



## AVANCO RESOURCES LIMITED (AVB)

### Site visit confirms next Cu-Au producer on the ASX

Avanco Resources has largely completed earthworks/civils and commenced mechanical construction of the processing plant at the Antas project in Brazil. A recent site visit by Hartleys research confirms the 'starter' project is on track to produce ~12ktpa Cu & ~7kozpa Au from CY16 onwards. Commissioning of some parts of the plant will likely commence in early December with an official startup date of 29<sup>th</sup> March 2016. We estimate Antas generates EBITDA of ~\$40mpa at spot and ~\$60mpa at consensus prices. The Antas mine allows the Company to advance the nearby and much larger Pedra Branca (stage 2) project which has potential to produce ~30ktpa Cu and ~25kozpa Au from CY18 for ~12 years or more.

### USD:BRL exchange rate reduces capex by ~US\$5m

Recent movement in the USD:BRL exchange rate has led to savings in the order of ~US\$5m on the ~US\$60m capex requirement for the Antas (Stage 1) project. These savings represent additional contingency and so help de-risk the project development/commissioning and allow the Company to continue exploration throughout the portfolio of greenfields and brownfields prospects. We particularly like the exploration upside at Pedra Branca (Stage 2) and look forward to further clarity with a scoping study and 'decision to mine' later in CY15. Our understanding is Pedra Branca has potential to produce in the order of ~1.5-2.0Mtpa for ~27-36ktpa Cu and combined with some upside at Antas North we see potential for group production in the order of ~50ktpa Cu from FY19 onwards.

### High standard of workmanship, impressive technical team

Hartleys site visit to the Antas project saw a high standard of workmanship and safety akin to Australian standards. The project is currently on schedule, under budget and looking to finish within a build time of <12 months. Antas is one of only a small number of base metals mines currently being built by a junior on the ASX, this is testament to the technical ability and persistence of the AVB technical team. AVB recently increased the independence of the board with the addition of Vern Tidy as a Non-Executive Director, Vern is a Chartered Accountant with extensive corporate governance and financial compliance experience.

We see the Antas project well positioned to benefit from further improvements in the spot Cu & Au prices over the coming months. We expect the Company to finalise offtake agreements towards the end of CY15. Given the desirable quality of the Antas concentrate and the potential for additional concentrate from Pedra Branca in the future, we expect the Company to be offered favourable terms.

### Staged development with exploration & acquisition potential

The Antas mine consists of a small open pit, mining at ~500ktpa and feeding the ~800ktpa processing plant. We see potential to fill the processing plant with increased production from the Antas open pit and with the addition of satellite ore from nearby prospects.

We see potential for more value to be added with the drill bit and with further acquisitions throughout the world class Carajas mineral province. Antas is an ideal 'starter' project for AVB to leverage into Pedra Branca (Stage 2) and become the next mid-tier copper producer on the ASX, we maintain our Speculative Buy recommendation and price target of 10c, NAV of 13c and spot NAV of 6c.

20 Sep 2015	
Share Price	\$0.059
Valuation	\$0.13
Price Target (12 month)	\$0.10

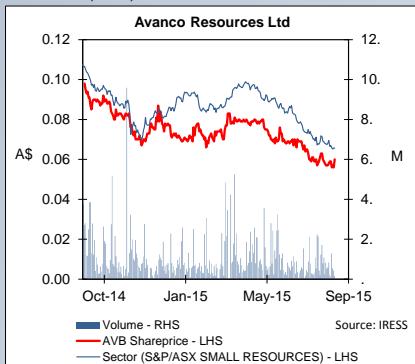
**Brief Business Description:**  
Cu-Au developer and explorer

**Hartleys Brief Investment Conclusion**  
Brazilian Cu-Au developer ~12ktpa Cu & 7kozpa Au from Antas (stage 1) with growth potential at Pedra Branca (stage 2)

**Chairman & MD**  
Colin Jones (Chairman & Non-Exec Director)  
Tony Polglase (Managing Director)

Top Shareholders	
Appian Natural Resources Fund	18.5%
Greenstone	16.7%
Blackrock Group	12.8%
Glencore	7.6%

Company Address	
Level 3, 680 Murray St	
West Perth WA, 6873	
<b>Issued Capital</b>	2684.5m
- fully diluted	2684.5m
<b>Market Cap</b>	A\$158.4m
- fully diluted	A\$158.4m
<b>Cash (est)</b>	A\$50.0m
<b>Debt</b>	A\$0.0m
<b>EV</b>	A\$108.4m
<b>EV/Resource Ib</b>	A\$0.06/b
Prelim. (A\$m)	
Prod (kt Cu)	0.0
Op Cash Flw	-0.6
Norm NPAT	-3.8
CF/Share (cps)	-1.4
EPS (cps)	-1.4
P/E	-4.2
Mt	
Resources	63.3
Reserves (ROM)	2.6
Reserves (Total)	3.6
Cu (%)	1.26
Au (g/t)	0.33



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# SUMMARY MODEL

Avanco Resources Ltd		Share Price					Speculative Buy		
AVB		\$0.059							
Key Market Information							Company Information		
Share Price		\$0.059					Level 3, 680 Murray St		
Market Capitalisation - ordinary		A\$158m					West Perth WA, 6873		
Net Debt (cash)		-A\$50m					+61 8 9324 1866		
Market Capitalisation - fully diluted		A\$158m					+61 8 9200 1851		
EV		A\$108m							
Issued Capital		2684.5m					www.avancoresources.com		
Options		0.0							
Issued Capital (fully diluted inc. all options)		2684.5m							
Issued Capital (fully diluted inc. all options and new capital)		3336.2m							
Valuation		\$0.13							
12month price target		\$0.10							
P&L		Unit	30 Jun 14	31 Dec 14	31 Dec 15	31 Dec 16	Dec 17		
Net Revenue	A\$M	0.6	0.0	0.0	104.5	112.6			
Total Costs	A\$M	-1.1	-5.6	-5.9	-50.1	-51.9			
EBITDA	A\$M	-0.5	-5.6	-5.9	54.4	60.7			
- margin		-96%	-	-	52%	54%			
Depreciation/Amort	A\$M	0.0	0.0	0.0	0.0	0.0			
EBIT	A\$M	-0.5	-5.6	-5.9	54.4	60.7			
Net Interest	A\$M	-1.5	1.1	1.1	1.1	-4.6			
Norm. Pre-Tax Profit	A\$M	-2.0	-4.5	-4.8	55.5	56.1			
Reported Tax Expense	A\$M	0.0	0.0	0.0	0.0	0.0			
Normalised NPAT	A\$M	-1.7	-3.8	-4.0	46.6	47.2			
Abnormal Items	A\$M	-30.3	-30.7	-30.8	-21.1	-21.0			
Reported Profit	A\$M	-32.0	-34.5	-34.8	25.5	26.1			
Minority	A\$M	0	0	0	0	0			
Profit Attrib	A\$M	-32.0	-34.5	-34.8	25.5	26.1			
Balance Sheet		Unit	30 Jun 14	31 Dec 14	31 Dec 15	31 Dec 16	31 Dec 17		
Cash	A\$M	32.2	19.8	3.4	41.9	137.5			
Other Current Assets	A\$M	0.2	0.2	0.0	8.6	9.3			
Total Current Assets	A\$M	32.4	20.0	3.4	50.5	146.8			
Property, Plant & Equip.	A\$M	0.1	7.9	87.9	91.9	235.9			
Exploration	A\$M	45.2	50.3	28.3	6.3	-15.7			
Investments/other	A\$M	2.0	0.0	0.0	0.0	0.0			
Total Non-Curr. Assets	A\$M	47.4	58.2	116.2	98.2	220.2			
Total Assets	A\$M	79.8	78.2	119.6	148.7	367.0			
Short Term Borrowings	A\$M	-	-	-	-	-			
Other	A\$M	0.9	3.5	0.5	4.1	4.3			
Total Curr. Liabilities	A\$M	0.9	3.5	0.5	4.1	4.3			
Long Term Borrowings	A\$M	-	-	-	-	140.9			
Other	A\$M	-	-	-	-	-			
Total Non-Curr. Liabil.	A\$M	-	-	-	-	140.9			
Total Liabilities	A\$M	0.9	3.5	0.5	4.1	145.1			
Net Assets	A\$M	78.9	74.7	119.1	144.6	221.9			
Net Debt	A\$M	-32.2	-19.8	-3.4	-41.9	3.3			
Cashflow		Unit	30 Jun 14	31 Dec 14	31 Dec 15	31 Dec 16	31 Dec 17		
Operating Cashflow	A\$M	-1.3	-1.1	-8.7	49.4	60.2			
Income Tax Paid	A\$M	0.0	0.0	0.0	0.0	0.0			
Interest & Other	A\$M	0.4	0.4	1.1	1.1	-4.6			
Operating Activities	A\$M	-0.9	-0.6	-7.6	50.5	55.6			
Property, Plant & Equip.	A\$M	-2.1	-5.7	-80.0	-4.0	-144.0			
Exploration and Devel.	A\$M	-7.2	-6.2	-8.0	-8.0	-8.0			
Other	A\$M	0.0	0.0	0.0	0.0	0.0			
Investment Activities	A\$M	-9.3	-11.9	-88.0	-12.0	-152.0			
Borrowings	A\$M	0.0	0.0	0.0	0.0	140.9			
Equity or "tbc capital"	A\$M	38.7	0.0	79.2	0.0	51.1			
Dividends Paid	A\$M	0.0	0.0	0.0	0.0	0.0			
Financing Activities	A\$M	38.7	0.0	79.2	0.0	192.0			
Net Cashflow	A\$M	28.5	-12.5	-16.4	38.5	95.6			
Shares		Unit	30 Jun 14	31 Dec 14	31 Dec 15	31 Dec 16	31 Dec 17		
Ordinary Shares - End	m	2456.9	2456.9	3002.9	3002.9	3003.5			
Ordinary Shares - Weighted	m	2456.9	2456.9	2729.9	3002.9	3003.2			
Diluted Shares - Weighted	m	2456.9	2456.9	2729.9	3002.9	3003.2			
Ratio Analysis		Unit	30 Jun 14	31 Dec 14	31 Dec 15	31 Dec 16	31 Dec 17		
Cashflow Per Share	A\$ cps	0.0	0.0	-0.3	1.7	1.9			
Cashflow Multiple	x	-156.4	-238.3	-21.1	3.5	3.2			
Earnings Per Share	A\$ cps	-1.3	-1.4	-1.3	0.8	0.9			
Price to Earnings Ratio	x	-4.5	-4.2	-4.6	7.0	6.8			
Dividends Per Share	AUD	0.0	0.0	0.0	0.0	0.000			
Dividend Yield	%	0.0%	0.0%	0.0%	0.0%	0.0%			
Net Debt / Net Debt + Equity	%	-69%	-36%	-3%	-41%	1%			
Interest Cover	X	na	5.2	5.5	na	13.3			
Return on Equity	%	na	na	na	32%	21%			
Analyst: Scott Williamson +61 8 9268 3045 "tbc capital" could be equity or debt. Our valuation is risk-adjusted for how this may be obtained. Sources: IRESS, Company Information, Hartleys Research								Last Updated: 20/09/2015	
Directors									
Colin Jones (Chairman & Non-Exec Director)									
Tony Polglase (Managing Director)									
Scott Funston (Dir/Company Sec)									
Simon Mottram (Executive Director)									
Wayne Phillips (Executive Director)									
Luis Azevedo (Non-Exec Director)									
Vernon Tidy (Non-Exec Director)									
Top Shareholders									
Appian Natural Resources Fund									
Greenstone									
Blackrock Group									
Glencore									
Reserves & Resources									
TOTAL RESOURCE (inclusive of Reserve)		Mt	Cu (%)	Au (g/t)	Cu (kt)	Au (koz)			
Measured	3.4	2.72	0.65	93	69				
Indicated	9.2	0.97	0.25	89	71				
Inferred	49.8	1.20	0.33	602	514				
Reserve	3.6	2.53	0.55	91	64				
Production Summary		Unit	Jun 14	Dec 14	Dec 15	Dec 16	Dec 17		
Mill throughput	Mt		0.0	0.0	0.0	0.4	0.5		
Strip Ratio	x		0.0	0.0	0.0	7.5	7.5		
Mined grade	%		0.00	0.00	0.00	3.00	3.00		
Combined Recovery & Payability	%		0.0%	0.0%	0.0%	81.0%	81.0%		
Copper	(kt)		0.0	0.0	0.0	10.3	10.9		
Gold	(koz)		0.0	0.0	0.0	8.2	8.7		
Copper Equiv	(kt)		0.0	0.0	0.0	11.4	12.0		
M&I Resource Conversion	%		0.0%	0.0%	0.0%	65.2%	58.2%		
Mine Life	yr		11.25	11.25	11.25	11.25	11.25		
Costs		Unit	Jun 14	Dec 14	Dec 15	Dec 16	Dec 17		
Cost per milled tonne	A\$/t		-	-	-	86.0	83.7		
EBITDA / tonne milled ore	A\$/t		-	-	-	128.0	134.9		
C1: Operating Cash Cost = (a)	A\$/lb		-	-	-	1.61	1.56		
(a) + Royalty = (b)	A\$/lb		-	-	-	1.93	1.89		
C2: (a) + depreciation & amortisation = (c)	A\$/lb		-	-	-	1.61	1.56		
(a) + actual cash for development = (d)	A\$/lb		-	-	-	2.38	2.29		
C3: (d) + Royalty	A\$/lb		-	-	-	1.93	1.89		
(d) + Royalty	A\$/lb		-	-	-	2.70	2.62		
Price Assumptions		Unit	Jun 14	Dec 14	Dec 15	Dec 16	Dec 17		
AUDUSD	A\$/US\$	0.92	0.89	0.74	0.72	0.74			
Copper	US\$/lb	3.23	3.01	2.67	2.97	1200			
Gold	US\$/oz	1286	1251	1170	1200	1200			
Hedging			Jun 14	Dec 14	Dec 15	Dec 16	Dec 17		
Hedges maturing?			No	No	No	No	No		
Sensitivity Analysis									
Valuation									
Base Case	0.13							FY17 NPAT	
Spot Prices	0.06 (-56.7%)							7.2 (-71.6%)	
Spot USD/AUD 0.72, Copper \$2.38/lb, Gold \$1,140/oz									
AUDUSD +/-10%	0.11 / 0.15 (-13.4% / 16.2%)							19.9 / 32.3 (-21.8% / 26.6%)	
Copper +/-10%	0.16 / 0.09 (28.5% / -29.3%)							34.3 / 16.7 (34.4% / -34.4%)	
Production +/-10%	0.13 / 0.13 (0.0% / 0.0%)							25.5 / 25.0 (0.0% / 0.0%)	
Operating Costs +/-10%	0.11 / 0.15 (-17.6% / 17.3%)							21.8 / 29.1 (-14.4% / 14.4%)	
Unpaid Capital		No. (m)	\$m	Avg price	% ord				
Year Expires									
31-Dec-15	0.0	0.0	0.00	0%					
31-Dec-16	0.0	0.0	0.00	0%					
31-Dec-17	0.0	0.0	0.00	0%					
31-Dec-18	0.0	0.0	0.00	0%					
31-Dec-19	0.0	0.0	0.00	0%					
<b>TOTAL</b>	<b>0.0</b>	<b>0.0</b>	<b>0.00</b>	<b>0%</b>					
Share Price Valuation (NAV)		Risked Est. A\$M	Est. A\$/share						
100% Pedra Branca (pre-tax NAV at disc. rate of 14%)	209		0.06						
100% Antas North (pre-tax NAV at disc. rate of 12%)	203		0.06						
Other Exploration	50		0.01						
Forwards	0		0.00						
Corporate Overheads	-49		-0.01						
Net Cash (Debt)	50		0.01						
Tax (NPV future liability)	-37		-0.01						
Options & Other Equity	0		0.00						
Hedging	0		0.00						
<b>Total</b>	<b>426</b>		<b>0.13</b>						

*Fig. 1: Antas project construction (04/09/2015)*



Source: Avanco Resources Limited

*Fig. 2: Antas project crusher civil works*



Source: Hartleys site visit photos

*Fig. 3: Antas project drone flyover*



Source: Avanco Resources Limited

## VALUATION

Our sum of parts valuation for Antas and Pedra Branca assumes Antas moves in to production in Q1 CY16 and Pedra Branca in Q1 CY18. We model a 10 year minelife at Antas and 12 years at Pedra Branca but see potential upside at both projects. We model a nominal \$50m (\$0.02/share) for exploration upside. We believe AVB is well positioned for brownfield exploration success at both projects and within the regional exploration projects. We may revisit the exploration value if further exploration success is seen from the current regional exploration program.

*Hartleys model 10 years at Antas (Stage 1) & 12 years at Pedra Branca (Stage 2)*

*Antas has ~8 years of open pit mining at 7.5:1 (LOM) strip ratio*

*Pedra Branca pre-scoping has an UG LOM head grade of ~2.2% Cu & 0.5g/t Au*

*Hartleys sum of parts valuation for AVB is A\$0.13/share*

**Fig. 4: Antas and Pedra Branca model assumptions**

	Antas (Stage 1) Project	Pedra Branca (Stage 2) Project
<b>Capex - Total (\$m)</b>	<b>80</b>	<b>200</b>
Life of mine Strip Ratio (x)	7.5x	UG
Life of mine average head grade	2.7% Cu, 0.5g/t Au	2.2% Cu, 0.5g/t Au
<b>Life of mine mill feed (mt pa)</b>	<b>0.45mt pa</b>	<b>1.5mt pa</b>
LOM Cu combined recovery & payability	81%	81%
Total Copper eq Sold	0.11Mt	0.30Mt
Total Copper eq Sold pa	11kt pa	25kt pa
Current Assumed Mine Life (yrs)	10yrs	12yrs
Commencement Date (qtr)	Mar-16	Mar-18
LOM avg selling price (USD/copper lb)	US\$ 2.98 /lb	US\$ 2.94 /lb
<b>LOM avg C1 cash costs (USD/Cu eq lb)</b>	<b>US\$ 1.54 /lb</b>	<b>US\$ 2.10 /lb</b>
LOM C2 cash costs (USD/Cu eq lb)	US\$ 1.79 /lb	US\$ 2.34 /lb
LOM C3 cash costs (USD/Cu eq lb)	US\$ 2.04 /lb	US\$ 2.58 /lb
Life of mine annual net cash flow (US\$m pa)	US\$ 28m pa	US\$ 45m pa
<b>Spot pre-tax NPV (USDm), unfunded</b>	<b>US\$ 202.8m</b>	<b>US\$ 159.2m</b>

Source: Hartleys Estimates

For the Antas project we assume eight years of open pit mining with an average LOM strip ratio of 7.5:1. In years nine and ten we assume underground mining at Antas North will combine with the low grade stockpiles to produce at a similar production as the preceding years. We model Pedra Branca to begin production in Q1 CY18 from an underground mine at ~1.5Mtpa. Our modelling for Pedra Branca is pre-scoping although based on a typical bulk tonnage underground mining scenario with a LOM head grade of ~2.2% Cu & 0.5g/t Au. We assume the Pedra Branca project produces for ~12 years which would see mining to a depth ~400m. Assuming the mineralisation extends at depth we see significant potential to extend the minelife at Pedra Branca beyond our modelled assumptions.

**Fig. 5: Hartleys Sum of Parts Valuation for AVB**

	A\$m	A\$/share
100% Pedra Branca (pre-tax NAV @ 14%)	209.2	0.06
100% Antas North (pre-tax NAV @12%)	202.8	0.06
Other Exploration	50.0	0.01
Forwards	0.0	0.00
Corporate Overheads	-49.2	-0.01
Net Cash (Debt)	50.0	0.01
Tax (NPV future liability)	-36.9	-0.01
Options & Other Equity	0.0	0.00
Hedging	0.0	0.00
<b>Total</b>	<b>426.0</b>	<b>0.13</b>

Source: Hartleys Estimates

## PRICE TARGET

Our price target for AVB assumes both Antas (Stage 1) and Pedra Branca (Stage 2) move into production over the coming years. We believe Antas (Stage 1) is an excellent 'starter' project though significant upside exists with Pedra Branca (Stage 2). Both projects combined will see AVB become a mid-tier copper producer with a relatively large, long life copper mining business. Our price target includes weighting for the base case at consensus and spot prices and a weighting for the net cash backing.

*Hartleys 12 month price target is 10 cents per share*

**Fig. 6: AVB Price Target Methodology**

Price Target Methodology	Weighting	Spot	12 mth out
NPV base case	60%	\$0.13	\$0.14
NPV at spot commodity and fx prices	30%	\$0.06	\$0.06
Net cash backing	10%	\$0.02	\$0.02
<b>Risk weighted composite</b>		<b>\$0.10</b>	
<b>12 Months Price Target</b>		<b>\$0.10</b>	
Shareprice - Last		\$0.059	
<b>12 mth total return (% to 12mth target )</b>		<b>74%</b>	

Source: Hartleys Estimates

## RISKS

**Fig. 7: Key assumptions and risks for valuation**

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
450ktpa Antas (Stage1) & 1.5Mtpa Pedra Branca (Stage 2)	Moderate	Meaningful	AVB is highly leveraged to the success of the Antas Copper project. We model a 450ktpa 'starter' project followed by a 1.5Mtpa project at Pedra Branca. If either project varies from our modelled scenarios our valuation will be at risk to the downside
Model parameters	Moderate	Meaningful	We have made a number of large assumptions in our valuation of AVB, changes in these assumptions can change our valuation to both the upside and downside.
Exploration potential	Moderate	Meaningful	We assume exploration upside at both projects and throughout the region. We believe this assumption is reasonable given the geological prospectivity of the world class Carajás province.
Funding	Moderate	High	We model Pedra Branca (Stage 2) to be funded with new conventional debt and equity. We believe this assumption is acceptable given the Antas 'starter' project is fully funded.

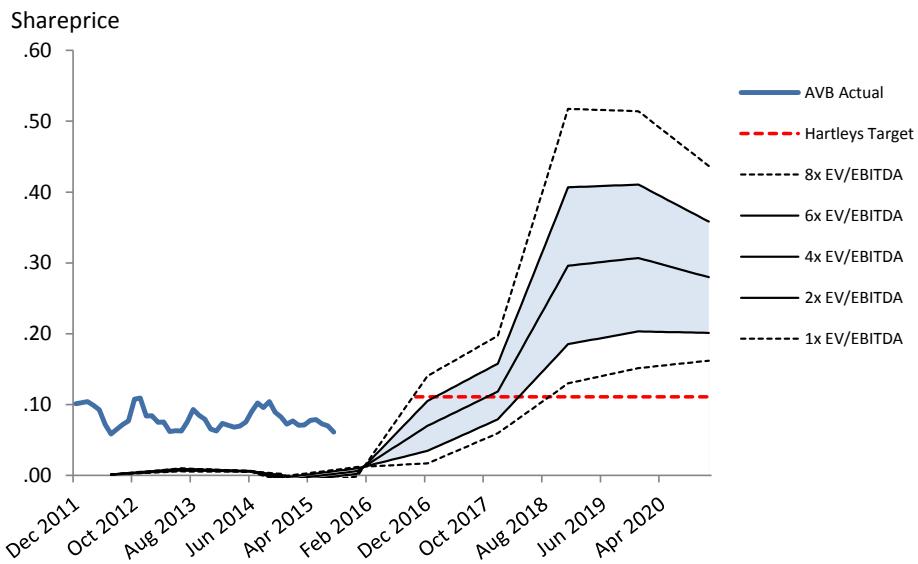
*Conclusion*

*At this early Stage we have made significant assumptions but believe these are achievable.*

Source: Hartleys Research

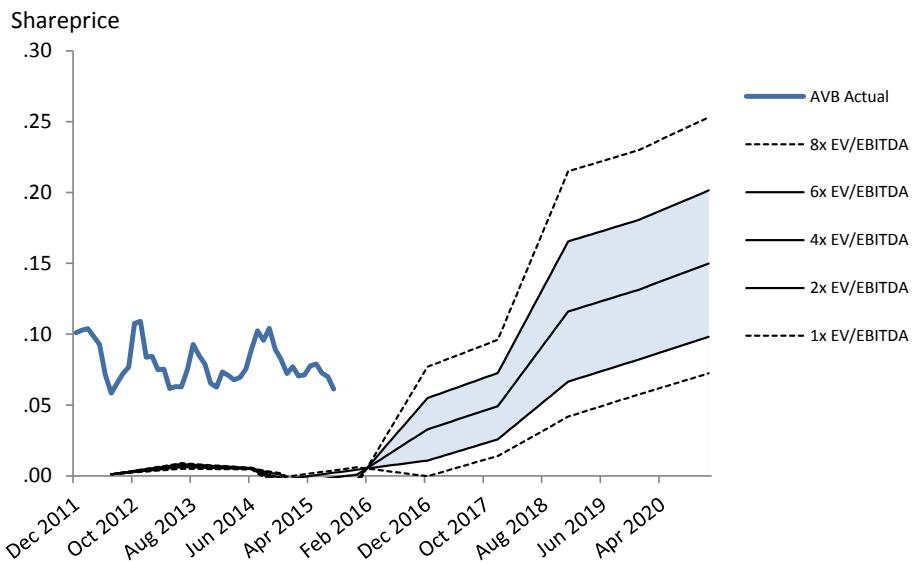
## EV/EBITDA BANDS

*Fig. 8: Using Hartleys base case commodity forecasts*



Source: Hartleys Estimates, IRESS

*Fig. 9: Using spot commodity prices*



Source: Hartleys Estimates, IRESS

# HARTLEYS CORPORATE DIRECTORY

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Paul Fryer	Director	+61 8 9268 2819
Dale Bryan	Director	+61 8 9268 2829
Ben Wale	Associate Director	+61 8 9268 3055
Ben Crossing	Associate Director	+61 8 9268 3047
Stephen Kite	Associate Director	+61 8 9268 3050
Scott Weir	Associate Director	+61 8 9268 2821

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Nathan Bray	+61 8 9268 2874
Sven Burrell	+61 8 9268 2847
Simon Casey	+61 8 9268 2875
Tony Chien	+61 8 9268 2850
Tim Cottee	+61 8 9268 3064
David Cross	+61 8 9268 2860
Nicholas Draper	+61 8 9268 2883
John Featherby	+61 8 9268 2811
Ben Fleay	+61 8 9268 2844
James Gatti	+61 8 9268 3025
John Goodlad	+61 8 9268 2890
Andrew Gribble	+61 8 9268 2842
David Hainsworth	+61 8 9268 3040
Neil Inglis	+61 8 9268 2894
Murray Jacob	+61 8 9268 2892
Gavin Lehmann	+61 8 9268 2895
Shane Lehmann	+61 8 9268 2897
Steven Loxley	+61 8 9268 2857
Andrew Macnaughtan	+61 8 9268 2898
Scott Metcalf	+61 8 9268 2807
David Michael	+61 8 9268 2835
Jamie Moullin	+61 8 9268 2856
Chris Munro	+61 8 9268 2858
Michael Munro	+61 8 9268 2820
Ian Parker	+61 8 9268 2810
Charlie Ransom	+61 8 9268 2868
Brenton Reynolds	+61 8 9268 2866
Conlie Salvemini	+61 8 9268 2833
David Smyth	+61 8 9268 2839
Greg Soudure	+61 8 9268 2834
Sonya Soudure	+61 8 9268 2865
Dirk Vanderstruyf	+61 8 9268 2855
Samuel Williams	+61 8 9268 3041
Jayne Walsh	+61 8 9268 2828

## Registered Office

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## Hartleys Recommendation Categories

Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.
Buy	

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