

16 October 2015



Quarterly Activities Report to 30 September 2015

Tomingley Gold Operations (TGO)

- TGO gold production improved 40% on the June quarter to 19,789 ounces as the Caloma pit operated within fresh rock.
- Production summary for the quarter:
 - Gold production 19,789 ounces (19,774 ounces recovered)
 - Site costs were A\$1,104/ounce and total cash operating costs (AISC) of A\$1,234/ounce
 - Gold sales 21,000 ounces for revenue of A\$32.9 million at an average price of A\$1,565/ounce
 - Gold hedge at 30 September 2015 of 22,500 ounces at average forward price of A\$1,596/ounce
- Cash flow for the quarter after site operating expenses and development expenditure was \$10.1M.

Dubbo Zirconia Project (DZP)

- The Front End Engineering Design has been completed with the capital estimate for the Project of A\$1.30B (US\$0.97B) including a contingency of A\$103M. This capital estimate is up from the previous A\$1.0B (April 2013), which was largely based on a higher A\$/US\$ exchange rate.
- The DZP has strong economics with anticipated product revenue of around US\$17/kg, with costs of approximately US\$8/kg. Further, capital intensity is low at US\$38/kg of annual product.
- Annual revenue has been estimated to be approximately A\$580M with operating costs of A\$260M delivering a A\$320Mpa EBITDA, 20 year NPV of A\$1.22B and IRR of 17.5%. This is a robust project based on conservative prices.
- The development of a hafnium recovery circuit has also delivered higher purity zirconium products with high value potential.
- AZL has signed an Early Contractor Involvement (ECI) agreement with global minerals and metals processing technology supplier, Outotec, to find further value in the project design with the intention of delivering the processing plant on an Engineering, Procurement & Construction (EPC) basis.

Corporate

- The Group's cash position increased by A\$6.0 million to A\$20.8 million, with bullion on hand valued at A\$3.1M. The Group has no debt.

CONTACT : IAN CHALMERS, MANAGING DIRECTOR, ALKANE RESOURCES LTD, TEL +61 8 9227 5677
INVESTORS : NATALIE CHAPMAN, CORPORATE COMMUNICATIONS MANAGER, TEL +61 418 642 556
MEDIA : HILL KNOWLTON STRATEGIES, CONTACT: IAN WESTBROOK, TEL +61 2 9286 1225 OR +61 407 958 137

For personal use only



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

Australian Zirconia Ltd (AZL) 100%

The Dubbo Zirconia Project (DZP) is located 25 kilometres south of the large regional centre of Dubbo in the Central West Region of New South Wales. The DZP is based upon 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.

The NSW Planning Assessment Commission announced the final development approval for the Project on 28 May. This is a significant milestone for the project, enabling Australian Zirconia Limited (AZL), a wholly owned subsidiary of Alkane Resources Ltd, to progress applications for the Environmental Protection Licence (EPL), Mining Lease and other minor permits. These applications have been submitted and approval anticipated by the end of this year.

On 24 August 2015 the Company received notification that the federal Department of the Environment has assessed the mining project and its impact on the Pink-tailed Worm-lizard (PTWL), a threatened species within the provisions of the Environment Protection and Biodiversity Conservation Act 1999, and has given its approval for the mine.

Process and Product Development

A hafnium concentrate has been successfully produced on the hafnium mini pilot plant at ANSTO during the September quarter. The developed hafnium process has little impact on the existing flow sheet, with hafnium extracted from the zirconium refining circuit. Further refinement of the hafnium process is planned for the December quarter with small samples being analysed and evaluated. Inclusion of the hafnium circuit in the DZP has added significant value to the project.

Quantifying the improvements in zirconium quality has been the main focus during the quarter, with a significant breakthrough being made while recovering hafnium from the zirconium stream. The first step of the zirconium refining process is to produce a zirconium “strip liquor” that is converted to downstream zirconium chemicals and zirconium dioxide. The hafnium removal process has also significantly reduced other impurities, and conversion of the strip liquor to products is now being evaluated.

Engineering

As advised in the ASX announcement of 27 August 2015 Hatch Engineering completed the Front End Engineering Design (FEED) study which included a capital estimate to bring the Project into operation on an Engineering, Procurement & Construction Management (EPCM) basis with the majority of inputs by Hatch and with firm pricing for most of the packages from the marketplace. The FEED estimate was A\$1.30B (US\$0.97B) at an accuracy of $\pm 15\%$, including a contingency of A\$103M (8%).

Several major process improvements have been incorporated into the design during the FEED study, including reduction of the site footprint from 1000 Ha to 520 Ha, mostly through the removal of over 90% of the liquid residue storage facilities and have enabled total water consumption to be reduced from 4 gigalitres pa to 2Glp. The design has also been modified to provide closer integration and / or more tailored products to downstream customers and toll treatment partners.

For personal use only



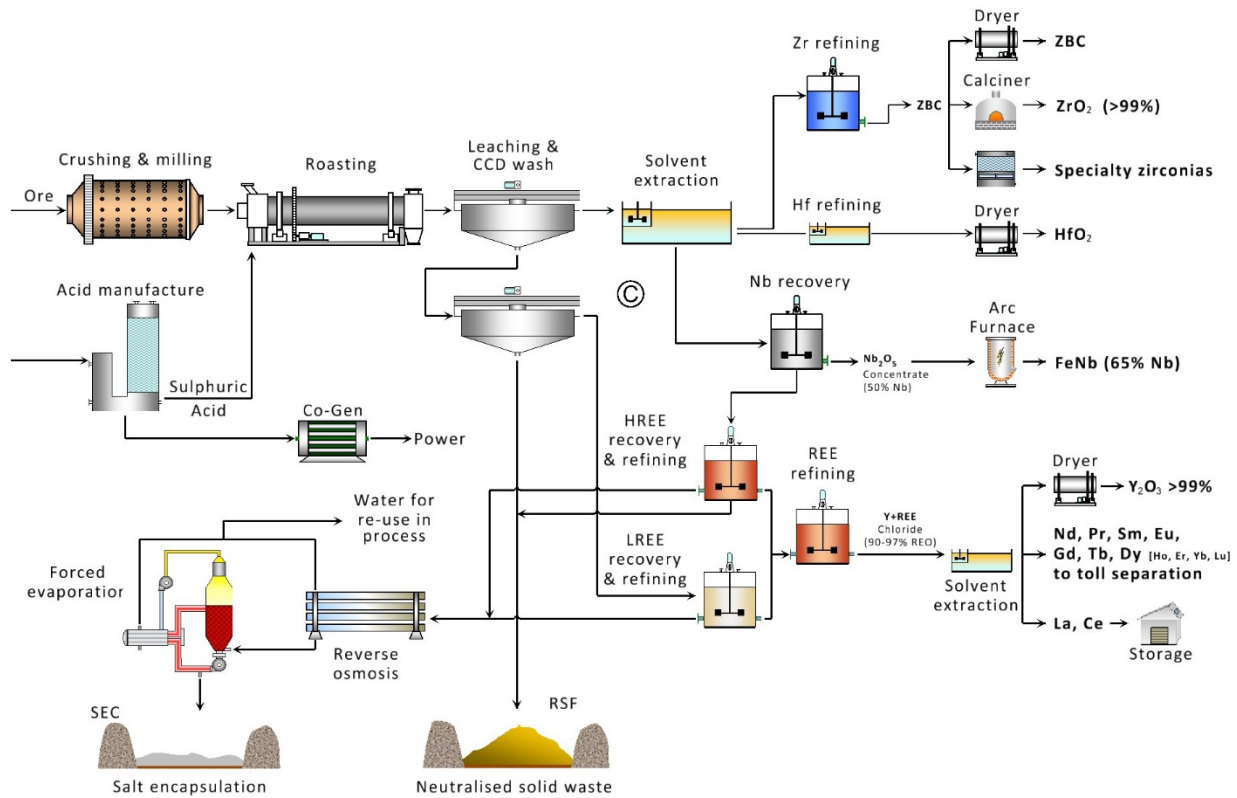
The capital estimate included design, scopes and commercial conditions at an increased level of detail from the DFS published by the Company in April 2013.

The Project is now ready for detailed design and construction to commence, contingent on financing. As a consequence of the detailed work produced through this process, an opportunity has emerged to work with a global minerals and metals processing technology supplier, Outotec, to find further value in the project design with the intention of delivering the processing plant on an Engineering, Procurement & Construction (EPC) basis. As a result an Early Contractor Involvement (ECI) agreement was signed with Outotec (ASX Announcement 28 September 2015).

After the initial phase of the ECI the intention is for Outotec to execute the process plant part of the scope for AZL on an EPC basis. This has the advantages of developing a key technology and support relationship, as well as capping the execution risk for AZL.

This appointment represents another significant step in the development of the DZP.

DZP Flowsheet



Marketing

Discussions with key customers and stakeholders for DZP products continued during the September quarter, with a high level of interest shown in the recent process improvements and the additional information provided in the Front End Engineering Design (FEED). Meetings in the USA, Europe, Asia, and Australia were made during the quarter.

The Company participated in Metal Pages rare earths conference in Shanghai in September, and will present at the upcoming Roskill rare earths conference in Singapore in November, where a number of

For personal use only



key clients will attend. The Company will also join the TZMI Congress 2015 in Shanghai, where most of the leading companies in zirconium materials and mineral sands will be present.

Zirconium

The zirconium market remains flat with a downward bias on zircon (zirconium silicate), which is the key raw material for most zirconium products. Current zircon prices are in the range of US\$1,000-1,300/t with premium grades available in large volumes for under US\$1,100/t. Some standard grade zircon is also available for under US\$1,000/t, which is used for producing zirconium oxychloride (ZOC).

ZOC is the main chemical feed stock used to produce other downstream zirconium chemicals and zirconium dioxide. Chinese domestic ZOC prices have drifted lower during this year, and currently stand at US\$1,300-1,400/t for 36% ZrO₂ (US\$4,000/t on a 100% ZrO₂ basis), reflecting lower zircon prices and weak demand. Export prices for 40% ZrO₂ zirconium basic carbonate (ZBC) are US\$2,300-2,600/t (US\$5,750-6,500/t). Chinese chemical zirconia prices are US\$4,500-6,000/t, while fused zirconia prices are US\$3,000-4,000/t. Export prices are generally 5-10% higher.

Hafnium

Successful production of a hafnium concentrate is an important milestone that will drive further process development, and marketing efforts to maximize the value of products produced. Test results from recent hafnium work will enable the Company to progress discussions with interested parties on a number of fronts.

Spot hafnium metal prices have almost doubled in the last three years to US\$1,200/kg, while long term prices have also increased to US\$600-800/kg.

Rare Earths

The rare earth market remains fragile. Industrial Minerals reported prices for praseodymium, neodymium, dysprosium and mixed praseodymium-neodymium oxide, used in permanent magnets, to be edging towards the higher ends of ranges recently. However, values for cerium and lanthanum – light rare earths used in low value applications - remain on a downward trend owing to oversupply and low demand. According to some market reports, prices for dysprosium metal and oxide are being reinforced as producers have held back sales on the expectation that prices may increase.

Niobium

The niobium market remained flat during the September quarter, mirroring the steel market generally. Prices for ferro-niobium were in the range of US\$35-40/kg (niobium content) across various markets.

Financing

The FEED study included updating the mass and energy balances for the Project. AZL has estimated the operating costs based on the study balances, the latest consumption data from the demonstration pilot plant at ANSTO, current market pricing for reagents and personnel and support costs as realised at its operating asset in NSW, Tomingley Gold Operations.

Although many of the product prices are at four year lows, the diverse spread of output by the DZP enables a robust revenue stream to be determined at both current spot prices and those anticipated in 2020 as the Project ramps up and the speciality metal market stabilises. Price detail was provided in the ASX announcement of 27 August 2015.

For personal use only



A stated in that announcement, anticipated 2020 prices would generate an estimated total of US\$467 million pa revenue, or about A\$580 million (after royalties, sales and marketing, and off-site refining costs for rare earths) and at an A\$:US\$ exchange rate of 0.75.

Steady state operating costs were estimated to be A\$260 million per annum, generating an average EBITDA of A\$320 million per year, and a 20 year NPV of A\$1.22 billion (discount rate of 8% and pre-tax) and an IRR of 17.5%.

The current operating cost estimates indicate an overall cost to produce a kilogram of any product would be in the range US\$7.50 to US\$8.00/kg with revenue averaging US\$17.00/kg.

The ability of the DZP to provide long term sustainable security of supply of a diverse range of over 10 critical metals and oxides is one of the strong themes which is being increasingly recognized both in Australia and overseas. The diversity of products and markets also provides stability of revenue streams over a broad base as different markets cycle through ups and downs over time.

AZL continues to work with its advisors to progress funding of the project. With project development approval received, AZL is redoubling efforts in relation to funding. The broad strategy has not changed with strategic investment, Export Credit Agency finance and commercial debt remaining as the key components of the envisaged project funding suite.

TOMINGLEY GOLD OPERATIONS (TGO)

Tomingley Gold Operations Pty Ltd 100%

The TGO is based on four gold deposits (Wyoming One, Wyoming Three, Caloma and Caloma Two) located about 14 kilometres north of the Company's inactive Peak Hill Gold Mine, and approximately 50 kilometres south west of Dubbo. The Caloma Two resource has been incorporated into the open pit development schedule, and options for commencing underground operations on all resources are being evaluated.

Operations

Mining occurred in three pits Wyoming Three, Caloma and Wyoming One. The work in Wyoming One during the quarter was all waste stripping, with no ore production. Mining in Wyoming Three is expected to be largely completed shortly.

Ore reconciliations continue to remain positive for the Wyoming Three and Caloma pits financial year to date. In the Caloma pit the reconciliation has improved from the preceding quarter as the mine continues to progress further into the fresh rock.

During the quarter a lift on one of the two tailings storage facilities continued. The key cost driver for the operation remains the efficiency of the mining equipment and TGO continues to work collaboratively with its dry hire equipment supplier to lift the payload, utilisation and overall efficiency of the fleet. Also, as a result of the waste removal schedule, the third mining fleet was withdrawn late in the period, reducing total operating costs.

Gold recovered for the quarter was 19,774 ounces, with 19,784 ounces of gold poured, an increase of 40% on the June quarter. Sales of 21,000 ounces were made resulting in revenue of A\$32.9 million at



an average sales price of A\$1,565/oz, generating an operating cash flow of \$9.7 million. Bullion on hand has reduced accordingly to 1,951 ounces for current value of A\$3.1M.

The hedge book at quarter end was 22,500 oz at A\$1,596/ounce.

TGO FY 2016 Quarterly Production Figures

TGO Production		FY 2015	Sept Quarter 2015	FY 2016
Waste mined	BCM	5,730,661	1,676,850	1,676,850
Ore mined	Tonnes	1,386,291	443,744	443,744
Grade	g/t	1.66	1.87	1.87
Ore milled	Tonnes	1,140,704	271,980	271,980
Head grade	g/t	2.01	2.44	2.44
Recovery	%	93.9	92.6	92.6
Gold poured	Ounces	69,612	19,789	19,789
Revenue Summary				
Gold sold	Ounces	70,734	21,000	21,000
Average price realised	A\$/oz	1,441	1,565	1,565
Gold revenue	A\$M	101.9	32.9	32.9
Cost Summary				
Mining	A\$/oz	707	784	784
Processing	A\$/oz	321	242	242
Site Support	A\$/oz	95	78	78
C1 Site Cash Cost	A\$/oz	1,123	1,104	1,104
Royalties	A\$/oz	40	46	46
Sustaining capital	A\$/oz	25	36	36
Rehabilitation	A\$/oz	20	16	16
Corporate	A\$/oz	40	32	32
AISC ¹	A\$/oz	1,249	1,234	1,234
Stockpiles				
Ore for immediate milling	Tonnes	468,032	689,601	689,601
Bullion on hand	Ounces	3,169	1,951	1,951

¹AISC = All In Sustaining Cost comprises all site operating costs (excluding share based payments), 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 2015

The Company reported Ore Reserves and Mineral Resources for the Tomingley Gold Operations as at 30 June 2015 in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012). The detail of these statements are reported in the ASX announcement 21 September 2015. The Company confirms that it is not aware of any new information or data that materially affects the information included in that announcement and that all

For personal use only



the material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

These estimates take into account ore depleted by mining during the 2015 financial year and are set out in the tables below.

Mineral Resources

TOMINGLEY GOLD PROJECT MINERAL RESOURCES (as at 30 June 2015)									
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)	
Open Pittable Resources (cut off 0.50g/t Au)									
Wyoming One	2,171	1.7	442	1.5	735	1.1	3,348	1.5	167
Wyoming Three	206	1.7	122	1.7	2	1.1	330	1.7	18
Caloma	2,163	1.8	582	1.7	2,008	1.5	4,753	1.7	254
Caloma Two	-	-	1,085	2.4	704	1.3	1,789	2.0	112
Sub Total	4,540	1.8	2,231	2.0	3,450	1.4	10,220	1.7	551
Underground Resources (cut off 2.50g/t Au)									
Wyoming One	168	4.8	205	4.4	361	4.2	735	4.4	104
Wyoming Three	12	3.6	20	4.5	25	3.3	57	3.8	7
Caloma	0	3.1	4	2.9	81	3.2	84	3.2	9
Caloma Two	-	-	92	3.5	63	3.2	155	3.3	17
Sub Total	180	4.7	321	4.1	530	3.9	1,031	4.1	136
TOTAL	4,720	1.9	2,552	2.3	3,979	1.7	11,251	1.9	687

*apparent arithmetic inconsistencies are due to rounding

These Mineral Resources are wholly inclusive of Ore Reserves.

Ore Reserves

TOMINGLEY GOLD PROJECT ORE RESERVES(as at 30 June 2015)							
DEPOSIT	PROVED		PROBABLE		TOTAL		Total Gold (Koz)
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	
Wyoming One	1,665	1.6	202	1.3	1,867	1.5	94
Wyoming Three	173	1.6	5	1.4	178	1.5	9
Caloma	1,247	1.9	72	1.5	1,319	1.8	80
Caloma Cut Back	222	1.5	66	1.4	288	1.4	14
Caloma Two	-	-	243	3.5	243	3.5	27
							-
Stockpiles	468	0.8	-	-	468	0.8	12
TOTAL	3,775	1.6	588	2.2	4,363	1.6	235

*apparent arithmetic inconsistencies are due to rounding

FY2016 production is estimated to be 60,000 – 70,000 ounces within an AISC range of A\$1,200 - 1,300/oz. The costs are higher than the anticipated long term life-of-mine AISC of A\$1,000 – 1,100/oz due to waste stripping in FY16 at the Wyoming One pit.

For personal use only



NSW EPA Prosecution

In 2014, Tomingley Gold Operations (TGO) reported two minor incidents occurring between March and June to the NSW Environmental Protection Authority (EPA) as part of its commitment to continuous environmental self-reporting.

The incidents occurred during last year's early winter rain period (March – June) when very heavy rainfall events (25mm of rain in 20 minutes for the first case) caused a soil runoff from the site's mining earthworks into a drain, which was carrying off-site water through the mine. The drain discharged the combined soil-laden water through a boundary fence, depositing soil onto the Newell Highway road reserve and the neighbouring farming property. The water entered three artificial dams – one on TGO's mining lease land and two on the neighbouring farming property.

No chemicals were involved and there has been no evidence of any environmental harm. As noted previously TGO pleaded guilty in May 2015 and has subsequently been fined \$95,000 by the Local Court in Dubbo.

ELSIENORA (gold), BODANGORA (copper-gold), WELLINGTON (copper-gold), CUDAL (gold-zinc), ROCKLEY (gold) and FINNS CROSSING (gold-copper) were inactive during the quarter but the Alkane exploration team made a presentation at the Mines and Wines Conference in Canberra early September entitled "A Geological Framework for The Northern Molong Volcanic Belt, Eastern Lachlan Orogen: Implications for Regional Correlations and Alkalic Porphyry Gold-Copper Metallogensis" (Peter Duerden). The presentation covers the Bodangora and Finns Crossing projects and is available on the Company's website.



LEINSTER REGION JOINT VENTURE (nickel-gold)

Alkane Resources Ltd 19.4% diluting, Australian Nickel Investments Pty Ltd 79.6%. Two prospects - **Miranda** and **McDonough Lookout**.

Australian Nickel Investments Pty Ltd (Western Areas Ltd) has completed the acquisition from Xstrata Ltd.

CORPORATE

The Group's cash position increased by \$6.0M during the quarter to \$20.8M. The Group has no debt.

Other financial assets as at 30 September 2015 include gold bullion on hand (A\$3.1M).

AWARDS

During the quarter Alkane and Alkane personnel received leadership and environmental awards:

2015 Women in Resources National Awards NSW Winner - Simone Painter – Processing Manager TGO

NSW Minerals Council Environment and Community 'Leadership' category - Mike Sutherland General Manager NSW

NSW Minerals Council Environment Excellence category 'Leaving No Stone Unturned to Conserve the Pink-Tailed Worm-Lizard at the DZP site' - Alkane Resources Ltd

Competent Person

The information in this report that relates to the Mineral Resource estimates is based on, and fairly represents, information which has been compiled by Mr Terry Ransted, who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Alkane Resources Ltd. Mr Ransted has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken 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'. Mr Ransted consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The information in this report that relates to the Ore Reserve estimate is based on, and fairly represents, information which has been compiled by Mr John Millbank (Proactive Mining Solutions), an independent consultant, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Millbank has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken 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'. Mr Millbank consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

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. Mr Chalmers consents to the inclusion in this report of the matters based on his information in the form and context in which it appears

For personal use only



ABOUT ALKANE - 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 NSW Planning Assessment Commission granted development approval for the DZP on 28 May 2015 and on 24 August 2015 the Company received notification that the federal Department of the Environment has assessed the mining project and its impacts, and has given its approval for the development. Financing is in progress and this project will make Alkane a strategic and significant world producer of zirconium, hafnium and rare earth products when it commences production in 2018.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Wellington and Bodangora prospects, and Elsenora farm-in. Wellington has a small copper-gold deposit which can be expanded, while at Bodangora a large 12km² monzonite intrusive complex has been identified with porphyry style gold copper mineralisation. Encouraging gold mineralisation was drilled at Elsenora early in 2015.



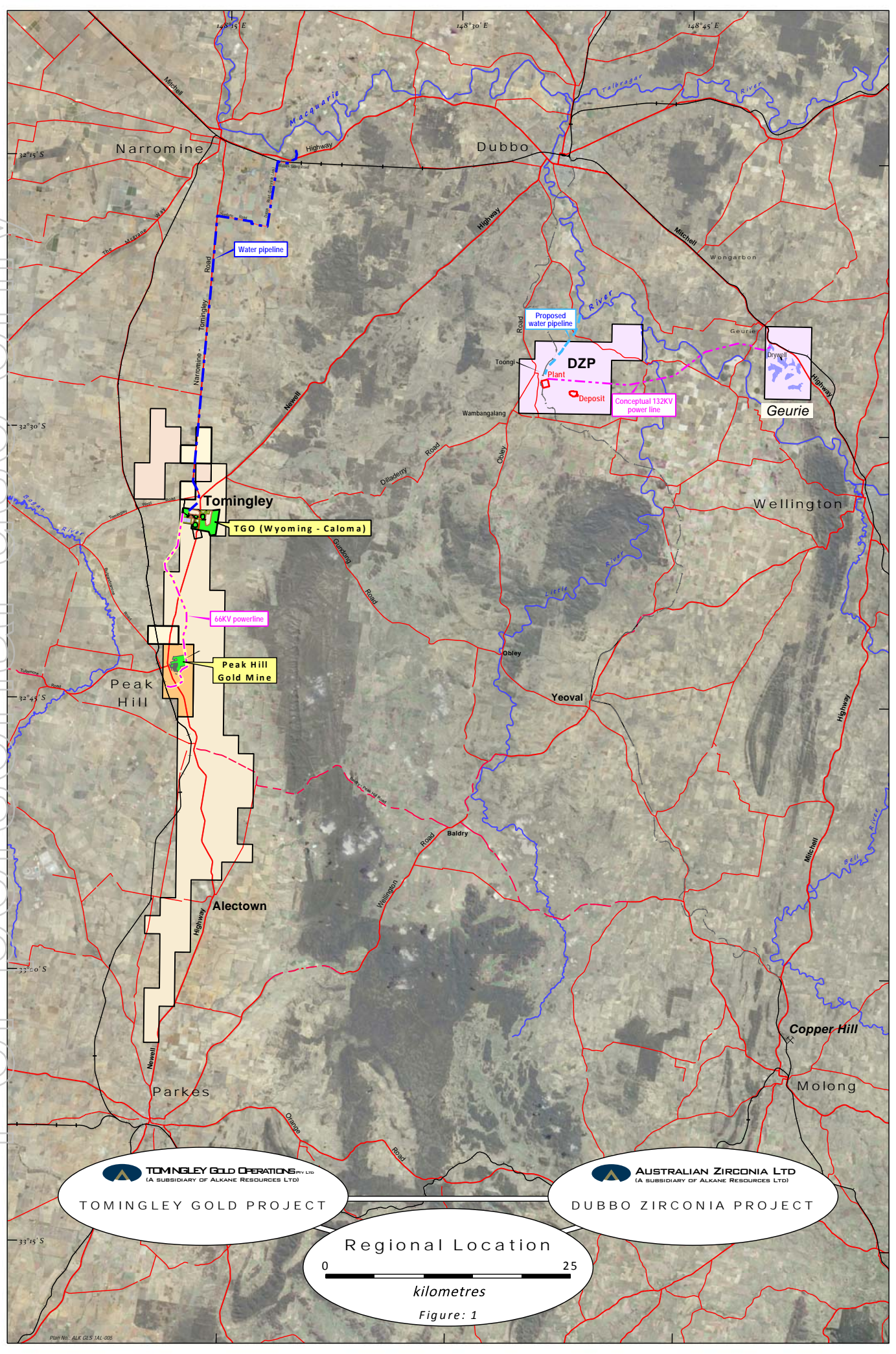
Disclaimer

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.

For personal use only

For personal use only



TOMINGLEY GOLD PROJECT

DUBBO ZIRCONIA PROJECT

Regional Location

0 25

kilometres

Figure: 1