

9 July 2019



Significant Exploration Target Defined At Tomingley

- **A near-mine Exploration Target has been defined in the significant gold corridor that lies within 8 kilometres of the existing Tomingley Gold Operations (TGO) one million tonne per annum processing facility and underground mine.**
- **The Exploration Target is comprised of three primary prospects, Roswell, San Antonio and El Paso, which have over 2,500 metres of combined strike length.**
- **The Exploration Target demonstrates potential for material mine life extension at TGO and also flags a possible return to open pit mining.**
- **The Exploration Target excludes the significant greenfields potential of approximately 1km strike length between San Antonio and El Paso prospects and the areas north of Roswell to TGO and south of El Paso to Peak Hill.**
- **Resource definition drilling of the Exploration Target has commenced.**

Alkane is pleased to announce that it has defined an Exploration Target of approximately 15.8 to 23.8 million tonnes at a grade ranging between 1.7 to 2.2 g/t gold across its three primary prospects, Roswell, San Antonio and El Paso, which have over 2,500 metres of combined strike length.

This Exploration Target lies within 8 kilometres of the existing Tomingley Gold Operations (TGO) one million tonne per annum processing facility and underground mine.

The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Alkane's Managing Director, Nic Earner, said "The Exploration Target highlights the potential to significantly increase the resource around Tomingley Gold Operations in the coming years. This Exploration Target is in close proximity to our existing processing operation and underground mine, and could potentially be converted into both increased mine life and increased production. Given the potential size and grade of San Antonio alone, Alkane has already commenced the resource definition drilling of this Exploration Target in order to minimise the potential development timetable."

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Tomingley Gold Project

Alkane Resources Ltd 100%

Exploration Target

Alkane has defined an Exploration Target of approximately 15.8 to 23.8 million tonnes at a grade ranging between 1.7 to 2.2 g/t gold across its three primary prospects, Roswell, San Antonio and El Paso, which have over 2,500 metres of combined strike length.

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Tomingley Gold Project – Exploration Target				
Prospect	Range	Tonnes	Grade Au (g/t)	Reporting Au Cut Off (g/t)
			Au (g/t)	Au (g/t)
Roswell	Upper	6,200,000	1.9	0.5
	Lower	3,300,000	1.5	0.2
San Antonio	Upper	10,200,000	2.8	0.5
	Lower	7,400,000	2.3	0.2
El Paso	Upper	7,400,000	1.6	0.5
	Lower	5,100,000	1.3	0.2
Total	Upper	23,800,000	2.2	0.5
	Lower	15,800,000	1.7	0.2

The Exploration Target is based on the current geological understanding of the mineralisation geometry, subsurface geochemistry and regional geology. This is provided by an extensive drill hole database, regional mapping, historic mining activity at TGO coupled with understanding of the host stratigraphic sequence.

Included in the data on which this Exploration Target has been prepared is the recent exploration drill program of 76 holes for 16,376 metres of reverse circulation (RC) drilling and 3 holes for 1,143 metres of core drilling which tested the gold resource potential of the Roswell, San Antonio and El Paso prospects. The 76 hole program was a follow up to the initial regional aircore drill program which commenced in mid-2017 (see *ASX announcements referenced page 5).

The Exploration Target, being conceptual in nature, takes no account of geological complexity, possible mining method or metallurgical recovery factors. The Exploration Target was estimated in order to provide an assessment of the potential scale of the near-mine exploration at TGO.

The Company intends to test the Exploration Target with drilling and this is expected to extend over approximately 12 months. Resource definition drilling at the San Antonio and Roswell prospects has commenced. This is expected to comprise of over 60,000m of predominantly RC drilling.



The Exploration Target is defined by a combination of:

- Wireframe defined 'inverse distance squared' extrapolation block model estimation based on the geological wireframes where the data density and sample support does not meet the criteria for either indicated or inferred classification.
- Extrapolation of the block modelled exploration target into extensional zones that have not been tested by drilling but in which geological continuity is supported by either geological mapping, structural interpretation or outlying mineralised drill hole intercepts below a 0.2g/t Au cut off that suggest continuity. The models range from 0mRL to -50mRL below the surface at 250mRL. The grade is assigned from the global average grade estimate for the modelled component.

Grade ranges have been either estimated or assigned from the model estimation using either a 0.2g/t Au cut off for the lower bound grade or 0.5 g/t Au cut off for the upper bound grade. No Au top cut was applied. A classification is not applicable for an Exploration Target.

Project - Summary

The Tomingley Gold Project (TGP) covers an area of approximately 440km² stretching 60km north-south along the Newell Highway from Tomingley in the north, through Peak Hill and almost to Parkes in the south. The TGP contains Alkane's currently operating Tomingley Gold Operations (TGO), an underground mine with a 1Mtpa processing facility that commenced originally as an open cut mining operation in 2014.

Over the last year Alkane has conducted an extensive regional exploration program with the objective of defining additional resources that have the potential to be mined either via open pit or underground operations and fed to TGO. The program has yielded broad, shallow high-grade intercepts that demonstrate potential for material project life extension and show that a potential return to open pit mining and / or underground extension is possible with appropriate resource confirmation, landholder agreement and regulatory approvals.

The recent exploration drill program of 76 holes for 16,376 metres of reverse circulation (RC) drilling and 3 holes for 1,143 metres of core drilling represents a follow up to the initial regional aircore drill program which commenced in mid-2017, yielding encouraging results. This program tested the gold resource potential of the Roswell, San Antonio and El Paso prospect.

Resource definition drilling at the San Antonio and Roswell prospects has commenced. This is expected to comprise of over 60,000m of predominantly RC drilling. Other greenfields exploration in the prospective belt will continue.

Prospect Detail

Roswell Prospect

The mineralisation at the Roswell prospect has been defined by RC and diamond core drilling over a strike length of approximately 800 metres and remains open to the north and south. The mineralised zones range from 2 -30 metres in width and the host sequence is covered by 20-50 metres thick alluvial clays and sands.

Roswell is positioned north of a regional NW trending structure named the Rosewood Fault. This fault, originally identified in the aeromagnetics, appears dextral and is of a similar orientation to the structure that dextrally displaces the Caloma deposits from the Wyoming deposits at TGO that is positioned in the centre of the mined deposits. These important cross-cutting structures can cause transpression usually after an intense period of compression during periods of orogeny, resulting in suitable volcanic host rocks to act as structural buttresses in which hydrothermal fluids pond and precipitate gold.

The drilling at Roswell has defined a fault bounded section of volcanic stratigraphy that has been rotated from striking north to striking north-northeast. The mineralisation appears to be hosted by two 'brittle' volcanic units (monzodiorite and andesite) as per the structural setting observed at Tomingley. At



Tomingley the volcanics host structural zones generated by a competency contrast between the 'brittle' volcanics and 'ductile' volcanoclastic meta-sediments. Porphyritic monzodiorites and andesites host the majority of the orogenic gold mineralisation mined at Tomingley.

Mineralisation is characterised as quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics. The interpreted 3D orientation of the mineralisation indicates a moderately east dipping sheeted vein system striking north-northeast that is likely thrust bounded at the footwall to the mineralisation.

The mineralisation is displaced by a swarm of post mineralisation dolerite dykes. Dolerite dykes are common at TGO with a similar orientation of dipping steeply to the NNE, striking WNW.

San Antonio Prospect

The San Antonio prospect is located south of the Roswell prospect, separated by the Rosewood Fault. Mineralisation at San Antonio is presently defined with RC and diamond core drilling over a strike length of approximately 1,000 metres that is open along strike and down dip. The mineralised bedrock is covered by 20 metres to 60 metres thick alluvial clays and sands.

The drilling at San Antonio has defined north to north-northeast striking, sub-vertically dipping, deformed and attenuated andesitic volcanic stratigraphy. Lithochemistry has identified two phosphorous enriched lithological units within the volcanic stratigraphy at San Antonio. In particular, a phosphorous enriched andesite unit that appears to host the majority of mineralisation at San Antonio and Roswell prospects. This unit is approximately 60 metres thick, a similar thickness to the Wyoming One andesite that hosts the +300koz deposit (open cut now mined) and has been mapped over a strike length of approximately 2 kilometres. The andesites are important hosts to structural zones generated by a competency contrast between the 'brittle' volcanics and 'ductile' volcanoclastic meta-sediments.

Mineralisation is logged as quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered feldspar phyric andesites. The mineralisation appears to be constrained as steep east to vertical dipping sheeted veins, striking north, within subvertical stratigraphy comprising of 'brittle' andesites interlayered with 'ductile' volcanoclastics metasediments. The sheeted vein systems range from 5 to 20 metres in width.

The mineralisation is occasionally displaced by post mineralisation dolerite dykes.

El Paso Prospect

The El Paso prospect is located south of San Antonio with mineralisation and alteration evident over a 1,000 metre strike length, defined by RC and diamond core drilling, and remains open along strike and down dip. The mineralised bedrock is covered to the south by 25 metres thick cover, deepening to the north to 50 metres thick detrital alluvial sands and gravels.

The drilling has identified gold mineralisation dominantly hosted within a feldspar phyric andesite. Petrographic studies have identified this unit as texturally and mineralogically identical to the andesite unit that hosts the majority of the Roswell and San Antonio gold mineralisation.

The mineralisation is characterised as zones of quartz-carbonate-pyrite-arsenopyrite veins mostly hosted within a phosphorous rich feldspar phyric andesite with lesser gold zones hosted within the volcanoclastics. The mineralisation at El Paso appears to be constrained as sub vertical dipping sheeted veins from 1-10 metres thick, striking north, within subvertical stratigraphy comprising of volcanics interlayered with immature volcanoclastic metasediments.

The mineralisation is occasionally displaced by post mineralisation dolerite dykes.



Project – Next Steps

Resource definition drilling of the Exploration Target has commenced. Consultation is underway with relevant landholders and regulatory bodies, particularly Transport for NSW in regards to potential impacts on the Newell Highway. Data collection has commenced for some of the environmental studies that will be required for mining approval. The purpose of this work is to enable Alkane to have a conceptual review of open cut and underground options for the project, should an adequate Resource be defined, by the end of calendar 2019.

***ASX Announcements referenced:**

Further Significant Gold Intercepts in Tomingley Gold Corridor 12 June 2019

Third Near Mine Gold Discovery at El Paso Confirms 2.5km Tomingley Gold Corridor 17 May 2019

Significant Gold Intercepts Confirm Potential for Tomingley 29 March 2019

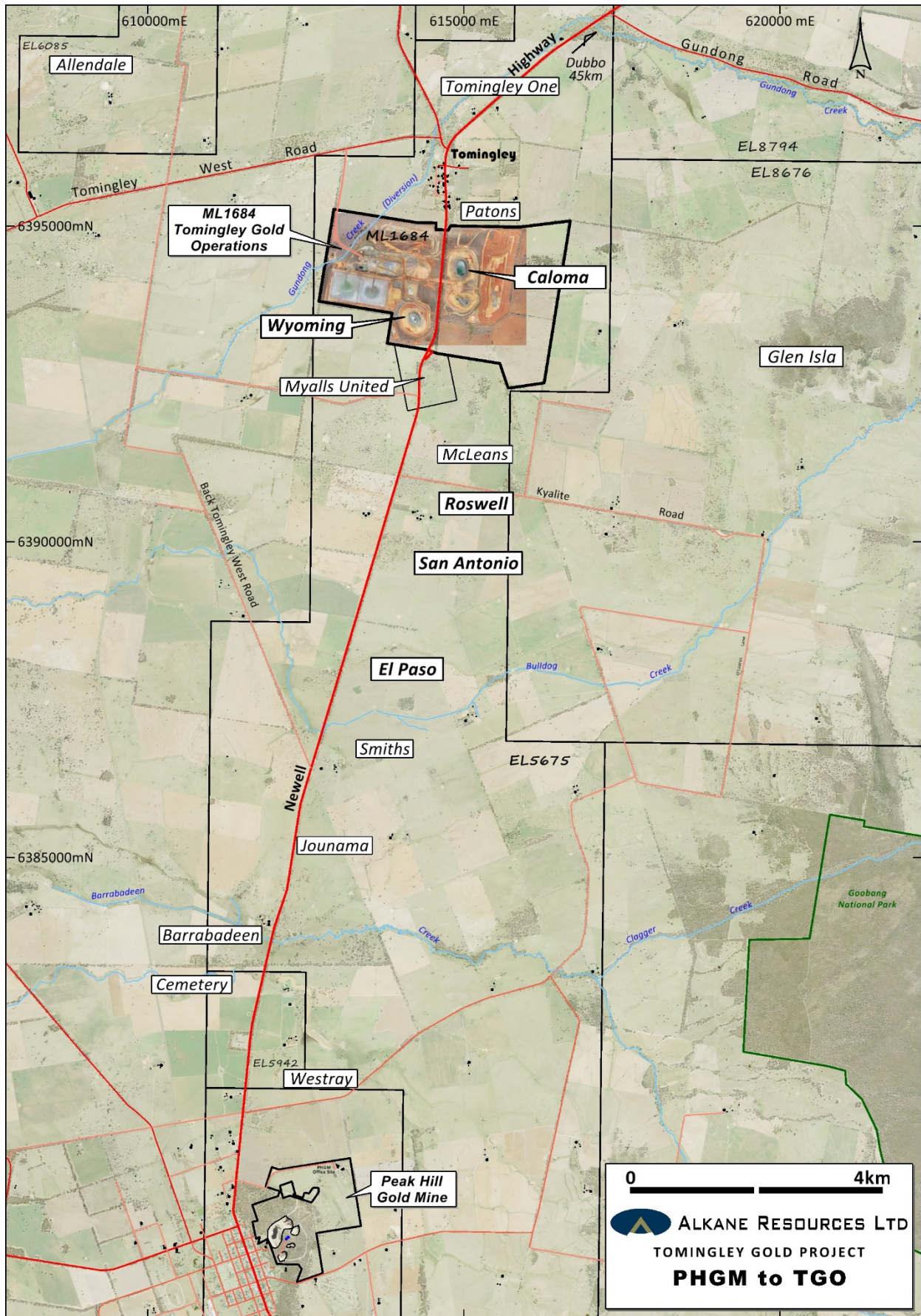
Multiple High Grade Gold Zones in Tomingley Regional Program 1 February 2019

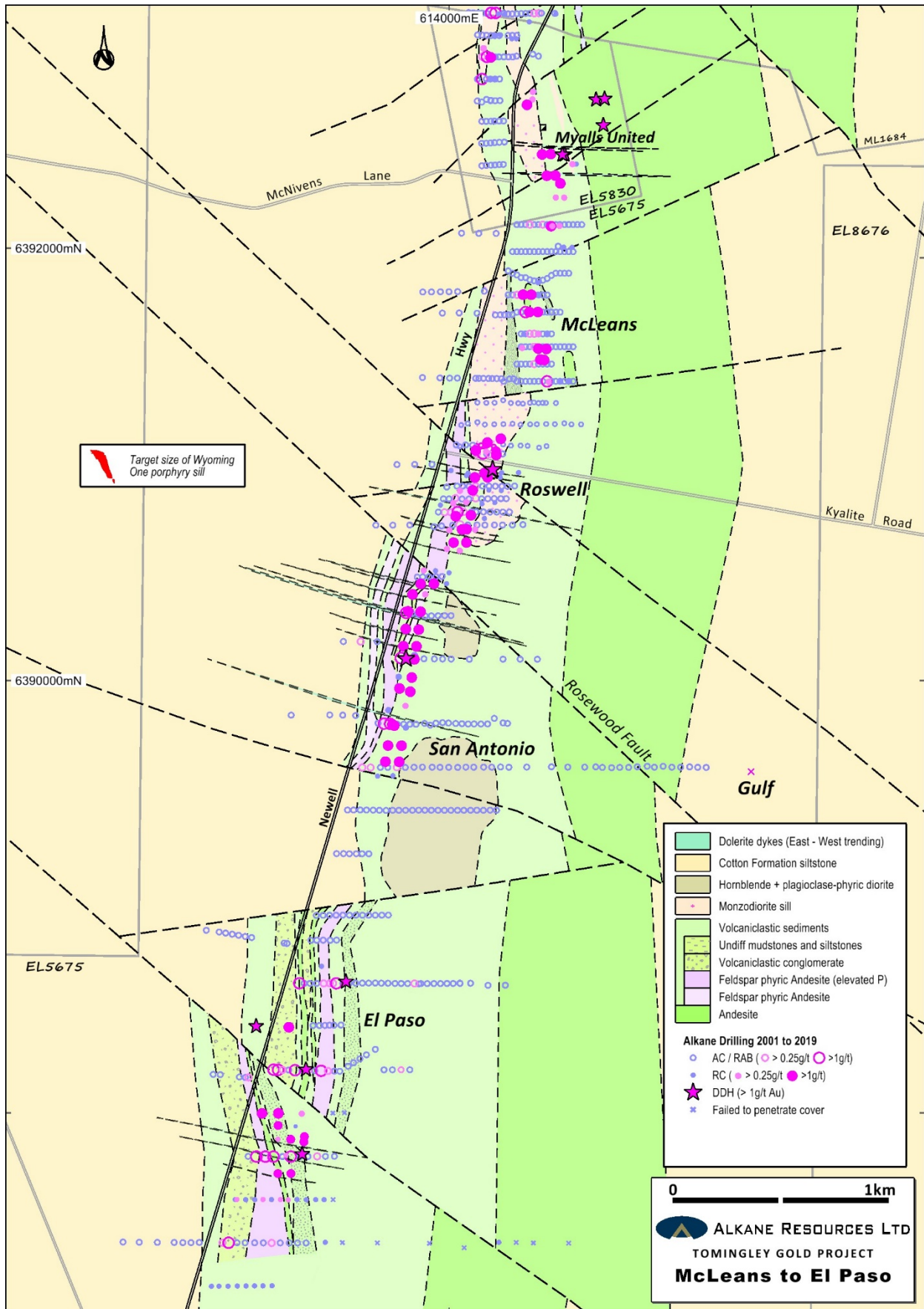
High Grade Gold Mineralisation in Tomingley Regional Program 19 October 2018

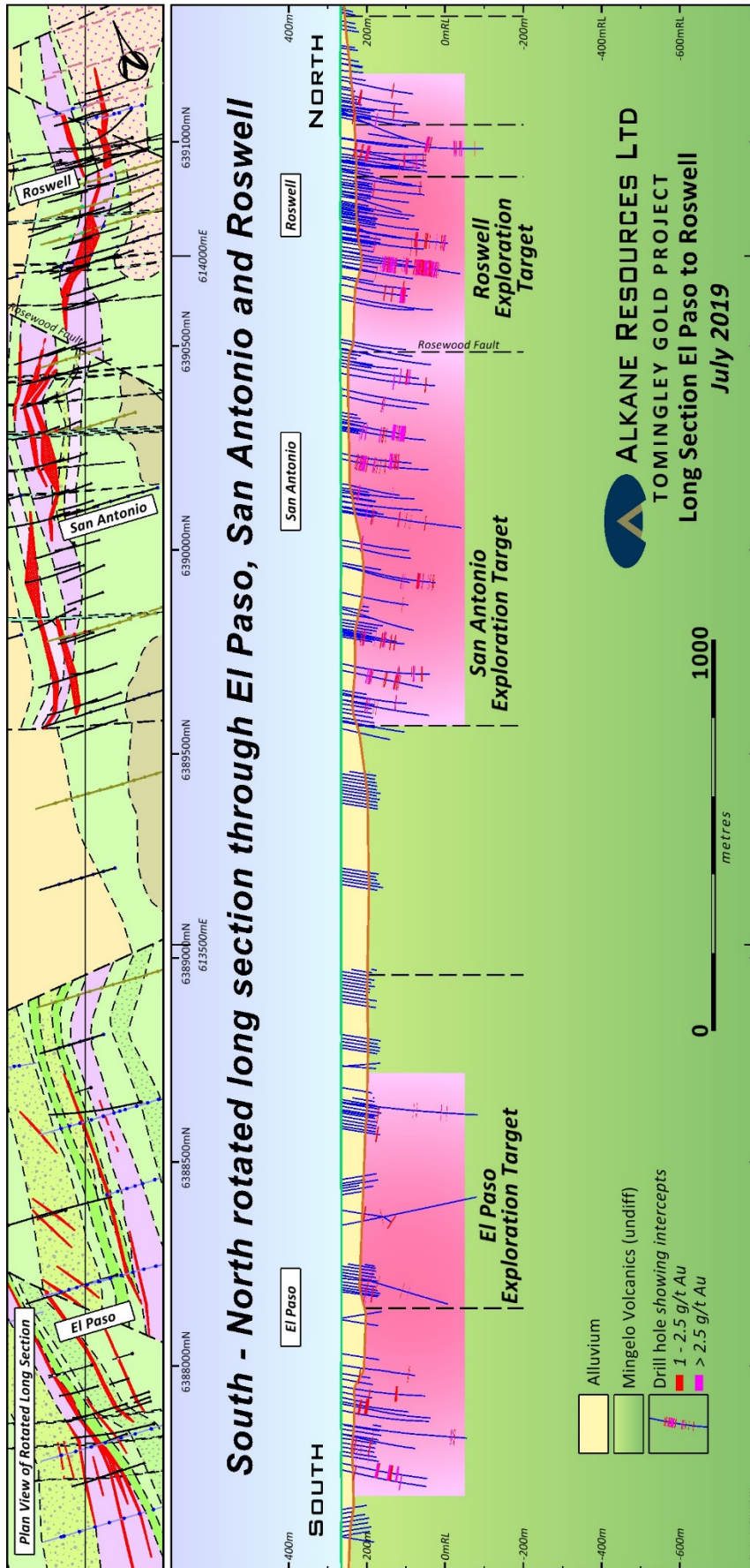
Strong Gold Mineralisation Intersected Confirms Near Mine Potential at Tomingley 11 July 2018

Additional Gold Mineralisation Intersected in Tomingley Regional Exploration 10 August 2017

Encouraging Gold Mineralisation in Tomingley Regional Exploration 10 April 2017









Competent Person

Unless otherwise advised above, the information in this report that relates to exploration targets is based on, and fairly represents, information and supporting documentation prepared by Mr David Meates MAIG, (Alkane Senior Exploration Geologist) who is a full time employee of Alkane Resources Ltd. Mr Meates 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 Meates has given his prior written consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Previously Reported Information

The information in this report that references previously reported exploration results is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

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 gold production company with a multi-commodity exploration and development portfolio. Alkane's projects are predominantly in the Central West region of NSW, but extend throughout Australia.

Alkane's gold production is from the Tomingley Gold Operations (TGO) which has been operating since early 2014. Alkane has investments in other gold exploration and development companies.

Alkane's most advanced gold exploration projects are in the 100% Alkane owned tenement area between TGO and Peak Hill and have the potential for sourcing additional ore for TGO.

Alkane has other 100% owned exploration tenements in Central Western NSW prospective for gold and copper.

Alkane's largest non-gold project is the Dubbo Project (DP), a large in-ground resource of zirconium, hafnium, niobium, yttrium and rare earth elements. As it is an advanced polymetallic project outside China, it is 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 75+ years. The DP is development ready, subject to financing, with the mineral deposit and surrounding land acquired and all major State and Federal approvals in place.

