ASX and MEDIA RELEASE

30 January 2017

ALKANE RESOURCES LTD
ABN 35 000 689 216

Quarterly Activities Report to 31 December 2016

Tomingley Gold Operations (TGO)

- **Continued wet weather during the quarter further impacted production by delaying ore releases across all pits (263.4mm vs long term average 112.6mm). However the operation still generated a net operating cash flow after development costs of $4.8 million.**
- **With dry weather returning, the mining fleet and pits are performing well and ore from the higher grade Caloma Two pit should be available for processing shortly.**
- **Changes to the mine schedules show an expected H2 of 31,000 – 36,000 ounces at an AISC of A$1,350 – A$1,550. Revised full year guidance for FY2017 production is now 53,000 – 58,000 ounces at an AISC of A$1,600 – A$1,750**.
- **Quarter Results**
  - **Gold production was below plan at 11,756 ounces**
  - **Site operating cash costs were significantly impacted by production at A$1,597/ounce with all in sustaining costs (AISC) of A$1,803/ounce**
  - **Gold sales 12,519 ounces for revenue of A$20.9 million at an average price of A$1,666/ounce**
  - **Gold forward contracts at 31 December 2016 of 43,000 ounces at average forward price of A$1,715/ounce.**
- **Significant drill intercepts were recorded by core and RC drilling in the Caloma and Wyoming One deposits as part of the underground mining study.**

Dubbo Project (DP)

- **At the end of 2016 the name of the project holding company Australian Zirconia Limited (AZL) was changed to Australian Strategic Materials Ltd (ASM) to reflect the broader product output. The project name has similarly been modified to Dubbo Project (DP).**
- **Alister MacDonald has been appointed General Manager – Marketing to advance the DP through its development program.**
- **MOU for product offtake and supply of process equipment with Siemens Ltd advised in a separate ASX release on 25 October 2016.**
- **A modularisation study was completed that showed significant improvements in the capital cost and execution strategy for the Dubbo Project, as advised in a separate ASX release on 28 October 2016. Upfront capital has been internally reviewed at US$480M including contingency for first stage of production.**

Corporate

- **The Group's cash position totalled A$24.5M with A$20.4M in cash and bullion on hand valued at A$4.1M, a decrease of A$3.8M from the previous quarter.**

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

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 southwest of Dubbo.

Operations

The unusually wet weather continued again in this quarter, including a large rain event in mid-December where 108mm fell in 24 hours, with 71mm of that falling in 1 hour. Even in this very large event the bypass water drains and pit protection measures in place continued to prevent all but pit boundary catchment rainfall from entering the pits themselves. A table of the rainfall for 2016 is shown below.

This continued wet weather had the impact of further delaying ore releases, and while an improvement on the previous quarter only 11,756 ounces gold were poured which was well below plan. Milling continued as planned, but the average grade of material fed was reduced due to the delayed releases. A solid second half is expected, with 31,000 – 36,000 ounces production at an AISC of A$1,350 – A$1,550. The H2 AISC is higher than forecast as a key action taken on the mining schedule includes operating a larger digger fleet for a longer period than originally planned to recover the delayed waste movement. As a result full year guidance of FY2017 production has been revised to 53,000 – 58,000 ounces. The cost impact will be an increase of A$400 – A$450 per ounce averaged over the full year, taking full year AISC guidance to A$1,600 – A$1,750 per ounce.

While disappointing in that it has resulted in an underperformance against plan of ~12,000 ounces for the half year (or 36% of planned production) with a resultant impact on cost per ounce performance in terms of the controllable factors, the site continues to operate well. Cost control is delivering unit costs per tonne and bcm in the expected range. The management focus is therefore on mining performance and schedule, to allow the forecast ore releases.

Mining is now occurring across three pits, Caloma, Caloma Two and Wyoming One. Wyoming Three continues to be used for water storage. Development of the Caloma Two open cut progressed well during the quarter, with initial grade control of near surface ore and first ore releases to occur in the coming quarter. Higher grade ore from Caloma Two should be available for processing in the near future.

Mining in Caloma 2

Gold poured for the quarter was 11,756 ounces, with sales of 12,519 ounces at an average sales price of A$1,666/oz generating revenue of A$20.9 million. As a result of the reduced production, sales largely represented deliveries into older lower priced hedges.

The site operating cash inflow for the quarter was A$4.8 million. On an accrual basis however, as shown in the table below, the site would have generated cash inflow of $1.8 million with some scheduled creditor payments being completed early in following the quarter.

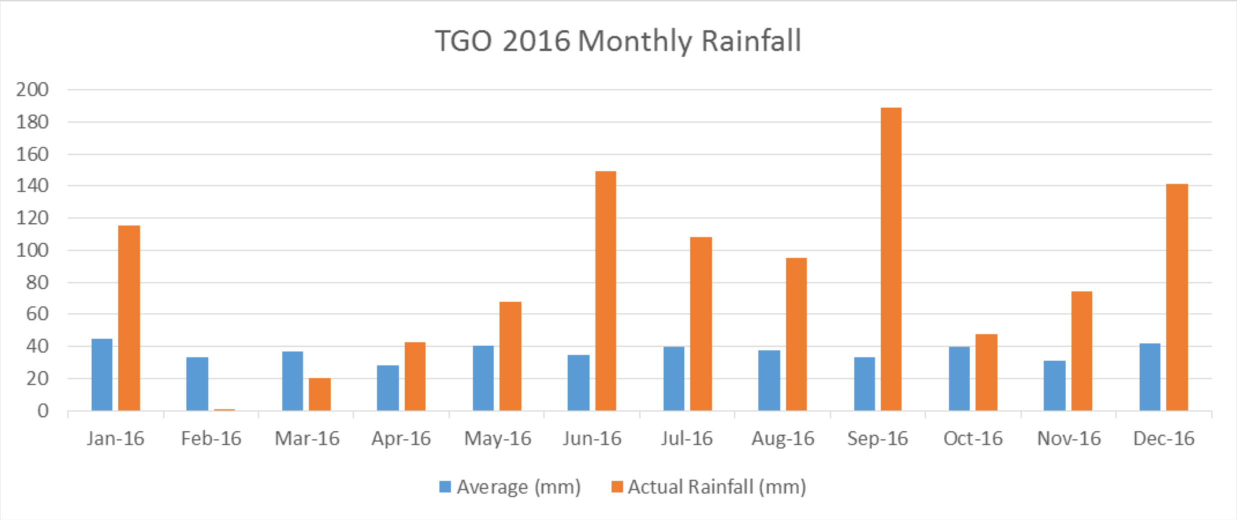
The hedge book at quarter end was 43,000 ounces gold at an average forward price of A$1,715/oz.

TGO FY 2017 Quarterly Production Figures

TGO Production		FY 2016	Sept Quarter 2016	Dec Quarter 2016	FY 2017
Waste mined	BCM	6,199,820	1,533,279	1,799,904	3,333,183
Ore mined	Tonnes	1,285,454	221,139	318,216	539,355
Strip Ratio	Ratio	12.2	18.4	15.4	16.6
Grade	g/t	1.84	1.51	1.39	1.43
Ore milled	Tonnes	1,096,105	231,797	279,338	511,135
Head grade	g/t	2.08	1.50	1.48	1.49
Recovery	%	90.9	90.1	90.4	90.2
Gold poured	Ounces	67,812	10,435	11,756	22,191
Revenue Summary					
Gold sold	Ounces	67,983	10,000	12,519	22,519
Average price realised	A$/oz	1,605	1,627	1,666	1,649
Gold revenue	A$M	109.1	16.3	20.8	37.1
Cost Summary					
Mining	A$/oz	736	1,188	1,029	1,104
Processing	A$/oz	292	505	450	476
Site Support	A$/oz	96	148	118	132
C1 Site Cash Cost	A$/oz	1,124	1,841	1,597	1,712
Royalties	A$/oz	46	35	40	38
Sustaining capital	A$/oz	31	130	37	81
Rehabilitation	A$/oz	18	68	72	70
Corporate	A$/oz	37	65	57	61
AISC[1]	A$/oz	1,256	2,139	1,803	1,962
Bullion on hand	Ounces	2,971	1,936	2,572	2,572
Stockpiles					
Ore for immediate milling	Tonnes	701,047	661,645	709,148	709,148
Grade	g/t	0.82	0.80	0.79	0.79
Contained gold	Ounces	18,480	17,201	18,195	18,195

[1]AISC = All in Sustaining Cost comprises all site operating costs, royalties, mine exploration, sustaining capex, mine development and an allocation of corporate costs, on the basis of ounces produced. AISC does not include share based payments or net realisable value provision for ore inventory.

2016 Rainfall Summary (Annual Average 443mm – Actual 1,052mm)



Underground Mining Study

As part of the feasibility to develop an underground mining operation at the Tomingley Gold Operations (TGO), a program of 9 core holes totalling 3,659.4 metres tested targets below the Wyoming One open pit and 18 RC holes tested mineralisation at the Caloma pit. The drilling was designed to extend known mineralisation and improve continuity within the ore zones previously identified.

Several significant intercepts were recorded within the Caloma and Wyoming One deposits and were summarised in the ASX Announcement of 20 January 2017.

Offsite exploration drilling has also commenced.

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

Australian Strategic Materials Ltd (ASM) 100%

The DP remains ready for construction, with the mineral deposit and surrounding land wholly owned, all State and Federal approvals in place, an established flowsheet and a solid business case.

Efforts to secure the financing for the project are being accelerated. The announcement of the MOU with Siemens Ltd showed the significance of the project to one of the major western consumers of rare earths, and a pathway to securing the future revenue for the project. Other key activities have occurred and are described in *Marketing* below.

During the quarter the Company announced the results of its modularisation study. As well as allowing cost savings, this modularisation concept has given rise to the possibility of staging the overall build of the project whilst preserving the project economics. The Company considers the most advantageous option is to build the plant in two stages, each of 500 ktpa, or half capacity. The second stage will be built after the first stage is successfully commissioned and market pricing achieved for the products. Each stage will have the full flowsheet of the overall plant already communicated, although there will be some common infrastructure installed in the first stage. This is described further in *Engineering* below.

Due diligence of Vietnam Rare Earth JSC (VTRE) and its associated rare earth alloy plant at Haiphong continued during the quarter, with multiple visits covering technical, financial, and marketing by Alkane and its specialist consultants. Further assistance was provided by the Company's legal and financial consultants based in Hanoi. Due diligence covers rare earth separation of DP concentrates, marketing of existing production of separated rare earths and alloys, as well as potential investment in VTRE.

Marketing Activities to Secure Offtake

Marketing and offtake discussions progressed during the quarter, with the announcement of the MOU with Siemens for DP offtake and supply of process equipment and services. Discussions with other companies are also at an advanced stage for DP products, which are expected to result in further support of financing for the DP.

The increased involvement of Minchem since signing the worldwide Zirconium Marketing Agreement has enabled increased level of customer activity and visibility of the DP in major markets. Minchem visited Australia in November touring Dubbo and ANSTO in Sydney, and attending the AGM in Sydney which provided an opportunity for shareholders to meet the senior Minchem team members directly.

Late in the quarter (ASX announcement 1 December 2016) the Company dispatched high purity samples of zirconia and hafnia (hafnium oxide) to several key potential customers. The provision of samples from the August – September Demonstration Pilot Plant (DPP) run has been a condition precedent to further discussions with these customers for the purchase of AZL's future products.

A presentation to the Metal Events rare earths conference in Hong Kong was made in November, as well as participation in the TZMI mineral sands congress at the same time. Visits to Japan, South Korea, Europe and the United States were also made by Alkane during the quarter.

As part of the progress on development of the project, Mr Alister MacDonald has been appointed General Manager – Marketing. Alister has a BE Ceramic Engineering (1st class hons) from University of NSW, with over 30 years international experience in zirconium and related materials across the value chain, from raw materials to finished products. He has been technical marketing consultant to Alkane on all DP products since 2008.

Market Update

Zirconium

The zirconium market experienced another flat year in terms of prices, with prices for chemical zirconia and fused zirconia reaching multi year lows during 2016. This was seen equally with fused zirconia prices as well as chemical zirconia, which is based on zirconium oxychloride. However, there are some very positive signs that prices will see a slow but steady recovery in 2017, on the back of increased production costs due to higher raw material and environmental compliance costs.

Prices for zircon (zirconium silicate), the key raw material for virtually all zirconium products, have recently started to increase as the balance of supply and demand has moved in favour of the main producers, with little stock available in China and other key markets. Zircon prices have fallen steadily from a high of over US$2,500/t in 2011 to as low as US$850-900/t during 2016, but prices are now rising. Zircon price increases of US$50/t have been announced by producers for the first quarter of 2017 and it is widely believed that further price increases will be realised during 2017. Every US$100/t increase (or fall) in the price of zircon changes the production cost of zirconium products by US$155-170/t (100% zirconia ZrO_2 basis). With lower zircon production in the United States, there is also less premium zircon available containing low levels of radioactivity required to produce fused zirconia with < 500 ppm uranium and thorium.

Rare Earths

Rare earth prices remained largely flat during 2016, with the main magnet materials (praseodymium, neodymium, and dysprosium) driving demand, and therefore the output of associated light and heavy rare earths. Initiatives by the Chinese government to consolidate the industry, combined with its crackdown on illegal mining and processing activities, is expected to provide much needed support to the six main mining and processing companies, which have experienced another year of losses.

It is also clear that China is rapidly moving downstream, which will reduce rest of world supply of rare earth oxides and metals, while end products such as electric motors and wind turbines will be readily available. The Key Note Address at the beginning of the Baotou Rare Earth Forum in August stated that the current Five Year Plan (2016 to 2020) has a theme of Made in China – 2025; so it is a national priority to create as many jobs as possible through downstream processing of minerals/metals. The Province of Inner Mongolia has announced the development of 30 downstream RE Projects.

The ongoing high level of illegal mining and production in China is one of the key factors keeping prices low, which undermines the profitability of rare earth companies. However, they do make money on the downstream production; hence the move to downstream products. The environmental cleanup and rehabilitation costs for legal and illegal mining and production in China is widely recognised as an expensive but necessary commitment in order to achieve sustainable production. However, while it is expected that this will be funded through the collection of rare earth royalties, which are meant to replace the export taxes, it is still in a state of flux and the form and method is still under discussion. The funds generated will be essential for the rehabilitation of the myriad of abandoned rare earth operations. Once formulated this will have an impact on the costs of the six state owned enterprises (SOEs), which in turn should lead to increased prices. It is estimated that RMB 70 billion (~US10 billion – equivalent to 3X the current value of global rare earths sales) would be required to rehabilitate the 'old' rare earth mines and plants in Baotou alone. Alkane's commitment to sustainable and traceable supply of rare earths is highly valued by Alkane's customers, which is difficult to achieve in China with the same degree of transparency and confidence.

Hafnium

Hafnium supply remained in deficit during 2016 with demand continuing to exceed supply, which is heavily tied to demand for hafnium free zirconium metal for the nuclear industry. Chinese zirconium companies are starting to produce hafnium free zirconium for their nuclear industry so it is expected to also increase hafnium supply, but the quantities involved are only a few tonnes, and will most likely be consumed within China.

The main market for hafnium is for hafnium metal used in super alloys for industrial gas turbines and jet engines, but there are numerous research and development activities taking place which could create significant additional demand if hafnium availability can be increased from new sources such as the Dubbo Project.

Niobium

The niobium market remained largely flat during 2016, with pockets of weakness in some markets, with ferro-niobium for high strength low alloy steels being the main driver for demand. While global steel production remained flat in 2016, there continues to be increasing usage of high performance steels, which support a positive demand outlook for niobium. The three main niobium producers have also been very supportive of the market, which makes niobium one of the most stable specialty metal markets.

Financing

ASM's funding 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.

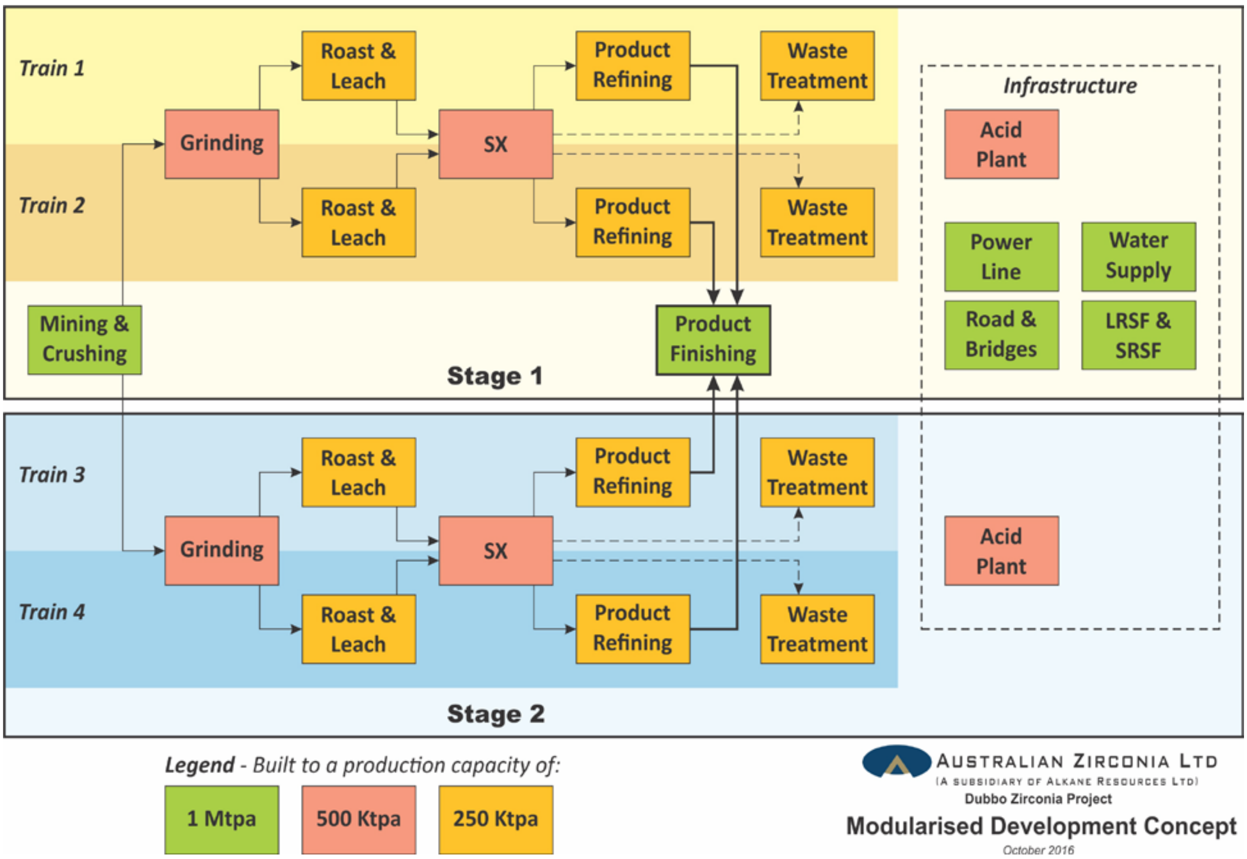
The ability of the DP to provide long term sustainable security of supply of a diverse range of over 10 critical metals and oxides is one of the strong themes which is being increasingly recognised both in Australia and overseas. The diversity of products and markets also provides stability of revenue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

Engineering

The project remains ready for detailed design and construction to commence, contingent on financing.

During the quarter the Company announced the results of its initial modularisation study which concluded that significant capital cost reductions can be achieved by using a modular construction method; by building the plant off-site in as compact sections as are possible to transport economically to the Dubbo site.

Analysis showed that equipment sized at a 250 ktpa feed rate, a quarter of the full plant feed rate, is a natural fit for much of the process. Therefore at its most basic level the process plant will be constructed as four quarter trains in order to achieve full capacity, although some sections have higher capacity. A high level schematic of the potential plant illustrating this concept is shown below.



The Company considers the most advantageous option is to build the plant in two stages, each of 500 ktpa, or half capacity. The second stage will be built after the first stage is successfully commissioned and market pricing achieved for the products. Each stage will have the full flowsheet of the overall plant already communicated, although there will be some common infrastructure installed in the first stage. The Company is now continuing the ECI process with Outotec, focusing on modularisation, a staged build and further cost reductions.

Preliminary estimates for the cost of each stage and target timing is given in the table below.

	Stage 1 – 500 ktpa	**Stage 2 – 500 ktpa**	**Complete Project 1Mtpa**
Construction Commence	**2017**	**2022**	**2017**
Construction Complete*	**2019**	**2023**	**2023**
Capital US$M	**480**	**360**	**840**

*Subject to 2017 commencement

About the DP

The DP is located 25 kilometres south of the large regional centre of Dubbo in the Central West Region of New South Wales. It 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 extensively at demonstration pilot plant scale.

All New South Wales State Government and Australian Federal Government approvals for the development of the DP are in place.

The land which the project area covers, about 3,500 hectares, is wholly owned by the Company. Of this land, 500ha is required for mining and processing operations, about 1,000ha is allocated to biodiversity offset (federal environment requirement) and the remaining 2,000ha is now being farmed. A wholly owned subsidiary Toongi Pastoral Company Pty Ltd (TPC) has been formed and a professional manager engaged to manage the farming and biodiversity offset lands.

BODANGORA (including KAISER) (copper-gold) and FINNS CROSSING (gold-copper)

Alkane Resources Ltd 100%

RC drilling contracts for approximately 3,000 metres has be let and drilling commenced to test porphyry gold-copper targets at Dreill Creek, Boda and Duke targets within the Bodangora tenement and at the adjoining Finns Crossing project.

ELSIENORA (gold); ORANGE EAST PROJECT (gold–copper); Wellington (copper-gold); CUDAL (gold-zinc); ROCKLEY (gold) were inactive during the quarter

LEINSTER REGION JOINT VENTURE (nickel-gold)

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

ANI (Western Areas Ltd) advised that activities were focussed in the Apollo area which lies approximately 7km to the southeast of the main Cosmos nickel belt. The stratigraphy is genetically related to the 'Camelot Nickel Camp', known to host significant volumes of high and low grade nickel sulphide mineralisation. The prospective Camelot ultramafics have been interpreted to extend into the Apollo area. Work has been focused on extending the surface MLEM data coverage to the remainder of the tenement and to cover the area of known ultramafic lithology.

During the quarter a heritage survey was undertaken prior to the commencement of proposed Apollo drilling. Formal approval of those holes cleared to be drilled on the survey has just been received. Drill testing of the anomalies will now commence in the March quarter.

Unfortunately heavy rain at the time of the heritage survey prevented access to drill holes proposed to test the anomalous gold intercepts and zone identified in the historic drilling. A subsequent survey will be required and this is likely to be undertaken in the March quarter.

CORPORATE

The Group's cash position at quarter end totalled A$24.5M with A$20.4M in cash and bullion on hand valued at A$4.1M, a decrease of A$3.8M from the previous quarter.

Total drawn debt at quarter end was A$3.0M, with a scheduled repayment of A$2.0M during the quarter.

The performance bond facility of $5.1M was utilised in January freeing up cash that has been used to back rehabilitation bonds. The resulting cash inflows will be reflected in March quarterly cash flow.

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. 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

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 Geoscientists.

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 Project (DP). Tomingley commenced production early 2014. Cash flow from the TGO has provided the funding to maintain the project development pipeline and will assist with the pre-construction development of the DP.

The NSW Planning Assessment Commission granted development approval for the DP on 28 May 2015 and on 24 August 2015 the Company received notification that the federal Department of the Environment gave its approval for the development. Mining Lease 1724 was granted on 18 December 2015 and the Environment Protection Licence was approved on 14 March 2016. 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 2019.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Wellington, Bodangora pand Elsienora prospects Wellington has a small copper-gold deposit which can be expanded, while at Bodangora a large monzonite intrusive complex has been identified with porphyry style gold copper mineralisation. Encouraging gold mineralisation was recently drilled at Elsienora.