



MULTI-COMMODITY MINER EXPLORER
www.alkane.com.au

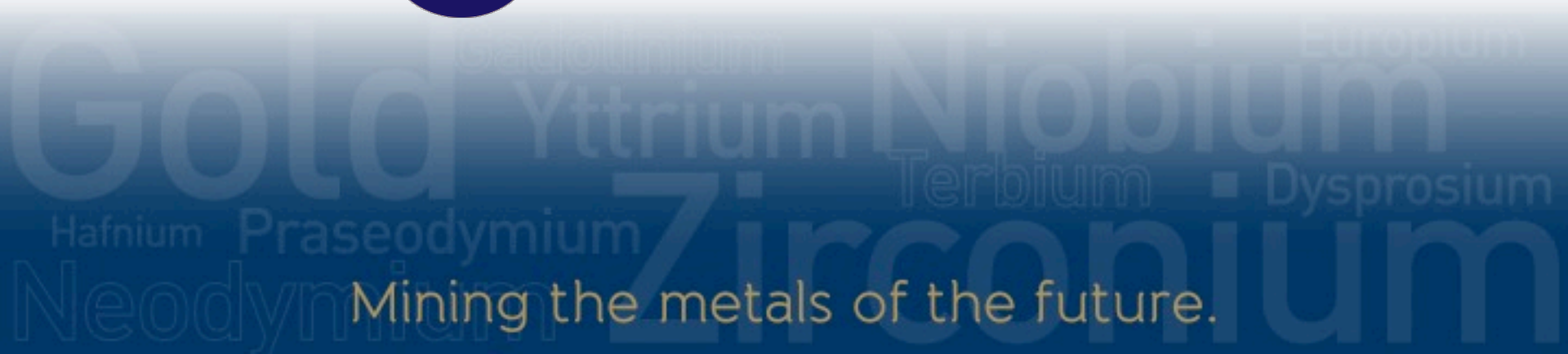
ASX : ALK
OTCQX : ANLKY

Australia on the 'New Age Metal' map: Dubbo Zirconia Project



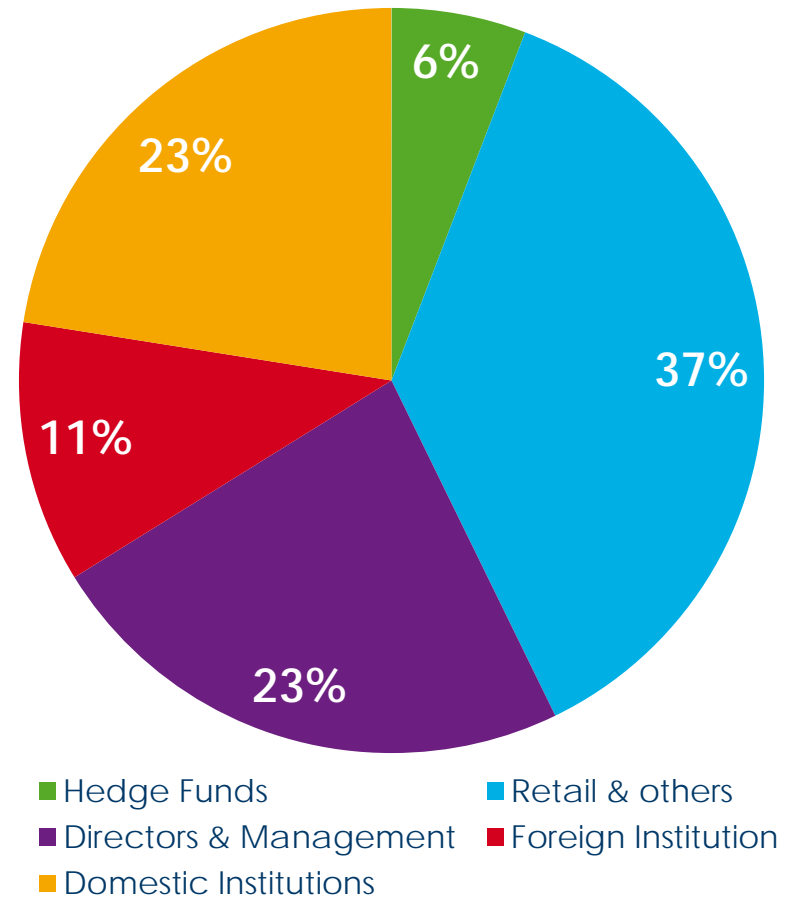
INTERNATIONAL
MINING AND
RESOURCES
CONFERENCE

22 - 26 SEPTEMBER
MELBOURNE CONVENTION & EXHIBITION CENTRE,
MELBOURNE, AUSTRALIA



Corporate Snapshot

- 412.6 Million Shares
- A\$100M Market Cap
 - 19 September 2014
- A\$20M Cash/Investments
 - 30 June 2014
- A\$ 0 Debt
- A\$0.20/\$0.59
 - 12 Month Low/High
- ALK (ASX) ANKLY (OTCQX)



Major Shareholders: 22% Abbotsleigh (Gandel Metals)
10% Fidelity Group

Alkane Strategy



Focused on NSW Central West



Multi-commodity
company

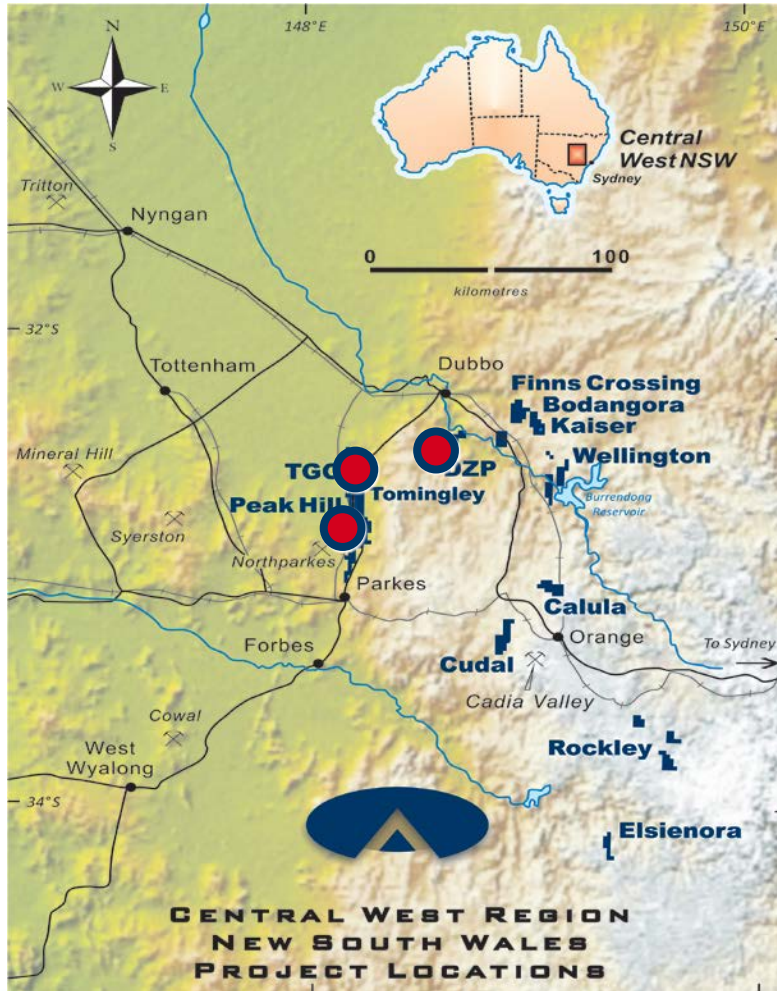


Strategic
relationships



Community & environmentally
responsible

Central West NSW



- **Peak Hill Gold Mine**
1996 - 2005
- **Tomingley Gold Operations**
Production commenced 2014 – cash flow
- **Dubbo Zirconia Project**
Pre-construction
- *Active in region for more than 20 years*
- *Successful ongoing exploration program*
- *World-class strategic development*

What are “New Age” Metals?

- Rare metals, rare earths, specialty metals, critical metals, boutique metals ?? ... all New Age Metals
- They are not rare but usually require specialised recovery techniques
- Markets are often limited
- But they are critical to modern industrial applications, particularly for energy efficiency, electronic miniaturisation, emission minimisation

Let's have a look at the periodic table to see where they fit



ALKANE
RESOURCES LTD

The periodic table

<div>Hydrogen</div> <div>1</div> <div>H</div> <div>1.008</div>																	<div>Helium</div> <div>2</div> <div>He</div> <div>4.0026</div>				
<div>Lithium</div> <div>3</div> <div>Li</div> <div>6.94</div>	<div>Beryllium</div> <div>4</div> <div>Be</div> <div>9.012</div>															<div>Boron</div> <div>5</div> <div>B</div> <div>10.811</div>	<div>Carbon</div> <div>6</div> <div>C</div> <div>12.011</div>	<div>Nitrogen</div> <div>7</div> <div>N</div> <div>14.07</div>	<div>Oxygen</div> <div>8</div> <div>O</div> <div>15.999</div>	<div>Fluorine</div> <div>9</div> <div>F</div> <div>18.998</div>	<div>Neon</div> <div>10</div> <div>Ne</div> <div>20.180</div>
<div>Sodium</div> <div>11</div> <div>Na</div> <div>22.990</div>	<div>Magnesium</div> <div>12</div> <div>Mg</div> <div>24.305</div>															<div>Aluminium</div> <div>13</div> <div>Al</div> <div>26.982</div>	<div>Silicon</div> <div>14</div> <div>Si</div> <div>28.085</div>	<div>Phosphorus</div> <div>15</div> <div>P</div> <div>30.974</div>	<div>Sulfur</div> <div>16</div> <div>S</div> <div>32.06</div>	<div>Chlorine</div> <div>17</div> <div>Cl</div> <div>35.45</div>	<div>Argon</div> <div>18</div> <div>Ar</div> <div>39.948</div>
<div>Potassium</div> <div>19</div> <div>K</div> <div>39.098</div>	<div>Calcium</div> <div>20</div> <div>Ca</div> <div>40.078</div>	<div>Scandium</div> <div>21</div> <div>Sc</div> <div>44.956</div>	<div>Titanium</div> <div>22</div> <div>Ti</div> <div>47.867</div>	<div>Vanadium</div> <div>23</div> <div>V</div> <div>50.9415</div>	<div>Chromium</div> <div>24</div> <div>Cr</div> <div>51.996</div>	<div>Manganese</div> <div>25</div> <div>Mn</div> <div>54.938</div>	<div>Iron</div> <div>26</div> <div>Fe</div> <div>55.845</div>	<div>Cobalt</div> <div>27</div> <div>Co</div> <div>58.933</div>	<div>Nickel</div> <div>28</div> <div>Ni</div> <div>58.693</div>	<div>Copper</div> <div>29</div> <div>Cu</div> <div>63.546</div>	<div>Zinc</div> <div>30</div> <div>Zn</div> <div>65.38</div>	<div>Gallium</div> <div>31</div> <div>Ga</div> <div>69.723</div>	<div>Germanium</div> <div>32</div> <div>Ge</div> <div>72.63</div>	<div>Arsenic</div> <div>33</div> <div>As</div> <div>74.922</div>	<div>Selenium</div> <div>34</div> <div>Se</div> <div>78.96</div>	<div>Bromine</div> <div>35</div> <div>Br</div> <div>79.904</div>	<div>Krypton</div> <div>36</div> <div>Kr</div> <div>83.798</div>				
<div>Rubidium</div> <div>37</div> <div>Rb</div> <div>85.468</div>	<div>Strontium</div> <div>38</div> <div>Sr</div> <div>87.62</div>	<div>Yttrium</div> <div>39</div> <div>Y</div> <div>88.906</div>	<div>Zirconium</div> <div>40</div> <div>Zr</div> <div>91.224</div>	<div>Niobium</div> <div>41</div> <div>Nb</div> <div>92.906</div>	<div>Molybdenum</div> <div>42</div> <div>Mo</div> <div>95.95</div>	<div>Technetium</div> <div>43</div> <div>Tc</div> <div>97.91</div>	<div>Ruthenium</div> <div>44</div> <div>Ru</div> <div>101.07</div>	<div>Rhodium</div> <div>45</div> <div>Rh</div> <div>102.91</div>	<div>Palladium</div> <div>46</div> <div>Pd</div> <div>106.42</div>	<div>Silver</div> <div>47</div> <div>Ag</div> <div>107.87</div>	<div>Cadmium</div> <div>48</div> <div>Cd</div> <div>112.41</div>	<div>Indium</div> <div>49</div> <div>In</div> <div>114.82</div>	<div>Tin</div> <div>50</div> <div>Sn</div> <div>118.71</div>	<div>Antimony</div> <div>51</div> <div>Sb</div> <div>121.760</div>	<div>Tellurium</div> <div>52</div> <div>Te</div> <div>127.60</div>	<div>Iodine</div> <div>53</div> <div>I</div> <div>126.90</div>	<div>Xenon</div> <div>54</div> <div>Xe</div> <div>131.29</div>				
<div>Cesium</div> <div>55</div> <div>Cs</div> <div>132.905</div>	<div>Barium</div> <div>56</div> <div>Ba</div> <div>137.327</div>	<div>57 - 70</div> <div>*</div>	<div>Lutetium</div> <div>71</div> <div>Lu</div> <div>174.97</div>	<div>Hafnium</div> <div>72</div> <div>Hf</div> <div>178.49</div>	<div>Tantalum</div> <div>73</div> <div>Ta</div> <div>180.95</div>	<div>Tungsten</div> <div>74</div> <div>W</div> <div>183.84</div>	<div>Rhenium</div> <div>75</div> <div>Re</div> <div>186.207</div>	<div>Osmium</div> <div>76</div> <div>Os</div> <div>190.23</div>	<div>Iridium</div> <div>77</div> <div>Ir</div> <div>192.217</div>	<div>Platinum</div> <div>78</div> <div>Pt</div> <div>195.08</div>	<div>Gold</div> <div>79</div> <div>Au</div> <div>196.967</div>	<div>Mercury</div> <div>80</div> <div>Hg</div> <div>200.59</div>	<div>Thallium</div> <div>81</div> <div>Tl</div> <div>204.38</div>	<div>Lead</div> <div>82</div> <div>Pb</div> <div>207.2</div>	<div>Bismuth</div> <div>83</div> <div>Bi</div> <div>208.98</div>	<div>Polonium</div> <div>84</div> <div>Po</div> <div>209</div>	<div>Astatine</div> <div>85</div> <div>At</div> <div>210</div>	<div>Radon</div> <div>86</div> <div>Rn</div> <div>222</div>			
<div>Francium</div> <div>87</div> <div>Fr</div> <div>223.02</div>	<div>Radium</div> <div>88</div> <div>Ra</div> <div>226.03</div>	<div>89 - 102</div> <div>**</div>	<div>Lawrencium</div> <div>103</div> <div>Lr</div> <div>262.11</div>	<div>Rutherfordium</div> <div>104</div> <div>Rf</div> <div>261.12</div>	<div>Dubnium</div> <div>105</div> <div>Db</div> <div>268.13</div>	<div>Seaborgium</div> <div>106</div> <div>Sg</div> <div>271.13</div>	<div>Bohrium</div> <div>107</div> <div>Bh</div> <div>272</div>	<div>Hassium</div> <div>108</div> <div>Hs</div> <div>277.15</div>	<div>Mtnerium</div> <div>109</div> <div>Mt</div> <div>276.15</div>	<div>Darmstadtium</div> <div>110</div> <div>Ds</div> <div>281.16</div>	<div>Roentgenium</div> <div>111</div> <div>Rg</div> <div>280.16</div>	<div>Copernicium</div> <div>112</div> <div>Cn</div> <div>285.17</div>			<div>Flerovium</div> <div>114</div> <div>Fl</div> <div>289</div>	<div>Ununquadium</div> <div>115</div> <div>UUp</div> <div>289.19</div>					

*Lanthanide series

Lanthanum

57

La

138.91

Cerium

58

Ce

140.116

Praseodymium

59

Pr

140.907

Neodymium

60

Nd

144.242

Promethium

61

Pm

144.91

Samarium

62

Sm

150.36

Europium

63

Eu

151.96

Gadolinium

64

Gd

157.25

Terbium

65

Tb

158.92

Dysprosium

66

Dy

162.50

Holmium

67

Ho

164.93

Erbium

68

Er

167.259

Thulium

69

Tm

168.93

Ytterbium

70

Yb

173.05

**Actinide series

Actinium

89

Ac

227.03

Thorium

90

Th

232.04

Protactinium

91

Pa

231.04

Uranium

92

U

238.03

Neptunium

93

Np

237.05

Plutonium

94

Pu

244.06

Americium

95

Am

243.06

Curium

96

Cm

247.07

Berkelium

97

Bk

247.07

Californium

98

Cf

251.08

Einsteinium

99

Es

252.08

Fermium

100

Fm

257.10

Mendelevium

101

Md

258.10

Nobelium

102

No

259.10

*Lanthanide series

**Actinide series



Alkane



Light Rare Earths



Heavy Rare Earths



Rare Metals

Where do they come from



China
90% of rare earths

China
70% of zirconium
chemicals

Brazil
85% of niobium

Material Produced

Zirconium materials (ZrO_2)
Rare earth oxides
Ferroniobium (FeNb)

DZP

16,000tpa
6,000tpa
3,000tpa

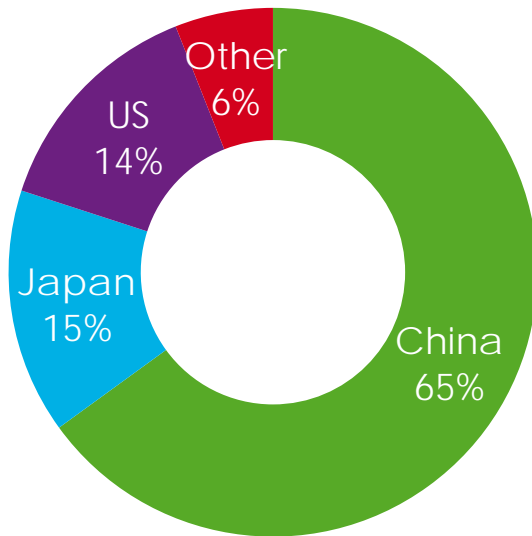
World Market

175,000tpa
175,000tpa
90,000tpa

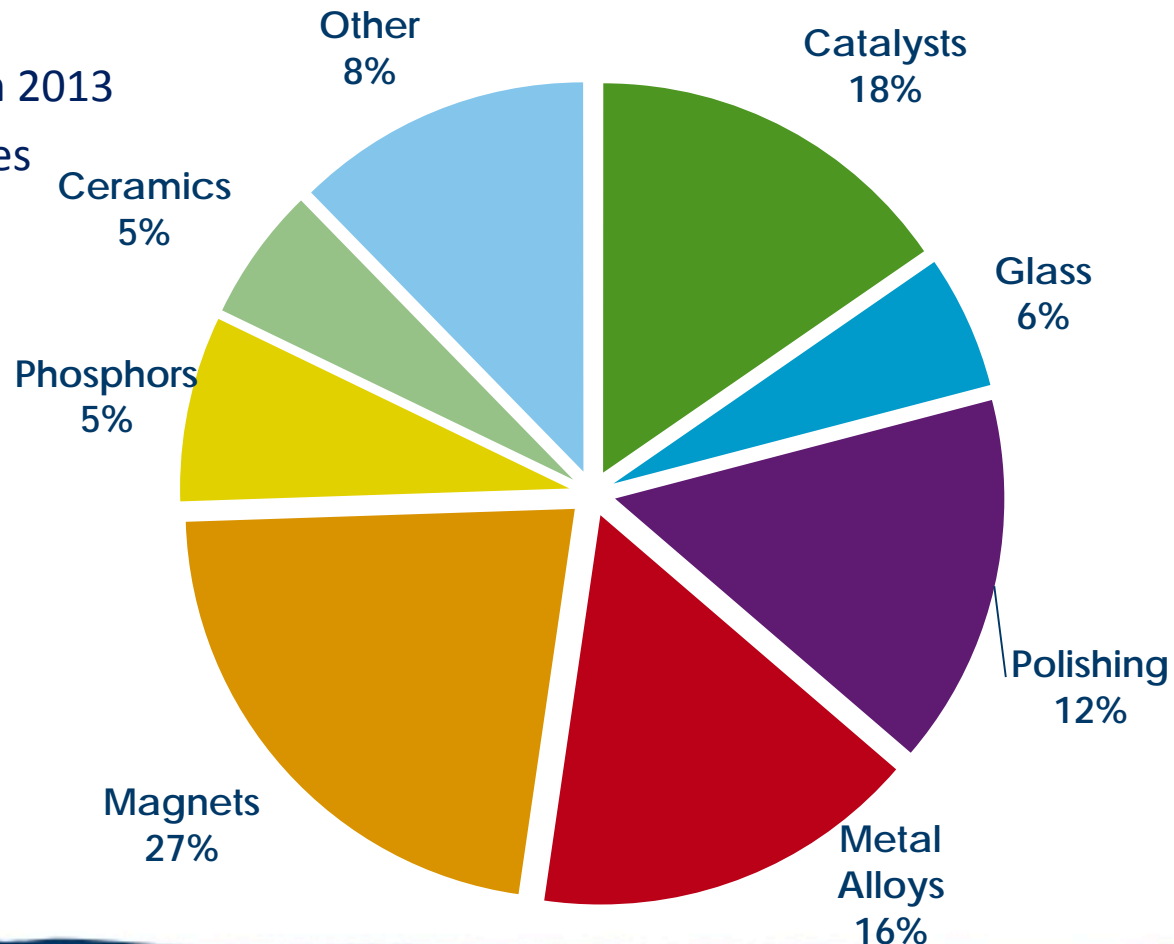
Rare earth Industry

- US\$3-5B Global market
- 115,000t Annual Consumption 2013
- 5-10% Annual growth estimates

REE Demand 2013 by Country



REE Demand 2016 by Application



Rare earths are everywhere...



Health



Energy efficient lighting



Auto - emissions



Renewable energy



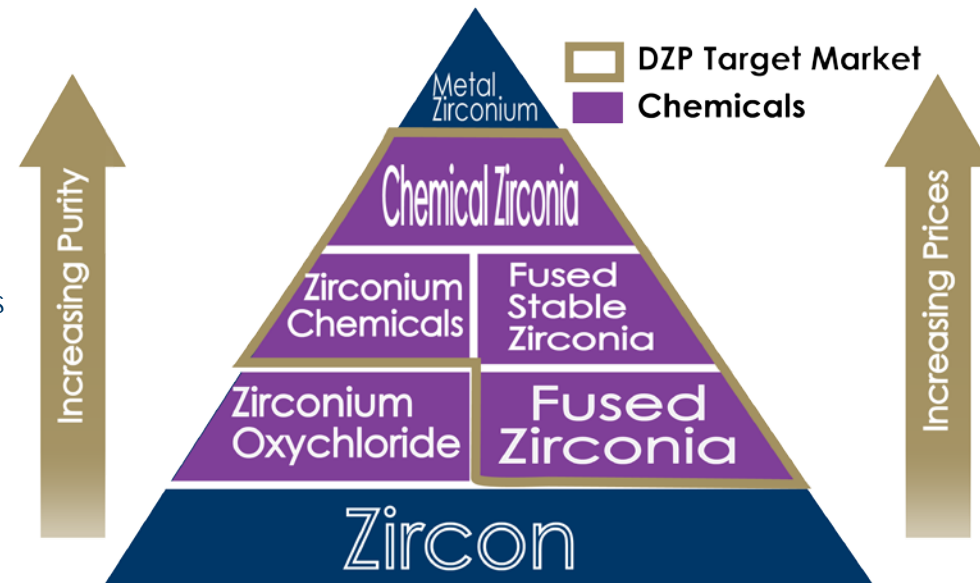
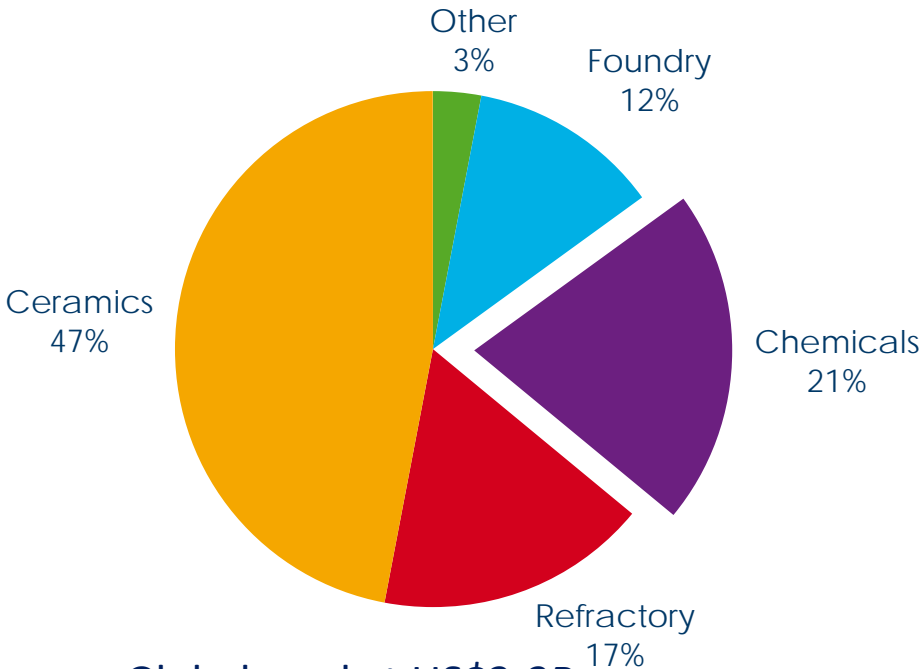
Electronics



Smart technologies

Zircon Demand by End Use

(2013 ~ 1 million tonnes)



- Global market US\$2-3B
- 2014 consumer zircon inventories running down
- Market expected to stabilise through 2015 - 2016
- CAGR anticipated at 5% - 7% pa

Zirconium improving health



Emissions minimisation



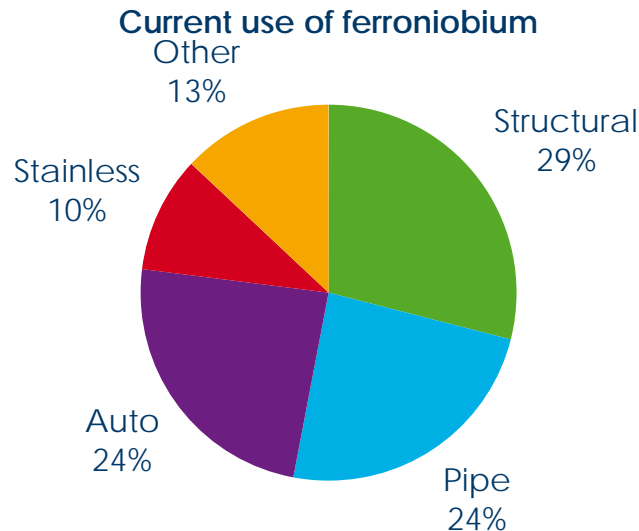
**Replaces teeth
fillings**



**Replaces lead in
paint**

Niobium Industry

- 90% of Nb used in standard grade ferroniobium for the production of high strength low alloy (HSLA) steels.
- World production estimated at 80,000t Nb in 2012. CBMM in Brazil accounts for 85%.
- Global market US\$3-4B. Price stability since 2008, including GFC.
- CAGR anticipated at 10%. Demand expected to be driven by greater intensity of use in steels by BRIC producers.



Niobium strengthening steel



Bridges



Auto



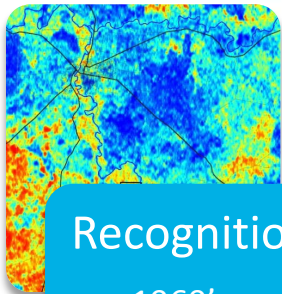
Pipelines

Dubbo Zirconia Project



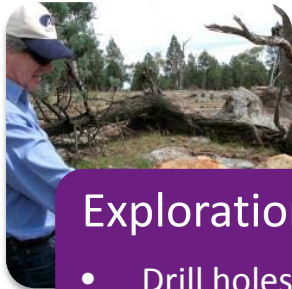
- 25km south of Dubbo
- Mine life 70 years+
- Products include:
 - Zirconium
 - Niobium
 - Rare metals/earths

Discovery and Development



Recognition

- 1960's
- Initial drilling 1983 for Cu-Au



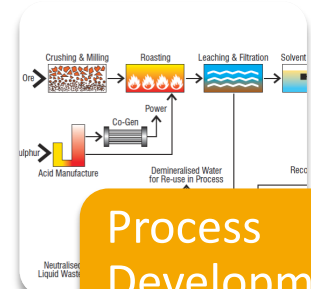
Exploration

- Drill holes 1990
- Preliminary metallurgical work



Resource

- 1999-2002
- Mini pilot plant
- Feasibility study



Process Development

- Metallurgy 2006 - present



Demonstration Pilot Plant

- 2007-2014
- Proven flowsheet
- DFS



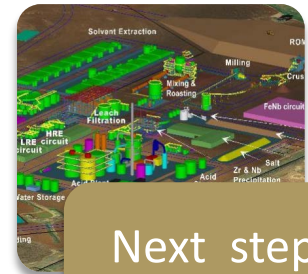
EIS

- Lodged June 2013
- Pre-approval Sept 2014



Offtake

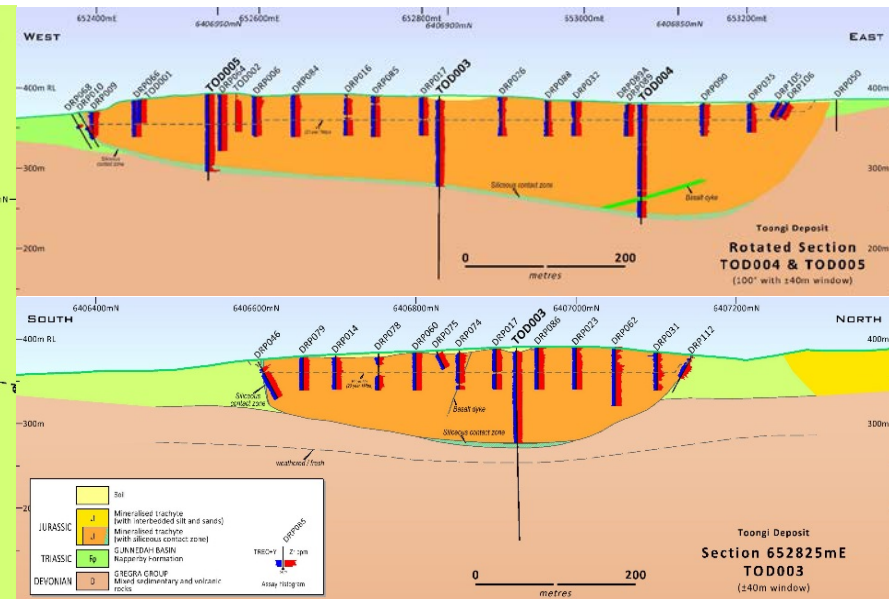
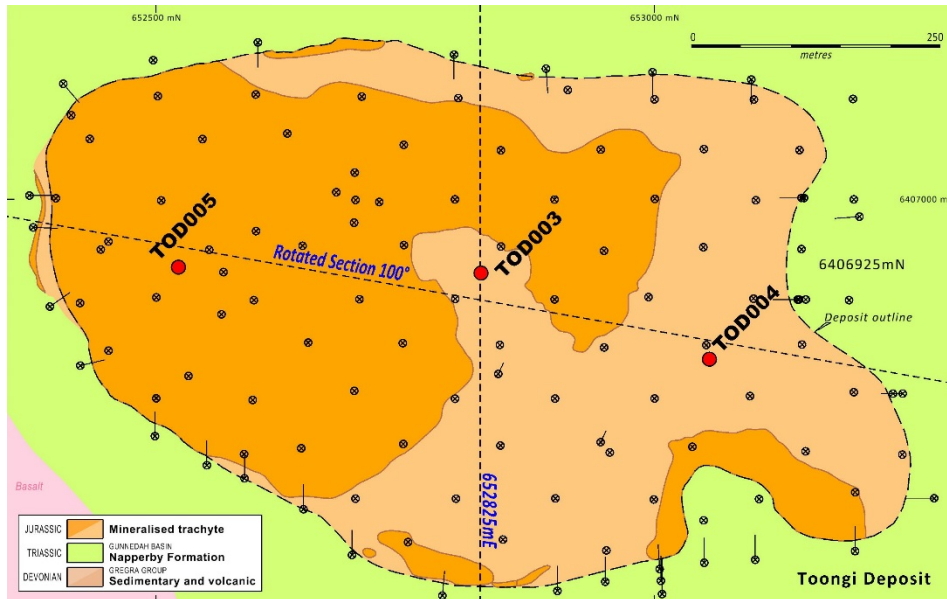
- Treibacher AG
- Shin-Etsu
- European metal trader



Next steps...

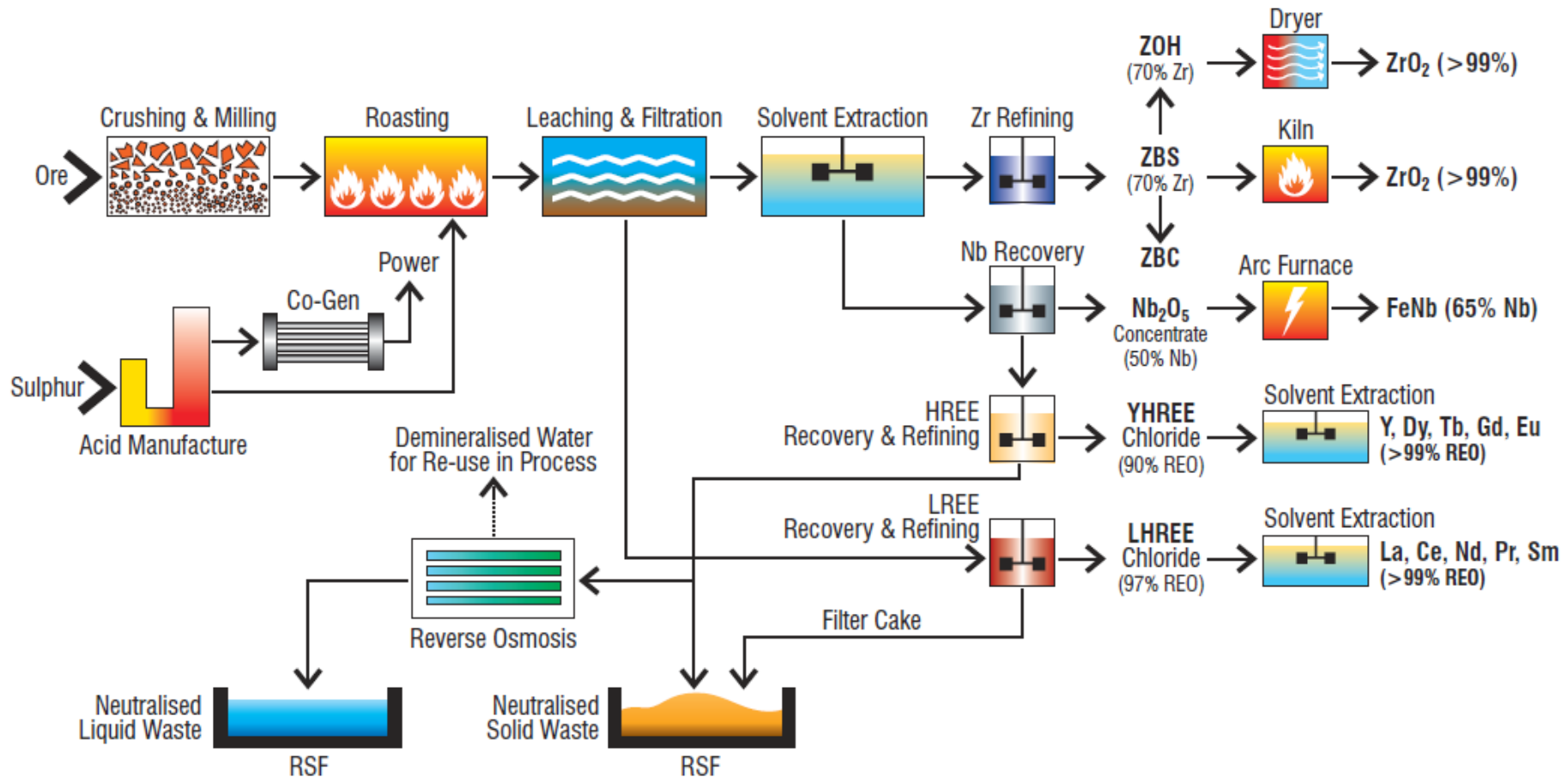
- Construction
- Production

Geology and Resources



- Trachyte lava or sub-volcanic intrusive
- Largely homogeneous ore body
- Ore mineralogy:
 - eudialyte ("like" Zr silicate +Y and HRE)
 - natroniobite (Nb-Ta)
 - bastnaesite (LRE)
- All readily soluble in sulphuric acid forms basis of recovery process

Process Flowsheet



Demonstration Pilot Plant



DPP Filtration, PLS, SX, Zr & Nb recovery



Zirconium refining & precipitation

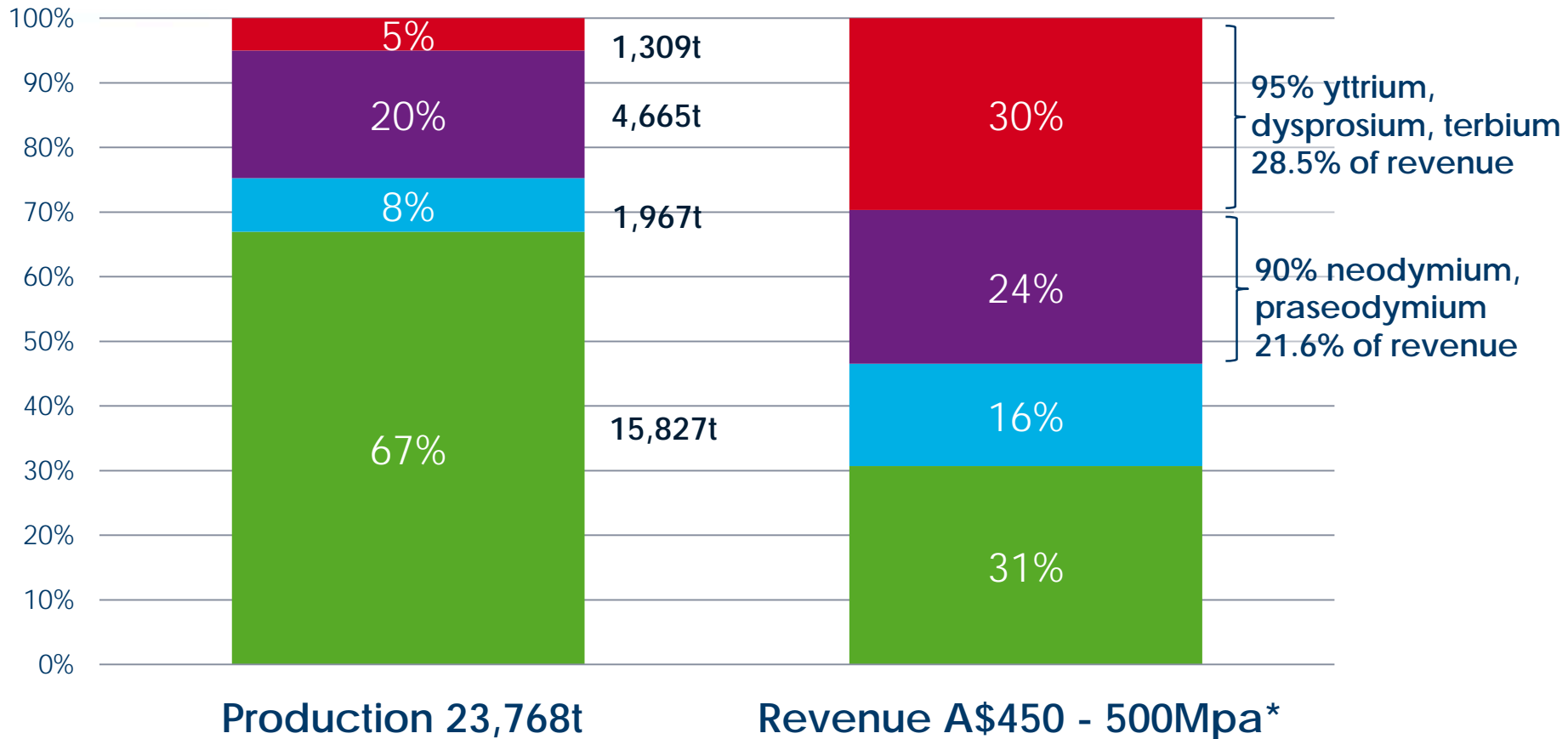


Y and HREE refining & recovery



Reverse osmosis & water recycle

Estimated Product Output @ 1Mtpa



■ Zr₂O ■ Nb metal ■ LREO concentrate ■ HREO concentrate

Revenue* based on DFS long term product prices and A\$:US\$0.85 and evenly split over all four outputs

Funding Strategy

Government Assistance Programs

- ECA Style Funding
- Lead coordinator: Sumitomo Mitsui Banking Corp
- Attractive Project
 - Long life, low cost
 - Long term off-take-agreements with international companies

Sale of Project Level

- Minority Interest(s)~15%
- Sale Advisors: Credit Suisse & SMBC
- Strategic interest(s) in long term supply of critical metals
- Intro of cornerstone investor(s)

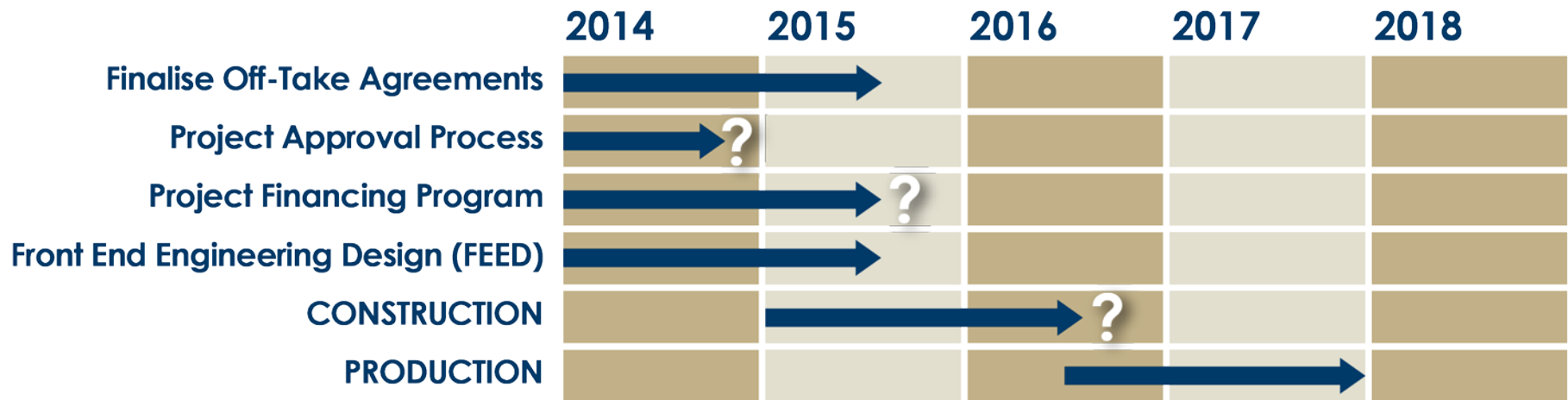
Commercial Bank Debt

- Advisors: Credit Suisse & SMBC
- Attractive Project
 - Strong operating cash flows
 - Diversified revenue stream
 - New markets

Equity Capital Markets (ALK)

- Advisors: Credit Suisse & Petra Capital

- Total Project Capex ~A\$1B
- Based on April 2013 DFS to +/-17%
- \$166m contingency
- Current FEED program to achieve BFS standard @ +/-10%



Estimates of times are indicative only and are subject to change.
Alkane reserves the right to vary the timetable without notice.

The DZP will be the first production in Australia of:

- Downstream zirconium products
- Niobium products
- Refined rare earth chemical concentrates
- Significant heavy rare earth products

The Project will be a significant alternate supplier to Chinese production

Thank You



"Alkane Resources Ltd. is one of the few companies in the space that has been able to deliver samples across its entire product line for end-users to evaluate."

Richard Karn, Gold Report 22 April 2014

This presentation 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 presentation 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.

Competent Person

Unless otherwise stated, the information in this presentation that relates to mineral exploration, 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 Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Chalmers consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Resources and Reserves

Dubbo Zirconia Project – Mineral Resources

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

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 2012 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

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 2012 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.

Note: ASX announcements 16 November 2011, 11 April 2013 and 30 October 2013 - the Company confirms that all material assumptions and technical parameters underpinning the estimated Mineral Resources and Ore Reserves, and production targets and the forecast financial information as disclosed continue to apply and have not materially changed.