

16 July 2012



MOU WITH SHIN-ETSU CHEMICAL FOR DZP RARE EARTHS

➤ Dubbo Zirconia Project (DZP)

- Australian Zirconia Limited (AZL), a wholly owned subsidiary of Alkane Resources Ltd, has signed a Memorandum of Understanding with Japan's Shin-Etsu Chemical Co.,Ltd, to produce a suite of separated heavy and light rare earths using the rare earth concentrates from the DZP.
- Shin-Etsu is a diversified industrial company with reported net sales worldwide of nearly US\$12.8 billion and a net income of US\$1.2 billion for the fiscal year ending 31 March 2012.
- A toll processing agreement will use Shin-Etsu Chemical's technology to process 100% of DZP heavy and light rare earth concentrates in Japan (or other agreed location) to produce high purity separated rare earth oxides.
- Shin-Etsu will have priority to purchase at commercial prices a quantity of the rare earths that they toll process under the agreement via an initial 5 year off-take agreement.
- Shin-Etsu Chemical will also provide technical support and assistance to improve rare earths recoveries from the ore to the concentrate.
- Selling the full suite of separated rare earths from the DZP output will significantly increase revenue over the base case assumption for sale of the two rare earth concentrates (LREE and HREE).
- Based upon existing measured REE recoveries and the processing of 1Mtpa of ore, it is expected that Shin-Etsu will produce over 1,120 tpa of heavy rare earth oxides and over 3,050 tpa light rare earth oxides.
- All DZP products are now under MOU, all of which are expected to be converted to binding off-take agreements.

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DUBBO ZIRCONIA PROJECT (DZP) – zirconium, niobium, yttrium, rare earth elements

Australian Zirconia Ltd (AZL) 100%

Alkane continues to make significant progress in the development of the DZP with the signing of a non-binding Memorandum of Understanding (MOU) with Shin-Etsu Chemical Co., Ltd, a leading Japanese company specialising in the production of separated rare earths and associated downstream products, such as magnets, which consume rare earths.

Shin-Etsu operates Japan's only large scale separation and refining plant for rare earths, which uses a range of advanced separation and refining technologies. Shin-Etsu supplies high purity separated rare earths to a wide range of Japanese and international customers, while consuming significant quantities itself.

Shin-Etsu was founded in 1926 and for the fiscal year ended 31 March 2012 reported net sales worldwide of nearly US\$12.8 billion with a net income in excess of US\$1.2 billion. Its research and development has led to advanced separation and refinement technologies enabling production of higher purity rare earth oxides, and the company can control the properties of the oxide particles to match most intended applications. Shin-Etsu is a leader in the production of many advanced industrial components through its business units which include Electronic and Functional Materials, PVC/Chlor-Alkali, Speciality Chemicals and Semiconductor Silicon: <http://www.shinetsu.co.jp/e/profile/>.

Shin-Etsu will have priority to purchase at commercial prices a quantity of the rare earths toll processed by it under the agreement via an initial 5 year off-take agreement. The remaining available quantity of separated rare earths will be sold to other companies with which AZL has been discussing off-take arrangements. Strong demand outside of China particularly for AZL's heavy rare earths, including yttrium, should ensure that all separated products are sold.

Shin-Etsu will also provide technical support and assistance to improve rare earths recoveries from the ore to the concentrate, particularly for heavy rare earths. This will complement recent improvements in heavy rare earths recoveries obtained at laboratory scale, which will be confirmed on the demonstration pilot plant at ANSTO. This has the potential to significantly increase the quantity of heavy rare earth concentrates produced, and subsequent revenues, following separation by Shin-Etsu. Similar improvements in light rare earths recoveries are also anticipated.

Prior to the recent improved rare earths recoveries, DZP output of approximately 1,120 tpa of heavy rare earth oxides and 3,050 tpa of light rare earth oxides were anticipated.

The Dubbo Zirconia Project (DZP) is located in the Central West Region of New South Wales approximately 400 kilometres north west of Sydney. The DZP is based upon a large in-ground resource of the metals zirconium, hafnium, niobium, tantalum, yttrium, and rare earth elements. Over several years the Company has developed a flow sheet consisting of sulphuric acid leach followed by solvent extraction recovery and refining to generate a suite of products.

The Demonstration Pilot Plant (DPP) has been operating at the laboratory facilities of ANSTO Minerals at Lucas Heights south of Sydney since May 2008 and to date has recovered substantial quantities of zirconium products and niobium concentrate. The DPP has continued operations to trial engineering and process innovations, and has demonstrated recovery of an yttrium rich heavy rare earth concentrate and a light rare earth concentrate.

A definitive feasibility study was completed in September 2011 based upon 400,000 tpa ore throughput (ASX Announcement 19 September 2011). Changes in the dynamics of the markets for DZP's output over the last 24 months, particularly the very important heavy rare earth and zirconium production, led to the evaluation of a 1 million tpa project which was shown to be financially robust based on an initial 20 year mine life (expected to be in excess of 50 years). A revised financial assessment of the DZP to confirm the 1 Mtpa model is being compiled.

Alkane believes that the signing of this MOU is another significant achievement for the Company and the development of the Dubbo Zirconia Project, leading to production in late 2014 or early 2015.



Competent Person

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

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This report contains certain forward looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Alkane Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Alkane Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geosciences.

ABOUT ALKANE - www.alkane.com.au - ASX: ALK and OTCQX: ANLKY

Alkane's strategy is to be focused on a single geographic area, the central west of New South Wales in Australia, allowing it to apply its geological, exploration and mining expertise across multiple commodities to achieve a spread of risk and return. Currently Alkane has two projects heading towards production in 2013/2015 - the Tomingley Gold Project (TGP) and the nearby Dubbo Zirconia Project (DZP). Tomingley is an 812,000 ounce gold resource currently awaiting development approval. Cash flow from Tomingley will provide the funding to maintain the project development pipeline and to contribute to development of the DZP. The DZP has a completed feasibility study giving it a net present value of A\$1.2 billion. This project will make Alkane a significant world producer of zirconium products and heavy rare earths. Both projects are wholly owned by Alkane while at Orange, Alkane is in a joint venture with Newmont Australia over an area containing a 3 million ounce gold resource at McPhillamys, with Newmont having elected to proceed towards a bankable feasibility study. Alkane's most advanced gold copper exploration projects in the region are at the 100% Alkane owned Wellington and Bodangora properties.





Mineral Resource and Ore Reserve Statement March 2012

Dubbo Zirconia Project – Mineral Resources (2011)

Toongi Deposit	Tonnage (Mt)	ZrO ₂ (%)	HfO ₂ (%)	Nb ₂ O ₅ (%)	Ta ₂ O ₅ (%)	Y ₂ O ₃ (%)	REO (%)	U ₃ O ₈ (%)
Measured	35.70	1.96	0.04	0.46	0.03	0.14	0.75	0.014
Inferred	37.50	1.96	0.04	0.46	0.03	0.14	0.75	0.014
TOTAL	73.20	1.96	0.04	0.46	0.03	0.14	0.75	0.014

These Mineral Resources are based upon information compiled by Mr Terry Ransted MAusIMM (Alkane Chief Geologist) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Terry Ransted consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology were given in the 2004 Annual Report.

Dubbo Zirconia Project – Ore Reserves (2012)

Toongi Deposit	Tonnage (Mt)	ZrO ₂ (%)	HfO ₂ (%)	Nb ₂ O ₅ (%)	Ta ₂ O ₅ (%)	Y ₂ O ₃ (%)	REO (%)
Proved	8.07	1.91	0.04	0.46	0.03	0.14	0.75
Probable	27.86	1.93	0.04	0.46	0.03	0.14	0.74
Total	35.93	1.93	0.04	0.46	0.03	0.14	0.74

These Ore Reserves are based upon information compiled by Mr Terry Ransted MAusIMM (Alkane Chief Geologist) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The reserves were calculated at a 1.5% combined ZrO₂+Nb₂O₅+Y₂O₃+REO cut off using costs and revenues defined in the notes in ASX Announcement of 16 November 2011. Terry Ransted consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Tomingley Gold Project – Mineral Resources (2012)

DEPOSIT Top Cut 2.5x2.5x5.0m model	MEASURED		INDICATED		INFERRED		TOTAL		Gold (koz)
	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	
Wyoming One	2,316,550	2.2	890,340	2.2	3,117,350	1.7	6,324,240	1.9	392.4
Wyoming Three	642,470	2.0	63,225	2.0	102,820	1.3	808,510	1.9	49.9
Caloma	2,690,530	2.3	567,860	2.1	2,194,490	1.9	5,452,870	2.1	369.4
Total	5,649,550	2.2	1,521,420	2.1	5,414,660	1.8	12,585,630	2.0	811.7

These Mineral Resources are based upon information compiled by Mr Richard Lewis FAusIMM (Lewis Mineral Resource Consulting Pty Ltd) who is a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Richard Lewis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology are given in the ASX Report dated 25 March 2009 and 2 October 2010, and this announcement.

Tomingley Gold Project – Ore Reserves (2011)

DEPOSIT	PROVED		PROBABLE		TOTAL		Ounces (minable)
	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	
Wyoming One	1,700,000	1.6	200,000	1.3	1,900,000	1.6	94,500
Wyoming Three	500,000	1.6	0	0.0	500,000	1.6	28,100
Caloma	1,100,000	2.3	100,000	1.7	1,200,000	2.2	86,500
Total	3,300,000	1.8	300,000	1.5	3,600,000	1.8	209,100

These Ore Reserves are based upon information compiled under the guidance of Mr Dean Basile MAusIMM (Mining One Pty Ltd) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Reserves and Resources are estimated at an effective A\$1,540 per ounce gold price. Dean Basile consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The Caloma reserves are based on the 2009 resources, not the updated resources.

Peak Hill Gold Mine – Mineral Resources (2011)

DEPOSIT 0.5g/t gold cut off	MEASURED		INDICATED		INFERRED		TOTAL		k oz
	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	
Proprietary			9,440,000	1.35	1,830,000	0.98	11,270,000	1.29	467.4
3.0g/t gold cut off	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	Tonnage (t)	Grade (g/t)	k oz
					810,000	4.40	810,000	4.40	114.6
Proprietary									

These Mineral Resources are based upon information compiled by Mr Terry Ransted MAusIMM (Principal, Multi Metal Consultants Pty Ltd) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Terry Ransted consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology were given in the 2004 Annual Report.

Wellington – Galwadgere – Mineral Resources (2011)

DEPOSIT 0.5% Cu cut off	MEASURED		INDICATED	
	Tonnage (t)	Grade (% Cu)	Tonnage (t)	Grade (% Cu)
Galwadgere	-	-	2,090,000	0.99

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Moorilda – McPhillamys (ODEJV) – Mineral Resources (2011)

DEPOSIT McPhillamys 0.3g/t Au cut-off	INDICATED			INFERRED			TOTAL			k oz gold	Tonnes Copper
	Tonnage (t)	Grade (g/t)	Grade % Cu	Tonnage (t)	Grade (g/t)	Grade % Cu	Tonnage (t)	Grade (g/t)	Grade % Cu		
Inner Ore Zone	51,650,000	1.10	0.07	23,504,000	1.19	0.07	75,154,000	1.13	0.07	2,723.6	55,091
Outer Ore Envelope	9,624,000	0.44	0.04	7,167,000	0.43	0.03	16,791,000	0.43	0.03	234.7	5,729
Total	61,274,000	0.99	0.07	30,671,000	1.01	0.06	91,945,000	1.00	0.07	2,958.3	60,820

These Mineral Resources are based upon information compiled by Mr Richard Lewis FAusIMM (Lewis Mineral Resource Consulting Pty Ltd) who is a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC CODE). Richard Lewis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology were given in the ASX Announcement 5 July 2010. Totals may not tally due to rounding.