

ARAFURA RESOURCES LIMITED (ARU)

Project progressing. ILUA due imminently

Arafura Resources Ltd (ARU) has announced that it has raised \$7m of equity at 6.2cps. We estimate this brings net cash to ~\$22m.

The Company continues to advance the Nolans rare earth project in central Australia. The Company already has an in principle Indigenous Land Use Agreement (ILUA) reached with native title holders and has completed an Indigenous Engagement Strategy. Covid-19 has delayed the execution of the agreements until travel restriction within the North Territory were relaxed (restrictions were relaxed only recently).

The mining lease can't be granted until the ILUA is executed. Consequently, there has also been a delay to the lease. The Company is working with Government and stakeholders so that the mining licence is not unduly delayed following the ILUA execution (ie hopefully will be granted by the September).

Large volumes of NdPr oxide

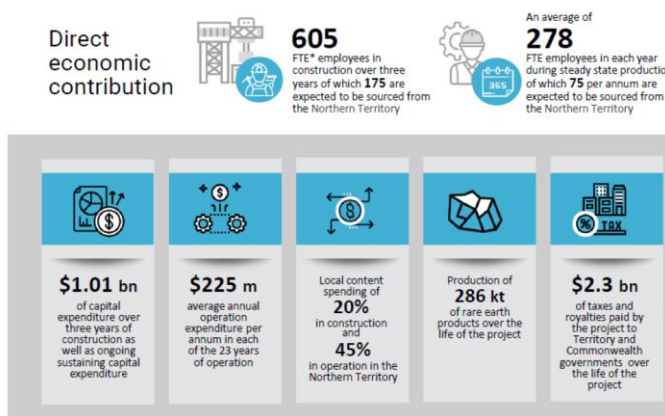
Nolans will produce NdPr oxide. Volumes are large at ~4ktpa of NdPr oxide (around 8-10% of the current market). Eventual growth in the NdPr market is expected to be strong based mainly on the outlook for electric vehicles. In addition, there is strategic value of rare earths, and ARU's location in Australia should be a premium for reliable supply. Note, ARU's current NdPr offtakes are all with large Chinese magnet manufacturers. The project is also expected to produce phosphoric acid and low value cerium product which, combined, are ~20% of revenue.

Speculative Buy recommendation

Covid-19 has further cemented the risks of a concentrated supply chain, and ARU offers an advanced rare earth development that can help diversify supply chains. At the moment though, using current NdPr prices, we estimate that Nolans is uneconomic. We believe prices need to increase to incentivise the supply to meet medium term (2025-2030) demand forecasts. Market and funding risk remain the key risks. We have a Speculative Buy recommendation.

Fig. 1: Project has big economic impact to central Australia

Figure 4: ACIL Allen Infographic summarising economic impact of Nolans Project



Source: ARU

Share Price	\$0.064
Valuation	\$0.15
Price Target (12 month)	\$0.10

Brief Business Description:

ARU is developing the very large Nolans NdPr (rare earth) project in Central Australia.

Hartleys Brief Investment Conclusion

The capital hurdle is a big challenge. However, given the advanced stage, low sovereign risk, strategic importance and high growth outlook, capital maybe available.

Chairman & MD

Mark Southey (Non-Exec Chairman)
Gavin Lockyer (Managing Director)

Top Shareholders

ECE (East China Expl & Dev. Bureau)	9.4%
Talaxis (Noble Group)	4.7%

Company Address

Level 6, 432 Murray Street
Perth, WA, 6000

Issued Capital	1167.8m
- fully diluted	1198.5m

Market Cap	A\$75m
- fully diluted	A\$77m

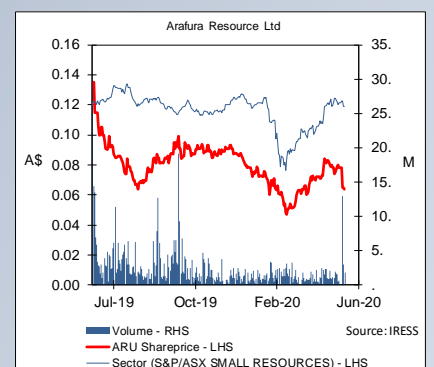
Cash (30 Jun 2020)	A\$22.1m
--------------------	----------

Debt (30 Jun 2020)	A\$0.0m
--------------------	---------

EV -current	A\$52.6m
-------------	----------

	Prelim. (A\$m)	FY20e	FY21e	FY22e
Prod (NdPr)	0	0	0	0
Op Cash Flw	-6.9	-12.0	-70.5	
Norm NPAT	-5.1	-13.0	-63.8	
CF/Share (cps)	-0.9	-0.4	-1.1	
EPS (cps)	-0.9	-0.4	-1.1	
P/E	-7.3	-16.1	-5.9	

	Mt	TREO%	P2O5%
Resources	56.0	2.8	11.6
Reserves	29.5	2.9	13.0



Trent Barnett

Head of Research

Ph: +61 8 9268 3052

E: trent.barnett@hartleys.com.au

SUMMARY MODEL

Arafura Resource Ltd ARU								Share Price \$0.064
Key Market Information								
Share Price	\$0.064							
Market Capitalisation - ordinary	A\$75m							
Net Cash (Debt)	\$22m							
Market Capitalisation - fully diluted	A\$77m							
EV	A\$54.6m							
Issued Capital	1167.8m							
Options	30.7							
Issued Capital (fully diluted inc. all options)	1198.5m							
Issued Capital (fully diluted inc. all options and new capital)	8738.5m							
Valuation	\$0.15							
12month price target	\$0.10							
P&L								
	Unit	30 Jun 21	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 27	
Net Revenue	A\$m	0.0	0.0	83.2	257.4	409.2		
- TREG		0.0	0.0	69.9	222.2	360.4		
NdPr		-	-	64.9	206.3	334.8		
Other		-	-	5.0	15.8	25.7		
- P2O5		0.0	0.0	13.3	35.2	48.7		
Total Costs	A\$m	-7.1	-7.4	-59.8	-128.9	-167.7		
EBITDA	A\$m	-7.1	-7.4	23.4	128.5	241.5		
- margin	%	-	-	28%	50%	59%		
Depreciation/Amort	A\$m	-6.7	-20.7	-41.0	-52.0	-54.7		
EBIT	A\$m	-13.8	-28.1	-17.6	76.5	186.8		
Net Interest	A\$m	-4.8	-63.0	-69.3	-88.1	-98.1		
Norm. Pre-Tax Profit	A\$m	-18.6	-91.1	-86.9	-11.6	98.7		
Reported Tax Expense	A\$m	0.0	0.0	0.0	0.0	0.0		
effective rate	%	0.0%	0.0%	0.0%	0.0%	0.0%		
Normalised NPAT	A\$m	-13.0	-63.8	-60.8	-8.1	69.1		
Abnormal Items	A\$m	-5.6	-27.3	-26.1	-3.5	29.6		
Reported Profit	A\$m	-18.6	-91.1	-86.9	-11.6	98.7		
Minority	A\$m	0.0	0.0	0.0	0.0	0.0		
Profit Attrib	A\$m	-18.6	-91.1	-86.9	-11.6	98.7		
Balance Sheet								
	Unit	30 Jun 21	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 27	
Cash	A\$m	1404.1	779.0	255.4	159.8	219.2		
Other Current Assets	A\$m	3.9	4.1	49.9	123.5	176.0		
Total Current Assets	A\$m	1408.0	783.1	305.3	283.3	395.1		
Property, Plant & Equip.	A\$m	149.4	682.7	1081.6	1102.8	1095.4		
Exploration	A\$m	101.6	102.2	102.8	103.4	104.0		
Investments/other	A\$m	0.3	0.3	0.3	0.3	0.3		
Tot Non-Curr. Assets	A\$m	251.3	785.2	1184.7	1206.5	1199.7		
Total Assets	A\$m	1659.4	1568.3	1490.1	1489.8	1594.9		
Short Term Borrowings	A\$m	-	-	-	-	-		
Other	A\$m	1.9	1.9	10.6	21.9	28.3		
Total Curr. Liabilities	A\$m	1.9	1.9	10.6	21.9	28.3		
Long Term Borrowings	A\$m	628.7	628.7	628.7	628.7	628.7		
Other	A\$m	0.0	0.0	0.0	0.0	0.0		
Total Non-Curr. Liabil.	A\$m	628.7	628.7	628.7	628.7	628.7		
Total Liabilities	A\$m	630.6	630.7	639.3	650.6	657.0		
Net Assets	A\$m	1028.8	937.6	850.8	839.2	937.8		
Net Debt (cash)	A\$m	-775.4	-150.3	373.3	468.9	409.5		
Cashflow								
	Unit	30 Jun 21	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 27	
EBITDA	A\$m	-7.1	-7.4	23.4	128.5	241.5		
Working Capital	A\$m	-0.1	-0.1	-37.2	-62.3	-46.1		
Operating Cashflow	A\$m	-7.2	-7.6	-13.8	66.2	195.4		
Income Tax Paid	A\$m	0.0	0.0	0.0	0.0	0.0		
Interest & Other	A\$m	-4.8	-63.0	-69.3	-88.1	-98.1		
Operating Activities	A\$m	-12.0	-70.5	-83.0	-21.9	107.3		
Property, Plant & Equip.	A\$m	-159.7	-554.0	-439.9	-73.1	-47.3		
Exploration and Devel.	A\$m	-0.6	-0.6	-0.6	-0.6	-0.6		
Other	A\$m	0.0	0.0	0.0	0.0	0.0		
Investment Activities	A\$m	-160.3	-554.6	-440.5	-73.7	-47.9		
Borrowings	A\$m	628.7	0.0	0.0	0.0	0.0		
Equity or "tbc capital"	A\$m	943.1	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	1571.8	0.0	0.0	0.0	0.0		
Net Cashflow	A\$m	1399.5	-625.1	-523.6	-95.6	59.4		
Shares								
	Unit	30 Jun 21	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 27	
Ordinary Shares - End	m	8434.3	8434.3	8434.4	8434.4	8434.4		
Ordinary Shares - Weighted	m	4664.3	8434.3	8434.3	8434.4	8434.4		
Diluted Shares - Weighted	m	4664.3	8434.3	8434.3	8434.4	8434.4		
Ratio Analysis								
	Unit	30 Jun 21	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 27	
Cashflow Per Share	A\$ cps	-0.1	-0.7	-0.8	-1.0	-1.0		
Cashflow Multiple	x	-62.1	-8.6	-7.8	-6.1	-6.1		
Earnings Per Share	A\$ cps	-0.4	-1.1	-1.0	-0.1	1.2		
Price to Earnings Ratio	x	-16.1	-5.9	-6.2	-46.5	5.5		
Dividends Per Share	AUD	-	-	-	-	-		
Dividend Yield	%	0.0%	0.0%	0.0%	0.0%	0.0%		
Net Debt / Net Debt + Equity	%	-306%	-19%	30%	36%	30%		
Interest Cover	X	na	na	na	0.9	2.1		
Return on Equity	%	na	na	na	na	7%		

Directors		Company Information	
Mark Southey (Non-Exec Chairman)		Level 6, 432 Murray Street	
Gavin Lockyer (Managing Director)		Perth, WA, 6000	
Chris Tonkin (Non-Exec Director)		+61 8 6370 2800	
Quansheng Zhang (Non-Exec Director, ECE nominee)		https://www.arultd.com/	
Top Shareholders		m	%
ECE (East China Expl & Dev. Bureau)		109.70	9.4%
Talis (Noble Group)		55.14	4.7%

Reserves & Resources							
Resources	Mt	TREG (%)	P2O5 (%)	Proportion of TREG in-situ			
				PrO11	Nd2O3	CeO2	La2O3
M&I	35.0	2.8	11.6	n/a	n/a	n/a	n/a
Inferred	21.0	2.3	10.0	n/a	n/a	n/a	n/a
Total	56.0	2.6	11.0	5.9	20.5	48.7	19.3
Reserves	Mt	TREG (%)	P2O5 (%)				
Nolans	29.5	2.9	13.0	n/a	n/a	n/a	n/a

Production Summary							
	Unit	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 26	30 Jun 27
Mill Throughput	Mt	-	0.24	0.56	0.74	0.88	0.88
TREG	Grade	-	3.2%	3.3%	3.3%	3.0%	2.9%
Combined Recovery & Payability	%	-	29.4%	39.1%	48.5%	51.5%	53.3%
TREG Production	Tonnes	-	2.3	7.3	11.8	13.8	13.9
NdPr Production	Tonnes	-	0.7	2.2	3.5	4.1	4.2
P2O5	Grade	-	12.6%	13.2%	13.2%	12.6%	13.0%
Combined Recovery & Payability	%	-	56%	61%	64%	63%	65%
Production	Tonnes	-	17.0	44.9	62.2	70.2	74.1
Modelled mine Life	yr	-	38.75	37.75	36.75	35.75	34.75
Modelled mining inventory	Mt	-	33.8	33.3	32.6	31.8	30.9
Costs							
	Unit	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 26	30 Jun 27
Cost per milled tonne	\$A/t	-	247.2	229.6	226.6	225.3	225.7
EBITDA / tonne milled ore	\$A/t	-	96.7	228.8	326.3	316.3	320.4
Total cash costs (no credits)	\$A/kg NdPr	-	87.5	59.1	47.4	47.9	47.9
	\$US/kg NdPr	-	64.3	43.7	35.1	35.4	35.4
Total cash costs (with credits)	\$A/kg NdPr	-	60.7	35.7	26.4	27.3	26.7
	\$US/kg NdPr	-	44.6	26.4	19.5	20.2	19.7

Price Assumptions							
	Unit	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 26	30 Jun 27
AUDUSD	AS/US\$	0.71	0.74	0.74	0.74	0.74	0.74
TREG	US\$/kg	22.6	22.6	22.6	22.6	22.6	22.6
NdPr	US\$/kg	70.0	70.0	70.0	70.0	70.0	70.0
P2O5	US\$/tonne	580	580	580	580	580	580
Hedging							
	30 Jun 22	30 Jun 23	30 Jun 24	30 Jun 25	30 Jun 26	30 Jun 27	
Hedges maturing?	No	No	No	No	No	No	

Sensitivity Analysis			
Base Case	Valuation	FY24 EBITDA	
Spot Prices	0.00 (-100.0%)	128.5	75.1 (-41.5%)
Spot AUD/USD 0.68, NdPr \$40/kg, P2O5 \$580t			
AUDUSD +/-10%	0.00 / 0.39 (-100.0% / 170.6%)	105.1 / 157.1 (-18.2% / 22.3%)	
P2O5 +/-10%	0.15 / 0.11 (19.7% / -21.0%)	128.47 / 124.95 (2.7% / -2.7%)	
Ce Oxide +/-10%	0.15 / 0.13 (9.0% / -9.1%)	128.47 / 126.89 (1.2% / -1.2%)	
NdPr +/-10%	0.17 / 0.00 (127.4% / -100.0%)	131.99 / 107.84 (16.1% / -16.1%)	
Production +/-10%	0.37 / 0.00 (154.1% / -100.0%)	154.2 / 102.7 (20.0% / -20.0%)	
Operating Costs +/-10%	0.04 / 0.25 (-72.5% / 68.9%)	116.4 / 140.5 (-9.4% / 9.4%)	
Unpaid Capital			
Year Expires	No. (m)	\$m	Avg price
30-Jun-20	0.0	0.0	0.00
30-Jun-21	0.0	0.0	0.00
30-Jun-22	1.6	0.2	0.15
30-Jun-23	29.1	3.3	0.11
30-Jun-24	0.0	0.0	0.00
TOTAL	30.7	3.5	0.00
Share Price Valuation (NAV)			
100% Nolans (pre-tax NAV at disc. rate of 12%)		1367.1	0.156
Other Asset/Exploration		50.0	0.006
Hedging		0.0	0.000
Corporate Overheads		-48.9	-0.006
Net Cash (Debt)		22.1	0.003
Tax (NPV future liability)		-126.3	-0.014
Expected future franking credits		0.0	0.000
Options & Other Equity		3.5	0.000
Total		1267.5	0.15

Analyst: Trent Barnett
+61 8 9268 2805
"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: 15/06/2020

Fig. 2: Key assumptions and risks for valuation

Assumption	Risk of not realising assumption	Downside risk to valuation if assumption is incorrect	Comment
Obtaining substantial capital	High	High	Our valuation assumes ARU can obtain the substantial capital for development
Rising NdPr prices	Moderate to High	High	Appears reasonable, although not conservative
Binding offtakes	Moderate	High	Company requires binding offtakes to secure the financing
Mining licence	Low	High	The project still requires mining license granting
<i>Conclusion</i>	<i>We believe our assumptions are reasonable, but high risk. The most important assumption is that NdPr prices will increase</i>		

Source: Hartleys

RISKS

The key risks for Arafura Resources Ltd (like most mine companies in development) is obtaining the necessary funding to complete the project. Other risks are earnings disappointments given the industry is volatile and earnings can disappoint due to cost overruns, project delays, cost inflation, environmental regulations, plant and mine design mistakes or lower production. Although some earnings disappointments can be short term and are only a timing issue, other disappointments can be materially value destructive and can sometimes overhang stocks for a long period of time (for example metallurgy problems). Such disappointments can be very difficult to predict and share price reactions can be severe and immediate upon disclosure by the company. High financial leverage (if it exists at that time) would add to the problem.

PRICE TARGET

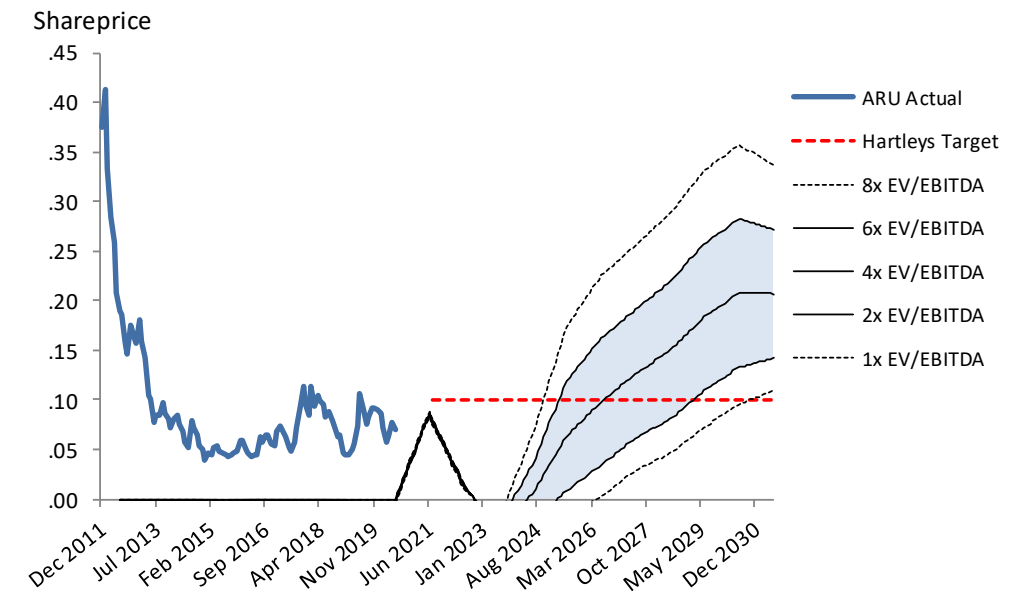
Our new price target is 10cps (unchanged from previous).

Price Target Methodology	Weighting	Spot	12 mth out
NPV12 base case	20%	\$0.15	\$0.15
NPV12 base case at spot commodity and fx prices	25%	\$0.00	\$0.00
NPV8 base case	6%	\$0.72	\$0.74
NPV 12 NdPr price US\$90/kg	1%	\$1.50	\$1.60
3x EV/EBITDA five years ahead	5%	\$0.00	\$0.04
Net cash backing	43%	\$0.02	\$0.02
Risk weighted composite		\$0.10	
12 Months Price Target		\$0.10	
Shareprice - Last		\$0.064	
12 mth total return (% to 12mth target + dividend)		56%	

Source: Hartleys Research

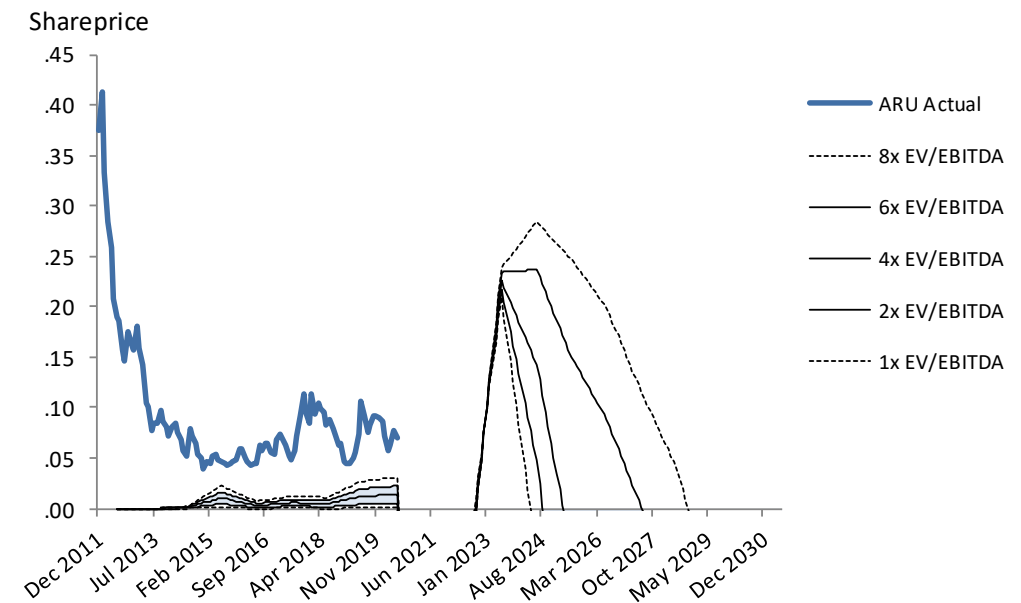
EV/EBITDA BANDS

Fig. 3: Using *Hartleys base case commodity forecasts*



Source: Hartleys Estimates, IRESS

Fig. 4: Using *spot commodity prices*



Source: Hartleys Estimates

HARTLEYS CORPORATE DIRECTORY

Research

Trent Barnett	Head of Research	+61 8 9268 3052
Mike Millikan	Resources Analyst	+61 8 9268 2805
John Macdonald	Resources Analyst	+61 8 9268 3020
Paul Howard	Resources Analyst	+61 8 9268 3045
Aiden Bradley	Research Analyst	+61 8 9268 2876
Oliver Stevens	Research Analyst	+61 8 9268 2879
Michael Scantlebury	Associate Analyst	+61 8 9268 2837
Janine Bell	Research Assistant	+61 8 9268 2831

Corporate Finance

Dale Bryan	Director & Head of Corp Fin.	+61 8 9268 2829
Richard Simpson	Director	+61 8 9268 2824
Ben Crossing	Director	+61 8 9268 3047
Ben Wale	Director	+61 8 9268 3055
Scott Weir	Director	+61 8 9268 2821
Scott Stephens	Associate Director	+61 8 9268 2819
Rhys Simpson	Associate Director	+61 8 9268 2851
Michael Brown	Executive	+61 8 9268 2822

Registered Office

Level 6, 141 St Georges Tce Postal Address:

Perth WA 6000	GPO Box 2777
Australia	Perth WA 6001
PH: +61 8 9268 2888	FX: +61 8 9268 2800
www.hartleys.com.au	info@hartleys.com.au

Note: personal email addresses of company employees are structured in the following manner: *firstname.lastname@hartleys.com.au*

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.

Institutional Sales

Carrick Ryan	+61 8 9268 2864
Justin Stewart	+61 8 9268 3062
Simon van den Berg	+61 8 9268 2867
Digby Gilmour	+61 8 9268 2814
Kristi Bryson	+61 8 9268 2828
Veronika Tkacova	+61 8 9268 2836

Wealth Management

Nicola Bond	+61 8 9268 2840
Bradley Booth	+61 8 9268 2873
Adrian Brant	+61 8 9268 3065
Nathan Bray	+61 8 9268 2874
Sven Burrell	+61 8 9268 2847
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
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
Matthew Parker	+61 8 9268 2826
Charlie Ransom	+61 8 9268 2868
Heath Ryan	+61 8 9268 3053
Tom Shackles	+61 8 9268 2802
David Smyth	+61 8 9268 2839
Greg Soudure	+61 8 9268 2834
Sonya Soudure	+61 8 9268 2865
Dirk Vanderstruyf	+61 8 9268 2855

Disclaimer/Disclosure

The author of this publication, Hartleys Limited ABN 33 104 195 057 ("Hartleys"), its Directors and their Associates from time to time may hold shares in the security/securities mentioned in this Research document and therefore may benefit from any increase in the price of those securities. Hartleys and its Advisers may earn brokerage, fees, commissions, other benefits or advantages as a result of a transaction arising from any advice mentioned in publications to clients.

This report was prepared solely by Hartleys Limited. ASX Limited ABN 98 009 642 691 and its related bodies corporate ("ASX") did not prepare any part of the report and has not contributed in any way to its content. The role of ASX in relation to the preparation of the research reports is limited to funding their preparation, by Hartleys Limited, in accordance with the ASX Equity Research Scheme. ASX does not provide financial product advice. The views expressed in this research report may not necessarily reflect the views of ASX. To the maximum extent permitted by law, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by ASX as to the adequacy, accuracy, completeness or reasonableness of the research reports.

Any financial product advice contained in this document is unsolicited general information only. Do not act on this advice without first consulting your investment adviser to determine whether the advice is appropriate for your investment objectives, financial situation and particular needs. Hartleys believes that any information or advice (including any financial product advice) contained in this document is accurate when issued. Hartleys however, does not warrant its accuracy or reliability. Hartleys, its officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law.