

14 October 2014



## Quarterly Report to 30 September 2014

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### *Tomingley Gold Operations (TGO)*

- TGO continues to perform above expectations
- Mine to mill reconciliation positive with tonnes 9% and grade 23% greater than the modelled resources, and total gold ounces 30% above overall
- Production summary for the quarter:
  - Gold production 22,363 ounces
  - Total cash operating costs (AISC) A\$867/ounce
  - Gold sales 23,734 ounces
  - Gold revenues A\$33.4 million at an average price of A\$1,408/ounce
  - Current gold hedge 20,500 ounces at A\$1,439/ounce
- Strategic review of Project underway to optimise the development of the currently defined resources

### *Dubbo Zirconia Project (DZP)*

- Front End Engineering and Design (FEED) program proceeding and tender packages prepared for contractor/supplier review
- Process optimisation and product development work continued
- EIS proceeding to Planning Assessment Commission review
- Marketing trips to Japan, Europe, USA and China completed
- Follow up product samples distributed to potential customers

### *Corporate*

- The TGO cash flow of A\$14 million supported the nett Alkane cash flow of A\$9.9 million for the Quarter, after DZP and corporate expenditures. Cash balances at Quarter end totalled A\$25.3 million. Gold bullion on hand (A\$4.1M) and Regis Resources shares (A\$4.7M) gives the Company a strong financial position.

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

*Australian Zirconia Ltd (AZL) 100%*

The Dubbo Zirconia Project (DZP) is located 30 kilometres south of the large regional centre of Dubbo in the Central West Region of New South Wales. The DZP is based upon the large in-ground resources of the metals **zirconium, hafnium, niobium, tantalum, yttrium and rare earth elements**. Over many years the Company has developed a flow sheet consisting of sulphuric acid leach followed by solvent extraction recovery and refining to produce several products, including trialling the process at demonstration pilot plant scale.

### ***Environmental Impact Statement (EIS)***

On 11 September the NSW Department of Trade and Investment, Division of Resources and Energy (DRE) advised that Australian Zirconia Ltd (AZL), a wholly owned subsidiary of Alkane Resources had been invited to apply for a uranium exploration licence in NSW following an Expression of Interest (EOI) process (refer to the NSW Resources and Energy Media Release 11 September 2014). The area over which this expression of interest is registered is the same as AZL's existing licence for Group 1 minerals at Toongi.

The Toongi orebody contains low levels of uranium (~100ppm) and thorium (~450ppm) and is classified as weakly radioactive. The Company had previously demonstrated that uranium and thorium would not be recovered as part of the process flow sheet, and would be dispersed in the waste streams for long term stable storage. The waste storages are not classified as radioactive.

The objective of AZL's expression of interest was to protect the Company's interest in the DZP from potential third party impact on the zirconium, niobium and rare earth recovery operations.

The Development Application for project approval and the EIS were lodged with the NSW Department of Planning and Environment (DP&E) in June 2013. The Company was advised in September that in accordance with NSW Planning Legislation relating to State Significant Developments, the application will proceed to the Planning Assessment Commission (PAC) for review or determination. The commissioners were appointed early September and have commenced their review.

The Development Application does not include the production of uranium.

### ***Process and Product Development***

Product and process refinement continued at ANSTO during the September quarter for each of the main product streams to optimise recoveries and product qualities.

Promising increases in recoveries achieved for heavy and light rare earths at laboratory scale are to be followed by larger trials via the demonstration pilot plant (DPP). Preparations are underway at the DPP for this trial to occur during the December quarter.

### ***Marketing***

Further samples of zirconium chemicals and powders were dispatched to potential customers during the quarter, with follow up requests for larger samples. Separate zirconium chemicals process development is also underway to produce additional downstream products where significant demand has been identified.

Further marketing visits have been made to Europe, Japan, USA, and China during the quarter, with presentations on the DZP made in the USA and Australia to leading industry representatives. In November, Alkane will also present at the TZMI Zr-Ti Congress in Shanghai, China, and attend the Roskill Rare Earths conference in Singapore.



Market conditions for rare earths remained flat during the quarter with little movement in prices. The zirconium markets were also flat for zircon and downstream products, but with a bias towards higher prices for zirconium chemicals as ZOC producers in China look to increase prices. In addition, stock levels appear to have been reduced across the value chain so the draw down in stocks is close to ending.

In market developments, it is noteworthy that the ferro-niobium operations of Niobec, owned by the Canadian IAM Gold, have been sold to a group of companies (including Magris Resources, CEF Holdings and Tamasek) for US\$530 m (~A\$600 m). Niobec produced 5,300 t of niobium metal contained in ferro niobium in 2013, compared to expected DZP output of around 2,000 tpa.

### **Financing**

The financing program led by Sumitomo Mitsui Banking Corporation (SMBC) and Credit Suisse (CS) is progressing. The immediate focus remains on achieving a small strategic sale at Project level and attracting the support of Export Credit Agency (ECA) funding.

### **Engineering**

Hatch are continuing the Front End Engineering and Design (FEED) to deliver capital and operating cost estimates to a target  $\pm 10\%$  accuracy and a detailed schedule for the Project, building on the work of the Definitive Feasibility Study (DFS) for the DZP as previously released (ASX announcement 11 April 2013).

Process engineering design is complete for the zirconium and light rare earth circuit and is now focussing on the detail for heavy rare earth and niobium processing. Process engineering design for process improvements to ore roasting, cooling, leaching and solids/liquid separation has also been completed and piping and instrumentation diagrams (P&ID's) have been issued for review and approval.

The tender package for supply of the Sulphuric Acid Plant (SAP) is nearing completion and will be available for review by potential suppliers through the Industry Capability Network (ICN) webpage <http://gateway.icn.org.au/project/search/543a1b1476a9b>. Other construction work packages are open for expressions of interest and the site will be updated regularly as new packages are released.

Geotechnical investigations have been completed at the Project site at Toongi and development of improvements for water management and waste treatment is on-going.

## **TOMINGLEY GOLD OPERATIONS (TGO)**

*Alkane Resources Ltd 100%*

The TGO is currently based on three gold deposits (Wyoming One, Wyoming Three and Caloma) located about 14 kilometres north of the Company's inactive Peak Hill Gold Mine, and approximately 50 kilometres south west of Dubbo. The recently defined Caloma Two resource is being incorporated into the open pit development schedule, combined with a site strategic review to maximise the financial return and mine life. This will include potential for underground operations on all resources.

Mining and processing achieved design capacity late May and TGO is now operating at the 1Mtpa rate.

### **Operations**

Mining focus switched to the Caloma pit after July with a small tonnage recovered from Wyoming Three. Majority effort at Caloma was directed to waste removal to establish efficient operating faces.



Ore reconciliations remain positive for the combined pits year to date with total recovered ounces reporting over 30% greater than for the modelled resources. Milled tonnes reconcile about 9% greater and the milled grade reconciles 23% greater than the resources. This trend continues to be monitored, particularly as Caloma transitions from oxide to fresh ore over the next few months.

Gold poured for the Quarter was above budget at 22,364 ounces, despite a two day shutdown for the feed chute reline on the ball mill. FY2015 production is estimated to be 60,000 – 70,000 ounces.

### TGO Quarterly Production Figures

TGO Production		FY 2014 (Feb-June)	Sept Quarter 2014	FY 2015
Waste Mined	Tonnes	4,635,684	3,104,105	3,104,105
Ore mined	Tonnes	545,550	300,493	300,493
Grade	g/t	1.42	2.03	2.03
Ore milled	Tonnes	359,096	296,012	296,012
Head grade	g/t	2.24	2.47	2.47
Recovery	%	91.4	95.4	95.4
Gold poured	Ounces	20,711	22,362	22,362
Gold sold	Ounces	16,374	23,734	23,734
Gold revenue	A\$M	23.3	33.4	33.4
AISC <sup>1</sup>	A\$/oz	1,604	867	867
<b>Stockpiles</b>				
Ore for immediate milling	Tonnes	185,701	192,966	192,966
Bullion on hand	Ounces	4,386	2,938	2,938

<sup>1</sup> AISC = All In Sustaining Cost comprises all site operating costs, royalties, mine exploration, sustaining capex and mine development and an allocation of corporate costs, presented on the basis of ounces produced

### Mineral Resource and Ore Reserve Estimates as at 30 June 2014

Mineral Resources and Ore Reserves have been updated in accordance with the 2012 edition of the Code for Reports of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code). These estimates take into account ore depleted by mining during the year.

<b>TOMINGLEY GOLD PROJECT MINERAL RESOURCES (as at 30 June 2014)</b>									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold (Koz)
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	
<b>Open Pittable Resources (cut off 0.50g/t Au)</b>									
Wyoming One	2,171	1.7	442	1.5	735	1.1	3,348	1.6	166.8
Wyoming Three	473	1.8	25	1.5	98	1.1	597	1.6	31.5
Caloma	2,556	2.0	649	1.7	2,464	1.4	5,669	1.7	316.9
Caloma Two	-	-	1,085	2.4	704	1.3	1,789	2.0	112.4
<b>Sub Total</b>	<b>5,200</b>	<b>1.9</b>	<b>2,201</b>	<b>2.0</b>	<b>4,001</b>	<b>1.3</b>	<b>11,402</b>	<b>1.7</b>	<b>627.5</b>
<b>Underground Resources (cut off 1.75g/t Au)</b>									
Wyoming One	229	4.1	296	3.7	869	2.9	1,394	3.3	147.3
Wyoming Three	29	2.6	15	2.4	8	2.5	52	2.5	4.2
Caloma	3	2.1	13	2.3	224	2.5	240	2.4	18.9
Caloma Two	-	-	215	2.7	165	2.5	380	2.6	32.0
<b>Sub Total</b>	<b>261</b>	<b>3.9</b>	<b>539</b>	<b>3.2</b>	<b>1,266</b>	<b>2.8</b>	<b>2,066</b>	<b>3.0</b>	<b>202.4</b>
<b>TOTAL</b>	<b>5,461</b>	<b>2.0</b>	<b>2,740</b>	<b>2.3</b>	<b>5,267</b>	<b>1.7</b>	<b>13,468</b>	<b>1.9</b>	<b>829.8</b>

\*apparent arithmetic inconsistencies are due to rounding



Full details are given in the ASX Announcement 5 September 2014

<b>TOMINGLEY GOLD PROJECT ORE RESERVES (as at 30 June 2014)</b>							
<b>DEPOSIT</b>	<b>PROVED</b>		<b>PROBABLE</b>		<b>TOTAL</b>		<b>Total Gold (Koz)</b>
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	
Wyoming One	1,662	1.7	202	1.4	1,864	1.6	98.4
Wyoming Three	379	1.7	10	1.8	389	1.7	21.4
Caloma	1,744	2.2	184	1.7	1,928	2.2	136.0
Caloma Two	-	-	239	3.6	239	3.6	27.4
<b>TOTAL</b>	<b>3,785</b>	<b>1.9</b>	<b>635</b>	<b>2.3</b>	<b>4,420</b>	<b>2.0</b>	<b>283.2</b>
Stockpiles	186	1.9			186	1.9	11.5
<b>TOTAL</b>					<b>4,606</b>	<b>2.0</b>	<b>294.7</b>

\*apparent arithmetic inconsistencies are due to rounding

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The table below compares the resources and reserves year on year with 2013 as per the current reporting requirements.

<b>DEPOSIT</b>	<b>TOTAL RESOURCES</b>						<b>TOTAL RESERVES</b>					
	<b>2013</b>			<b>2014</b>			<b>2013</b>			<b>2014</b>		
	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)
Wyoming One	6,324	1.9	392.4	4,742	2.1	314.1	1,900	1.6	94.5	1,864	1.6	98.4
Wyoming Three	808	1.9	49.9	649	1.7	35.7	500	1.6	28.1	389	1.7	21.4
Caloma	5,453	2.1	369.4	5,909	1.8	335.7	1,200	2.2	86.5	1,928	2.2	136.0
Caloma Two	-	-	-	2,169	2.07	144.3	-	-	-	239	3.6	27.4
Stockpiles										186	1.9	11.5
<b>TOTAL</b>	<b>12,586</b>	<b>2.0</b>	<b>811.7</b>	<b>13,468</b>	<b>1.92</b>	<b>829.8</b>	<b>3,600</b>	<b>1.8</b>	<b>209.1</b>	<b>4,606</b>	<b>2.0</b>	<b>294.7</b>

\*apparent arithmetic inconsistencies are due to rounding

The primary differences from 2013 to 2014 are:

- Addition of maiden resource and reserve calculation for Caloma Two;
- Ore mined from Caloma and Wyoming Three totals 487,000 tonnes grading 1.63 g/t Au (25.5koz);
- Open pit resources for all deposits are restricted by limiting pit shells; and
- Reserves for Caloma based on the 2012 resource model (previously based on 2010 model).



## **BODANGORA (copper-gold)**

*Alkane Resources Ltd 100% (includes right to acquire 100% in the Kaiser tenement)*

Compilation of recent geological and geophysical data has been combined with litho-geochemical review of historic core samples to assist with the structural and stratigraphic interpretation of the Kaiser-Comobella monzonite intrusive complexes.

**WELLINGTON (copper-gold), ELSIENORA (gold) CUDAL (gold-zinc), CALULA (base metals-gold), ROCKLEY (gold) and FINNS CROSSING (gold-copper)** were inactive during the Quarter.

## **LEINSTER REGION JOINT VENTURE (nickel-gold)**

*Alkane Resources Ltd 20% diluting, Xstrata Nickel Australasia 80% Two prospects - **Miranda** and **McDonough Lookout**.*

Xstrata have not advised any field activities for the Quarter to date.

## **CORPORATE**

The TGO cash flow of A\$14 million supported the nett Alkane cash flow of A\$9.9 million for the Quarter, after DZP and corporate expenditures. Cash balances at Quarter end totalled A\$25.3 million. Gold bullion on hand (A\$4.1M) and Regis Resources shares (A\$4.7M) gives the Company a strong financial position.

### *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 2012 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*

### *Disclaimer*

*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.*

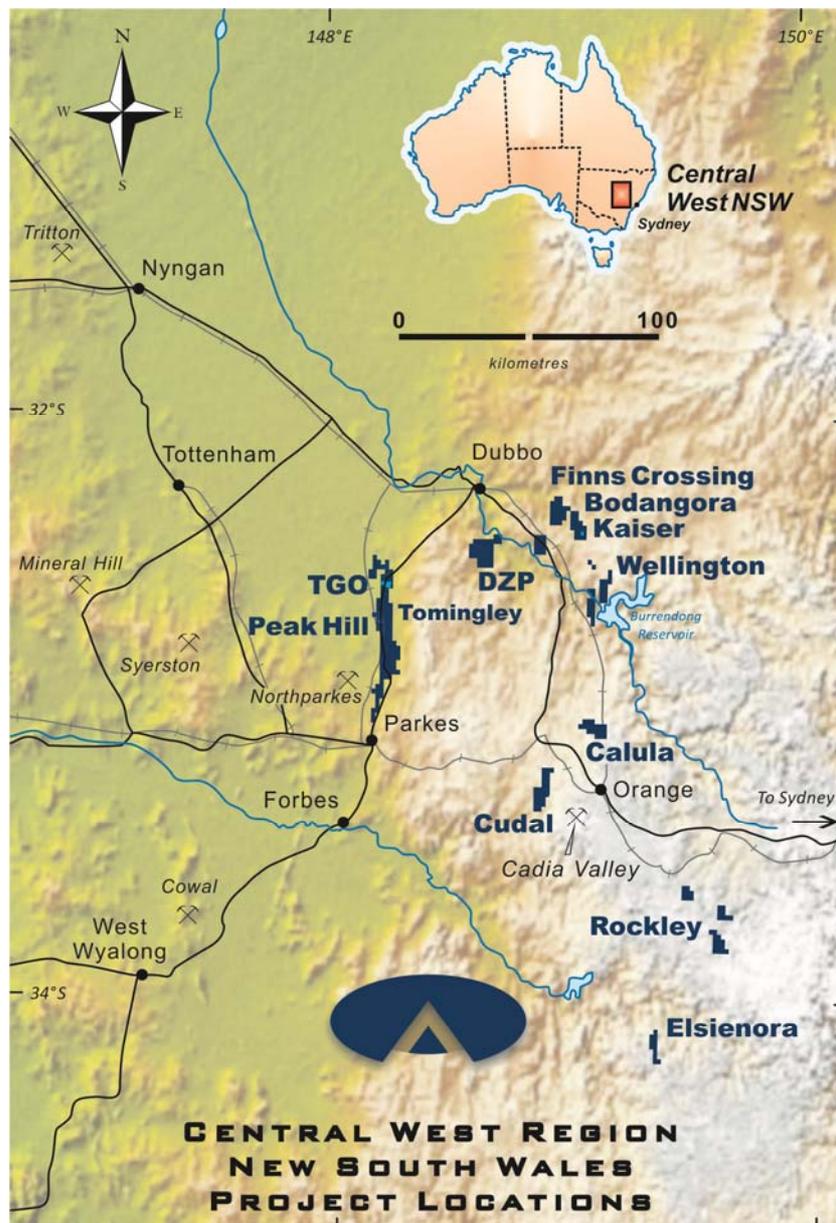


**ABOUT ALKANE - [www.alkane.com.au](http://www.alkane.com.au) - ASX: ALK and OTCQX: ANLKY**

Alkane is a multi-commodity company focused in the Central West region of NSW Australia. Currently Alkane has two advanced projects - the Tomingley Gold Operations (TGO) and the nearby Dubbo Zirconia Project (DZP). Tomingley commenced production early 2014. Cash flow from the TGO will provide the funding to maintain the project development pipeline and will assist with the pre-construction development of the DZP.

The DZP Environmental Impact Statement has been completed and a development decision is anticipated Q4 2014. Financing is in progress and this project will make Alkane a strategic and significant world producer of zirconium products and heavy rare earths when it commences production in 2016.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Wellington and Bodangora prospects. Wellington has a small copper-gold deposit which can be expanded, while at Bodangora a large 12km<sup>2</sup> monzonite intrusive complex has been identified with porphyry style copper-gold mineralisation. Encouraging gold-zinc mineralisation and alteration associated with a monzonite intrusive, has been identified at Cudal.





## RESOURCE AND RESERVE STATEMENT 30 JUNE 2014

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\*apparent arithmetic inconsistencies are due to rounding

Full details are given in the ASX release of 5 September 2014

### Dubbo Zirconia Project – Mineral Resources

Toongi Deposit	Tonnage (Mt)	ZrO <sub>2</sub> (%)	HfO <sub>2</sub> (%)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (%)	Y <sub>2</sub> O <sub>3</sub> (%)	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
<b>Total</b>	<b>73.20</b>	<b>1.96</b>	<b>0.04</b>	<b>0.46</b>	<b>0.03</b>	<b>0.14</b>	<b>0.75</b>

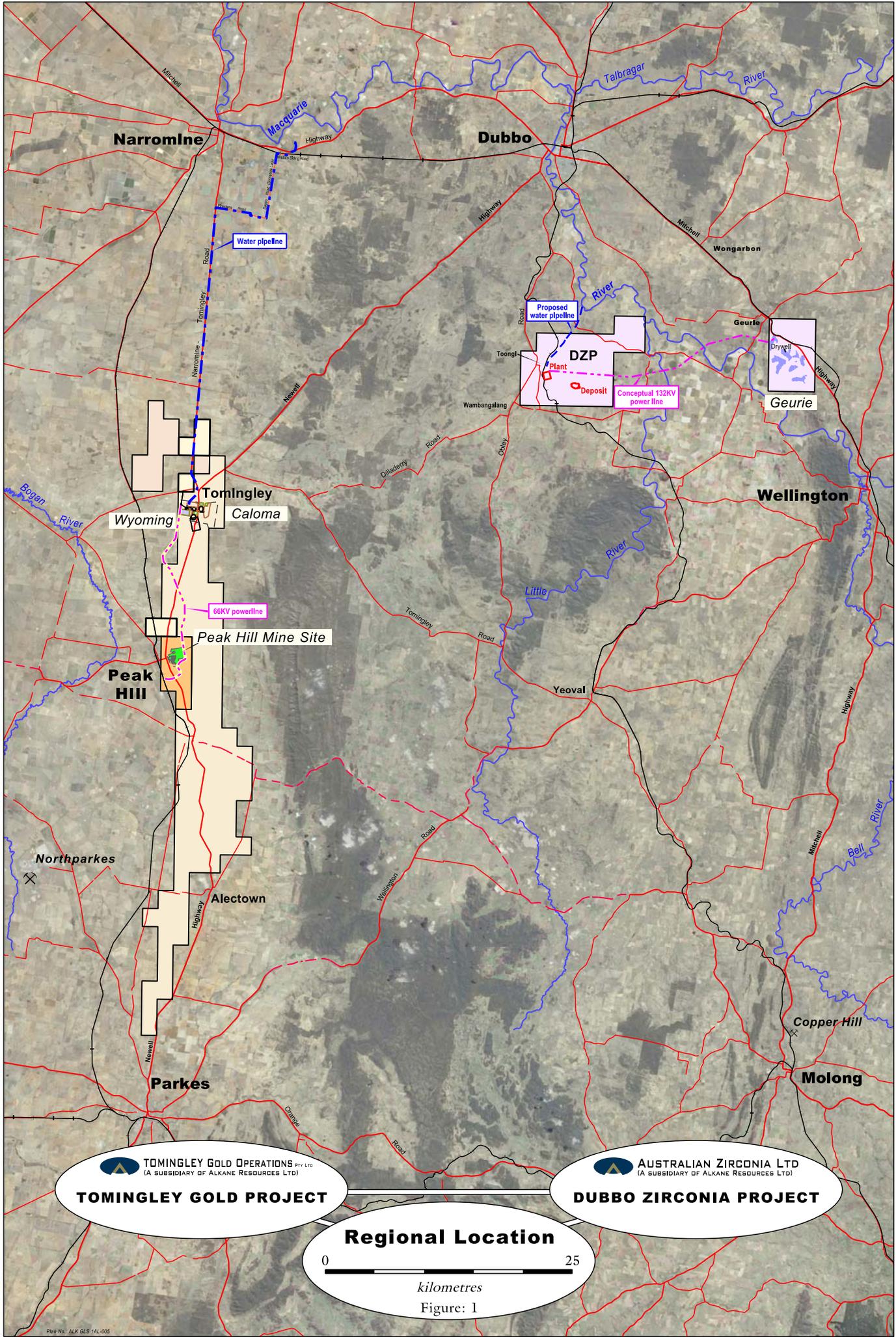
The full details of methodology were given in the 2004 Annual Report.

### Dubbo Zirconia Project – Ore Reserves

Toongi Deposit	Tonnage (Mt)	ZrO <sub>2</sub> (%)	HfO <sub>2</sub> (%)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (%)	Y <sub>2</sub> O <sub>3</sub> (%)	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
<b>Total</b>	<b>35.93</b>	<b>1.93</b>	<b>0.04</b>	<b>0.46</b>	<b>0.03</b>	<b>0.14</b>	<b>0.74</b>

The full details of methodology were given in the ASX Announcement of 16 November 2011.

Note: ASX DZP 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.




**TOMINGLEY GOLD OPERATIONS** Pty Ltd  
(A SUBSIDIARY OF ALKANE RESOURCES LTD)  
**TOMINGLEY GOLD PROJECT**

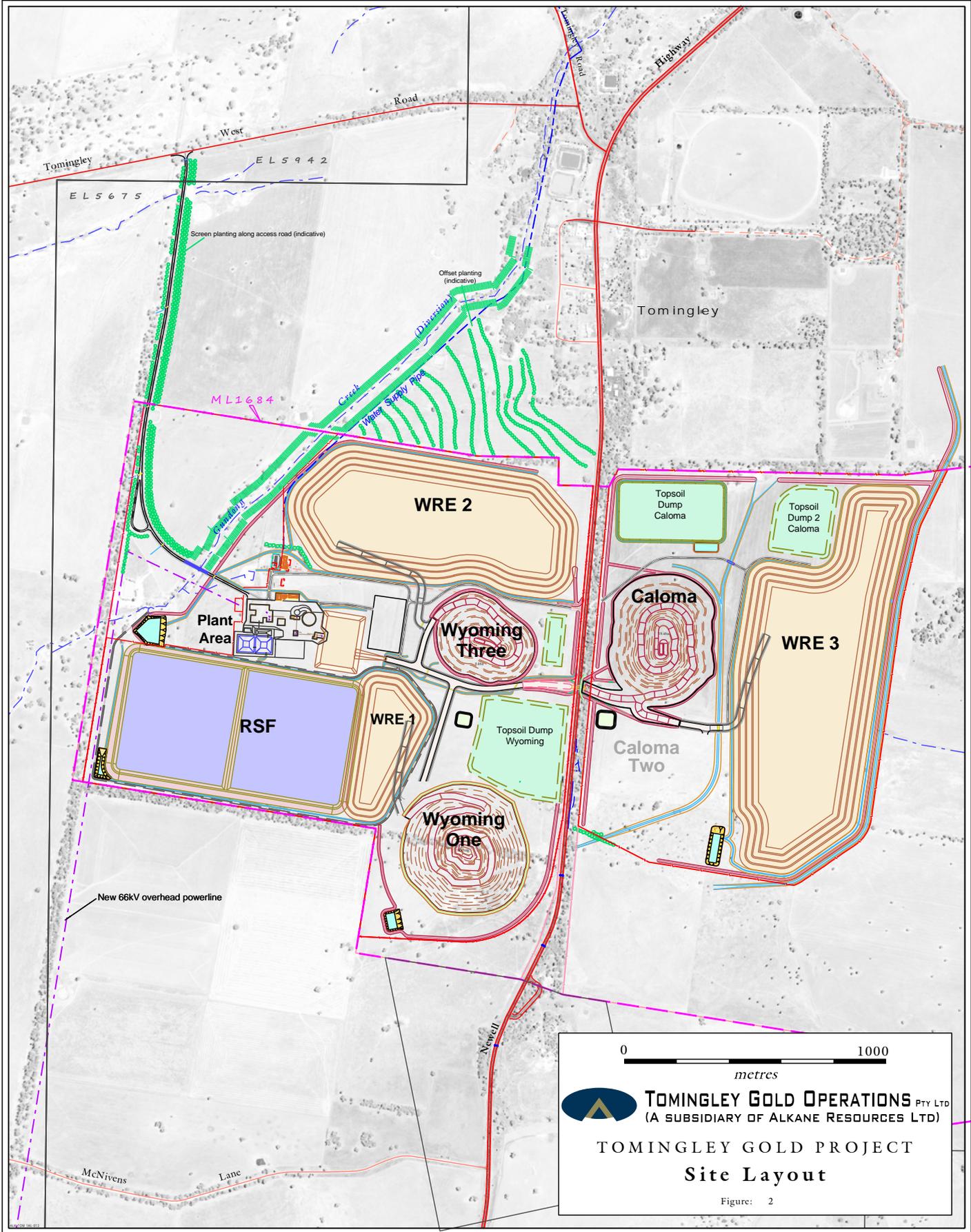

**AUSTRALIAN ZIRCONIA LTD**  
(A SUBSIDIARY OF ALKANE RESOURCES LTD)  
**DUBBO ZIRCONIA PROJECT**

**Regional Location**

0  25

kilometres

Figure: 1



0 1000  
metres

**TOMINGLEY GOLD OPERATIONS** PTY LTD  
(A SUBSIDIARY OF ALKANE RESOURCES LTD)

**TOMINGLEY GOLD PROJECT**  
**Site Layout**

Figure: 2