

14 Feb 2017

BIRIMIAN LTD (BGS)

Scoping study envisages a 1Mtpa operation

Birimian recently released a scoping study for the Bougouni lithium project in Mali. We have updated our model. The scoping study is based on a smaller project than we had speculatively modelled (1Mtpa versus our previous assumption of 2Mtpa). Correspondingly, capex is lower than we had assumed. The Company has a study that envisages two stage development (Stage 1 assumes DMS recovery, Stage 2 is the addition of flotation). We assume both stages will be developed together (to de-risk metallurgical recoveries) and assume startup capital of US\$93m (Stage 1 company estimated startup capital is US\$47m). The study assumes 75% recoveries.

Operating cash costs (C2) are expected to be US\$326/t, of which almost half is logistics and transport costs, given the project is located in landlocked Mali. Our cost assumptions are ~8% higher on a "per ore tonne" basis.

The study assumes a 13 year mine life and a head grade of 1.54% (above current resource grade). We assume a 20 year mine life (we expect strong exploration potential in the region), but our grade assumption is only 1.45%. The Company expects an updated resource in March.

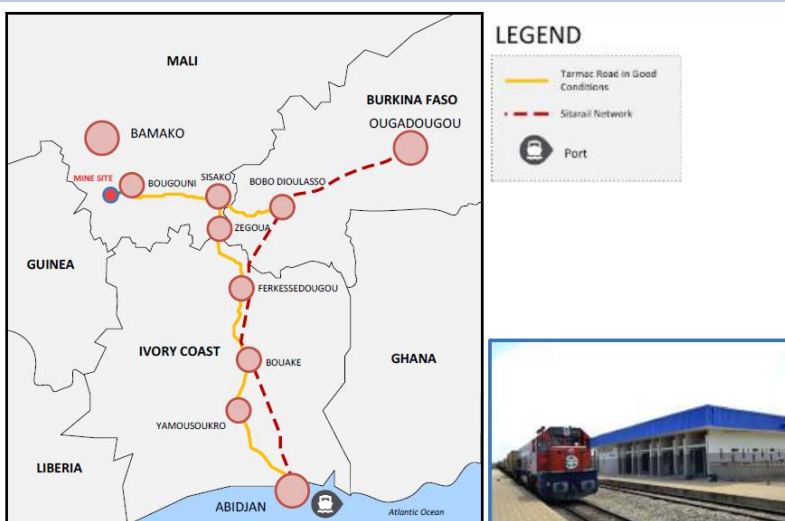
Recent transaction fails

In early January BGS announced the sale of the deposit for A\$107.5m cash (~50cps pre-tax). Assuming 30% tax on the sale, we estimated the transaction was worth ~35cps to BGS. It was conditional, amongst other things, on the receipt of an A\$10.75m deposit on or before 20 January 2017. That condition was not met, and hence the deal was terminated by BGS. Consequently, BGS is now continuing with the development path.

Upgrade to Speculative Buy (from Neutral)

Given the sale of the project has fallen over, there is now potential that full value for the project could be realised. We move to a Speculative Buy recommendation, with a 54cps price target. Our base valuation is 56cps and assumes dilution of another ~290m shares.

Fig. 1: Logistics make up almost half of opex



Source: BGS

Share Price	\$0.295
Prelim. Valuation	\$0.56
Price Target (12 month)	\$0.54

Brief Business Description:

Excellent, but early stage, spodumene project in Mali (Bougouni) plus a good advanced gold exploration portfolio, also in Mali.

Hartleys Brief Investment Conclusion

Under valued if the project can be developed.

Chairman & MD

Winton Willesee (Chairman)

Kevin Joyce (Managing Director)

Major Shareholders

The Gas Super Fund 8.6%

Company Address

Suite 9, 5 Centro Avenue
West Perth, WA 6008

Issued Capital 189.3m

- fully diluted 218.4m

Market Cap A\$55.8m

- fully diluted A\$64.4m

Cash (31 Dec 16a) A\$7.6m

Debt (31 Dec 16a) A\$0.0m

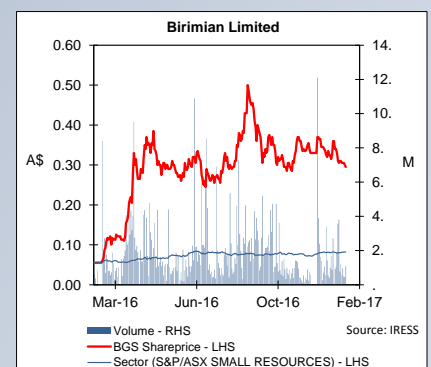
EV A\$48.3m

EV/Resource Spod.

EV/Reserve Spod.

	Prelim. (A\$m)	FY18e	FY19e	FY20e
Prod (spod Mt)	0.00	0.11	0.18	
Op Cash Flw	-5.8	33.5	58.8	
Norm NPAT	-14.9	32.3	50.2	
CF/Share (cps)	-56.2	11.0	6.3	
EPS (cps)	-1.4	2.6	4.0	
P/E	-21.8	11.4	7.3	

	Mt	LizO	Spod.
Resources (LizO)	15.5	1.48%	3.8
Reserve (LizO)	none		



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Hartleys has completed a capital raising in the past 12 months for Birimian Gold Limited ("Birimian") for which it has earned fees. Hartleys has provided corporate advice within the past 12 months and continues to provide corporate advice to Birimian for which it expects to earn fees. See back page for details.

SUMMARY MODEL

Birimian Limited							Share Price		14 February 2017				
BGS							\$0.295		Speculative Buy				
Key Market Information													
Share Price							\$0.295						
Market Capitalisation - ordinary							A\$64m						
Net Debt (cash)							-\$8m						
Market Capitalisation - fully diluted							A\$64m						
EV							A\$57m						
Issued Capital							189.3m						
Options							29.2						
Issued Capital (diluted for options)							218.4m						
Issued Capital (diluted inc. options and new capital)							502.0m						
12month price target							\$0.54						
P&L	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22							
Net Revenue	A\$m	0.0	104.1	157.1	122.9	122.1							
Total Costs	A\$m	-4.7	-55.9	-81.4	-79.3	-79.4							
EBITDA	A\$m	-4.7	48.2	75.6	43.6	42.6							
- margin			46%	48%	35%	35%							
Depreciation/Amort	A\$m	-9.1	-13.9	-15.0	-15.2	-15.5							
EBIT	A\$m	-13.8	34.3	60.6	28.4	27.2							
Net Interest	A\$m	-1.0	-2.1	-1.9	-1.7	-1.6							
Pre-Tax Profit	A\$m	-14.9	32.3	58.7	26.6	25.6							
Tax Expense	A\$m	0.0	0.0	-8.5	-10.0	-9.6							
Normalised NPAT	A\$m	-14.9	32.3	50.2	16.7	16.0							
Abnormal Items	A\$m	0.0	0.0	0.0	0.0	0.0							
Reported Profit	A\$m	-14.9	32.3	50.2	16.7	16.0							
Minority	A\$m	0.0	0.0	0.0	0.0	0.0							
Profit Attrib	A\$m	-14.9	32.3	50.2	16.7	16.0							
Balance Sheet	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22							
Cash	A\$m	49.0	55.7	112.6	146.3	175.5							
Other Current Assets	A\$m	0.2	13.0	19.5	15.3	15.2							
Total Current Assets	A\$m	49.1	68.7	132.1	161.6	190.7							
Property, Plant & Equip.	A\$m	77.1	89.5	76.0	62.8	49.3							
Exploration	A\$m	96.4	96.8	97.2	97.6	98.0							
Investments/other	A\$m	1.2	1.2	1.2	1.2	1.2							
Total Non-Curr. Assets	A\$m	174.7	187.5	174.4	161.6	148.5							
Total Assets	A\$m	223.8	256.2	306.5	323.2	339.2							
Short Term Borrowings	A\$m	-	-	-	-	-							
Other	A\$m	0.1	0.2	0.3	0.3	0.3							
Total Curr. Liabilities	A\$m	0.1	0.2	0.3	0.3	0.3							
Long Term Borrowings	A\$m	38.3	38.3	38.3	38.3	38.3							
Other	A\$m	-	-	-	-	-							
Total Non-Curr. Liabil.	A\$m	38.3	38.3	38.3	38.3	38.3							
Total Liabilities	A\$m	38.4	38.6	38.6	38.6	38.6							
Net Assets	A\$m	185.4	217.7	267.9	284.6	300.6							
Net Debt	A\$m	-10.7	-17.4	-74.3	-108.0	-137.1							
Cashflow	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22							
Operating Cashflow	A\$m	-4.7	35.5	69.2	47.8	42.7							
Income Tax Paid	A\$m	0.0	0.0	-8.5	-10.0	-9.6							
Interest & Other	A\$m	-1.0	-2.1	-1.9	-1.7	-1.6							
Operating Activities	A\$m	-5.8	33.5	58.8	36.1	31.6							
Property, Plant & Equip.	A\$m	-93.3	-26.3	-1.5	-2.0	-2.0							
Exploration and Devel.	A\$m	-0.4	-0.4	-0.4	-0.4	-0.4							
Other	A\$m	0.0	0.0	0.0	0.0	0.0							
Investment Activities	A\$m	-93.7	-26.7	-1.9	-2.4	-2.4							
Borrowings	A\$m	38.3	0.0	0.0	0.0	0.0							
Equity or "tbc capital"	A\$m	115.0	0.0	0.0	0.0	0.0							
Dividends Paid	A\$m	0.0	0.0	0.0	0.0	0.0							
Financing Activities	A\$m	153.3	0.0	0.0	0.0	0.0							
Net Cashflow	A\$m	53.8	6.7	56.9	33.7	29.2							
Shares	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22							
Ordinary Shares - End	m	1240.5	1249.0	1249.0	1256.3	1263.0							
Ordinary Shares - W'ted	m	1097.8	1244.7	1249.0	1252.6	1259.7							
Diluted Shares - W'ted	m	1121.1	1263.0	1263.0	1263.0	1263.0							
Ratio Analysis	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22							
Cashflow Per Share	A\$ cps	-0.5	2.7	4.7	2.9	2.5							
Cashflow Multiple	x	-56.2	11.0	6.3	10.2	11.8							
Earnings Per Share	A\$ cps	-1.4	2.6	4.0	1.3	1.3							
Price to Earnings Ratio	x	-21.8	11.4	7.3	22.2	23.2							
Dividends Per Share	AUD	-	-	-	-	-							
Dividend Yield	%	0.0%	0.0%	0.0%	0.0%	0.0%							
Net Debt / Net Debt + Equity	%	-6%	-9%	-38%	-61%	-84%							
Interest Cover	X	na	16.7	31.7	16.6	17.4							
Return on Equity	%	na	15%	19%	6%	5%							
Directors							Company Information						
Winton Willesee (Chairman)							Suite 9, 5 Centro Avenue						
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Hugh Bresser (Director)							+61 8 9286 3045						
Beverley Nichols (Comp Secretary)							+61 8 9226 2027						
							http://www.birimian.com						
Top Shareholders							Ordinary						
							m sh. %						
The Gas Super Fund							16.3 8.6%						
Reserves & Resources							Mt Li % TaxO₂						
Bougouni	M+I						6.2	1.40%	-				
Bougouni	Inf						9.3	1.53%	-				
Bougouni	Total						15.5	1.48%	-				
Bougouni	Reserve						-						
							Mt Au g/t Moz						
Massigui Au	Total Resource						8.0	1.5	0.39				
Massigui Au	Total Reserve						0	0	0				
Production Summary							Unit Jun 18 Jun 19 Jun 20 Jun 21						
Processed Mill Throughput	Mt						0.63	1.00	1.00				
Mined grade Li	%						1.45%	1.45%	1.45%				
Produced Spodumene - Technical	Mt						0.000	0.000	0.000				
Produced Spodumene - Battery	Mt						0.113	0.181	0.181				
Produced Tantalite	Mlb pa						0.000	0.000	0.000				
Produced Spodumene - Battery Eq	Mt						0.113	0.181	0.181				
LCE equiv (0.16x Spod)	ktpa						18.1	29.0	29.0				
Mine Life	yr						19.50	18.50	17.50				
Assumed Mining Inventory	Mt						18.8	17.8	16.8				
Assumed Mining Inventory - Li grade	%						1.45%	1.45%	1.45%				
Assumed Mining Inventory - Tant grade	%						0.0%	0.0%	0.0%				
Capex							-26.3	-1.5	-2.0				
Costs							Unit Jun 18 Jun 19 Jun 20 Jun 21						
Cost per milled tonne	\$/t						40.2	77.6	76.9				
EBITDA / tonne milled ore	\$/t						77.1	75.6	43.6				
Total cost per milled tonne							89.4	81.4	79.3				
Total Cash Costs	\$/t Spod. Batt. eq						493.1	449.2	437.6				
C1: Operating Cash Cost = (a)	\$/t Spod. Batt. eq						354.6	342.5	339.5				
(a) + Royalty = (b)	\$/t Spod. Batt. eq						409.7	394.4	380.1				
C2: (a) + depreciation & amortisation = (c)	\$/t Spod. Batt. eq						476.9	425.4	423.5				
(a) + actual cash for development = (d)	\$/t Spod. Batt. eq						590.4	352.9	352.7				
C3: (c) + Royalty	\$/t Spod. Batt. eq						532.1	477.4	464.2				
(d) + Royalty	\$/t Spod. Batt. eq						645.5	404.9	393.4				
Price Assumptions							Unit Jun 18 Jun 19 Jun 20 Jun 21						
AUDUSD	US\$/A\$						0.75	0.76	0.76	0.77			
Spodumene - Technical	US\$/t						1267.78	1244.44	1178.33	933.33			
Spodumene - Chemical (ie Battery)	US\$/t						815.00	800.00	757.50	600.00			
Tantalite	US\$/t						60.00	60.00	60.00	60.00			
Hedging							Unit Jun 18 Jun 19 Jun 20 Jun 21						
none													
Sensitivity Analysis							Valuation						
Base Case							0.56						
Spot Prices							0.98 (74.7%)						
Spot USD/AUD 0.76, Chemical Spod \$850/t.													
AUDUSD +/-10%							0.53 / 0.60 (-5.2% / 5.8%)						
Spodumene - Technical +/-10%							0.56 / 0.56 (0.0% / 0.0%)						
Spodumene - Chemical +/-10%							0.68 / 0.44 (21.3% / -22.0%)						
Tantalite +/-10%							0.56 / 0.56 (0.0% / 0.0%)						
Production +/-10%							0.64 / 0.49 (13.5% / -13.8%)						
Operating Costs +/-10%							0.50 / 0.62 (-11.0% / 10.8%)						
Unpaid Capital							Year Expires No. (m) \$m Avg price						
30-Jun-17							5.2 1.3 0.25						
30-Jun-18							1.5 0.3 0.21						
30-Jun-19							8.5 2.8 0.33						
30-Jun-20							0.0 0.0 0.00						
30-Jun-21							7.3 0.8 0.10						
TOTAL							22.5 5.1 0.23						
Valuation							\$m \$/shr						
80% Bougouni (pre-tax NAV at disc. rate of 12%)							336 0.67						
Other Assets/Exploration							30 0.06						
Forwards							0 0.00						
Corporate Overheads							-59 -0.12						
Net Cash (Debt)							8 0.02						
Tax (NPV future liability)							-34 -0.07						
Options & Other Equity							3 0.01						
Total							283 0.56						
Analyst: Trent Barnett							13 Feb 17						
+61 8 9268 3052													
"tbc capital" could be equity or debt. Our valuation is risk-adjusted for how this may be obtained.													
Sources: IRESS, Company Information, Hartleys Research													

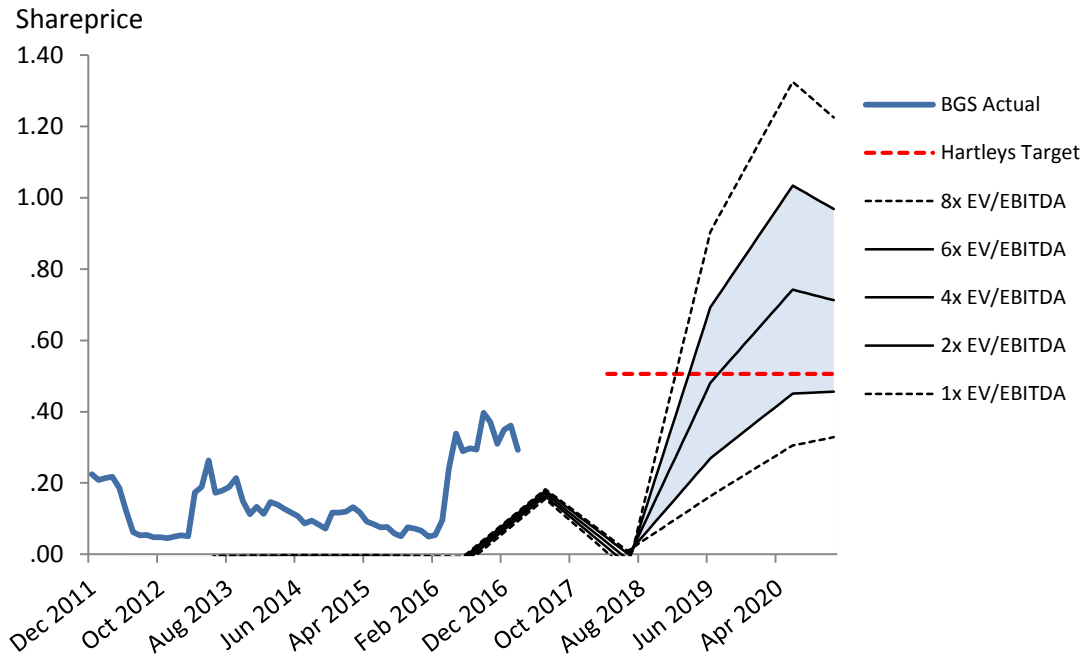
Fig. 1: Hartleys assumptions versus scoping study

		Scoping (1.0Mtpa) 31 Jan 2017	Hartleys (base)	Difference
Mining inventory		13Mt	19.125Mt	47.1%
- grade Li2O		1.54%	1.45%	-5.8%
Mine Life (yrs)		13.0yrs	19.3yrs	48.1%
Startup Capex - Total		A\$106.4m	A\$116.1m	9.1%
Startup Capex - Stage 1 & 2 - US\$		US\$80m	US\$90.2m	13.0%
Total Capex			A\$156.1m	
Mined Ore + Waste (mt pa)		4.0mt pa	3.9mt pa	-2.7%
Waste (mt pa)		3.0mt pa	2.9mt pa	-3.4%
Strip Ratio (x)		3.0x	2.9x	-2.7%
- first five years		3.0x	3.1x	3.7%
Mill Feed (mt pa avg)		1.0mt pa	1.0mt pa	-0.6%
- startup		1.0mt pa		
- max		1.0mt pa		
Total Spodumene Mined		3.3Mt	4.6Mt	40.3%
Total Tantalite Mined				
Spodumene Recoveries		75.0%	75.0%	0.0%
Tantalite Recoveries			0.0%	
Spodumene Sold		190.0ktpa	180.1ktpa	-5.2%
- LCE (0.14x)		26.6ktpa	25.2ktpa	-5.2%
Concentrate Grade		6.0%	6.0%	0.0%
Tantalite Sold			0klb pa	
Construction date		Dec-17	Dec-17	0.0%
Commissioning date		Dec-18	Dec-18	0.0%
Revenue (US\$) - LOM		US\$1,326m	US\$2,325m	75.3%
Costs (US\$) - LOM		-US\$805m	-US\$1,278m	58.7%
- / tonne product		-US\$ 326 /t	-US\$ 369 /t	13.1%
- / tonne ore		-US\$ 62 /t	-US\$ 67 /t	7.9%
EBITDA (US\$) - LOM		US\$521m	US\$1,047m	100.8%
EBITDA - A\$ pa		A\$53.5m pa	A\$70.m pa	30.9%
- first 5 years			A\$66.m pa	
EV/EBITDA (year 1)			2.73x	
EV/EBITDA (lom)		3.2x	2.6x	-19.3%
Life of mine avg selling price (Spodumene)	US\$ fob	US\$ 537 /t	US\$ 671 /t	24.9%
Life of mine avg selling price (Tantalite)	US\$ fob			
Life of mine avg C1 cash costs	pre credit	A\$ 435 /t	A\$ 475 /t	9.2%
Life of mine avg C1 cash costs	after credit	A\$ 435 /t	A\$ 475 /t	9.2%
- US\$	after credit	US\$ 326 /t	US\$ 369 /t	13.1%
Life of mine avg C2 cash costs	pre credit	A\$ 461 /t	A\$ 510 /t	10.8%
	after credit	A\$ 467 /t	A\$ 510 /t	9.2%
fx	US\$/A\$	0.75	0.78	3.5%

Source: Hartleys, BGS

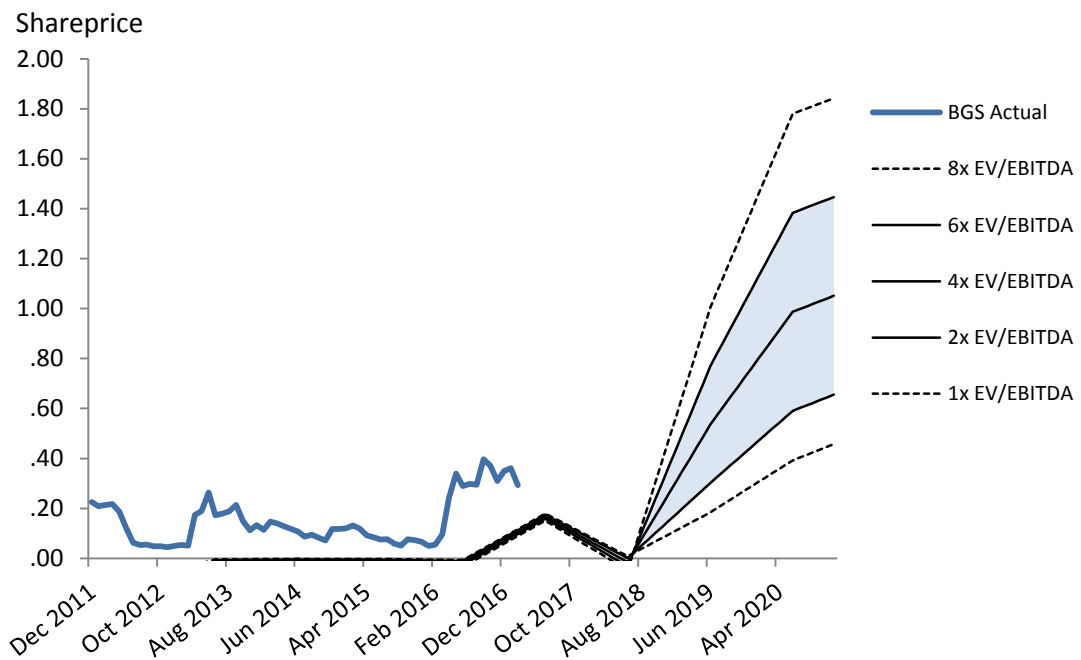
EV/EBITDA BANDS

Fig. 2: Using Hartleys base case commodity forecasts



Source: Hartleys

Fig. 3: Using spot commodity prices



Source: Hartleys

Fig. 4: Key Assumptions and Risks for Valuation

Assumption	Risk of not realising assumption	Downside risk to valuation if assumption is incorrect	Comment
Our base case valuation assumes development.	Very high	High	We have a valuation using the scoping study as a rough guide to our parameters. We are more conservative on costs but more optimistic on mine life and selling costs.
An economic spodumene deposit can be defined.	Moderate	Extreme	This appears reasonable based on drilling to date, but still very speculative
Selling prices remain strong enough for spodumene mines to be viable	High	Extreme	We assume selling prices and demand remain strong enough for new spodumene mines to be developed
Company can obtain capital	Moderate	High	We assume BGS can continue to raise capital for development and exploration
Exploration value	Moderate	Meaningful	We assume modest exploration value.

Conclusion

We have used speculative assumptions to derive a highly speculative valuation. Hence, we view BGS as very high risk

Source: Hartleys

PRICE TARGET

We have lowered our price target to 54cps (from 43cps).

Price Target Methodology	Weighting	Spot	12 mth out
NPV base case, assuming significant equity dilution	40%	\$0.56	\$0.71
NPV at spot commodity and fx prices	20%	\$0.98	\$1.19
Net cash	40%	\$0.04	\$0.04
Risk weighted composite		\$0.44	
12 Months Price Target		\$0.54	
Shareprice - Last		\$0.295	
12 mth total return (% to 12mth target + dividend)		83%	

Source: Hartleys Estimate

HARTLEYS CORPORATE DIRECTORY

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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 Buy	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.

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