



ASX ANNOUNCEMENT – 16 MAY 2011

ALKANE SIGNS MEMORANDUM of UNDERSTANDING WITH LEADING CHEMICAL COMPANY FOR DZP ZIRCONIUM PRODUCTION

- **DUBBO ZIRCONIA PROJECT (DZP) - First MOU Signed**
- **Alkane Resources Ltd, on behalf of its wholly owned subsidiary Australian Zirconia Ltd (AZL), has signed an MOU with a leading chemical company and a leading trading company to produce zirconium oxychloride (ZOC) from a new joint venture facility, using DZP zirconium chemical intermediate feed.**
 - **The facility will be developed to be able to produce 15,000 to 20,000 tpa ZOC which will require all of the base case production zirconium output for the project of 400,000tpa of ore or about 50% of the expanded 1 million tpa development case.**
 - **The ZOC output will target the Japanese, European and North American markets.**
 - **Alkane believes the signing of this MOU is a key milestone for AZL and the DZP, and almost ensures the 1 million tpa case.**
 - **ZOC is mainly used as a high purity feed for production of other zirconium chemicals, zirconia and zirconium metal.**
 - **At current prices, the ZOC production is forecast to generate revenues of US\$50 to US\$70 million per annum.**
 - **This would represent 12 - 17% of projected annual revenue on the 1 million tpa case, with additional MOUs on other components of production currently under consideration.**
 - **The DZP is based on the large resource of zirconium, niobium and rare earth elements near the city of Dubbo in the Central West of New South Wales.**
 - **Over many years Alkane has proved at demonstration pilot plant scale the flow sheet that can produce commercial grade zirconium chemicals and zirconia; niobium concentrate and ferro-niobium; a light rare earth concentrate; and a heavy rare earth concentrate.**

Corporate Profile

Alkane Board

J. S. F. Dunlop (Chairman)
D. I. Chalmers (Managing Dir)
A. D. Lethlean (Director)
I. J. Gandel (Director)
L A Colless (Joint Secretary)
K E Brown (Joint Secretary)

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12 month share price range

A\$2.73 - \$0.23

Market Cap 13 May 2011

~A\$515 million

ASX Code: ALK

269 million shares

OTC/QX Code: ANLKY

ADR ratio 1:10

31 March 2011 Cash

Cash ~A \$22.0 million

No debt

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Alkane Resources Ltd has made a significant step forward in the development of the Dubbo Zirconia Project (DZP) through the signing of a non-binding Memorandum of Understanding (MOU) with a leading chemical company and a leading trading company. The plan is to establish a joint venture to produce zirconium oxychloride (ZOC) using a zirconium chemical intermediate from the DZP. The MOU follows extensive dialogue and testing of samples over several years, including visits by the companies to the Dubbo site and the demonstration pilot plant at ANSTO (Australian Nuclear Science and Technology Organisation) near Sydney.

A condition of the MOU, to prevent disruption to the companies' current supply arrangements, is that their names are kept confidential until a commercial development is finalised.

The proposed ZOC joint venture with these companies will allow customers to become strategically independent of the zircon supply chain, and reduce reliance on China's dominant ZOC supply position.

Alkane's partners have already produced samples of ZOC from a DZP zirconium intermediate which is equivalent to Chinese produced ZOC and suitable for Japanese, European and the North American markets. A prefeasibility study will determine the size and location of the ZOC facility, but it is likely that the plant will be **15,000 - 20,000 tonnes per annum**.

At current prices this ZOC production would generate revenues of **US\$50 million to US\$70 million per year** which represents about 12 – 17% of the total revenue potential of the project, and would require all of the zirconium production from the base case of 400,000 tpa of ore (200 year mine life), or about 50% of the zirconium production from the expanded 1 million tpa case (80 year mine life). This firms up the 1 million tpa throughput as the most probable development concept for the project.

Following agreement between the parties, the terms and conditions would be incorporated into a Heads of Agreement (HOA), including off take agreements for the ZOC production, ownership structure, management of the joint venture, and location of the ZOC production facility. A working group is to be set up to progress the HOA in a timely manner, with the aim to obtain a signed HOA by 31 December 2011.

Alkane believes that the signing of this MoU is a key milestone for the company and the Dubbo Zirconia Project.

Other customer feedback for zirconium chemicals and zirconium dioxide powders from the DZP has been very positive, but the opportunity to also produce ZOC will significantly expand the sales and revenue potential for the project.

About Zircon and Zirconium Oxychloride

ZOC (36% ZrO_2) is the primary zirconium chemical used to produce most downstream zirconium chemicals, chemical zirconia (ZrO_2), and zirconium metal. Existing ZOC production relies on zircon as the key raw material for downstream zirconium products. China dominates world ZOC supply with a 90% share of the 200,000 tpa market, which is currently worth around **US\$800 million**. Approximately 40% of Chinese ZOC production is exported as ZOC or downstream zirconium chemicals and zirconia, while 60% is consumed in China. The total downstream zirconium market worldwide is forecast by TZ Minerals International (TZMI) to reach **163,000 tpa of zirconia** by 2012, which will require **250,000 tpa of zircon** feed or approximately 18% of total zircon usage. The zirconium market is the highest growth market for zircon at around 11% per annum, and includes zirconium chemicals, chemical and fused zirconia, and zirconium metal.



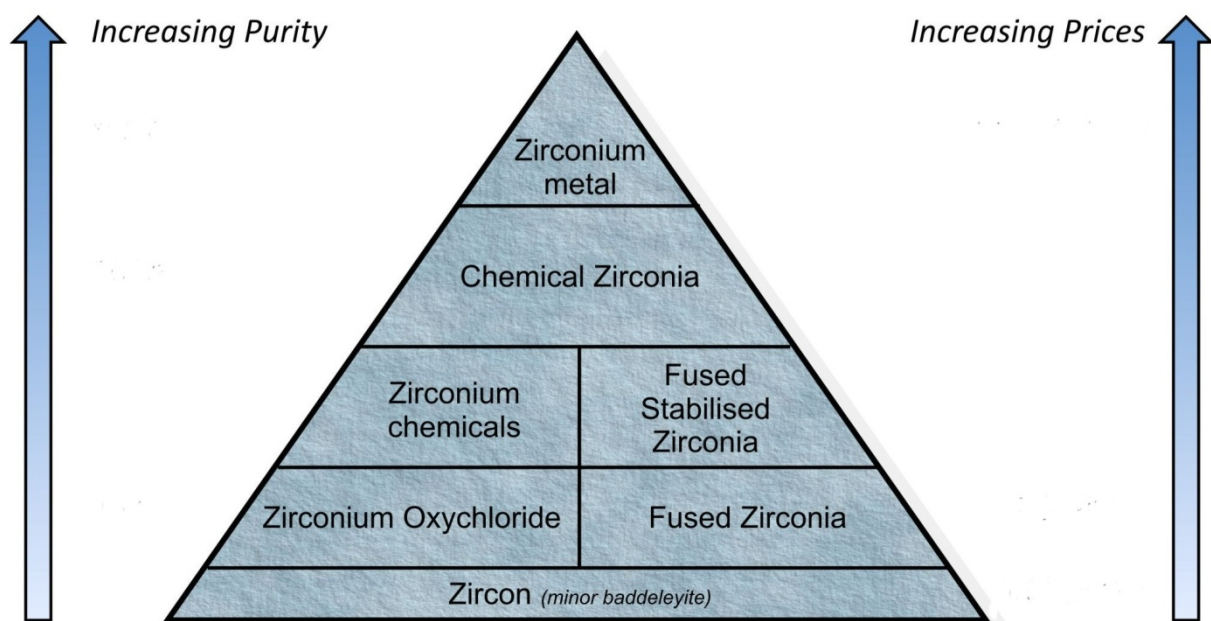
At this growth rate, the zirconium market will require one DZP each year (1 m tpa ore processed=15,000 tpa zirconia (ZrO₂)) to meet demand.

Strong zircon demand, combined with a flat to falling supply outlook, has fuelled a dramatic increase in zircon prices. Contracted zircon prices from mineral sands companies are US\$1,700-2,000/tonne in quarter two 2011, while spot prices have reached RMB 21,000 per tonne (US\$3,200/t) or higher in China (17% VAT included) in early May. This has resulted in ZOC prices increasing by over 270% in the past year to approximately US\$3,800/t FOB China for May deliveries, and US\$4,000/t for June deliveries. As ZOC contains 36% zirconia, the current ZOC price equates to approximately US\$10,555 per tonne of zirconia for May deliveries.

As a source of zirconium is critical, substitution is least likely in this market, with AZL's DZP being the only alternative to zircon for the immediate future, which is backed by a very long and sustainable mine life.

Also refer to Table 2 in Alkane's Quarterly Report to the ASX 28 April.

ZIRCONIUM MATERIALS PYRAMID



Other DZP production

Alkane is continuing to work on several other MOUs dealing with additional zirconium chemical and zirconia production; the niobium concentrate and ferro-niobium products; and the light rare earth concentrate and heavy rare earth concentrate.

The MOU on ZOC brings closer the development commitment to the DZP expected in mid 2011, with production likely later in 2013 or early 2014.

Unless otherwise advised above, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, (director of the Company who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Chalmers consents to the inclusion in this report of the matters based on his information in the form and context in which it appears



BACKGROUND

Alkane is a multi commodity explorer and miner with its operations focussed in the **Central West** of **New South Wales**, centred about 400 kilometres northwest of Sydney. Over several years, including experience in developing the Peak Hill Gold Mine, Alkane has built a substantial resource base and is proceeding towards several developments. Other than the **DZP**, project developments include:

The **Tomingley Gold Project** currently has an **840,000 ounce gold resource** within the **Wyoming and Caloma deposits**, (full details are in the 2008 Annual Report and the ASX announcements of 2 October and 16 December 2009). A feasibility study for the development of the project with potential 50,000 to 60,000 ounce per annum production was completed late 2010 and development financing options are now being investigated.

Near **Orange**, the Company has a joint venture (**ODEJV**) with Newmont, one of the world's largest gold miners, which resulted in the discovery in 2006 of a significant gold deposit at **McPhillamys** within the **Moorilda Project**. An initial resource of Indicated plus Inferred resources containing **2.96 million ounces of gold and 60,000 tonnes of copper** has been defined (full details ASX announcement of 5 July 2010). Newmont are proceeding to complete a Bankable Feasibility Study for the development of the deposit.

Elsewhere within the region, Alkane has defined a 2 million tonne 1.00% copper Indicated Resource (details 2005 Annual Report) which is being reviewed for its development potential at **Galwagere** within the **Wellington Project**, and several other advanced exploration projects with encouraging drill intercepts. New exploration targets have been identified at several other locations.

In **Western Australia** the Company hold a diluting 23% residual interest in a nickel sulphide joint venture with **Xstrata Nickel (Jubilee)** near **Leinster**.

