STATE ONE STOCKBROKING LTD

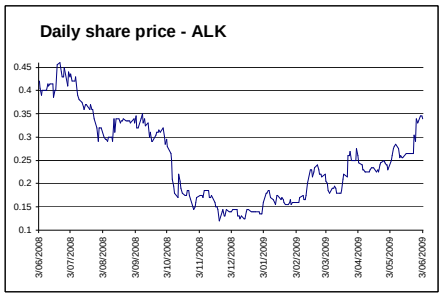
Participant of the ASX Group
AFSL 247100 ABN 95 092 989 083

Alkane Resources (ALK)

Gold – Rare Earths – Niobium – Zirconia.
ALK valued at significantly less than sum of parts

Speculative BUY – ($0.81)

3/06/2009



Investment Data

Share Price (cents)	34
Ord Shares fully diluted (m)	245
Market Cap ($'m)	83.2
Enterprise Value ($'m)	77.0
Options (m)	4.4
Net Cash (31 March 09)($'m)	6.2
52 week Low/High (cents)	13/55

Company Officers

Ian Chalmers	Managing Director
John Dunlop	Chairman
Tony Lethlean	Non Exec Director
Ian Gandel	Non Exec Director
Ian Cornelius	Non Exec Director

Major Shareholders

Abottsleigh	29.1%
Merrill Lynch Nominess	6.4%
ANZ Nominees	4.7%

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Recent Developments

- **Alkane's Dubbo Zirconia Project (DZP) is anticipated to be the largest producer of heavy rare earth elements (HREE including Yttrium) outside of China.**
- ALK remains the only ASX listed company offering advanced REE exposure not under effective control by Chinese entities.
- The Tomingley Gold Project definitive feasibility study (DFS) is expected to be completed by September 2009. A positive construction decision is expected shortly there after.
- The McPhillamys Gold Deposit, part of the Moorilda joint venture with Newmont, is shaping up to be the most significant gold discovery in Australia since the discovery of the 5Moz Tropicana deposit by the Independence / AngloGold Ashanti joint venture.
- BC Iron (BCI) (Alkane holds 15%) has recently signed an in principle infrastructure agreement with Fortescue Metals Group. Should this be converted to a binding agreement, a re-rating on anticipated production would be expected.

Investment Case

Alkane Resources has three main projects;

1. The Tomingley Gold Project
2. The Dubbo Zirconia Project
3. The Moorilda Gold JV with Newmont, containing the McPhillamys Gold deposit.

- The **Tomingley Gold Project** is in the final stages of a DFS. Forecast production is 50 **–** 75koz p.a. over a 6 - 8 year mine life. Cash flows are expected to average $13m p.a. based on current assumptions over the life of mine.

- At a production rate of 400ktpa, modelling of the **Dubbo Zirconia Project** returns cash flows of approximately A$45 million p.a. for the life of mine (+100 years). A risk weighted valuation of $0.40 per share represents a sizeable discount of estimated project cash flows due to flow sheet finalisation and construction timing uncertainty.

- Alkane has announced a resource *target* of 2.5Moz for the **McPhillamys Gold Deposit**. State One expects this target to be met. Newmont is expected to take the project through to BFS to earn 75% of the project. Our valuation attributes 49% of the project to ALK at A$40 per anticipated resource ounce.

- A sum of parts valuation has been carried out for ALK projects. The result indicates that there is significant project value that is not realised in the current share price.

Sum of parts	**per share**
Tomingley - Gold	$0.20
Dubbo Zirconia Project	$0.40
McPhillamys	$0.17
Cash	$0.03
9 million BCI shares at 60cps	$0.02
Price target	**$0.81**

Project Locations

The Tomingley, Moorilda and Dubbo Zirconia Projects are all located within a 150km diameter of each other in the central west of New South Wales. All projects are located proximal to large population centres and road networks. The proximity to infra-structure is seen as de-risking element to ALK's projects.

The Tomingley Project is expected to produce 50 – 75koz p.a. for six years at a cash cost of A$650 – A$700/oz.

1. Tomingley Gold Project

- Current conceptual development of the Tomingley Project consists of three open pit mines (Caloma, Wyoming One and Three) followed by an underground operation at Wyoming One. Gold production would be through a conventional carbon in leach (CIL) gold recovery circuit running at between 0.75 – 1.0Mtpa producing between 50 and 75koz of gold p.a. for 6 - 8 years

High grade intersections at Wyoming One (66m at 19.5g/t) and Caloma (5m at 30.4g/t) indicate subsequent underground development is likely, representing an upside to valuation.

Tomingley Gold Project - Resource

Deposit	Tonnes (million)	Grade (g/t)	Ounces
Wyoming One	6.5	2.5	520,842
Wyoming Three	0.8	2.0	54,013
Caloma	4.1	2.1	274,792
Total	**11.4**	**2.3**	**849,648**

- Current estimates put capital costs at A$50 million including $2.0 million for construction of a 40km long pipeline to access artesian water. Pre-existing water permits to satisfy requirements for a 1mtpa plant have been sourced. No camp facilities are required as the workforce can be sourced locally. A natural gas pipeline and railway are located five kilometres west of the Tomingley town site and power is available from the NSW state grid.

- Royalties covering the project include 75cents per tonne on the first 500kt of ore mined 3% of gold on the first 150,000 produced and then 5% on any additional gold produced. The burden or royalties is to some extent offset by access to grid power and substantial existing infrastructure. Forecast costs of production are A$650 to $700/oz.

- The DFS for the Tomingley Gold Project is expected to be completed by **September 2009**. A construction decision is likely to be taken shortly there after.

- The placement of an additional 50 million shares at 40 cents is assumed for the equity component of project funding, resulting in a **diluted NPV per share of $0.20 cps** for the Tomingley Gold Project.

The in-situ value of the DZP is roughly equally attributable to Niobium, Rare Earths and Zirconia.

2. Dubbo Zirconia Project (DZP)

- The first point that needs to be made is that the in-situ value of the DZP is roughly equally attributable to niobium, rare earths and zirconia.

- The mineralisation of the DZP is reasonably homogenously distributed throughout a mineralised trachyte intrusion which outcrops with a large surface expression. The result of this is that the stripping ratio for mining will be close to zero.

The in-situ value of DZP mineralisation is approximately US$290/tonne. That's equivalent to 9.3g/t gold at current prices.

- The unusual mineral association of the trachyte combines to what is essentially a high grade, open pit-able deposit. The prices included in the table below indicate and in-situ value of approximately US$290 per tonne. That's approximately equivalent to 9.3 g/t gold at current prices (US$960/oz). However, in calculating gold equivalence it is important to acknowledge the higher processing costs (approximately A$140 - A$160/t) for DZP style mineralisation.

- Limited value has been attributed to the hafnium (HfO_2), tantalum (Ta_2O_5) or uranium (U_3O_8) as these products are not currently individually extracted in the flow sheet and remain as a potential upside to the project.

At the modelled production rate of 400ktpa, the measured resource alone will support a mine life of 89 years.

DZP Resource

	Tonnes (Mt)	Grade				
		Niobium	**Hafnium**	**Uranium**	**Tantalum**	**Zirconia**
Measured	35.7	0.46%	0.04%	0.01%	0.03%	1.96%
Inferred	37.5			Similar grades		
Total	**73.2**			Similar grades		

The in-situ value of uranium, hafnium and tantalum has been largely excluded from modelling and remains as a potential upside for the project.

In-situ Value of DZP resource

Commodity	Grade	US$/kg	In-situ value US$ per tonne
ZrO2	1.96%	$5.00	$98.00
Nb2O5	0.46%	$20.00	$92.00
REE	0.75%	$13.00	$97.50
Total			**$287.50**
			Est. Recovery (75%)
	est. Revenue / tonne (USD$)		**$215.63**
	est. Revenue / tonne (AUD$)		**$287.50**

DZP Development Prospects

- Alkane completed a detailed feasibility study on the DZP in 2002, the key finding of which was that a lot more work was needed on the metallurgical flow sheet. Since then, work has been on going at ANSTO where a trial plant is currently producing sample volumes of zirconia and niobium product that are to be shipped to potential customers in 2H 2009. The extraction of the first rare earth oxide (REO) samples is expected to take place in August – September 2009 in lead up to a final trial run of the pilot plant towards the end of 2009.

- Buyers of both niobium and REO have been quoted in numerous instances as having a desire for diversification of supply. In the case of REO consumers, the strategic investments in Lynas Corporation (LYC) and Arafura (AFU) by Chinese interests, which collectively control 95% of global REO supply, will only heighten those concerns.

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Based on the included assumptions, the DZP will return free cash flows of approximately A$45 million p.a. for +100 years.

- Financial modelling of the DZP assumes a capital cost of A$180 million for a 400ktpa plant. Recoveries are assumed at 75% and all inclusive processing costs of A$160/t of ore. Modelling indicates the DZP will return free cash flows of approximately A$45 million p.a. for +100 years based on commodity price assumptions below current spot prices.

The DZP versus Other REO Projects

- There are three companies listed on the ASX that offer REO exposure, Alkane Resources (ALK), Arafura Resources (ARU) and Lynas Corporation (LYC). Lynas Corp. has recently been approached by the Chinese to take a majority stake (51%) in return for a financing package worth approximately A$500 million. Arafura Resources has recently executed a placement of shares to East China Exploration (ECE) giving ECE at 25% stake in the company.

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- Alkane Resources is the only ASX listed company offering advanced REE exposure that isn't under effective control of Chinese interests.

3/06/2009	ALK	LYC	ARU
Share Price (cents)	34	50	75
Ord Shares (m)	245	655	194
Market Cap (million)	$83	$330	$146
Tonnes of contained REO	533k	1,186k	846k

Considering only 30% of the value of the DZP is attributable to REO and Alkane has two robust gold projects under development there is a strong argument for a positive re-rating of ALK relative to its REO piers.

- The DZP is the smallest of the three listed companies in terms of tonnes of contained REO. However the proportion of REO present in the DZP is skewed towards the heavier rare earths. Heavy rare earths are generally scarcer than light rare earths and therefore attract a price premium. It is anticipated that Alkane will achieve a price of US$13 to US$15 per kilo of REO product, up to 30% higher than prices anticipated for Mt Weld and Nolans Bore products.

- The strategic importance of the heavy rare earths is derived from their importance in the development of high powered **electric vehicles** as well has other high-end manufacturing applications (see over page).

- The relative value of the REO projects under development by LYC, ARU and ALK remains debateable. However, this is a mute point considering only 30% of the value of the DZP is attributable to REO and Alkane has two robust gold projects under development. Therefore, there is a strong argument for a positive re-rating of ALK relative to its REO piers.

Zirconia

- Zirconia or Zirconium dioxide (ZrO_2), not to be confused with the mineral zircon ($ZrSiO_4$) (zircon is commonly mined in mineral sand operations), is a key chemical ingredient in ceramics, vehicle catalytic converters, electronics, pigments and refractory applications. The global consumption of zirconia is forecast to grow at 4.5%p.a. primarily driven by advanced ceramic and catalyst applications.

- Alkane intends to produce a range of zirconia products for chemical markets, contributing approximately 3.5% of global production.

Table 1. Tonnages of individual rare earth oxides contained in The DZP (ALK), Mt Weld (LYC) and Nolans Bore (ARU).

	La2O3	CeO3	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Y2O3	Total REO (tonnes)
ALK	107,055	201,483	21,960	77,409	13,725	549	11,529	1,647	10,980	86,742	533,079
LYC	298,007	575,831	62,926	198,276	26,120	7,124	10,686	1,187	2,375	3,562	1,186,093
ARU	156,954	405,535	51,752	181,558	20,362	4,242	10,181	848	2,545	12,726	846,703

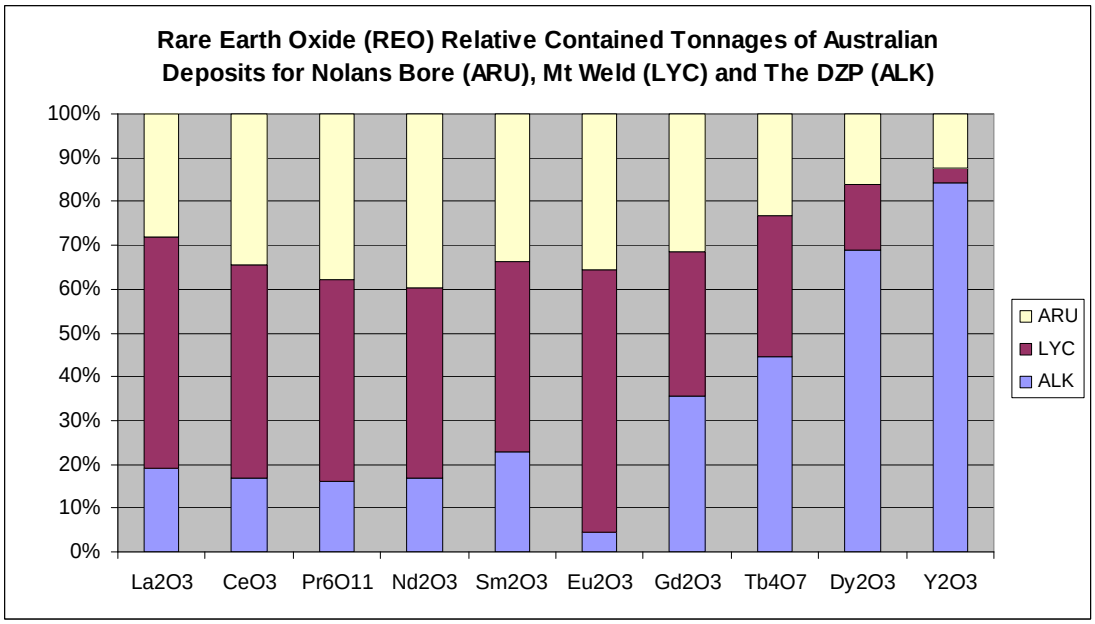

Figure 1. Graph showing the proportional tonnages of each of the rare earth oxides contained in deposits held by Arafura (ARU), Lynas Corporation (LYC) and Alkane (ALK).

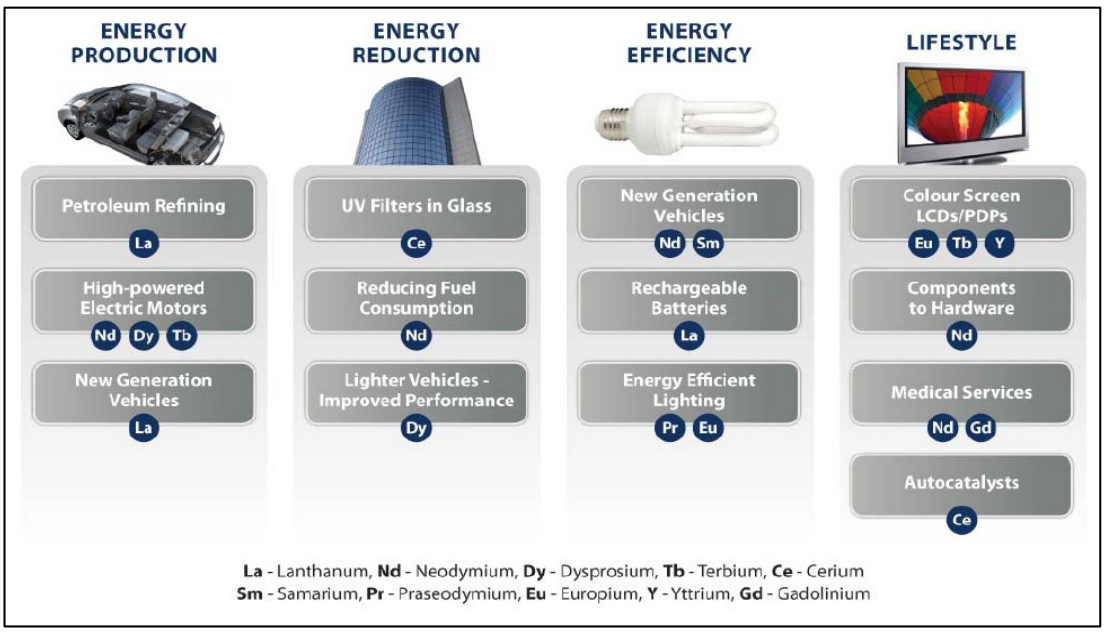

Figure 2. Applications of individual rare earth oxides. – Source Arafura Resources.

Niobium

Approximately 85% of all niobium produced (67,000t est. 2008) is consumed by the in the steel industry as ferro-niobium (FeNb) to produce high-strength low-alloy steels (HSLA). HSLA steels make up approximately 10% of the global steel market. The niobium content of HSLA steels is approximately 0.035 – 0.05% Nb so the niobium component of HSLA steels makes up only a small part of the overall steel production cost.

The appeal of HSLA steels comes from being lighter and stronger than traditional mild steel which leads to additional cost saving in transport and reduced raw material requirements.

Global environmental concerns are focussing efforts on improved efficiencies in manufacturing and operational performance of the entire spectrum of commercial applications. In this regard, the weight savings achieved through the use of HSLA steels are increasing in appeal.

Niobium Uses

HSLA steels are commonly used in the manufacture of cars, trucks, cranes, bridges, oil pipelines and other instances where increased tensile strength, corrosion and pressure resistance are required. Niobium is also used in a number of super-alloy products such as turbines for the aerospace industry.

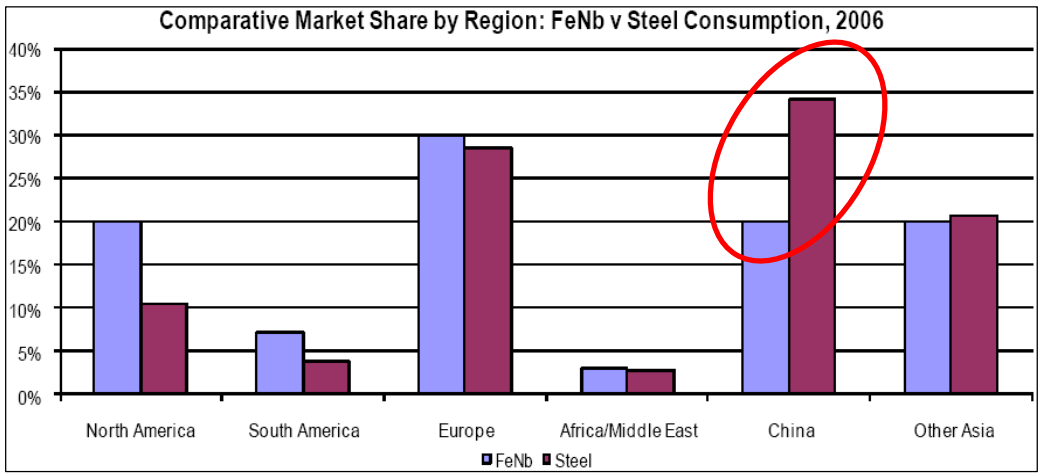

Figure 3. Graph showing the disproportionately low level of niobium use in Chinese steel relative to other producers. Source – CBMM.

Niobium Market Growth

Growth in the niobium can be thought of as a proxy for growth in the steel market due to:

- 85% of all niobium is used in the steel industry
- 10% of all steel products contain niobium

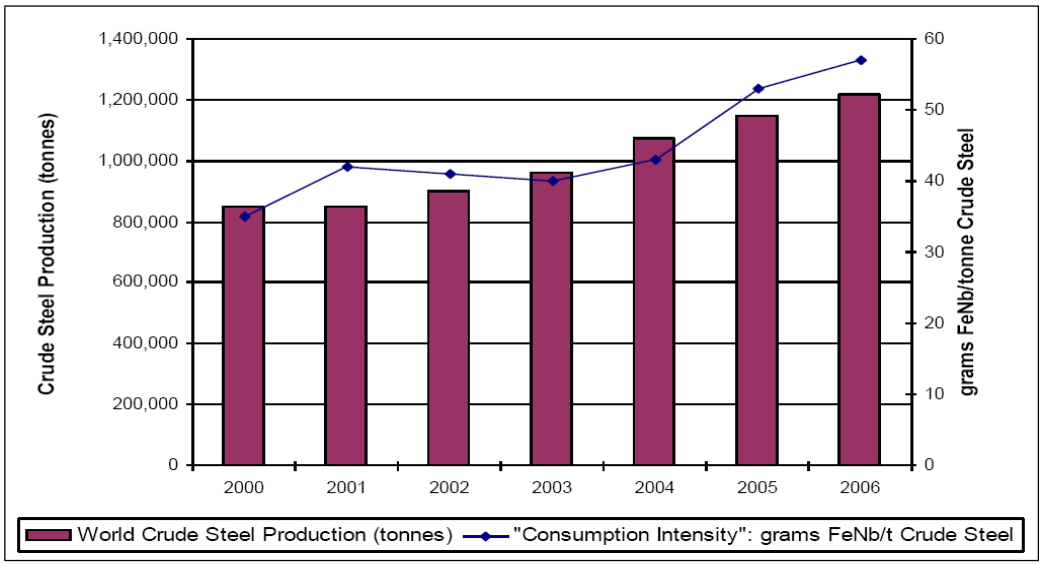

Figure 4. Graph showing the increasing niobium content in steel as global steel production increases, leading to a multiplier growth effect. Source – CBMM.

The growth in demand for steel alloy products can be observed in the sharp price rises of molybdenum and vanadium over the last 5 years. The niobium market is much more controlled, thus price rises have been more modest. Whilst there is no formal spot market for niobium, the most recent reports are of transactions at US$30/kg (a long term price of US$20/kg has been assumed in financial modelling of the DZP).

The McPhillamys Gold discovery is shaping up to be the most significant gold discovery in Australia since the Tropicana discovery by the Independence / AngloGold Ashanti Joint Venture.

Some of the better intersections to date;

123m at 1.96g/t from surface
264m at 2.41g/t from 193m
109m at 4.07g/t from 348m (with in 366m at 1.86g/t from 134m)

3. The Moorilda Gold Joint Venture

The Moorilda Project is a joint venture between Alkane Resources and Newmont Australia. Newmont has almost completed its required spend of $5 million to earn a 51% interest (required by August 2010). Upon which Newmont can either elect take the project through to BFS to earn 75% of the project or remain at 51% and contribute to further development on a pro-rata basis.

The highlight of the Moorilda Gold project is the McPhillamys Deposit, which is shaping up to be the most significant gold discovery in Australia since the Tropicana discovery made by the Independence / Anglo Gold Ashanti Joint Venture. Alkane has proposed a resource target of 2.3 to 2.5 million ounces based on drilling to date.

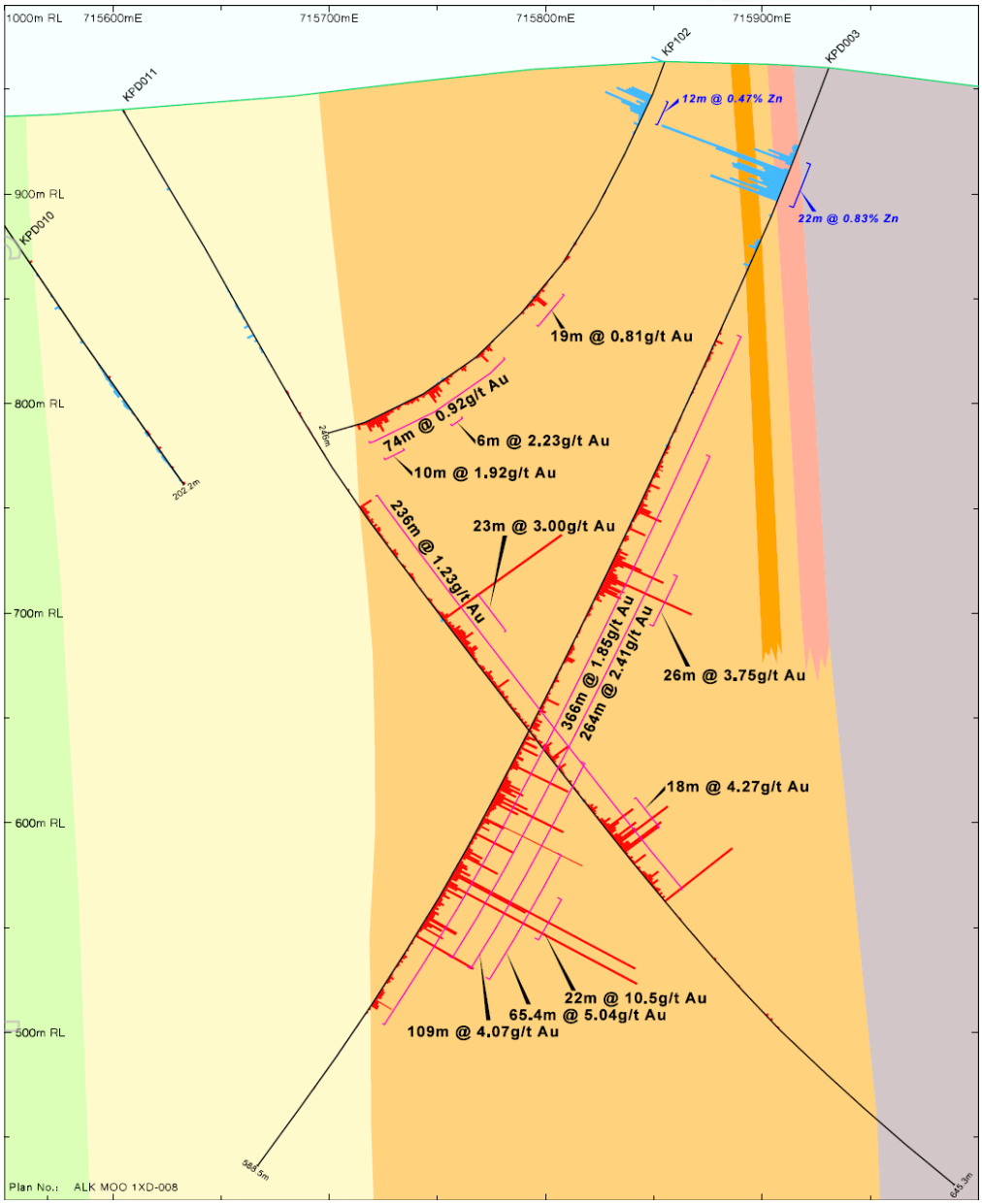

Figure 5. Cross section of the McPhillamys Gold Deposit, Newmont earning 51%. – Source Alkane.

4. Holding in BC Iron (BCI)

Alkane holds 9 million shares in BC Iron (BCI) or 15% of the company, currently worth $5.6 million at $0.60 per share.

Alkane floated BCI (with Consolidated Minerals) in 2006 and still retains 9 million shares. BCI has since gone on to define a 50.7 million tonne DSO resource at the Nullagine Project, located 30km from the Christmas Creek Iron Ore deposit held by Fortescue Metals Group (FMG). Recently, BCI announced an "in principal" agreement with FMG for access to its infrastructure network, which if converted into a binding agreement, would allow BCI to export its DSO haematite to port for export in the near term and promote BCI to the coveted rank of iron ore exporter.

Should it be anticipated that BCI will achieve production status, it is likely that significant share price appreciation will follow which in turn will provide funding options for Alkane for its key projects.

Summary

The Tomingley, Moorilda and Dubbo Zirconia projects are all considered likely to be developed. The key risk for investors is the time it takes to bring these projects to fruition. There is significant upside in the Dubbo Zirconia Project beyond the value attributed in this report. The DZP is a truly unique project and while risk remains on the timing of a development decision, which at this point is anticipated for mid-2010, the probability of eventual development remains high.

We see a development decision for Tomingley or signs of preliminary off-take negotiations for the Dubbo Zirconia Project as being potential catalysts for a positive price re-rating of Alkane Resources.

In the shorter term, Alkane could quite possibly benefit from further positive announcements by BC Iron regarding accesses to FMG infra-structure.

Appendix 1. Introduction to Rare Earth Elements

- High-technology and environmental applications of the rare earth elements (REE) have grown dramatically in diversity and importance over the past four decades. As many of these applications are highly specific, in that substitutes for the REE are inferior or unknown, the REE have acquired a level of technological significance much greater than expected from their relative obscurity.

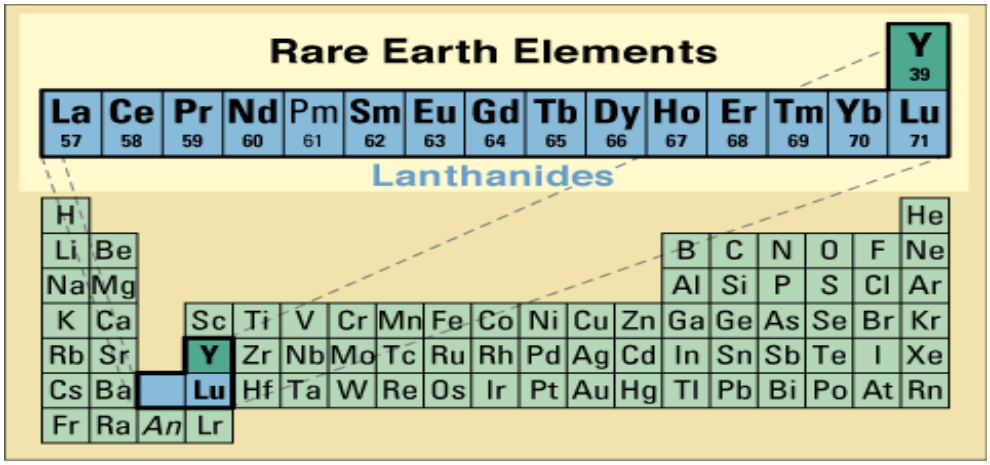

Figure 2. Chemical periodic table delineating the 16 rare earth elements (REE): the lanthanides, La through Lu, plus Y, whose geochemical behaviour is virtually identical to that of the heavier lanthanides. Source (USGS).

- Although actually more abundant than many familiar industrial metals, the REE have much less tendency to become concentrated in exploitable ore deposits. Consequently, most of the world's supply comes from only a few sources (USGS - Fact Sheet 087-02).

- Permanent magnet technology has been revolutionized by alloys containing Nd, Sm, Gd, Dy, or Pr. Small, lightweight, high-strength REE magnets have allowed miniaturization of numerous electrical and electronic components used in appliances, audio and video equipment, computers, automobiles, communications systems, and military gear. Many recent technological innovations already taken for granted (for example, miniaturized multi-gigabyte portable disk drives and DVD drives) would not be possible without REE magnets.

- Environmental applications of REE have increased markedly over the past three decades. This trend will undoubtedly continue, given growing concerns about global warming and energy efficiency. Several REE are essential constituents of both petroleum fluid cracking catalysts and automotive pollution-control catalytic converters.

- **Widespread adoption of new energy-efficient fluorescent lamps (using Y, La, Ce, Eu, Gd, and Tb) for institutional lighting could potentially achieve reductions in U.S. carbon dioxide emissions equivalent to removing one-third of the automobiles currently on the road** (USGS - Fact Sheet 087-02).

*USGS – United States Geological Survey.

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