

ALTONA MINING LIMITED (AOH)

SRIG agreement terminated. New deal sought.

Altona has terminated its agreement with the Sichuan Railway Investment Group (SRIG) following the failure of SASAC to grant approval by the latest deadline (21 July 2017).

The decision ends over two years of work towards the JV. The announcement of SASAC approval in February 2017 proved a false dawn.

Altona has \$36M in cash (7cps) and 100% of the Cloncurry Copper Project. An alternative 3rd party agreement is now sought for Cloncurry's A\$300M development.

Cloncurry has many attractions.

In the list of undeveloped, unfunded copper projects held by independent ASX listed companies, Cloncurry is Australia's most advanced +30ktpa green field proposal. The Project has a completed feasibility study, granted mining leases and an approved Environmental Authority.

In the March 2014 project feasibility study Altona estimated \$A294M capex and a US\$2/lb AISC cost average, across up to 35ktpa copper output. The feasibility study is due for revision, incorporating subsequent reserve and resource additions at Turkey Creek and Bedford, the effect of infrastructure built for Dugald River, and cost setting changes. Exploration tenure held over 3,000 km² of the renowned Mt Isa Inlier (Wonga Belt) geology is a further hook to potential partners.

Firm interest expected.

While urgency to develop new copper sources seems currently muted, Hartleys expects interest in Cloncurry from major miners will be healthy, particularly as the copper outlook strengthens. Australia is a favoured jurisdiction for mining investment and Cloncurry presents a walk up copper investment opportunity showing positive returns and exploration upside.

Presumably Altona will not be able to repeat the terms of the SRIG deal, but the Altona share price never reflected full credit for it anyway. Hartleys thinks that in the current market, retention or realisation of 35% of our estimated project NPV of A\$185M (8% after tax discount rate) for Altona shareholders, is achievable in a new commercialisation deal, suggesting a 19cps 12 month price target. There are few recent similar transactions or clear comparisons to test our assumptions against, so Altona's progress will be closely monitored.

There is always demand for good copper projects.

In US\$ terms copper is up 10% since early May 2017, against a background of firming demand in Europe and China, and semblance of a return to supply normality after the disruptions to Indonesian and South American mines in the first half of CY2017. The value of Cloncurry, and the terms on offer from potential partners, is sensitive to levels of insecurity about future copper supplies. We maintain a Speculative Buy recommendation with a reduced 12 month target price of 19cps.

26 Jul 2017

Share Price	\$0.115
Valuation	\$0.19
Price Target (12 month)	\$0.19

Brief Business Description:
Copper explorer and developer

Hartleys Brief Investment Conclusion
Cu-Au developer focused on the Cloncurry Copper Project in Queensland. Partner or acquirer sought.

Chairman & MD

Kevin Maloney (Chairman)
Alistair Cowden (Managing Director)

Top Shareholders

Perpetual Limited	14.8%
Matchpoint Investment Management	9.8%
Tulla Resources Group Pty Ltd	6.6%

Company Address

Level 1, 2 Kings Park Road
West Perth, WA 6005

Issued Capital	545m
- fully diluted	545m

Market Cap	A\$63m
- fully diluted	A\$63m

Cash (30 June 17)	A\$36m
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Debt (30 June 17)	A\$0m
EV	A\$27m

	Prelim. (A\$m)	FY19e	FY20e	FY18e
Prod (kt Cu equiv)	0	12.3	12.3	
Op Cash Flw (A\$m)	-3	36	35	
Norm NPAT (A\$m)	-2	7	17	
CF/Share (cps)	-0.5	2.3	6.4	
EPS (cps)	-0.3	1.2	3.2	
P/E	0.0	3.3	3.6	
	Mt	Cu %	Au g/t	
Resources (kt)	288	0.58	0.04	
Reserves (kt)	86	0.50	0.07	



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Hartleys has provided corporate advice within the past 12 months to Altona for which it has earned fees.

SUMMARY MODEL

Altona owns 100% of the Cloncurry copper project. The Company intends inviting in a partner to help finance and develop the project. For valuation purposes, Hartleys speculates that Altona could convert its 100%, unfunded interest into a 35% funded interest. Hence the financial projections in the following table represent 35% ownership of the Cloncurry project, debt financed. Altona is yet to start negotiations with potential partners.

Altona Mining Limited									Speculative Buy						
AOH															
Market Information									Directors						
Share price	\$0.12								Kevin Maloney (Chairman)	Company Information					
Market Capitalisation	\$65m								Alistair Cowden (Managing Director)	Level 1, 2 Kings Park Road					
Net cash (debt)	\$36m								Paul Hallam (Non-Exec Director)	West Perth, WA 6005					
Issued Capital (fully diluted)	545m								Steve Scudamore (Non-Exec Director)	+61 8 9485 2929					
EV	\$29m								www.altonamining.com.au						
Valuation	\$0.19														
12 month price target	\$0.19														
Profit & Loss									Top Shareholders						
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	m shares %						
Net Revenue	AS\$M				98	97	96	95	Perpetual Limited	81 15					
Forward sales	AS\$M								Matchpoint Investment Management	53 10					
Total Costs	AS\$M	-6	-3	-3	-61	-62	-62	-62	Tulla Resources Group Pty Ltd	36 7					
EBITDA	AS\$M	-6	-3	-3	36	35	34	33	Production Summary						
- margin					37%	36%	35%	35%	Cloncurry throughput	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Depreciation/Amort	AS\$M				-9	-10	-10	-11	Mined Cu grade	%Cu	0.50	0.50	0.50	0.50	0.50
EBIT	AS\$M	-6	-3	-3	27	25	24	22	Combined Recovery & Payability		0.93	0.93	0.93	0.93	0.93
Net Interest	AS\$M				27	25	24	22	Payable copper in concs	kt	32	32	32	32	32
Pre-Tax Profit	AS\$M	-6	-3	-3	27	25	24	22	Payable gold in concs	koz	13	13	13	13	13
Tax Expense	AS\$M				1	-8	-7	-7	Cu equiv	kt	35	35	35	35	35
NPAT	AS\$M	-6	-3	-2	19	17	17	16	Mine Life	yr	11.3	10.3	9.3	8.3	8.3
Abnormal Items	AS\$M								Inventory tonnes	Mt	86.0	79.0	72.0	65.0	58.0
Reported Profit	AS\$M	-6	-3	-2	19	17	17	16	Inventory grade	%Cu	0.5	0.5	0.5	0.5	0.5
Balance Sheet									Costs						
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	Cloncurry						
Cash	AS\$M	36	-12	-60	-41	-11	18	46	Cost / milled tonne pre royalty	AS/t		23	23	23	23
Other Current Assets	AS\$M	0	0	0	0	0	0	0	EBITDA / tonne milled ore	AS/t		15	14	14	14
Total Current Assets	AS\$M	37	-11	-59	-40	-11	18	47	Cash costs incl. royalty	AS/lb Cu		2.42	2.44	2.45	2.45
Property, Plant & Equip.	AS\$M		51	96	104	100	95	89		US\$/lb		1.85	1.89	1.90	1.91
Investments/other	AS\$M	15	51	96	104	100	95	89	Cu equiv. cash cost	AS/lb Cu		2.23	2.25	2.26	2.27
Tot Non-Curr. Assets	AS\$M	15	51	96	104	100	95	89		US\$/lb		1.85	1.74	1.75	1.77
Total Assets	AS\$M	52	39	37	64	89	113	135	+ deprim & amort	AS/lb Cu		2.79	2.64	2.66	2.70
Short Term Borrowings	AS\$M									US\$/lb		2.13	2.04	2.07	2.10
Other	AS\$M	1	1	1	1	1	1	1	Price Assumptions						
Total Curr. Liabilities	AS\$M	1	1	1	1	1	1	1		Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Long Term Borrowings	AS\$M								AUDUSD		0.760	0.763	0.772	0.778	0.780
Other	AS\$M	0	0	0	0	0	0	0	Copper	US\$/lb	2.88	2.75	2.75	2.75	2.75
Total Non-Curr. Liab.	AS\$M	0	0	0	0	0	0	0		AS/lb	3.78	3.60	3.56	3.54	3.53
Total Liabilities	AS\$M	1	1	1	1	1	1	1	Gold	US\$/oz	1375	1275	1250	1250	1200
										AS\$/oz	1809	1671	1619	1608	1538
Net Assets	AS\$M	51	39	36	63	88	112	134	Sensitivity Analysis						
Cashflow									Base Case						
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	Valuation			FY20 NPAT			
Operating Cashflow	AS\$M	-6	-3	-3	36	35	34	33		Sens	-10%	+10%	Sens	-10%	+10%
Income Tax Paid	AS\$M								US Cu price +/-10%	23%	0.15	0.24	19%	15.4	22.7
Exploration, evaluation	AS\$M								US Au price +/-10%	1%	0.19	0.19	2%	18.7	19.4
Interest & Other	AS\$M								AUDUSD +/- 10%	21%	0.15	0.23	19%	15.4	22.7
Operating Activities	AS\$M	-6	-3	-3	36	35	34	33	Production +/-10%	6%	0.18	0.20	12%	16.8	21.3
Property, Plant & Equip.	AS\$M		-46	-46	-17	-5	-5	-5	Operating Costs +/-10%	20%	0.15	0.23	13%	16.6	21.5
Exploration	AS\$M								Unpaid Capital						
Asset sales	AS\$M								Expiry year						
Investments	AS\$M									No. (M)	\$M	Avg ex.	% ord		
Investment Activities	AS\$M		-46	-46	-17	-5	-5	-5	30-Jun-18	8			1.5%		
Borrowings	AS\$M								Total	8			1.5%		
Equity	AS\$M								Reserves & Resources June '16						
Financing Activities	AS\$M									Mt	%Cu	g/t Au	kt Cu	ozs Au	
Net Cash Change	AS\$M	-6	-48	-48	19	29	29	28	Cloncurry Cu RESOURCE	288.3	0.6	0.04	1,667	371	
Shares									Measured	64.1	0.6	0.05	404		
	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	Indicated	98.0	0.6	0.05	539		
Ordinary Shares - End	M	545	545	545	545	545	545	545	Inferred	124.8	0.6	0.04	711		
Ratio Analysis									INCLUDES TOTAL RESERVE	86.0	0.5	0.07	430	203	
GCFPS	A¢	-1.1	-0.5	-0.5	6.7	6.4	6.2	6.1	Little Eva	53.4	0.6	0.09	311		
CFR	X				1.8	1.9	1.9	2.0	Turkey Creek	11.3	0.5		52		
EPS	A¢	-1.1	-0.5	-0.3	3.5	3.2	3.0	2.9	Ivy Ann	3.5	0.6	0.08	21		
PER	X				3.4	3.7	3.9	4.2	Lady Clayre	1.0	0.6	0.27	6		
DPS	%	na	na	na	na	na	na	na	Bedford	1.4	0.9	0.20	12		
Yield	%	na	na	na	na	na	na	na	Stockpile	15.4	0.2	0.06	28		
Interest Cover	x								Hartleys model June '16						
ROCE	%	-40%	-5%	-3%	26%	25%	25%	25%		Mt	%Cu	kt Cu	g/t Au		
ROE	%	-12%	-6%	-7%	43%	28%	21%	17%	TOTAL CLONCURRY INVENTORY	86.0	0.5	430	0.08	207	
Gearing	%														
Debt/Equity															
*All values fully diluted unless otherwise stated															
Share Price Valuation (NAV)															
	AS\$m														
100% Cloncurry 8% AT DR - 35% imputed	65														
Exploration	7														
Corporate overheads	-21														
Net cash (debt)	36														
Tax benefit/liability	18														
Option holder value															
Total	105														

Sources; Altona Mining, IRESS, Hartleys Research

PEER COMPARISON

		Mkt cap A\$M	Price Last cps	Iss. Shs M f.p.	Net cash Project \$AM	Undevelop. EV \$AM	1 st put ktpa	capex \$USM	Resource Mt %Cu g/tAu	cont Cu kt	cont Au koz	Cu equiv. kt	Ann prod kt Cu	Ann Au ozs	EV/Cu \$/A	EV/Au \$/A	Cu eq \$/A	notes
MOD Resources	MOD	108	5.8	1866	17.8 T3	90	2000	135	31 1.30	403		403	20		224	224	224	Botswana, 70% JV. Scoping study 2016
KGL Resources	KGL	44	24.0	182	5.2 Jervois	38	2200	144	31 1.07	326		326	21		118	118	118	Ag, Pb, Zn credits
Stavely Minerals	SVY	19	15.5	121	2.8 Ararat/Stavely	16			29 0.47	0.5	138	471	239		116	67	67	Combined, inferred only. Chalcoite blanket
Hammer Metals	HMX	9	4.6	198	2.0 Kalman	7			20 0.61	0.3	122	219	169		58	42	42	Mo credits
Havilah Resources	HAV	60	33.0	183	0.9 Kalkaroo	59	7000	380	233 0.49	0.4	1139	2766	1735	35	104000	52	34	Kalkaroo+ Mutooroo. Co, S, Fe consideration
Avalon Minerals	AVI	13	2.0	651	1.6 Viscaria	11	2000	130	52 1.16		608		608	25	19	19	5.8:1. D Zone underground key	
Hot Chili	HCH	17	3.0	554	-6.4 Productora	23	14700	725	237 0.48	0.1	1138	762	1302	66	25000	20	18	Chilean porphyry. PFS compl. 2016 2.7:1
Altona Mining	AOH	64	12.0	537	37.2 Cloncurry	27	7000	232	290 0.58	0.1	1668	466	1768	39	17200	16	15	1.8:1 after pre-strip. Float.
Rex Minerals	RXM	12	5.4	221	3.1 Hillside	9	6000	365	337 0.60	0.1	2022	1517	2349	35	24000	4	4	6.7:1 after pre-strip. Float.
Caravel Minerals	CVV	5	5.5	82	1.0 Calligiri	4	15000	334	251 0.34	0.1	853	807	1027	38		4	3	1:1 Float. Ore sorting review
Golden Cross	GCR	1	1.3	102	-0.3 Copper Hill	2	3000	124	56 0.55	0.5	309	904	504	21	28000	5	3	GCR 76% owned by HQ Mining. 1.9:1
Flinders Resources	FND	141	18.5	761	-102.0 Wetar	na	3000	prod	9 2.40		214		214	25	na	na	na	Developed 2015
Avanco Resources	AVB	258	10.5	2456	30.4 Antas	na	600	prod	33 1.95	0.5	644	531	758	16	12000	na	na	Developed 2016
Hillgrove Resources	HGO	21	9.1	233	-10.9 Kanmantoo	na	3600	prod	35 0.60	0.1	207	78	224	18	7000	na	na	Creditor issues

Only fully paid ordinary shares are used in market cap and enterprise value figures.

Copper equivalence accounts for by product gold only

AUDUSD: 0.76

Net cash as at Mar31 2017, adjusted for subsequent raisings

Sources; ASX announcements, IRESS, Hartleys Research.

Havilah Resources Limited's (HAV.ASX) Kalkaroo project in South Australia is the closest analog to Cloncurry within independent ASX listed companies. Havilah has struck a non-binding agreement with Chinese mining group Wanbao Mining Limited to complete a pre-feasibility study on the Kalkaroo project by the end of CY2017 and decide upon project participation in CY2018. Similar copper output rates (35ktpa) to Cloncurry will be considered in the PFS, together with cobalt and pyrite recovery streams. Havilah produces ~20koz pa at Portia.

Rex Minerals Limited (RXM.ASX) is in community consultation over the Hillside project in South Australia, pursuant to completion of a Program for Environment Protection and Rehabilitation and a Social Management Plan in compliance with the existing Mining Lease. A feasibility study was completed in May 2015.

MOD Resources is exploring its 70% owned T3 project in Botswana. An indicated and inferred resource was estimated in September 2016, informing a scoping study finished in December 2016. Drilling and exploration has since extended the known mineralised zones at depth.

Altona's Cloncurry project is relatively advanced, well located and has low capital intensity compared to its peers.

VALUATION

The Cloncurry project is valued according to the base assumptions outlined in Altona's 2014 feasibility study, including the Turkey Creek reserve estimated in June 2016. The Little Eva pit comprises 72% of project reserves. An average waste:ore ratio of 2:1, earth movement costs ranging from A\$7.00 to \$8.00/bcm (ore and waste), and unit treatment + G&A costs of A\$10.50/t ore are assumed. Project start-up is projected in 2019, with initial capex of A\$260M. Concentrate freight to an offshore smelter, TCRCs of US\$98/t concs and 9c/lb Cu, 97% payability for both copper and gold.

Cash flows are discounted at 8%, real and after tax.

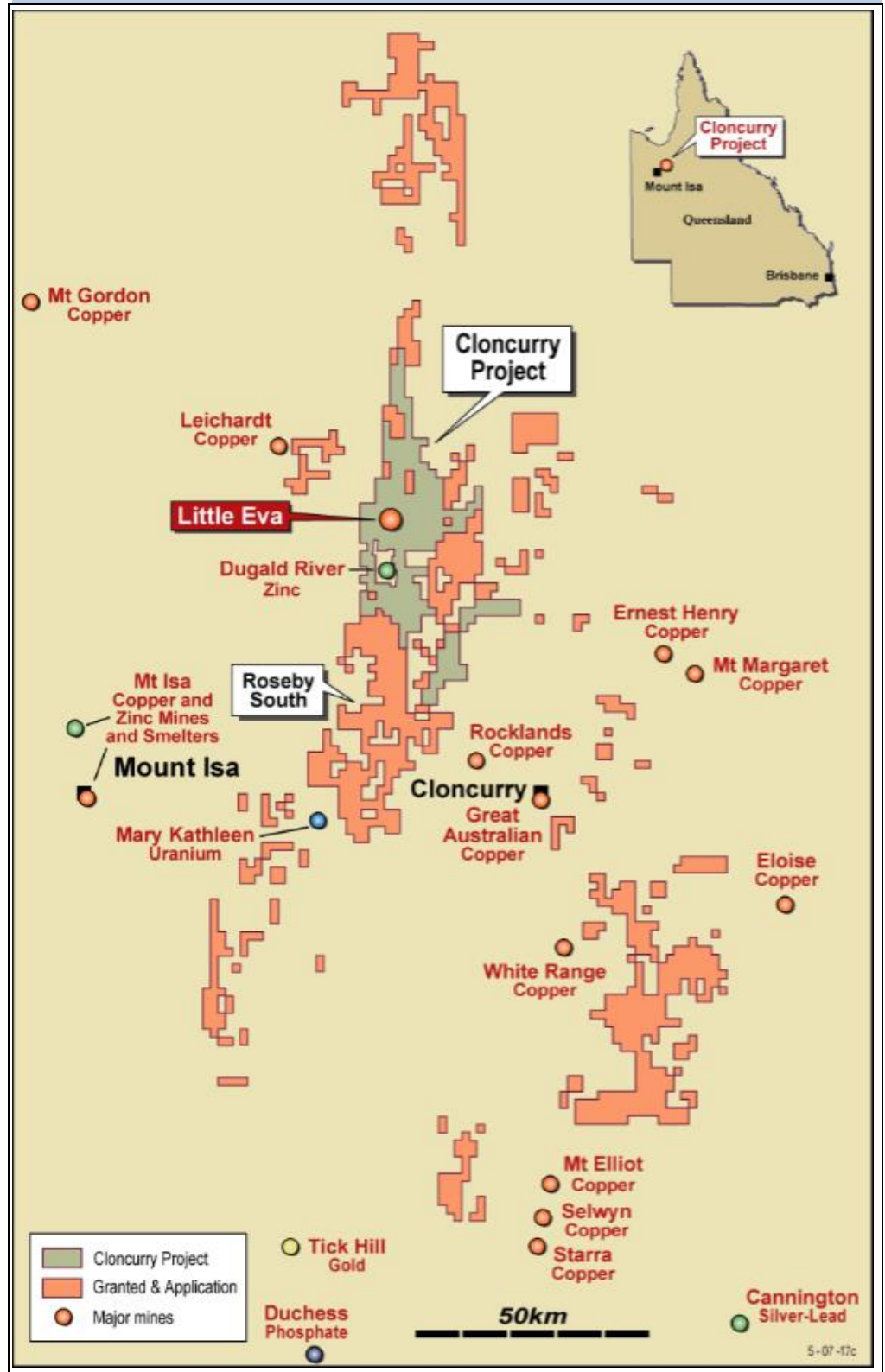
PRICE TARGET

Under the SRIG JV proposal Altona's funding commitments were to be largely paid in cash by SRIG at full project NPV. The next incoming partner or acquirer is likely to be a big balance sheet mining company that expects to pay less than full NPV in return for sharing its financial and technical resources. The amount of value that Altona can preserve for shareholders will depend on a number of factors. Hartleys expects a minimum of 35% realisation/retention of financed value might be retained for Altona

Altona owns 100% of the Cloncurry project which incorporates the former SRIG JV area and the Roseby South tenure held solely by Altona.

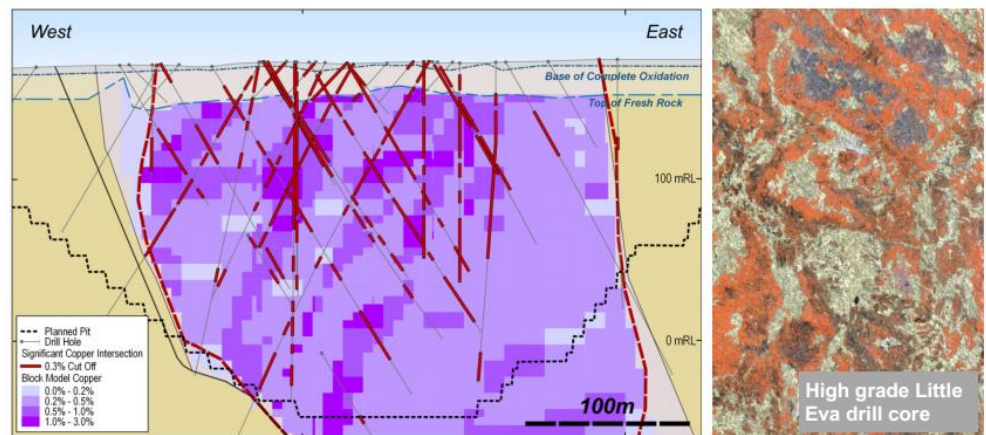
shareholders. A 12 month share price target is set assuming 35% of the Cloncurry project NPV in a sum of parts valuation for Altona.

Fig. 1: Cloncurry Project location map, 2016.



Source: Altona

Fig. 2: Little Eva cross section and Altona slide comments from 2016, prior to addition of Turkey Creek to reserves



- Large bulk IOCG style deposit similar to Ernest Henry
- Reserves of 75Mt at 0.5% copper, 0.1g/t gold
- Turkey Creek will add 10Mt (2 years)

Source: Altona

RISKS

Fig. 3: Key assumptions and risks for valuation

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Altona attracts an appropriate partner to secure project funding at the minimum assumed terms	Medium	Medium	Hartleys believes it has been conservative in assessing demand among mining companies for a project of Cloncurry's calibre.
Project costs	Medium	Medium	Hartleys' valuation relies on cost estimates from Altona's 2014 feasibility study. In particular, capital cost estimates may vary from FS estimates.
Exploration upside	High	Low	Less than 10% of the valuation comes from exploration potential, or material outside reserves.
Copper price and currency settings	Medium	High	Copper price and currency assumptions are close to present spot levels. Copper demand has proved resilient in 2017 and reform of the world's energy systems could underwrite future copper demand growth.

Conclusion

Project risks are tolerable and balanced by opportunities for adding value.

Source: Hartleys Research

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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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