

24 January 2018



Quarterly Activities Report to 31 December 2017

Dubbo Project (DP)

- Hafnium oxide exceeding 99.8% HfO₂, and 99.9% (Hf+Zr)O₂, was produced using a proprietary process to separate hafnium from zirconium at the demonstration pilot plant at ANSTO.
- The modularised build study output is being reviewed and incorporated into an updated project execution and financial model, expected to be released in February.
- Upward price movements in the zirconium chemicals and powders have continued. Rare earth magnet material prices have returned to their medium term upward trend.

Tomingley Gold Operations (TGO)

- Continued solid performance sees guidance for the full year lifted to 70,000 to 80,000 ounces of gold at a reduced AISC of A\$1,000 to A\$1,100.
- Site operating cash flow for the quarter was A\$4.6M¹ (YTD: \$22.9M) excluding increase in bullion on hand at fair value of \$5.7M.
- Quarter Results
 - Gold production was above forecast at 16,641 ounces.
 - Site operating cash costs were A\$840/ounce with all in sustaining costs (AISC²) of A\$1,058/ounce.
 - Gold sales 13,184 ounces for revenue of A\$22.3M at an average price of A\$1,694/ounce.
 - There were no open forward contracts at 31 December 2017.

Corporate

- The Group's cash position totalled A\$57.7M with A\$44.8M in cash and bullion on hand at fair value of A\$12.9M, an increase of A\$4.4M from the previous quarter.
- Gavin Smith welcomed to the Board on election by shareholders.

CONTACT : NIC EARNER, 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



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

Australian Strategic Materials Ltd (ASM) 100%

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

Financing

Australian Strategic Materials (ASM), a wholly owned subsidiary of Alkane Resources, continues to work towards securing finance for the project. ASM remains focused on:

- Securing offtake contracts for its products
- Securing a strategic investor in the project, in particular an investor who has a long term interest in the project's products
- Updating its financial models to show the project's ability to carry debt and then working with commercial debt providers
- Engaging with Export Credit Agency (ECA) finance teams

ASM has continued to present to numerous local and international fund managers and customers, and expects to release its updated financials for the project in February.

The increase in market prices of the project's major products, discussed below, is generating continued interest from investors and customers, and the ability of the DP to provide long term sustainable security of supply of a diverse range of over 15 critical metals and oxides is recognised. The diversity of products and markets, whilst requiring specialist processing, does provide 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.

ASM continues to work with engineers to review the costing for the processing section of the project using the modularised build philosophy and incorporate the results into an updated financial model. The results are expected to be released in February.

Marketing Developments

Hafnium Product Development

As advised in ASX Announcement 17 January 2018, hafnium oxide exceeding 99.8% HfO₂, and 99.9% (Hf+Zr)O₂, has been produced at the Australian Nuclear Science and Technology Organisation (ANSTO) in Sydney, New South Wales. The proprietary process pathway to recover hafnium from zirconium was piloted during the quarter, and allows the flexible recovery of high-purity hafnium dioxide from the high-purity zirconium stream.

Vietnam Rare Earths JSC (VTRE)

Separated rare earths toll processed by VTRE have been shipped to customers, with feedback expected following consumption by each customer. The trials have formed part of the extended due diligence of downstream toll treatment by VTRE.



Product Marketing

Meetings with major consumers of zirconium, hafnium and rare earths in Europe, USA and Japan were held during the quarter. Zirconium customers in particular are actively seeking alternative supply sources. Customers have experienced a steady increase in prices from China this year, as well as periods of interrupted supply, which have highlighted supply chain risks and the importance of the DP. The key focus is converting the many existing letters of intent into offtake contracts.

The Company presented at the Metal Events Rare Earths Conference and TZMI Congress in Hong Kong in November. Both of these conferences were attended by key stakeholders and companies buying rare earths, zirconium and hafnium products, providing the Company with opportunities for multiple side meetings.

Zirconium

After more than five years of downward pressures, prices for zirconium materials rose rapidly in 2017, with zirconium oxychloride (ZOC) prices increasing by more than 80%. ZOC is the base product for the downstream zirconium industry. The increases in prices are primarily related to:

1. reduced ZOC supply from China, due to Chinese government environmental inspections and subsequent shutdowns to upgrade processing facilities to reduce pollution, and
2. restricted supply of zircon, currently the only economic source of zirconium available to produce zirconium materials.

China dominates zirconium production, supplying around 75% of the global market, and over 95% of zirconium chemicals, which are based on ZOC. This has largely been due to lower prices, overcapacity and unsustainable production practices. However, the closure of older plants due to the environmental crackdown, is resulting in cuts to Chinese ZOC supply, while remaining producers face increased operating costs to improve handling, storage, and disposal of waste streams to meet increasingly stringent government regulations. As a result, some end users have been unable to secure sufficient quantities of ZOC and downstream products, or have faced significant delays for deliveries, despite having firm contracts in place (often at much lower prices). This highlights the risks of relying too heavily on one country, or few suppliers.

Asian Metal is quoting ZOC prices of RMB 18,000/t, FOB China, which currently translates to US\$2,720/t (US\$7,550/t ZrO₂). However, little if any ZOC is available for export at this price, with prices of RMB 19,000/t (~US\$8,000/t ZrO₂) or higher required to secure material. Prices for downstream zirconium chemicals and powders have also increased by similar amounts in 2017, with Chinese domestic prices for Zirconium Basic Carbonate (ZBC) now at US\$3,800/t (US\$9,500/t ZrO₂). Fused zirconia prices also increased dramatically during 2017 due to the higher price and limited supply of zircon and carbon electrodes. Prices in early 2018 are sitting around US\$5,200/t, almost 90% higher than early 2017.

The higher price and uncertain supply of zircon is set to drive ZOC prices up further in 2018.

Zircon is currently the only economic source of zirconium (Zr) available to produce zirconium materials worldwide, and prices have increased by at least 40% in 2017 as the zircon supply/demand balance has moved into deficit. Premium zircon prices ended the year at US\$1,300-1,400/tonne, and spot prices are already US\$1,400-1,500/t in early 2018. The total zircon market is around 1.2 million tonnes worldwide, and is growing at close to 3.0% per year, or 30-40,000 t. However, a significant supply deficit is looming as major suppliers face falling heavy mineral ores grades and associated higher production costs. Zircon industry consultants, TZMI, estimate a potential zircon deficit of more than



300,000 tonnes by 2021 without new supply. The zirconium market accounts for about 20% of all zircon demand, and is split evenly between zirconium chemicals and fused zirconia. In the current market, zirconium producers must compete with other zircon consumers, where limited supply is likely to be rationed according to purchasing patterns in 2017.

With the uncertain supply outlook, interest in DP zirconium materials increased markedly during 2017 as companies looked to reduce dependence on China and zircon. A number of discussions are in progress, with some customers looking to convert letters of intent to offtake agreements.

Rare Earths

Rare earth permanent magnets (NdFeB) continued to be the main driver for the rare earths market in 2017, with even higher growth rates anticipated in 2018 due to the rapid growth in demand for electric vehicles worldwide.

The widespread environmental crackdown across China has also included the rare earths industry putting illegal mining under the spotlight and imposing strict enforcement of the quota system. Rare earth industry consultants, IMCOA, estimate China's illegal rare earths production is currently responsible for supplying over 50% of praseodymium / neodymium (Pr/Nd) oxide required for magnets, so any reduction in illegal supply will affect supply and prices.

The rapid increase in magnet rare earth prices during most of 2017 was followed by a significant retracement in the December quarter. After touching US\$100/kg in September, Chinese export prices for PrNd metal fell back to ~US\$61/kg, but still up 23% for the year. The uptrend in prices has resumed in early 2018 with continued strong magnet demand expected to support prices for neodymium and praseodymium oxides.

Hafnium

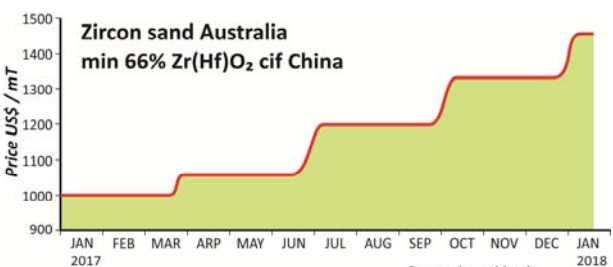
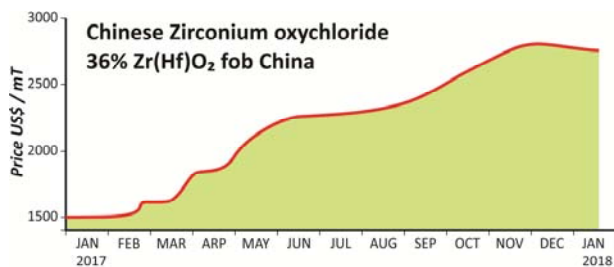
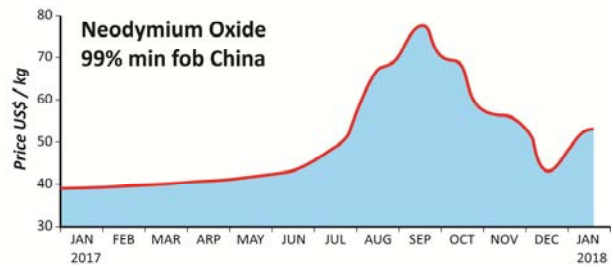
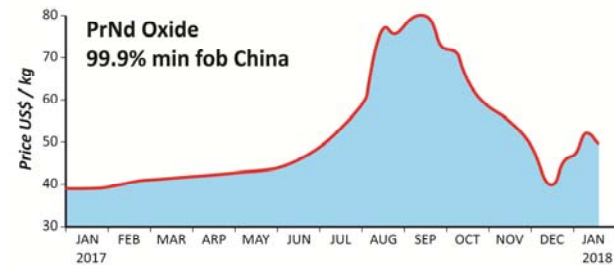
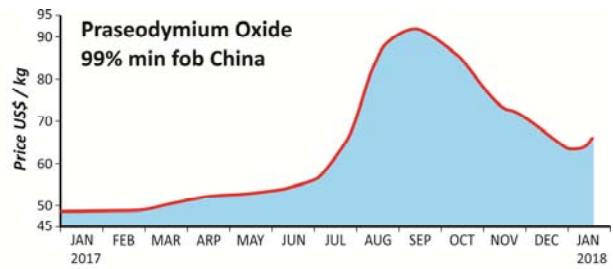
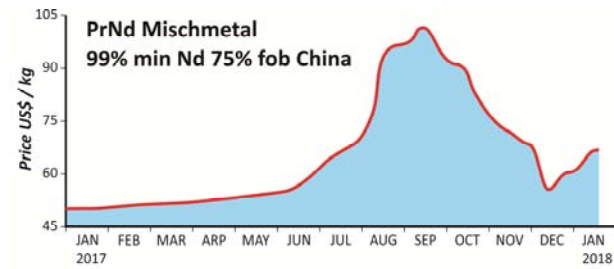
The hafnium market experienced tightening supply in 2017, while demand continues to increase for traditional and new applications. Hafnium metal for super alloys used in industrial gas turbines and jet engines remains the main market, while other applications continue to grow for this niche element.

The nuclear industry remains the main source of hafnium, where it is recovered from zirconium metal used in fuel assemblies. A significant predicted increase in hafnium demand to 2025 and beyond will make the DP an important new source of supply that is not tied to the nuclear industry or the traditional zirconium supply chain.

The European Commission has added hafnium to its 2017 list of 27 critical raw materials, which already listed rare earths and niobium. Materials are deemed critical based on risks of supply shortage and where their significance to the economy is higher than other raw materials.

Niobium

The niobium market had another quiet year in 2017, with prices edging up to US\$35-36/kg in Europe. The main niobium product is ferro-niobium (FeNb) which is used widely in high strength low alloy steel (HSLA) and high-performance steels. A major market is China, where demand for FeNb is increasing as a substitute for ferro-vanadium, the supply of which has been affected by environmental inspections. Argus Metals reports that China consumes an average of 22 g of niobium per tonne of steel in 2016, compared to the EU average of 130 g/t.



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

TGO continues to perform well with one fleet operating between the Caloma Two and Wyoming One pits. Open pit mining remains scheduled to finish in Q1 FY2019.

A total of 16,641 ounces of gold were poured for the quarter, which was above forecast. The site cash costs were A\$840/oz and the all in sustaining cost (AISC) was A\$1,058/oz. Guidance for the full year has been lifted to 70,000 to 80,000 ounces of gold at an AISC of A\$1,000 to A\$1,100. Guidance for the coming quarter is 17,000 to 22,000 ounces of gold.

Gold sold for the quarter totalled 13,184 ounces at an average sales price of A\$1,694/oz generating revenue of A\$22.3 million. Bullion on hand increased by 3,453 ounces to 7,756 ounces (fair value of \$12.9 million at quarter end). Site operating cash flow was A\$4.6M (excluding the increase in bullion on hand). The hedge book at quarter end contained no open forward contracts.



TGO FY 2018 Quarterly Production Figures

TGO Production		FY 2017	Sep Quarter 2017	Dec Quarter 2017	FY 2018
Waste mined	BCM	7,679,110	1,807,545	507,498	2,315,043
Ore mined	Tonnes	1,222,868	289,627	330,613	620,240
Strip Ratio	Ratio	16.6	16.0	4.1	9.8
Grade	g/t	2.08	2.55	1.96	2.55
Ore milled	Tonnes	1,087,983	281,191	264,416	545,607
Head grade	g/t	2.15	2.80	2.21	2.51
Recovery	%	91.5	92.7	92.9	92.8
Gold poured	Ounces	68,836	24,122	16,641	40,764
Revenue Summary					
Gold sold	Ounces	69,929	21,610	13,184	34,794
Average price realised	A\$/oz	1,678	1,685	1,694	1,688
Gold revenue	A\$M	117.3	36.4	22.3	58.7
Cost Summary					
Mining	A\$/oz	748	501	503	502
Processing	A\$/oz	295	208	260	229
Site Support	A\$/oz	84	56	78	65
C1 Site Cash Cost	A\$/oz	1,127	766	840	796
Royalties	A\$/oz	49	54	51	53
Sustaining capital	A\$/oz	47	34	27	31
Rehabilitation	A\$/oz	71	97	99	98
Corporate	A\$/oz	41	31	41	35
AISC ²	A\$/oz	1,335	982	1,058	1,013
Bullion on hand	Ounces	1,814	4,303	7,756	7,756
Stockpiles					
Ore for immediate milling	Tonnes	761,829	770,136	829,356	829,356
Grade	g/t	0.95	0.86	0.87	0.87
Contained gold	Ounces	23,300	21,086	23,195	23,195

¹Operating cashflow = As prescribed by AASB 107 Statement of Cashflows where exploration outflows and development outflows are grouped under investing cashflows. Note that the Quarterly Cashflow (Appendix 5B) includes those outflows under operating cashflows.

²AISC = 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.

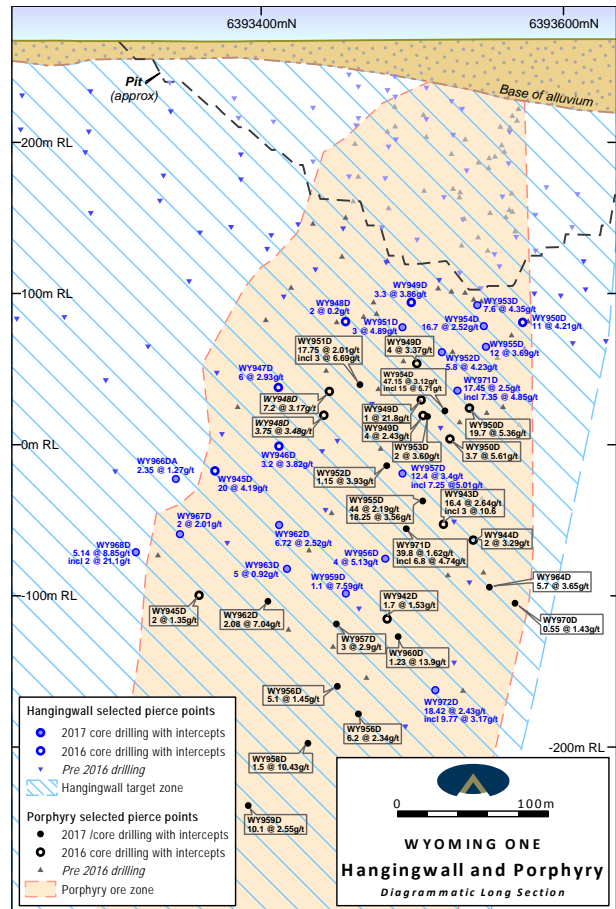
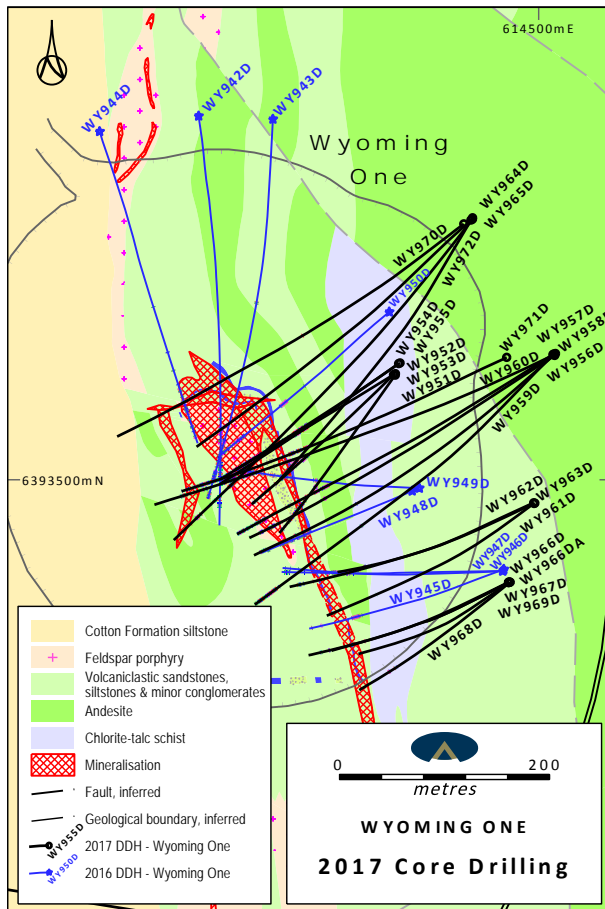
Underground Mining Study

As advised in ASX Announcements 17 November and 11 December 2017, results were received for the 23 hole core drilling program (11,011 metres) targeting the Hangingwall and Porphyry zones below the Wyoming One open pit. The drilling confirmed continuity of the gold mineralisation in the Hangingwall and Porphyry zones, and demonstrated continuity of the systems to -200m RL, 300 metres below the planned base of the open pit.

The Hangingwall-Porphyry High Grade (contact mineralisation) has a strike length of over 300 metres and is open down dip and to the south. Most of the mineralisation has a near vertical or steep east dipping orientation. Other structurally cross cutting zones exist within the porphyry, and while of limited strike length, these are often very high grade within broad low grade envelopes (eg WY971D



39.8m @ 1.62g/t Au, including 1.0m @ 26.2g/t Au). The vertical ore zones tend to average around 5 metres in true width, but can range from 1 metre to 20 metres wide.



Results included:

- **WY954D** 16.7m @ 2.52g/t Au from 178.3 metres
 - incl 4.0m @ 3.78g/t Au from 181 metres
 - and 4.0m @ 4.00g/t Au from 189 metres
 - and 47.15m @ 3.12g/t Au from 249 metres
 - incl 15.0m @ 5.71g/t Au from 253 metres
 - and 0.8m @ 26.7g/t Au from 278.4 metres
- **WY955D** 12.0m @ 3.69g/t Au from 189 metres
 - incl 5.3m @ 5.63g/t Au from 192.7 metres
 - and 4.6m @ 3.51g/t Au from 206.2 metres
 - and 44.0m @ 2.19g/t Au from 306 metres
 - incl 18.25m @ 3.56g/t Au from 312 metres
- **WY957D** 12.4m @ 3.40g/t Au from 378.6 metres
 - incl 7.25m @ 5.01g/t Au from 379.75 metres
 - and 8.45m @ 4.36g/t Au from 394.55 metres
 - incl 3.3m @ 8.35g/t Au from 395.9 metres
 - and 2.25m @ 16.4g/t Au from 476.75 metres
- **WY968D** 5.14m @ 8.85g/t Au from 364.5 metres
 - incl 2.0m @ 21.1g/t Au from 367.0 metres
- **WY971D** 17.45m @ 2.5g/t Au from 309.1 metres
 - incl 7.35m @ 4.85g/t Au from 309.1 metres
 - and 39.8m @ 1.62g/t Au from 420.2 metres
 - incl 1.89m @ 4.77g/t Au from 423.0 metres
 - and 6.8m @ 4.74g/t Au from 450.2 metres
 - incl 1.0m @ 26.2g/t Au from 451.0 metres
- **WY972D** 18.42m @ 2.43g/t Au from 512.6 metres
 - incl 9.8m @ 3.17g/t Au from 513.4 m

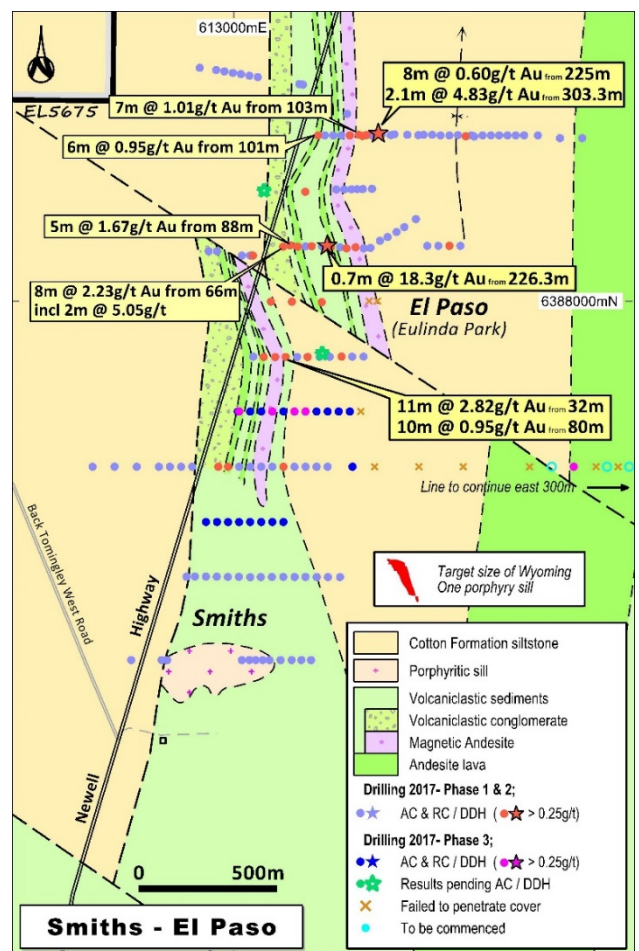
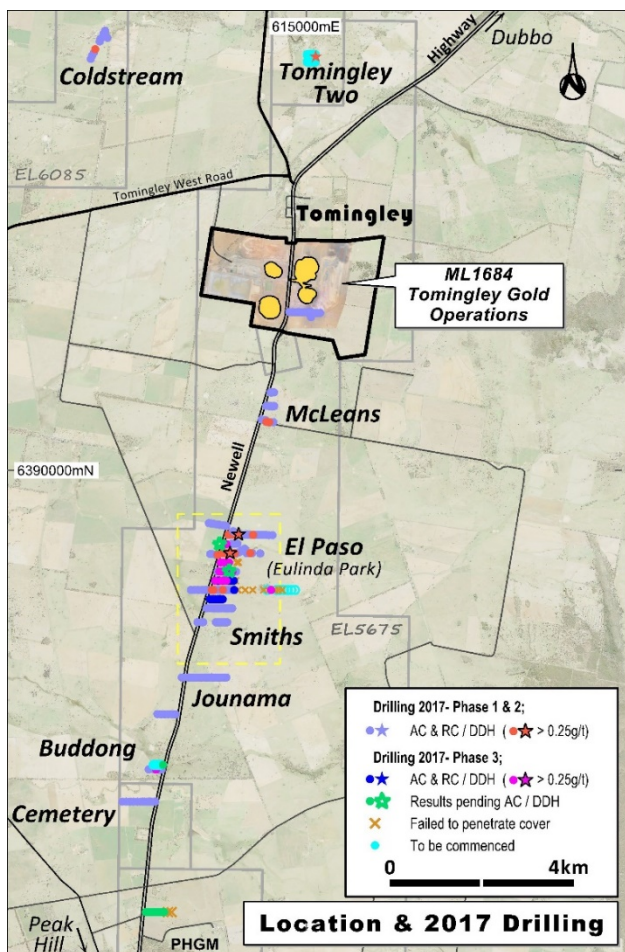


The data is being incorporated into the resource model to form a basis for the underground mining study to be completed in Q1 2018.

Regional Exploration

A 50 hole air-core drill program totalling 3430 metres together with two diamond tails for a further 602 metres has been completed. The drilling was predominantly reconnaissance in nature, mapping the geology and geochemistry of the covered bedrock. The two diamond core tails targeted geochemically anomalous stratigraphy that was poorly tested by previous air core and RC drilling. Visual gold was observed in core hole EPD004. Results are pending.

Land access has been negotiated for a largely untested stratigraphy of approximately 2.5km in strike length extending from the El Paso prospect (EPAC089 11m @ 2.82g/t Au) to the McLeans South prospect (MCAC059 9m @ 0.88g/t Au). Reconnaissance air core drilling will recommence late January.



NORTHERN MOLONG PORPHYRY PROJECT (NMPP) includes BODANGORA, KAISER and FINNS CROSSING PROPERTIES (gold-copper)

Alkane Resources Ltd 100%

Geophysical and drilling contractors have been engaged to commence activities early February to follow up the porphyry/epithermal style gold-copper mineralisation identified in the Kaiser-Boda areas.



ELSIENORA (gold); ORANGE EAST PROJECT (gold-copper); WELLINGTON (copper-gold); CUDAL (gold-zinc); ROCKLEY (gold)

Alkane Resources Ltd 100%

Geological mapping and high resolution ground magnetics have been completed to assist with drilling target definition within the Cudal and Rockley projects.

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.***

No report from ANI has been received advising progress in the quarter.

CORPORATE

The Group's cash position totalled A\$57.7M with A\$44.8M in cash and bullion on hand at fair value of A\$12.9M, an increase of A\$4.4M from the previous quarter.

At the Annual General Meeting held on 29 November 2017, Mr Gavin Smith was elected as a director of the Company with the unanimous support of the Board. Mr Smith is an accomplished senior executive and non-executive director within multinational business environments. Mr Smith brings a fresh perspective to the Board backed with extensive experience in information technology, business development, and general management in a wide range of industries and sectors.

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 has assisted with the pre-construction development of the DP.

The DP is a large in-ground resource of zirconium, hafnium, niobium, yttrium and rare earth elements. It is the most advanced poly-metallic project of its kind outside China, making it a potential strategic and independent supply of critical minerals for a range of sustainable technologies and future industries. It has a potential mine life of 70+ years. The DP is construction ready, subject to financing, with the mineral deposit and surrounding land acquired and all State and Federal approvals in place.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Bodangora, Wellington, Rockley and Elsenora 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. Gold and base metal mineralisation has been identified at Rockley and Elsenora.

