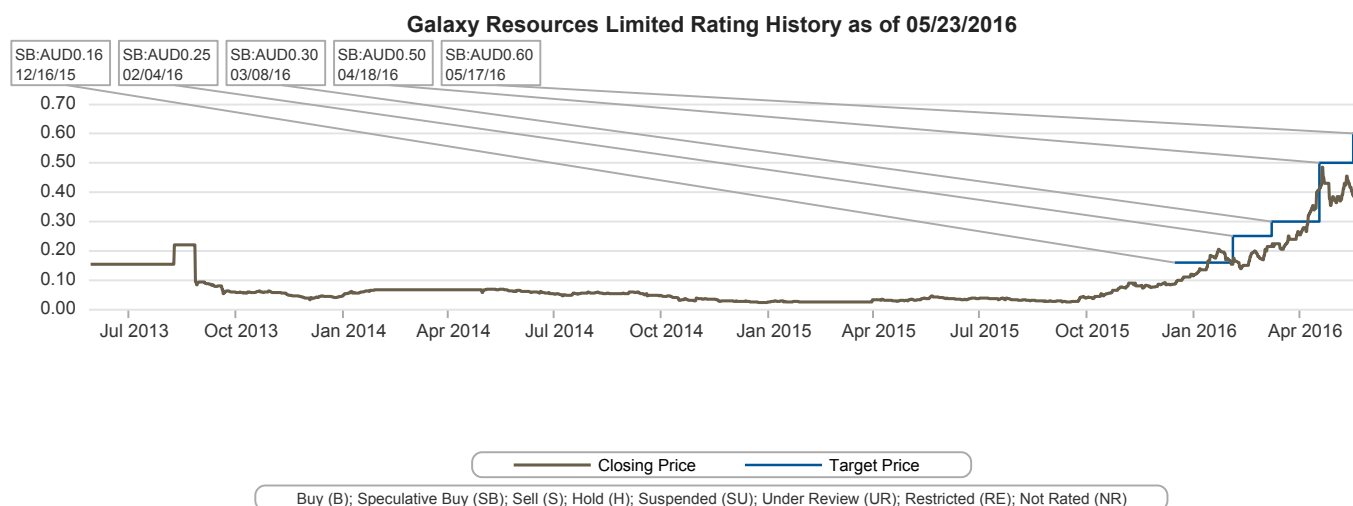
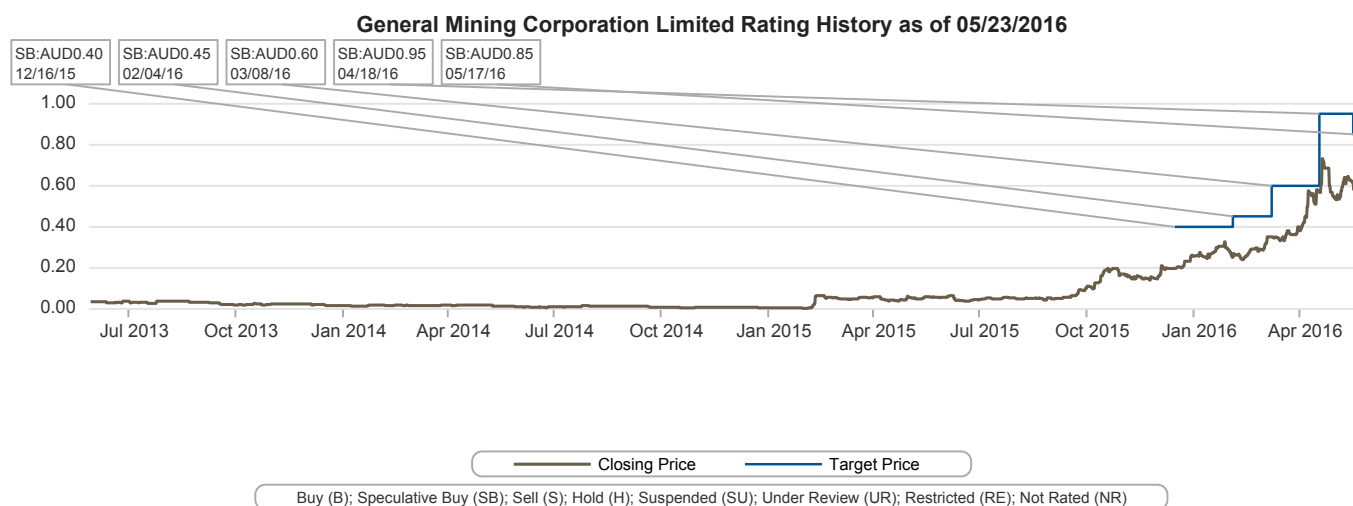
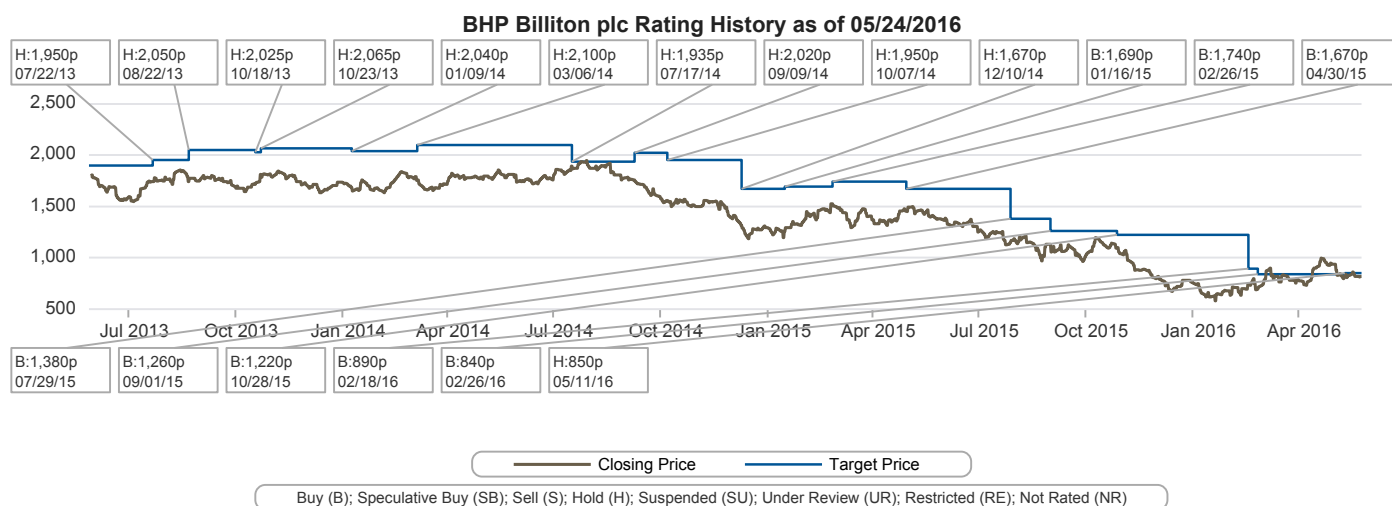
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Altura Mining Limited Rating History as of 05/24/2016



Buy (B); Speculative Buy (SB); Sell (S); Hold (H); Suspended (SU); Under Review (UR); Restricted (RE); Not Rated (NR)





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