

Alkane Resources

All fronts moving forward

Alkane's Q215 quarterly report shows the TGO continuing to produce gold ahead of budget. However, a build-up in bullion held on hand (from 2.6koz in Q1 to 5.6koz in Q2) has negatively affected cash flows, with 16.5koz of gold sold at an average selling price of A\$1,426/oz. This compares with gold sales of 23.7koz for Q115 at an average price of A1,407/oz. All-in sustaining costs for Q215 were A\$1,116/oz, 28.7% higher than Q115 (A\$867/oz) reflecting waste removal and pit wall modifications at Caloma, lower gold production and increased bullion on hand. Although TGO cash flow has been markedly weaker (Q115: A\$14.0m, Q215: A\$3.2m), Alkane's liquid assets are maintained q-o-q at c A\$34m (including the value of bullion on hand, and the value of its Regis Resources holding).

Year end	Revenue (A\$m)	PBT* (A\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
06/13	100.8	93.2	28.0	0.0	0.9	N/A
06/14	35.5	3.4	(0.4)	0.0	N/A	N/A
06/15e	118.7	25.2	3.4	0.0	7.4	N/A
06/16e	100.3	5.3	0.9	0.0	27.8	N/A

Note: *PBT and EPS are normalised, excluding intangible amortisation, exceptional items and share-based payments. **18-month period to reflect year-end change to 30 June.

Positive ROM vs resource reconciliation still present

Since it started operating, TGO ores have continually provided greater gold grades than originally estimated in the reserve. Total gold ounces (Caloma and Wyoming Three pits) are 30% ahead of the original budget ytd. This trend has slowed in the Caloma pit during Q214 and it is not known whether it will pick up again in subsequent quarters. During the quarter Alkane initiated a site review for the TGO, which we expect will involve reassessment of the reserve vs mine plan, a review of the potential to mine resources below all planned pit floors and cost-saving initiatives to further improve gross margins. We note that Alkane's management successfully operated the nearby old Peak Hill mine through the last downturn of the gold price in the late 1990s, experience we consider should support the current strategic review.

Valuation: Adjusted for TGO data, FY14 results

We adjust our previous A\$0.89 valuation for our new FY15 gold price of US\$1,285/oz (A\$1,626/oz), previously US\$1,381/oz (A\$1,534), our US\$/AU\$ forex rate from 0.90 to 0.79, FY14 financial results and Q215 operating data (see Exhibit 1). We also adjust for Alkane's revised production guidance (see page 2), taking the view that ore and mill head grades will start to converge over H215, resulting in our assumption of c 72koz of gold produced. On this basis, our valuation remains in line at A\$0.88, comprising A\$0.14 for the TGO, A\$0.68 for the DZP, A\$0.01 for its Regis Resources shareholding and A\$0.05 for its cash.

Q215 quarterly report

Metals & mining

29 January 2015

OTCQX

Price	A\$0.25
Market cap	A\$104m
	US\$/AU\$:0.79
Net cash (A\$m) at end December 20	14 18.9
Shares in issue	414.2m
Free float	52%
Code	ALK
Primary exchange	ASX

Share price performance

Secondary exchange



Business description

Alkane Resources is a multi-commodity explorer and developer, with projects in the central west region of New South Wales in Australia. Alkane owns the Tomingley Gold Operation (TGO) and Dubbo Zirconium Project (DZP) rare metal and rare earths projects (both 100%). TGO entered production in January 2014 and DZP is currently planned for first production during FY16.

Next events

DZP planning approval Q315

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Edison profile page



Revised TGO FY15 guidance 65-75koz

The following exhibit provides reported production data for the TGO for H115 and our forecast assumptions for H215. This has been adjusted to reflect the company's revised (upwards) FY15 production target of 65koz to 75koz of gold.

Exhibit 1: TGO quarterly production data for FY15										
	Units	Q115	Q215	Q315e	Q415e	FY15e				
Production										
Waste mined	BCM	1,653,357	1,414,557	1,414,557	1,414,557	5,897,028				
Implied strip ratio	Ratio waste:ore	5.50	3.63	3.63	3.63	4.10				
Ore mined	Tonnes	300,493	389,242	300,000	300,000	1,289,735				
Ore grade	g/t	2.03	1.67	1.67	1.67	1.76				
Ore milled	Tonnes	296,012	300,971	300,000	300,000	1,270,502				
Head grade	g/t	2.47	2.05	1.80	1.63	1.99				
Recovery	%	95.4%	94.4%	93.0%	93.0%	93.0%				
Gold recovered	Ounces	22,363	19,175	16,146	14,621	72,306				
Gold sold	A\$/oz	23,734	16,500	16,146	14,621	71,002				
Gold revenue	A\$m	33.40	23.50	24.09	21.81	102.805				
Implied realised gold price/estimated	A\$/oz	1,408	1,426	1,492	1,492	1,455				
Cost of sales	A\$m	19.39	18.70	18.02	16.32	72.43				
AISC (C3) operating cost	A\$/oz	867	1,116	1,100	1,100	1,054				
Gross margin	%	62.4%	27.8%	33.7%	33.7%	40.4%				
Operating profit margin	%	72.3%	25.7%	33.7%	33.7%	41.3%				
Stockpiles										
Ore for immediate milling	Tonnes	192,966	301,326	301,326	301,326	301,326				
Bullion on hand	Ounces	2,938	5,611	5,611	5,611	5,611				
Value of bullion on hand	A\$m	4.14	8.00	8.37	8.37	8.16				

Source: Edison Investment Research. Note: H215 gold prices reflect short-term forecasts, as opposed to our CY15 price of US\$1,285/oz used to produce our financial summary (Exhibit 4).

> Exhibit 2 shows key TGO production data taken from above, for ore and waste tonnages mined, tonnages milled and gold grades for ore mined and milled. As can be seen from Exhibit 2, waste removal remains a core focus at the TGO. Waste continues to be removed predominantly from the Caloma pit. Alkane's FY15 production guidance for the TGO is now 65-75koz of gold, up from 60-70koz stated during Q115. We do not expect material changes to the amount of ore milled or gold recovery factors over those reported during H115.

2,500,000 3.00 2.50 2,000,000 2.00 1,500,000 Tonnes 1.000.000 1.00 500,000

Q115

Waste mined

Exhibit 2: TGO production data showing our assumption of head grade converging with ore grade over H215

Source: Edison Investment Research

Q214

Ore mined

Q314

Q414

Ore milled

0

We consider that as the Caloma pit deepens into fresh rock and lesser amounts of more easily processed higher-grade transitional material are milled, the milled head grade will converge with the gold grade mined. This is shown in Exhibit 2 by the convergence of the grey and dark green lines in Q415. In our model, we also reduce the gold recovery factor during H215 from more than 94% to

Q215

Q315e

Head grade

0.50

0.00

Q415e

- Ore grade



93% to reflect the reduction in the milled head grade and transition into fresh rock at Caloma. We also, perhaps conservatively, reduce the milled tonnages from c 389kt seen in Q215, to 300kt per quarter during H215. On this basis, and as can be seen in Exhibit 1, we forecast c 72koz of gold will be produced for FY15, slightly above the midpoint of the company's guidance.

Dubbo Zirconia (and heavy rare earth) Project

The Dubbo Zirconium Project (DZP) is a large uniform igneous (trachyte) intrusion located near the town of Dubbo in New South Wales. Alkane intends to develop the project for its zirconium, niobium and rare earth minerals. Concerning the extraction of rare earths, the DZP is one of the most advanced projects of its type globally and has been running a pilot plant successfully since 2008, providing its industry partners with a tailored product offering. The DZP is Alkane's flagship project.

In our view the main trigger to releasing value from the DZP is permitting approval from the NSW authorities (see update below).

DZP planning approval process - NSW holding up development

The development application for DZP approval and the environmental impact statement (EIS) were lodged with the NSW Department of Planning and Environment (DP&E) in June 2013. Alkane was advised in September 2014 that in accordance with NSW planning legislation relating to State Significant Developments, the application would proceed to the Planning Assessment Commission (PAC) for review. The commissioners were appointed in early September 2014 and have started their review, which included a public hearing on 4 November 2014. The minister for planning instructed the PAC to complete its review within two months of the hearing; however, this deadline has not been met. Alkane expects the review to be completed in Q315 with any concerns addressed by AZL (Australian Zirconium, Alkane's subsidiary company, which owns the DZP) before final determination by the PAC.

A new mining lease application was lodged with NSW Department of Trade and Investment, Division of Resources and Energy (DRE). The MLA covers 2,433 hectares and incorporates all the land area for the operation as detailed in the EIS.

First production at the DZP is currently forecast for end CY16 and, as stated, is highly contingent on the NSW authorities approving the project for construction and mining and project financing. The current timeline provided by Alkane for moving the DZP towards first production at end CY16 is shown in Exhibit 3 below.

Exhibit 3: DZP development timeline

Major Milestones	2014		2015		2016		2017					
Finalise Off-take agreements												
Project Approval Process			?									
Project Financing Program												
Front End Engineering Design (FEED)												
CONSTRUCTION												
PRODUCTION												

Source: Alkane Resources Quarterly Report to 30 June 2014

Enhanced DZP product offering - potential adds hafnium

It is important to realise that while Alkane's engineering consultants Hatch have finalised the frontend engineering design and plant layout for the DZP, it does not mean Alkane has to stop advancing its end-product refinements or deciding whether to add or remove products from the



range it intends to sell. The refinements are made at the very back end of the process flow sheet, predominantly by realigning existing planned equipment. Therefore, modifications to the DZP product suite tailored to the highly specific requirements required by future customers should not materially affect the overall capital cost of developing the DZP, or the planning approval process. However, Alkane has advised that Hatch will be able take on board any requests made by the NSW PAC. However, previous successful stages of the planning process have not highlighted any major issue with the proposed plans. Currently the DZP is set to produce a light and yttrium-heavy rare earth concentrate, zirconium chemicals and ferro-niobium.

Due to the increase in market demand for hafnium, Alkane is also investigating whether it can provide a hafnium product separated from the zirconium with which it is closely associated. Hafnium's global market is tiny at around 110tpa and this reflects the very small amounts needed to produce 'super' alloys for the aviation industry, as well as in the production of high-speed computer processors. Hafnium sells for US\$600/kg to US\$800/kg in small lots. The inclusion of an economically viable separated hafnium product can only enhance the DZP's economics, with the scale of any improvement linked to Alkane's assessment of the metals market, the capital cost requirements necessary to bring the product on line and the effect of its production on operating costs. We await Alkane's guidance on these issues due to the highly specialised and integrated nature of producing a separated rare earth product.

Financials

Cash at end September was A\$25.3m and A\$18.9m at end December 2014. Factoring in TGO cash flow, the value of its Regis Resources shares and bullion on hand, Alkane's liquid assets remained flat q-o-q at c A\$34m. After corporate G&A costs, costs associated with the DZP and exploration expenditures, we forecast an end-year cash balance of A\$35.1m, which points to total liquid assets of c A\$50.3m. This assumes bullion on hand is kept at 5,611ozs and valued using a gold price of A\$1,639/oz (US\$1,295/oz) for a total value of A\$9.2m. Alkane's 3m Regis Resources shares are priced as of 27 January 2015 at A\$2 a share for a holding value of A\$6m.

Funding the DZP – equity raise assumption now in FY16

To develop the DZP we forecast total outlay of A\$592m in FY16 (including A\$3.6m in TGO capex), followed by A\$411m in FY17 to complete the DZP (which includes A\$2.7m of TGO capex).

The exact financing structure of the DZP has not been finalised. However, from our discussions with management, the financing structure for the total A\$996.4m required to develop the DZP could be secured by:

- selling 10% of the DZP through Australian Zirconia to a strategic partner or partners for c A\$100m; this could be borne of Alkane's relationships with its industry partners; and
- raising (A\$196.4m) via an equity placement or shareholder issue. For the purpose of our valuation we have assumed this is raised at a notional 0.30c per share, resulting in dilution of a further 655m shares. We expect news concerning DZP's approval process and converting its MoUs into commercial off-take agreements, and on securing debt funding for DZP to act as a positive catalyst to Alkane's share price.

We estimate that this would leave Alkane with a maximum net debt position in FY17 of A\$600m, which equates to a gearing (debt/equity) ratio of 121% and a leverage (debt/debt+equity) ratio of 55%. Alkane is looking to cover this requirement using c A\$300m secured via government (termed ECA) loans incurring very favourable interest rates and c A\$300m secured via more conventional project financing routes, potentially incurring higher interest rates.



	A\$'000s 2013 (18 months)	2014	2015e	2016
Year end 30 June	IFRS	IFRS	IFRS	IFR
PROFIT & LOSS				
Revenue (includes FY13 gain on sale of investments)	100,753	35,474	118,669	100,31
Cost of Sales	0	(25,692)	(72,425)	(52,11
Gross Profit	100,753	9,782	46,243	48,19
EBITDA	88,339	3,890	35,220	41,87
Operating Profit (before GW and except.)	88,172	3,890	24,979	4,73
Intangible Amortisation	0	0	0	
Exceptionals/discontinued	(99,024)	(4,798)	(157)	99,84
Other	Ó	Ó	Ó	,
Operating Profit	(10.852)	(908)	24,822	104,57
Net Interest	4,980	(471)	234	52
Profit Before Tax (norm)	93,152	3,419	25,213	5,26
Profit Before Tax (FRS 3)	(5,872)	(1,379)	25,056	105,10
Tax	5,989	(4,893)	0	,
Profit After Tax (norm)	99,141	(1,372)	25,213	5,26
Profit After Tax (FRS 3)	117	(6,272)	25,056	105,10
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Average Number of Shares Outstanding (m)	354.6	373.7	737.6	1,060.
EPS - normalised (c)	28.0	(0.4)	3.4	0.
EPS - FRS 3 (c)	0.0	(1.7)	3.4	9.
Dividend per share (c)	0.0	0.0	0.0	0.
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Gross Margin (%)	100.0	27.6	39.0	48.
EBITDA Margin (%)	N/A	N/A	N/A	N/
Operating Margin (before GW and except.) (%)	N/A	N/A	N/A	N/A
BALANCE SHEET				
Fixed Assets	75,365	160,174	160,003	719,75
Intangible Assets	45,278	53,406	58,406	63,40
Tangible Assets	21,093	100,032	94,861	649,61
Investments	8,994	6,736	6,736	6,73
Current Assets	109,057	40,811	58,235	20,26
Stocks	0	15,391	9,870	8,31
Debtors	3,680	4,906	8,309	7,00
Cash	64,294	15,569	35,111	
Other available for sale financial assets	41,083	4,945	4,945	4,94
Current Liabilities	(9,590)	(14,726)	(6,924)	(239,299
Creditors	(7,735)	(13,755)	(5,953)	(4,283
Short term borrowings	0	0	0	(234,045
Other	(1,855)	(971)	(971)	(97
Long Term Liabilities	(135)	(12,039)	(12,039)	(12,039
Long term borrowings	0	0	0	
Other long term liabilities	(135)	(12,039)	(12,039)	(12,039
Net Assets	174,697	174,220	199,276	488,67
CASH FLOW				
Operating Cash Flow	(12,823)	(3,508)	29.379	42,91
Net Interest	4,980	(369)	234	52
Tax	5,989	0	0	02
Capex	(57,777)	(95,281)	(10,070)	(596,898)
Acquisitions/disposals	10,329	40,534	(10,070)	100,00
Financing	102,566	9,800	0	184,30
Dividends	102,300	9,000	0	104,30
Net Cash Flow	53,264	(48,824)	19,542	(269,15
Opening net debt/(cash)	(11,026)	(64,294)	(15,569)	(35,11
HP finance leases initiated	(11,026)	(64,294)	(15,569)	
Other	4	99	0	
Closing net debt/(cash)				
ciosing net debut(casin)	(64,294)	(15,569)	(35,111)	234,04



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