

20 December 2010

Alkane Resources

Year End	Revenue (A\$m)	PBT* (A\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/08	2.4	0.1	0	N/A	N/A	N/A
12/09	4.7	2.4	1.0	N/A	33.0	N/A
12/10e	9.7	7.2	2.9	N/A	28.9	N/A
12/11e	0.1	(2.6)	(1.0)	N/A	N/A	N/A

Note: *PBT and EPS are normalised, excluding intangible amortisation and exceptional items.

Investment summary: Positive re-rating

Alkane has completed a DFS on its Tomingley Gold Project (TGP), which it intends to use to generate cash to develop its Dubbo zirconium and rare earths project (DZP). The TGP will produce a total of 369koz over a 7.5-year mine life at average cash costs of A\$942/oz. The project, pending successful financing, is due to start production in H212. More important, however, has been the steady rise in prices for zirconium-based products, niobium and rare earth metals. This update looks at the effects of these price increases on the DZP and of a revised long-term gold price of US\$1,350/oz on the TGP. The DZP is one of the most advanced (with a production start during 2014) zirconium and rare earth deposits outside of China. We now value Alkane's assets at A\$1.19 per share (previously A\$0.91).

Tomingley to proceed to financing

The DFS has outlined, with greater detail, the potential costs of operating the TGP, with first production in H212. Production will come initially from open pit, with a small underground operation occurring at the end of the mine's life, in 2018 and 2019. Initial capex will be in the region of A\$95m (including contingency of A\$8.7m). Once operating, the TGP could generate gross profits of around A\$34m in years 2012-14 to re-invest into development of the DZP.

Dubbo very clearly the jewel in the crown

Shares in the company have gained 160% since our July Outlook note 'Alkane shows its metal', with rare earth market price increases of 188% for HREE and 181% for LREE being the main catalysts. Alkane is continuing work at its pilot plant to further refine REE concentrates into marketable products.

Valuation: Shares trading at 42% discount

Taking into account our revised long-term gold price of US\$1,350/oz for the TGP and the recent price increases for the DZP group of products, we now value the TGP and DZP at A\$0.77 per share. To this should be added A\$0.42 for ALK's eventual share (25%) of the ~3Moz McPhillamys gold deposit (see page 3) for a total valuation of A\$1.19 per share.

Price 83c
Market Cap A\$207m

Share price graph



Share details

Code ALK
Listing ASX
Sector Metals and Mining
Shares in issue 249m

Price

52 week High Low
119.0c 23.0c

Balance Sheet as at 30 September 2010

Debt/Equity (%) N/A
NAV per share (c) 18
Net cash at (A\$m)* 6.8

*as at 23 November 2010

Business

Alkane Resources is a multi-commodity explorer, with projects located in the central west region of New South Wales in Australia. Alkane owns the Tomingley Gold (100%) and Dubbo rare metal and rare earths (100%) projects and has a 49% (moving to 25%) stake in the McPhillamys Gold project with JV partner Newmont Australia.

Valuation

	2009	2010e	2011e
P/E relative	315%	97%	N/A
P/CF	N/A	10.1	N/A
EV/Sales	16.2	8.2	N/A
ROE	6%	16%	N/A

Geography based on revenues (2009)

UK	Europe	US	Other
0%	0%	0%	100%

Analysts

Charles Gibson 020 3077 5724
Michael Starke 020 3077 5727
mining@edisoninvestmentresearch.co.uk

Progress being made

As a diversified commodity explorer, Alkane intends to capitalise on the strength of the gold price by developing the TGP, and to use the profits generated in the first years of mining to develop the nearby DZP. It also has the added benefit of a number of exploration projects within the vicinity of the proposed TGP site, which could, on further drilling, yield satellite ore streams to the processing facilities, and thus additional revenue.

Dubbo zirconium and rare earths project

Heavy rare earths still the money-maker

Awareness of the potential value of rare earth metals has increased over the past six months, especially in light of the continuing decline in Chinese export quotas. However, it is still prudent to remind the investor to be cautious of those REE equities that have only a minor (~5% of total deposit composition) heavy rare earth element component and do not have a process path outlined to extract the metals. Alkane's DZP stands apart from the majority of western deposits by having roughly 25% of the DZP's composition made up of heavy rare earth elements. Further, it has an operating demonstration pilot plant (DPP) with which to refine its ore into marketable products.

Added yttrium rare earth circuit to boost DZP revenues

Alkane has recently added an additional process path at the DPP. A first yttrium-heavy rare earth (YHREE) concentrate has now been obtained from this circuit. This is currently being refined by the company to develop a marketable concentrate for distribution to potential customers. An LREE sample has also been recovered producing a +99% rare earth oxide concentrate. On completion of further testing, this process will then be added to the planned DZP production circuit.

Significant price increases in rare earth elements

The tightening of supply by China and the increasing uses of rare earth elements in high-end technologies has caused a significant increase in the price of rare earth elements. The DZP at present will not produce individual metals but two concentrates, one containing light and one containing yttrium and heavy rare earths. Alkane has provided revised price data for its saleable products. Concerning the rare earth concentrates, the prices are based on 70% of the value of each individual contained rare earth metal. The following exhibit shows the revised price data used in our base case model.

Exhibit 1: Revised DZP base case prices

DZP concentrate	Original base case value (A\$/t)	Revised base case value (A\$/t)	Percentage change (%)
Zirconium oxide	6,000	6,000	0
Niobium	22,500	25,000	11
Light rare earths	11,000	31,000	18.2
Heavy rare earths	22,500	65,000	18.9

Source: Alkane Resources

TGP development feasibility study

The following exhibit outlines the mining parameters detailed in the DFS and which we have used in our revised valuation of the TGP. We also apply our revised long-term gold price of US\$1,350/oz to the project (previously US\$1,177/oz).

Exhibit 2: Revised TGP parameters used in base case valuation

Open pit	Unit	Value	Operating cost data	Unit	Value
Total tonnes milled	Mt	5.83	Recovery	%	93
Grade	g/t Au	1.64	Total gold recovered	koz	369
Total ounces recovered	koz	28.8	Gold price	US\$/oz	1,350
Underground			Cash cost	A\$/oz	942
Total tonnes milled	Mt	0.68	Capex (incl. contingency)	A\$m	95
Grade	g/t Au	3.98	Mining cost	A\$/t	33.94
Total ounces recovered	koz	8.1	Processing cost	A\$/t	17.67
			Other cost	A\$/t	1.4

Source: Edison Investment Research and Alkane Resources

Valuation

Tomingley and Dubbo

Based on the above revised cost and mining data for the DZP and TGP, our revised dividend discount model values these two projects at A\$0.77 per share, up from A\$0.49 per share previously.

McPhillamys

Alkane released in July 2010 an initial resource estimate for McPhillamys of 2.96Moz at 1g/t Au with gold recoveries between 86% and 91%. Alkane currently has a 49% interest in this project, which is majority held by JV partner Newmont Australia Ltd (51%), which, on completion of a BFS, will earn a further 24% stake. With only this initial resource estimate to use in valuing McPhillamys we have applied derived values for measured, indicated and inferred resource ounces of US\$339.9, US\$158.55 and US\$33.65 respectively as per our sector report *Gold: Valuation benchmarks are obsolete*, published in January 2010. This results in the total current resource being worth US\$334.8m. Assuming Alkane retains a 25% interest in the project, its share is therefore worth US\$86.2m or A\$0.42 per share.

Total valuation

We therefore value all Alkane's assets at A\$1.19 per share; this is at a 42% discount to the share price.

TGP financing and development timeline

Alkane has now appointed Noah's Rule Pty Ltd as financial advisors for the TGP and is currently exploring alternative financing options to meet the A\$95m capital expenditure requirement. These include potential hedging facilities. After successful funding, the TGP will progress to the construction phase with commissioning of the mine planned for H212. Following approval by the New South Wales government to develop the DZP, capital expenditure of A\$200m would also be needed. We therefore currently forecast that to develop both the TGP and DZP would trigger a funding requirement of around A\$260m in late 2011 to 2012, which equates to a gearing ratio (debt/equity) of 746% or leverage ratio (debt/debt+equity) of 88%. Alkane is currently exploring both debt and equity routes to financing the DZP. Though the company states that it might be able to fast track the development of the DZP for a 2013 start-up, we forecast a more conservative 2014 commission date to allow for contingency and delays.

Exhibit 3: Financials

	A\$ '000s	2008	2009	2010e	2011e	2012e
Year end 31 December		IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS						
Revenue		2,402	4,714	9,670	48	32,780
Cost of Sales		0	0	0	0	(25,891)
Gross Profit		2,402	4,714	9,670	48	6,889
EBITDA		(570)	2,249	7,935	(1,663)	5,226
Operating Profit (before GW and except.)		(619)	2,200	7,082	(2,598)	(6,818)
Intangible Amortisation		0	0	0	0	0
Exceptionals/discontinued		(122)	(130)	(100)	0	0
Other		0	0	0	0	0
Operating Profit		(741)	2,071	6,982	(2,598)	(6,818)
Net Interest		723	227	72	48	(670)
Profit Before Tax (norm)		104	2,427	7,154	(2,550)	(7,488)
Profit Before Tax (FRS 3)		(18)	2,298	7,054	(2,550)	(7,488)
Tax		0	0	0	0	0
Profit After Tax (norm)		104	2,427	7,154	(2,550)	(7,488)
Profit After Tax (FRS 3)		(18)	2,298	7,054	(2,550)	(7,488)
Average Number of Shares Outstanding (m)		244.6	245.8	249.0	249.0	249.0
EPS - normalised (c)		0.04	0.99	2.87	(1.02)	(3.01)
EPS - FRS 3 (c)		0.02	0.49	1.44	(0.51)	(1.50)
Dividend per share (c)		0.0	0.0	0.0	0.0	0.0
Gross Margin (%)		100.0	100.0	100.0	100.0	21.0
EBITDA Margin (%)		N/A	47.7	82.1	N/A	15.9
Operating Margin (before GW and except.) (%)		N/A	46.7	73.2	N/A	-20.8
BALANCE SHEET						
Fixed Assets		28,230	33,574	41,965	48,274	291,579
Intangible Assets		25,035	31,994	39,394	44,794	50,194
Tangible Assets		1,015	1,084	2,075	2,984	240,889
Investments		2,180	496	496	496	496
Current Assets		9,082	10,980	3,186	8	5,434
Stocks		0	0	0	0	2,732
Debtors		756	221	0	0	2,694
Cash		8,324	4,832	3,178	0	0
Other available for sale financial assets		1	5,928	8	8	8
Current Liabilities		(1,303)	(710)	(72)	(72)	2,056
Creditors		(1,242)	(638)	0	0	2,128
Short term borrowings		(61)	(72)	(72)	(72)	(72)
Long Term Liabilities		(137)	(146)	(146)	(5,727)	(263,973)
Long term borrowings		0	0	0	(5,581)	(263,828)
Other long term liabilities		(137)	(146)	(146)	(146)	(146)
Net Assets		35,871	43,699	44,933	42,483	35,095
CASH FLOW						
Operating Cash Flow		(1,206)	(552)	8,118	(963)	(1,628)
Net Interest		723	227	72	48	(670)
Tax		0	0	0	0	0
Capex		(8,045)	(8,903)	(9,844)	(7,844)	(255,949)
Acquisitions/disposals		(29)	4,071	0	0	0
Financing		10,175	1,665	0	0	0
Dividends		0	0	0	0	0
Net Cash Flow		1,617	(3,492)	(1,654)	(8,759)	(258,247)
Opening net debt/(cash)		(6,707)	(8,324)	(4,832)	(3,178)	5,581
HP finance leases initiated		0	0	0	0	0
Other		0	0	0	0	0
Closing net debt/(cash)		(8,324)	(4,832)	(3,178)	5,581	263,828

Source: Edison Investment Research and company accounts

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Lincoln House, 296-302 High Holborn, London, WC1V 7JH ■ tel: +44 (0)20 3077 5700 ■ fax: +44 (0)20 3077 5750 ■ www.edisoninvestmentresearch.co.uk
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