

11 Sep 2019

Share Price	\$0.21
Valuation	\$0.46
Price Target (12 month)	\$0.28

**Brief Business Description:**

Australian base metals producer and developer, with copper and tin mines in WA and Tasmania

**Hartleys Brief Investment Conclusion**

Nifty's rehabilitation is ongoing. Increasing copper production is a necessary step to a higher share price.

**Chairman & MD**

Peter Newton (Chairman)  
Damian Marantelli (Executive Director and CEO)

**Top Shareholders**

Apac Resources Limited	9.2%
Mitsubishi UFJ Financial Group	8.9%
Perennial Value Management	7.6%
Jinchuan Group Limited	7.2%

**Company Address**

Level 5, 197 St Georges Tce  
Perth, WA 6000

<b>Issued Capital</b>	689m
- fully diluted	689m

<b>Market Cap</b>	A\$143m
- fully diluted	A\$143m

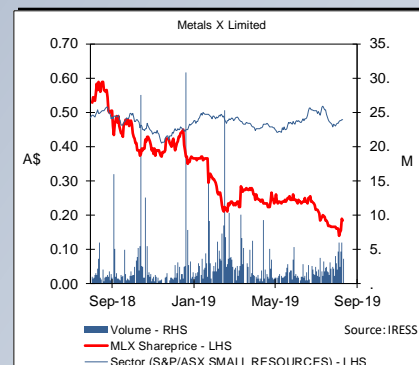
<b>Cash + WC (30 Jun 19)</b>	A\$58m
------------------------------	--------

<b>Debt (30 Jun 19)</b>	A\$0m
-------------------------	-------

<b>EV</b>	A\$85m
-----------	--------

	Prelim. (A\$m)	FY19	FY20e	FY21e
Prod (kt Cu)	16.3	20.8	28.5	
Prod (t Sn)	3560	3631	3960	
Op Cash Flw (A\$m)	1	29	21	
Norm NPAT (A\$m)	-109	8	14	
CF/Share (cps)	0.1	4.3	0.0	
EPS (cps)	-15.8	1.2	0.0	
P/E	0.0	17.8	0.0	

	Cu	Sn
<b>Resources (kt)</b>	1112	189
<b>Reserves (kt)</b>	161	90



John Macdonald  
Resource analyst  
Ph: +61 8 9268 3020  
E: john.macdonald@hartleys.com.au

## METALS X LIMITED (MLX)

### Marking a 2020 turnaround

MLX expects Nifty mine output for the SQ 2019 to remain flat from the JQ 2019 performance (273kt at 1.54% ore mined), to be followed by an increase in the DQ 2019. We adjust our model to 1.6Mt at 1.5% Cu, producing 20-22kt Cu in FY2019. April-September copper production was affected by 1. the shift to campaign milling, which interrupted the paste fill schedule and 2. a key development drive in the west was extended to stay in ore. No matter the reason; MLX will continue to be marked down until Nifty hits Company targets.

On the positive side at Nifty drilled and developed stocks outside the Central zone are ahead of plan. Paste filling capability, ventilation and electrical systems no longer impede production and were upgraded for lower capex than planned. Employee turnover is down. The Company's explicit output target is to "build to 2Mtpa mining rates during the March 2020 quarter".

Nifty reserves were revised to 11.1Mt at 1.45% Cu (161kt Cu) as at March 2019, down from the previous 2017 estimate of 13.9Mt at 1.71% Cu. We expect Nifty reserves to be extended, with ongoing lateral development, but hopes of any tongues of bulk mineable +2% Cu, outside the Central Zone, have faded.

Metals X reported a loss for FY2019 of \$117M. Working capital at the end of June 2019 was \$38M, including \$11M cash. The Company had no bank debt at the end of June, and trade and other payables were \$25M. A \$35M loan facility was established post balance date. Non-executive Milan Jerkovic has resigned and Chairman Peter Newton intends to step down at the AGM.

### Renison grade lift

Renison resource grade increased from 1.3% to 1.5% Sn in the year to March 2019. Reserves also rose, by 20% net of depletion, to 8.1Mt at 1.0% Sn. High grade resources below the decline at Area 5 are still to be converted to reserves. Extension drilling recently intersected 30m at 4.6% Sn, highlighting the potential for Area 5 and Bell 50 to lift future mine production and mill feed grade. First Area 5 stope ore is due to be mined during DQ 2019. At Renison we assume forward output of 850ktpa mined ore at 1.2% Sn and 7,500ktpa tin in concentrate – based on recent performance. There is upside, but in this situation we think it best to wait for it to materialise.

In A\$ terms tin and copper are down 18% and 8% respectively from March 2019 peaks. Spot prices for both metals are now below our modelled forecasts.

### Risks rise.

Production delivery has stayed behind Company forward estimates forcing a series of downgrades to our forecasts, and now soft metal prices are compressing margins. At spot prices our modelled NAV is 23cps (46cps base case). Risks have risen sharply, but we think there is still long-term value in these assets and retain a Speculative Buy recommendation with a 12 month price target of 28 cps.

## SUMMARY MODEL

Metals X MLX							Recommendation Speculative Buy							
<b>Market Information</b>							<b>Directors</b>							
Share price	\$0.21						Level 5, 197 St Georges Tce							
Market Capitalisation	\$143m						Peter Newton (Chairman)	Perth, WA 6000						
Net cash	\$70m						Damian Marantelli (Executive Director and CEO)	+61 8 9220 5700						
Issued Capital (fully paid)	689m						Simon Heggen (Non-Exec Director)	+61 8 9220 5757						
Issued Capital (fully diluted)	689m						Yimin Zhang (Non-Exec Director)							
EV	\$73m						<a href="http://www.metalsx.com.au">www.metalsx.com.au</a>							
Valuation	\$0.46													
12 month price target	\$0.46													
Spot Valuation	\$0.28													
<b>Profit &amp; Loss</b>							<b>Top Shareholders</b>							
	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23		m shares	%					
Net Revenue	ASM	240	294	396	409	391	Apac Resources Limited	63	9.2					
Forward sales	ASM	0	0	0	0	0	Mitsubishi UFJ Financial Group	61	8.9					
Total Costs	ASM	-239	-265	-309	-310	-308	Morgan Stanley Australia	61	8.9					
Cost of receivables	ASM	-5					Perennial Value Management	52	7.6					
EBITDA	ASM	1	29	88	99	83	Jinchuan Group Limited	50	7.2					
- margin	ASM	0%	10%	22%	24%	21%								
Depreciation/Amort	ASM	-105	-17	-24	-24	-26	<b>Production Summary</b>							
EBIT	ASM	-109	12	64	75	57		Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	
Net Interest	ASM	0	-2	-2	-1	0	Nifty throughput	Mt	1.25	1.57	2.20	2.20	2.20	
Pre-Tax Profit	ASM	-109	10	62	74	57	Mined grade	%Cu	1.45	1.47	1.44	1.44	1.44	
Tax Expense	ASM	-2	-2	-10	-22	-17	Combined Recovery & Payability		0.90	0.90	0.90	0.90	0.90	
NPAT	ASM	-109	8	53	51	40	Copper prodn	(kt)	16	21	29	29	29	
Abnormal Items	ASM						Mine Life	yr	9.9	6.9	3.9	2.9	1.9	
Reported Profit	ASM	-109	8	53	51	40								
<b>Balance Sheet</b>							<b>Costs</b>							
	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23		Jun 19	Jun 20	Jun 21	Jun 22	Jun 23		
Cash	ASM	28	52	98	177	244	Nifty							
Other Current Assets	ASM	69	69	69	69	69	Cost / milled tonne	AS/t	128	117	99	98	98	
Total Current Assets	ASM	97	121	167	246	313	EBITDA / tonne milled ore	AS/t	-21	4	23	27	24	
Property, Plant & Equip.	ASM	161	170	157	144	124	Cash costs incl. royalty	US\$/lb Cu	4.65	4.18	3.65	3.65	3.62	
Investments/other	ASM	11	11	11	11	11	+ depm & amortn	US\$/lb Cu	3.30	2.86	2.56	2.58	2.66	
Total Non-Curr. Assets	ASM	172	181	168	154	135	Renison	US\$/lb	7.15	4.39	3.88	3.90	3.88	
Total Assets	ASM	269	301	335	400	448	Renison cost / milled tonne	AS/t	157	173	175	178	179	
Short Term Borrowings	ASM	5	14	14	14	7	EBITDA / tonne milled ore	AS/t	46	44	59	64	52	
Other	ASM	31	41	43	43	43	Cash costs incl. royalty	AS\$/t Sn	18.4	18.3	18.2	18.6	18.5	
Total Curr. Liabilities	ASM	36	55	57	57	50	+ sust capital	US\$/t Sn	13.1	12.5	12.8	13.1	13.6	
Long Term Borrowings	ASM	4	24	15	6	4	US\$/t	20.1	19.8	19.1	19.4	18.9		
Other	ASM	42	47	48	48	48		14.2	13.6	13.4	13.8	13.9		
Total Non-Curr. Liabil.	ASM	46	70	63	54	52	<b>Price Assumptions</b>							
Total Liabilities	ASM	82	125	120	111	102		Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	
Net Assets	ASM	187	176	215	289	346	AUDUSD		0.710	0.684	0.700	0.707	0.735	
<b>Cashflow</b>							Copper	US\$/lb	2.8	2.9	3.1	3.2	3.3	
	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23		AS\$/lb	3.9	4.3	4.5	4.6	4.4	
Operating Cashflow	ASM	1	29	88	99	83	Tin	US\$/t	19.7	18.0	20.2	21.3	20.4	
Decrease in receivables	ASM	0						AS\$/t	27.7	26.3	28.9	30.1	27.7	
Income Tax Paid	ASM	0					<b>Sensitivity Analysis</b>							
Hedging	ASM	0	0	0	0	0		Valuation	FY19 NPAT					
Interest & Other	ASM	0	-2	-2	-1	0	Base Case	0.46	-109.0					
Operating Activities	ASM	1	27	86	98	83	Sens	-10%	+10%	Sens	-10%	+10%		
Property, Plant & Equip.	ASM	-52	-26	-11	-11	-7	US Cu price +/-10%	24%	0.35	0.57	19%	-88.3	-129.7	
Exploration	ASM	-7	-8	-20	0	0	US Sn price +/-10%	11%	0.41	0.51	9%	-93.2	-118.8	
Asset sales	ASM						AUDUSD +/-10%	34%	0.30	0.61	28%	-78.5	-139.5	
Investments	ASM						Production +/-10%	4%	0.44	0.48	13%	-94.8	-123.1	
Investment Activities	ASM	-59	-34	-31	-11	-7	Operating Costs +/-10%	22%	0.36	0.56	31%	-75.2	-142.8	
Borrowings	ASM	0	28	-9	-9	-9	<b>Unpaid Capital</b>							
Equity	ASM	48	0	0	0	0	Expiry year	No. (M)	\$M	Avg ex.	% ord			
Financing Activities	ASM	48	28	-9	-9	-9	30-Jun-19							
Net Cash Change	ASM	-11	22	46	78	67	30-Jun-20	0	0	0.00	0.0%			
<b>Shares</b>							30-Jun-21	0	0	0.00	0.0%			
	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	Total	0	0	0.0%	0.0%			
Ordinary Shares - End	M	689	689	689	689	689	<b>Reserves &amp; Resources</b>							
Diluted Shares - End	M	689	689	689	689	689		Mt	%	kt				
<b>Ratio Analysis</b>							NIFTY sulphide Cu (Mar 2019)	44.3	1.4	627 Cu				
	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	Measured	23.4	1.7	388				
GCFPS	A¢	0.1	4.3	12.7	14.4	12.1	Indicated	7.1	1.3	94				
CFR	X	144.8	4.9	1.6	1.4	1.7	Inferred	5.7	1.1	63				
EPS	A¢	-15.8	1.2	7.7	7.4	5.7	INCLUDES TOTAL RESERVE	11.1	1.5	161				
PER	X	0.0	17.8	2.7	2.8	3.6	MAROOCHYDORE Cu	48.6	1.0	485				
DPS	%	-	na	-	-	-	Indicated	40.8	0.9	375				
Yield	%	-	na	-	-	-	Inferred	7.8	1.4	110				
Interest Cover	x	-	-	-	-	-	RENISON Sn (MLX 50% Mar 2019)	43.2	0.9	378 Sn				
ROCE	%	-63%	7%	38%	48%	42%	Renison Bell resource	17.6	1.5	263				
ROE	%	-58%	6%	29%	25%	16%	Mt Bischoff	1.7	0.5	9				
Gearing	%	2.1%	13.5%	6.9%	2.1%	1.2%	Rentails resource	23.9	0.4	105				
<b>Share Price Valuation (NAV)</b>							INCLUDES TOTAL RESERVE	30.4	0.6	181 Sn				
	Est. A\$/share						Renison Bell Sn (MLX 50%)	8.1	1.0	83				
100% Nifty after tax 7% DR	106	0.15					Rentails Sn (MLX 50%)	22.3	0.4	98				
100% Maroochydore	3	0.00					<b>Hartleys model Mar '19</b>							
50% Renison after tax 7% DR	138	0.20						Mt	%	kt				
Rentails 50%	7	0.01					TOTAL NIFTY INVENTORY	12.6	1.44	181 Cu				
Wingellina 100%	10	0.01					TOTAL RENISON INVENTORY MLX share	4.5	1.22	55 Sn				
Exploration	24	0.04												
Corporate overheads	-40	-0.06												
Net w/c (June 19)	28	0.04												
Tax benefit	40	0.06												
Hedging	0	0.00												
Option dilution	0	0.00												
Total	316	0.46												

## EARNINGS CHANGES

Fig. 1: Hartleys' earnings changes from March 2019.

	30 Jun 18	30 Jun 19			30 Jun 20			30 Jun 21		
		old	new	% diff	old	new	% diff	old	new	% diff
<b>Hartleys Production - (t Cu)</b>	<b>16</b>	<b>19</b>	<b>16</b>	<b>-14%</b>	<b>26</b>	<b>21</b>	<b>-20%</b>	<b>32</b>	<b>29</b>	<b>-11%</b>
<b>- (kt Sn)</b>	<b>3.3</b>	<b>3.7</b>	<b>3.6</b>	<b>-4%</b>	<b>4.0</b>	<b>3.6</b>	<b>-9%</b>	<b>4.0</b>	<b>4.0</b>	<b>-1%</b>
Cu price (A\$/lb)	3.99	3.98	3.91	-2%	4.33	4.31	-1%	4.38	4.46	2%
Sn price (A\$/t)	26.7	27.9	27.7	-1%	29.0	26.3	-9%	29.0	28.9	0%
AISC - A\$/lb Cu	5.63	4.74	7.15	51%	4.12	4.39	7%	3.45	3.88	13%
- A\$/kt Sn	20.0	19.1	20.1	5%	18.4	19.8	8%	18.1	19.1	6%
<b>Net Revenue</b>	<b>221</b>	<b>272</b>	<b>240</b>	<b>-12%</b>	<b>363</b>	<b>294</b>	<b>-19%</b>	<b>429</b>	<b>396</b>	<b>-8%</b>
<b>Total Cash Costs</b>	<b>-219</b>	<b>-245</b>	<b>-244</b>	<b>0%</b>	<b>-272</b>	<b>-265</b>	<b>-3%</b>	<b>-307</b>	<b>-309</b>	<b>1%</b>
EBITDA	1	27	1	-98%	91	29	-68%	122	88	-28%
- margin	0%	10%	0%	-98%	25%	10%	-60%	28%	22%	-21%
Depreciation/Amort	-53	-24	-105	337%	-37	-17	-53%	-15	-24	57%
<b>EBIT</b>	<b>-51</b>	<b>4</b>	<b>-109</b>	<b>-2824%</b>	<b>54</b>	<b>12</b>	<b>-78%</b>	<b>107</b>	<b>64</b>	<b>-40%</b>
Net Interest	0	0	0	n/a	0	-2	n/a	0	-2	n/a
<b>Pre-Tax Profit</b>	<b>-51</b>	<b>4</b>	<b>-109</b>	<b>-2824%</b>	<b>54</b>	<b>10</b>	<b>-82%</b>	<b>107</b>	<b>62</b>	<b>-42%</b>
Tax Expense	0	0	0	n/a	0	0	n/a	0	0	n/a
- rate	0%	0%	0%	n/a	0%	0%	n/a	0%	0%	n/a
<b>NPAT</b>	<b>-51</b>	<b>4</b>	<b>-109</b>	<b>-2824%</b>	<b>47</b>	<b>8</b>	<b>-83%</b>	<b>92</b>	<b>53</b>	<b>-43%</b>
Capex + exploration	-33	-31	-52	66%	-36	-26	-28%	-17	-11	-36%
Net cash at EOP	39	57	28	-50%	108	52	-52%	203	98	-52%
Dividends Per Share (cents)	1	0	0	n/a	0	-3	n/a	0	0	n/a

Source: Hartleys Research.

## PRODUCTION AND COSTS

Fig. 2: Production forecasts.

Production Summary	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Nifty throughput	Mt	1.25	1.57	2.20	2.20	2.20
Mined grade	%Cu	1.45	1.47	1.44	1.44	1.44
Combined Recovery & Payability		90%	90%	90%	90%	90%
Copper prodn	(kt)	16.3	20.8	28.5	28.5	28.5
Mine Life	yr	9.9	6.9	3.9	2.9	1.9
Inventory tonnes	Mt	12.4	10.8	8.6	6.4	4.2
Inventory grade	%Cu	1.44	1.43	1.43	1.43	1.42
Renison mined ore	Mt	0.80	0.85	0.90	0.90	0.90
Mined grade	%Sn	1.21	1.20	1.23	1.23	1.23
Renison mill throughput (whole project)	Mt	0.74	0.69	0.73	0.73	0.73
Milled grade	%Sn	1.21	1.44	1.47	1.47	1.47
Combined Recovery & Payability		73%	73%	73%	73%	73%
Tin prodn (MLX share)	(kt)	3,560	3,631	3,960	3,960	3,960
Mine Life	yr	11.9	11.6	9.7	8.4	7.2
Inventory tonnes	Mt	8.8	8.0	7.1	6.2	5.3
Inventory grade	%Sn	1.22	1.22	1.22	1.22	1.22

Source: Hartleys Research.

Fig. 3: Cost forecasts.

Costs		Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
<b>Nifty</b>						
Cost / milled tonne	A\$/t	128	117	99	98	98
EBITDA / tonne milled ore	A\$/t	-21	4	23	27	24
Cash costs incl. royalty	A\$/lb Cu	4.65	4.18	3.65	3.65	3.62
	US\$/lb	3.30	2.86	2.56	2.58	2.66
+ deprn & amortn	A\$/lb Cu	7.15	4.39	3.88	3.90	3.88
	US\$/lb	5.08	3.00	2.72	2.76	2.85
<b>Renison</b>						
Renison cost / milled tonne	A\$/t	157	173	175	178	179
EBITDA / tonne milled ore	A\$/t	46	44	59	64	52
Cash costs incl. royalty	A\$/t Sn	18.4	18.3	18.2	18.6	18.5
	US\$/t	13.1	12.5	12.8	13.1	13.6
+ sust capital	A\$/t Sn	20.1	19.8	19.1	19.4	18.9
	US\$/t	14.2	13.6	13.4	13.8	13.9

Source: Hartleys Research.

Fig. 4: LME tin price in A\$, 2000-2019.



Source: IRESS.

---

---

## VALUATION AND PRICE TARGET

Key model assumptions;

1. Nifty 12.6 Mt inventory at 1.44% Cu, mined at 2.2 Mtpa from July 2021. 88% met/payable recovery.  
Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2025.
2. Nifty site cost of \$A78/t of milled ore at full capacity, US\$82/t concs transport, US\$95, 0.09 TCRC, 97% payability → A\$3.12/lb C3 (C1+royalty+deprn, AUDUSD 0.74).
3. Cu price as per summary table. (US\$2.94/lb long run).
4. Renison 8.6Mt inventory at 1.2% Sn, mined at 800-900ktpa, 68% sorting/met recovery. The modelled inventory contains 30% more contained tin than the June 2019 reserves. Ore definition at Renison progresses with mining and substantial material is mined each year from outside reserves. Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2028.
5. Site cost of A\$100-110/t crushed ore, US\$110 concs transport, 92% net pay. US\$1.9Mpa Cu revenue → A\$18,000/t AISC.
6. Sn price as per summary table; US\$19,500/t long run.
7. AUDUSD 0.74 long run.
8. A corporate overheads liability is included in the valuation to reflect the cost of management over the operational life of the company. Corporate overhead costs are estimated at A\$7Mpa.

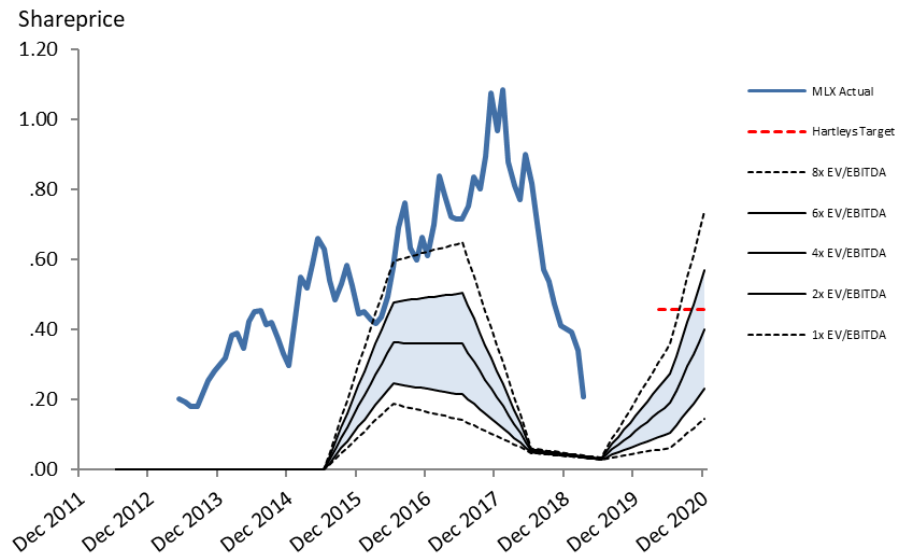
Hartleys' estimated NAV for MLX is 46 cps, using price forecasts similar to consensus as set out in the summary model page.

Real, after tax discount rates of 10% and 7% are used for Nifty and Renison respectively. At real spot price assumptions as at 10 September 2019, the MLX NAV estimate decreases to 23cps.

The 12 month price target for MLX is influenced by our estimated NAV, and by the spot price valuation. The 12 month price target is 28 cps.

## EV/EBITDA BANDS

Fig. 5: EV/EBITDA base case assumptions.



Source: Hartleys.

## RISKS

### Key assumptions and risks for valuation

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Copper price	High	High	The current spot price is lower than our LT assumptions. Current settings are considered insufficient to encourage supply growth and meet future demand.
Tin price	High	Industry	Tin is 18% below our long term forecasts. MLX costs at Renison are lower than industry average and lower than spot.
Nifty ramp-up profile	High	High	MLX plans to increase Nifty's output and is behind schedule.
Nifty reserves	Medium	Low	Nifty reserves were downgraded in mid-2019.
Nifty costs	Medium	Medium	MLX has demonstrated unit costs at Nifty over several quarters. Costs are broadly in line with other bulk tonnage underground mines.
Renison reserve extension	Low	Medium	Renison reserves progress with mine development internally and around the margins of the resource.
<b>Conclusion</b>	<b>Apparent risks have risen with Nifty ramp-up delays and the associated financial effects. Establishment of an increasing copper production profile is required to lower the risks.</b>		

Source: Hartleys Research

# 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	Junior 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
Stephen Kite	Director	+61 8 9268 3050
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	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	

## 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
Jayne Walsh	+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
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
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
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

## 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.

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.