ASX and MEDIA RELEASE

3 June 2021

ALKANE RESOURCES LTD
ABN 35 000 689 216

Tomingley Mine Life Extended Beyond 2030

- **Alkane's Roswell and San Antonio Resources to be mined as part of an expanded Tomingley Gold Operations that extends the mine's life to at least 2031.**
- **Alkane's life of mine (LOM) plan incorporates the defined Roswell and San Antonio Resources (refer ASX Announcements 4 November 2020 and 16 February 2021), to be mined by both open cut and underground, beginning in FY23.**
- **This current plan shows the production of approximately 745,000 ounces of gold (ozAu) for the period, with processing ramping to a 1.5 million tonne per annum feed rate.**
- **The planned production profile (averaged for each period) is:**
  - **50,000 – 60,000 ozAu per year for FY22 & FY23;**
  - **Production escalating from 60,000 ozAu per year through FY24 to;**
  - **100,000 – 115,000 ozAu for FY25 to FY27; and,**
  - **55,000 – 65,000 ozAu for FY28 to FY31.**
- **Substantial upside potential exists to extend the Roswell underground and maintain production over the FY28 to FY31 period at or near FY25 to FY27 levels, and beyond.**
- **The expected AISC over the LOM period is A$1,350 to A$1,450 per ozAu.**
- **Development of the Roswell and San Antonio deposits requires the diversion of the Newell Highway onto land which Alkane has already purchased.**
- **This diversion, together with plant upgrades and other capital gives rise to a capital cost of ~$87M, predominantly expended in FY23.**
- **The capital cost is expected to be funded from operating cashflow and debt, and preliminary discussions are commencing with potential debt providers.**
- **With detailed plans and initial consultation now complete, the Environmental Impact Statement is being prepared for submission in the coming quarter. The expected timing of Project Approval is mid-2022.**

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 : JOHN GARDNER, CITADEL-MAGNUS, TEL +61 413 355 997

Level 4, 66 Kings Park Rd, West Perth WA 6005, AUSTRALIA (PO Box 768, West Perth WA 6872, AUSTRALIA)
Telephone: +61 8 9227 5677 Facsimile: +61 8 9227 8178 www.alkane.com.au mail@alkane.com.au

Alkane Resources Limited (ASX: ALK) ('Alkane' or 'the Company') is pleased to announce the life of mine (LOM) plan for the Company's Tomingley Gold Operations (Tomingley) in Central New South Wales. Tomingley is an operating mine that has been producing gold since early 2014. The Tomingley LOM plan extends the mine into the Roswell and San Antonio deposits to the immediate south of the existing mining lease.

Alkane Managing Director, Nic Earner, said: *"We're excited to announce the planned extension of Tomingley mine life to beyond 2030.*

"With existing underground and open cut operations we are well placed to incorporate the new Resources defined by Alkane's exploration team at the nearby Roswell and San Antonio deposits.

"We intend to increase our processing throughput and ramp production to over 100,000 ounces per year from FY25, whilst continuing production at the current run rate in the interim. With the high-grade Roswell deposit open at depth, there is real potential for further increases in production in the late 2020s.

"We expect to submit our Environmental Impact Statement for Project Approval in the coming quarter, and we are continuing consultation with interested stakeholders."

Background

Tomingley Gold Operations is a wholly owned subsidiary of Alkane, located near the village of Tomingley, approximately 50km southwest of Dubbo in Central Western New South Wales. The gold processing plant was commissioned in January 2014 and has been operating at the design capacity of 1Mtpa since late May 2014. Mining is currently based on four gold deposits (Wyoming One, Wyoming Three, Caloma and Caloma Two).

Open cut mining from the four deposits occurred from late 2013 until early 2019. During that time 6,271,000 tonnes of ore averaging 1.95 g/t Au was mined. The open cut mining reconciliations were very positive, with 393,000 ounces gold in the ore mined from the open cut versus 353,000 ounces contained in-situ within the original total mineral resource (Inferred, Indicated and Measured) at mine commencement that fell within the final pit shells, an ~11% increase.

This positive reconciliation gave the Board confidence not only in the underground resource already defined, but that expansion of that resource was possible as it was developed.

In June 2018 Alkane detailed its UG mine plan (refer ASX Announcements 4 June 2018 and 19 June 2018) and approved its development in September 2018 (refer ASX Announcement 24 September 2018). The mine plan was for 93,000 ounces of gold to be recovered over a 40-month development period. Development of the UG commenced in late 2018, with first stope ore production occurring in late 2019.

Actual gold poured to the end of the March Quarter 2021 is 431,438 ounces, indicating that approximately 80,000 ounces has been poured from processed underground ore to date (calculations are complicated by the simultaneous processing of low-grade stockpiles). The current Tomingley underground plan now extends to the end of 2023, expects to produce a similar gold production again, and remains open at depth and strike in several areas.

In 2018 the regional exploration program to define additional gold resources for Tomingley commenced, following up previous reconnaissance drilling at the Roswell, San Antonio, El Paso and Myalls United prospects, south of Tomingley. The early encouraging results at Roswell and San Antonio gave rise to a substantial drill program over the 2018 to 2021 period, which led to a number of substantial intercepts and the resultant release of resource models for both Roswell and San Antonio. These resources included both Indicated and Inferred classifications (ASX Announcements 4 November 2020 and 16 February 2021).

The resources are considered sufficient to support an economic development. The resultant production and steps to progress that development are summarised in this announcement.

Resource Models
Roswell (ASX Announcement 4 November 2020)
Geology

The Tomingley gold deposits are interpreted as orogenic gold systems positioned within a major structural zone. This style of deposit is well documented globally with the more significant example in Australia being the Archean greenstone belts of the Yilgarn Craton in WA.

The Roswell deposit is hosted in the Mingelo Volcanic Formation, a strongly deformed and hydrothermally altered Ordovician aged belt of volcanics that are predominantly andesitic volcaniclastic breccias, lesser sandstone/siltstone units, lavas and black mudstones. The volcanics are overlain by the younger Cotton Formation siltstones.

The resource drilling program has defined a fault bounded section of volcanic stratigraphy that has been rotated 15° east from striking approximately north south. The mineralisation at Roswell is primarily hosted by two 'brittle' volcanic units (monzodiorite and andesite) as per the structural setting observed at the Tomingley gold deposits. These volcanics host structural zones generated by a competency contrast between the 'brittle' volcanics and 'ductile' volcaniclastic sediments.

Mineralisation is characterised as similar to the Tomingley gold mineralisation, with quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics. These sheeted quartz veins are orientated as steep east dipping, striking approximately 10° east of north, and are typically constrained within the volcanic units. The mineralisation has been defined by drilling over a strike length of approximately 600 metres and remains open to the north and at depth. The higher-grade mineralisation occurs in the southern section, proximal to and truncated to the south by a regional NW trending structure named the Rosewood Fault. The San Antonio deposit is a continuation of the mineralised zone to the south of the fault. The Rosewood Fault is of a similar orientation to the structure that dextrally displaces the Caloma deposits from the Wyoming deposits, positioned in the centre of the Tomingley 'gold camp'.

The mineralisation at the Roswell Deposit is displaced by three approximately 4 metres thick dolerite dykes dipping steeply to the NNE, striking WNW. The dolerites postdate the gold mineralisation.

Weathering of the mineralised bedrock has developed a saprolitic clay profile extending approximately 35 metres from the base of alluvium to fresh rock. The mineralised bedrock lies beneath a Cainozoic alluvium overburden between 30-55 metres thick.

Mineral Resource

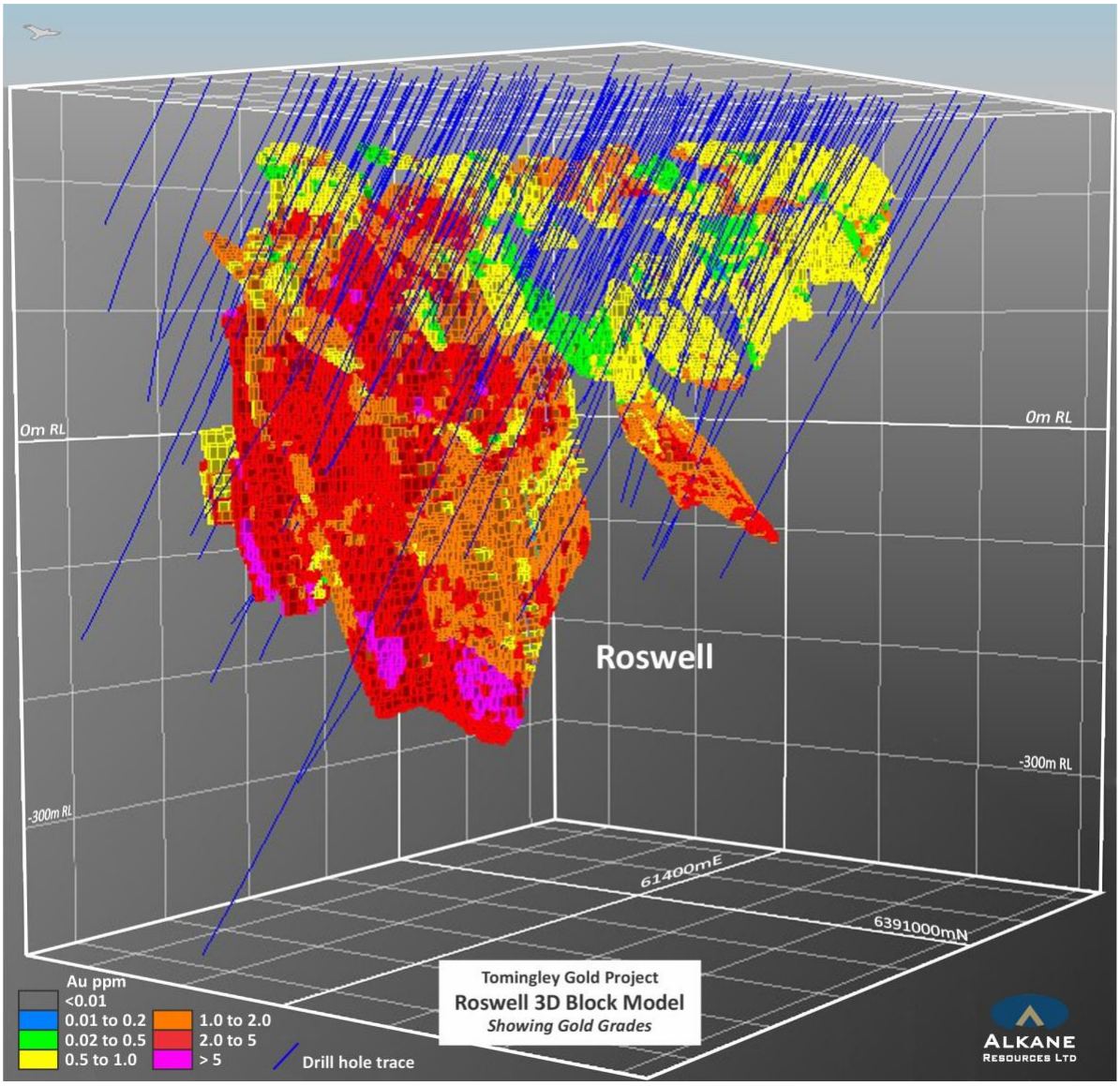
A Mineral Resource estimation has been calculated on the Roswell deposit with a nominal 20 metre drill hole spacing to vertical depths ranging from 0mRL to -200mRL and averaging about 350m below ground surface:

Project	Resource Category	Cut-Off	Tonnes (Mt)	Gold Grade g/t	Gold Metal (Koz)
Roswell	Indicated	0.5g/t Au	7.88	2.07	524
	Inferred	0.5g/t Au	2.19	1.93	136
	Total	**0.5g/t Au**	**10.1**	**2.04**	**660**

Full details are provided in the ASX Announcement 4 November 2020

The Roswell mineralisation remains open at depth.

3D model of the Roswell mineralisation



San Antonio (ASX Announcement 16 February 2021)

Geology

The San Antonio deposit is similar to Roswell being hosted in the Mingelo Volcanic Formation, a strongly deformed and hydrothermally altered Ordovician belt of volcanics that are predominantly andesitic volcaniclastic breccias, lesser sandstone/siltstone units, lavas and black mudstones. The volcanics are overlain by the younger Cotton Formation siltstones.

The San Antonio deposit is located south of the Roswell deposit, dextrally displaced and separated by the Rosewood Fault. The drilling has defined north to north-northeast striking, sub-vertically dipping, deformed and attenuated andesitic volcanic and volcaniclastic stratigraphy. The mineralisation at San Antonio is primarily hosted by three 'brittle' volcanic units as per the structural setting observed at the Tomingley gold deposits. These volcanics host structural zones generated by a competency contrast between the 'brittle' volcanics and 'ductile' volcaniclastic meta-sediments. Litho-geochemistry has identified a phosphorous enriched (apatite bearing) andesite 70m to 80m thick with a 10m wide brecciated basal contact that hosts the majority of mineralisation in the northern half of San Antonio. The andesite thins to a thickness of less than 20m to the south and is offset by the west-northwest trending 'Kenilworth Fault'. The fault appears to rotate the volcanic stratigraphy sinistrally 15^{o} to the east. South of the Kenilworth Fault, intruding near or along the margins of the andesite are two thin, less than 10m thick, feldspar phyric dacitic intrusions. These intrusions are invariably mineralised and are the focus to the mineralisation in the southern section of the deposit. A third volcanic unit, approximately 50m thick, is a monzodiorite sub-volcanic sill that is positioned west of the andesite in a similar stratigraphic position as observed at the Roswell deposit. The monzodiorite appears only mineralised north of Kenilworth Fault forming mineralised lodes with strike lengths of up to 200m. This unit remains poorly defined by drilling due to the restricted access of the Newell Highway.

Mineralisation is characterised as Tomingley-style orogenic gold mineralisation, with quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics and volcaniclastics. These sheeted quartz veins are orientated from steeply east dipping to vertical forming sigmoidal shapes, striking approximately north-south to 15^{o} east of north, and hosted within subvertical dipping stratigraphy. The mineralisation has been defined by drilling over a strike length of approximately 1,000m and remains open at depth. The more significant sized and higher grading zones of mineralisation are hosted in the andesite in the north and in the dacitic intrusives in the southern sections of San Antonio.

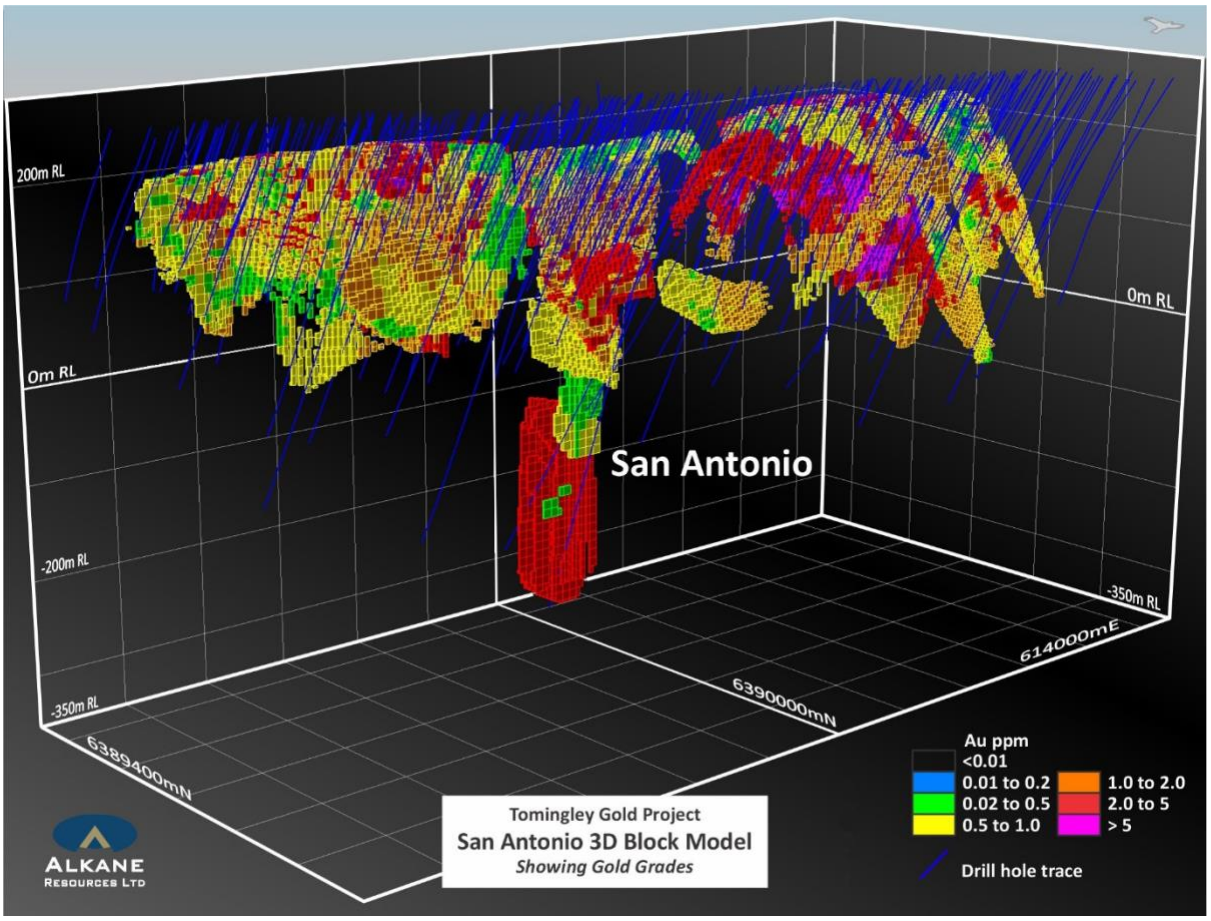
Mineral Resource

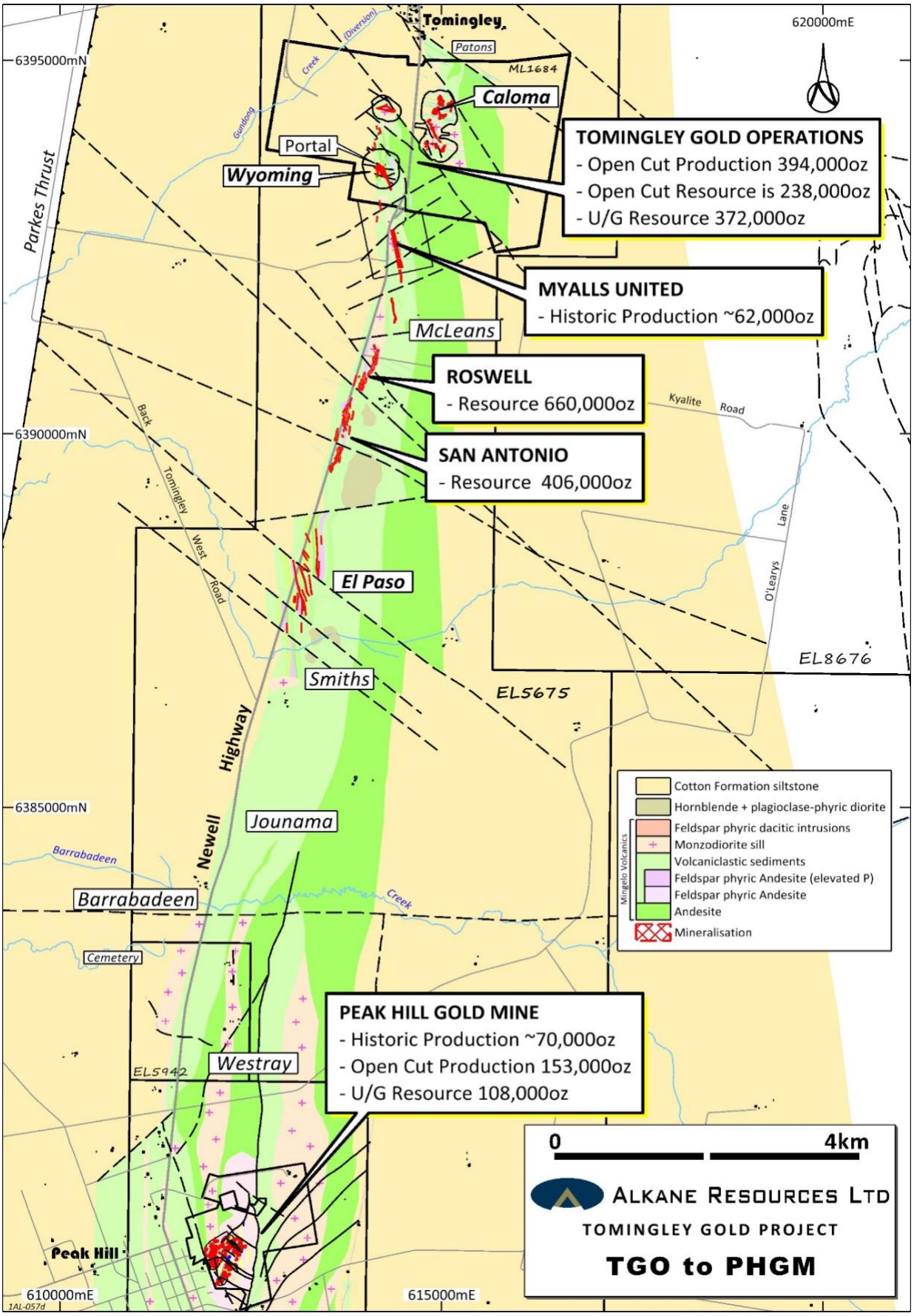
A Mineral Resource estimation has been calculated on the San Antonio deposit with a nominal 20 metre drill hole spacing to vertical depths ranging from 30mRL to -200mRL and averaging approximately 250m below ground surface:

Project	Resource Category	Cut-Off	Tonnes (Mt)	Gold Grade g/t	Gold Metal (Koz)
San Antonio	Indicated	0.5g/t Au	5.93	1.82	347
	Inferred	0.5g/t Au	1.39	1.32	59
	Total	**0.5g/t Au**	**7.32**	**1.72**	**406**

Full details are provided in the ASX Announcement 16 February 2021

3D model of the San Antonio mineralisation





Underground Mining

In May 2020 the NSW Government Resources Regulator granted approval for the development of an exploration drive from the existing underground Wyoming One operation to the Roswell deposit.

The underground mine plan prepared for the Roswell deposit utilises this drive to enable the extraction of ore prior to the completion of the Roswell Open Cut. The plan shows three vent rises / escape ways, one approximately halfway between Wyoming One and two at Roswell, with one of those adjacent to the Roswell decline. The exploration drive extends into the upper half of the currently planned stoping area, and will enable both upwards and downwards development. There is the possibility that in time the Roswell decline may daylight into the Roswell open cut pit ramp, although this is currently not scheduled until 2027 – 2029, assuming the Roswell underground extends at depth. Costs are based on the existing Tomingley underground operating cost.

Underground mining will be similar to that currently employed at Tomingley using standard long hole open stoping, however in order to maximise orebody recovery in the higher grade, wider sections of Roswell, it is planned to use paste fill. A hired paste batch plant using consolidated tailings material is expected to be used to provide the paste fill.

A summary of the key mining metrics is shown below:

Underground FY22+	Tonnes (Mt)	Gold Grade g/t	Gold Metal (contained Koz)
Tomingley	2.51	1.82	147
Roswell	2.04	2.86	188
Total	**4.55**	**2.29**	**335**

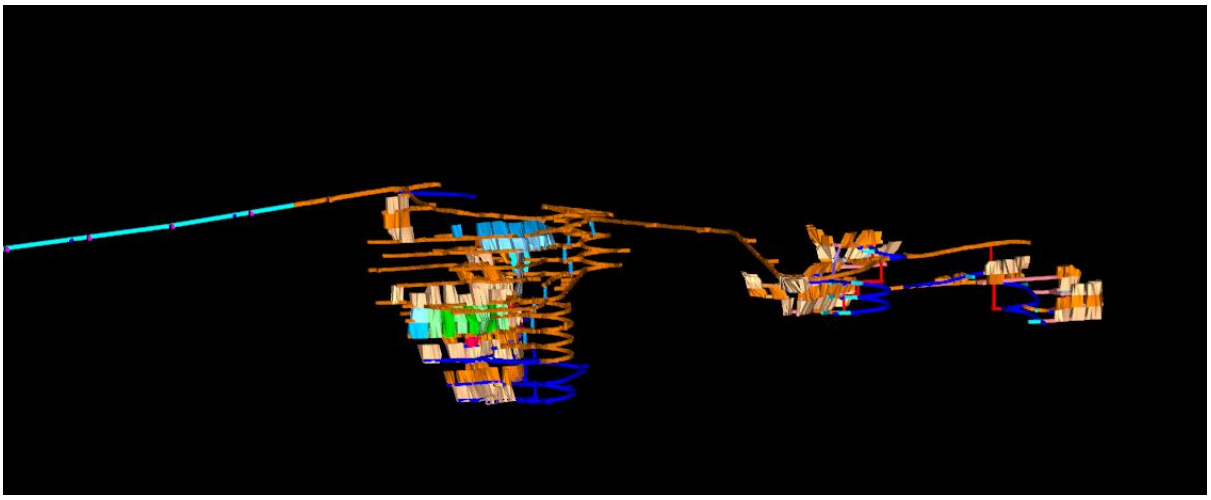
Note that substantial upside exists to extend the Roswell underground at depth, in addition to development to the resources underneath the San Antonio pits.

Approximately 33% of the tonnes from Roswell underground are from material currently classified as inferred. The decision to include inferred resources in the mine plan was supported by the operating experience and reconciliations in the existing Tomingley open cut pits and underground. A substantial grade control drill program is planned prior to stoping commencing.

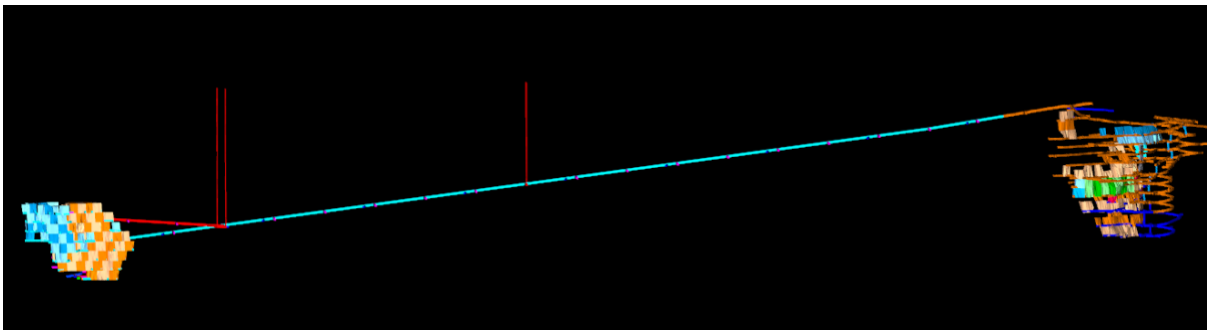
Planned Roswell Underground	Tonnes (Mt)	Gold Grade g/t	Gold Metal (contained Koz)
Indicated	1.37	2.88	126
Inferred	0.67	2.83	62
Total	**2.04**	**2.86**	**188**

Schematics of the existing Tomingley underground, the exploration drive and the Roswell underground are shown below.

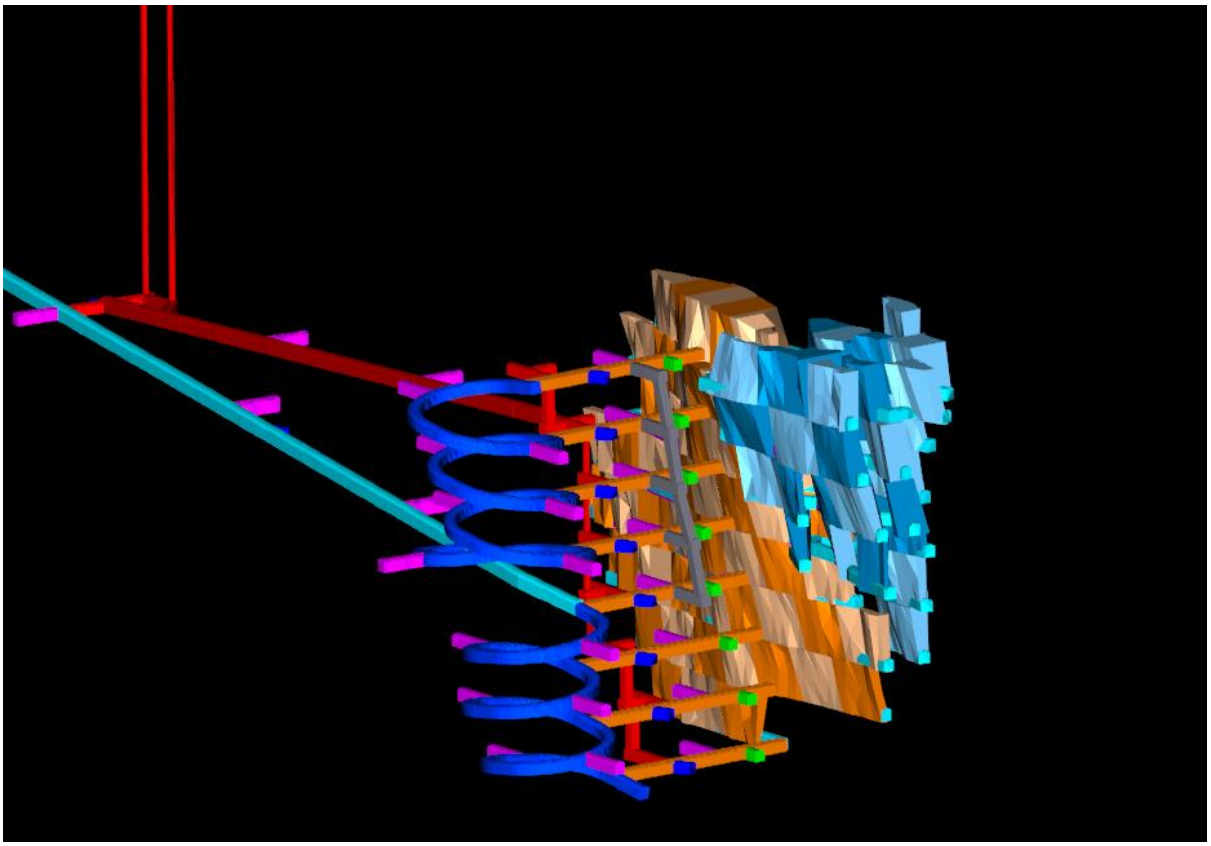
Actual and planned development at Tomingley underground (L to R: Wyoming One, Caloma Two, Caloma One)



Planned exploration decline from Wyoming One underground (R) to Roswell underground (L)



Planned underground development at Roswell



Open Cut Mining

The open cut mining plan has three pits, joined at the pit crest on a north-south line. These pits are expected to be mined from the south to the north, with Roswell mined in two stages. Note that the smallest of these pits is larger than the original Caloma pit. The pit sequencing and dump location are heavily influenced by the objective of minimising biodiversity disturbance and long-term rehabilitation requirements, together with lowering costs through short ore and waste hauls. Most of the early waste is used to backfill both the Caloma One and Caloma Two pits at Tomingley. The final dump covers both original San Antonio pits, which will have been backfilled, leaving Roswell as the final open void.

The scheduling requirement to rapidly mine the San Antonio pits so that the waste from Roswell can be placed in them results in a large run of mine (ROM) stockpile, more than 2 million tonnes at its peak. The interaction with a potential extension of Roswell underground should not further increase this size but would simply extend the life of the mine (and lift production via grade and throughput). Costs are based on existing and historical Tomingley open cut mining costs.

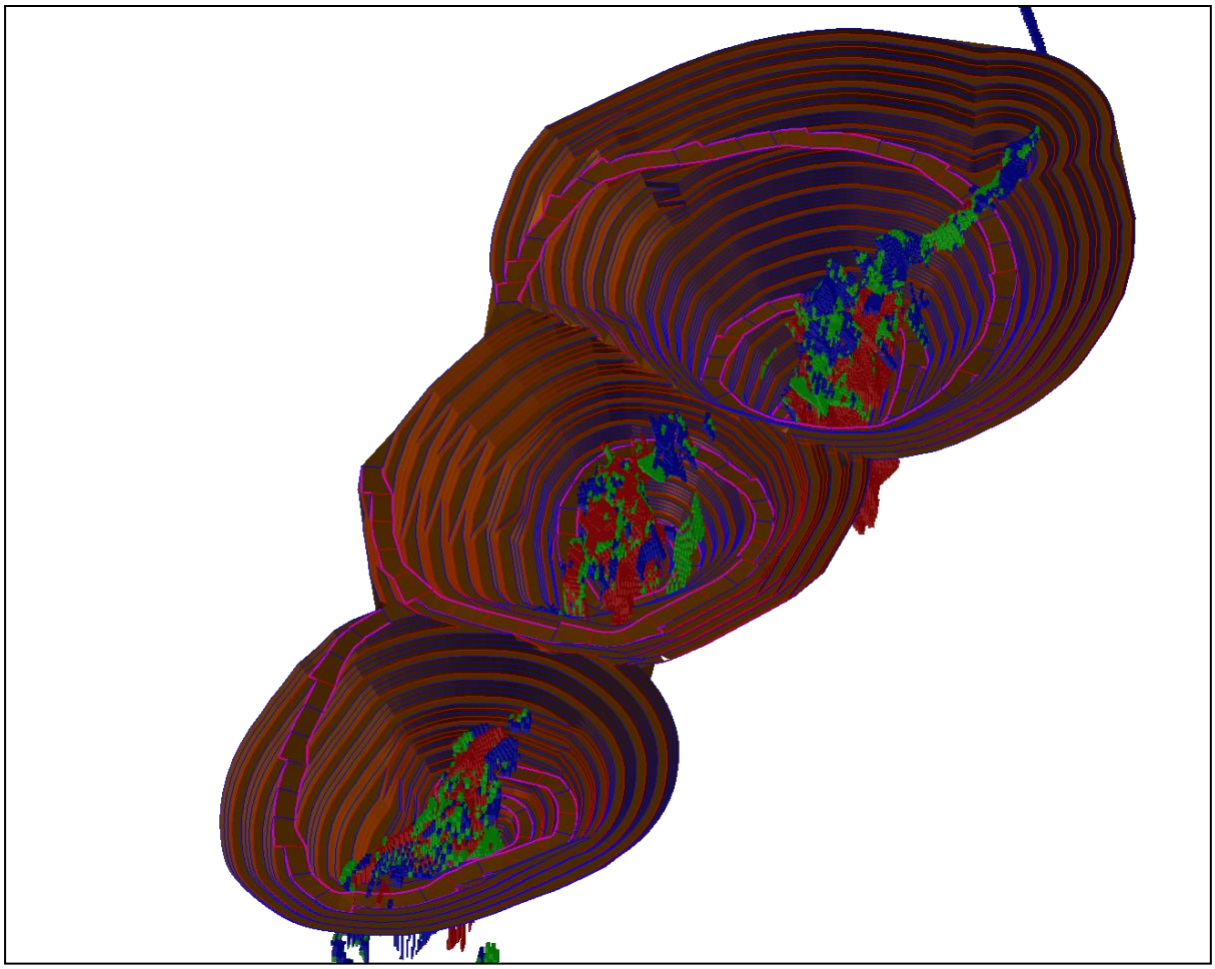
A summary of the key mining metrics is shown below:

Open Cut	San Antonio 1 (South)	San Antonio 2 (North)	Roswell	Total
Years Mined	Jul-23 to Jun-25	Nov-23 to Jan-27	Aug-24 to Feb-31	Jul-23 to Feb-31
Material Mined BCM	13,301,000	17,465,000	36,943,000	67,709,000
Waste BCM	12,744,000	16,472,000	35,470,000	64,686,000
Ore tonnes	1,377,000	2,486,000	3,902,000	7,765,000
Ore grade	1.73	2.04	1.98	1.96
Strip Ratio W:O tonnes	18.8	14.1	20.6	18.6
Mined Ounces	**76,700**	**163,300**	**249,000**	**489,000**

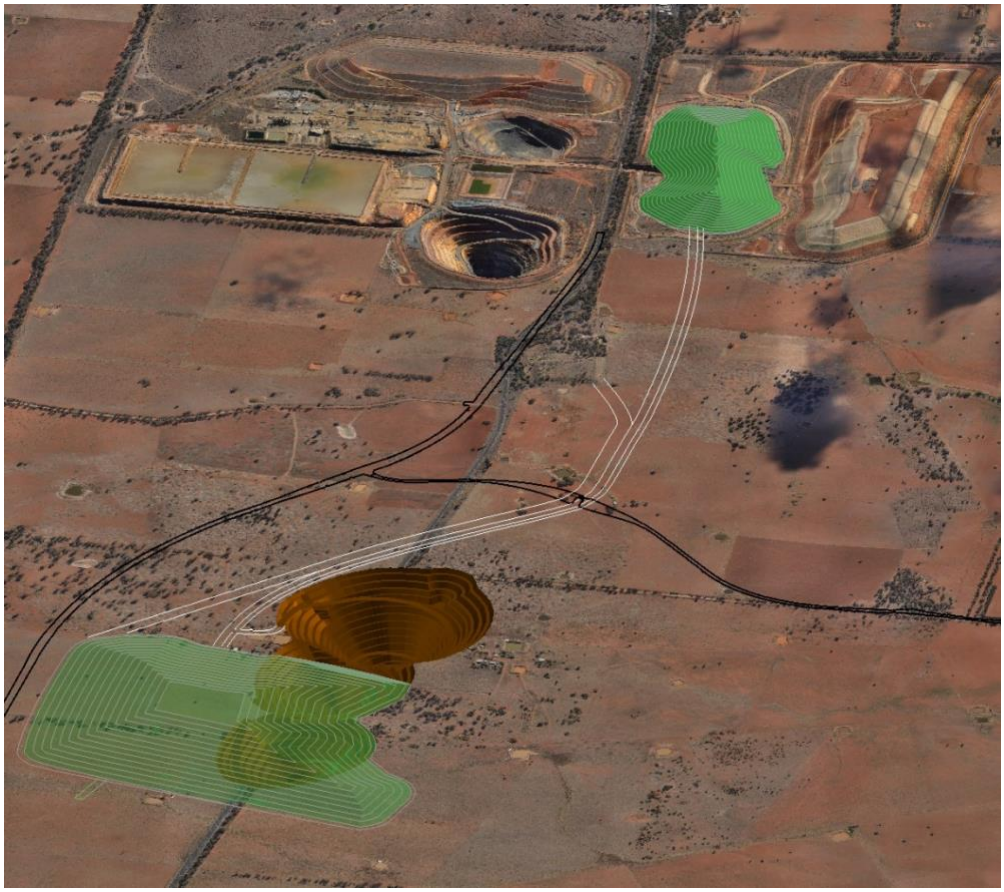
Approximately 2% of the tonnes from Roswell and San Antonio open cuts are from material currently classified as Inferred. The decision to include Inferred resources in the mine plan was supported by the operating experience and reconciliations in the existing open cut pits and underground. A normal grade control drill program is planned prior to mining commencing.

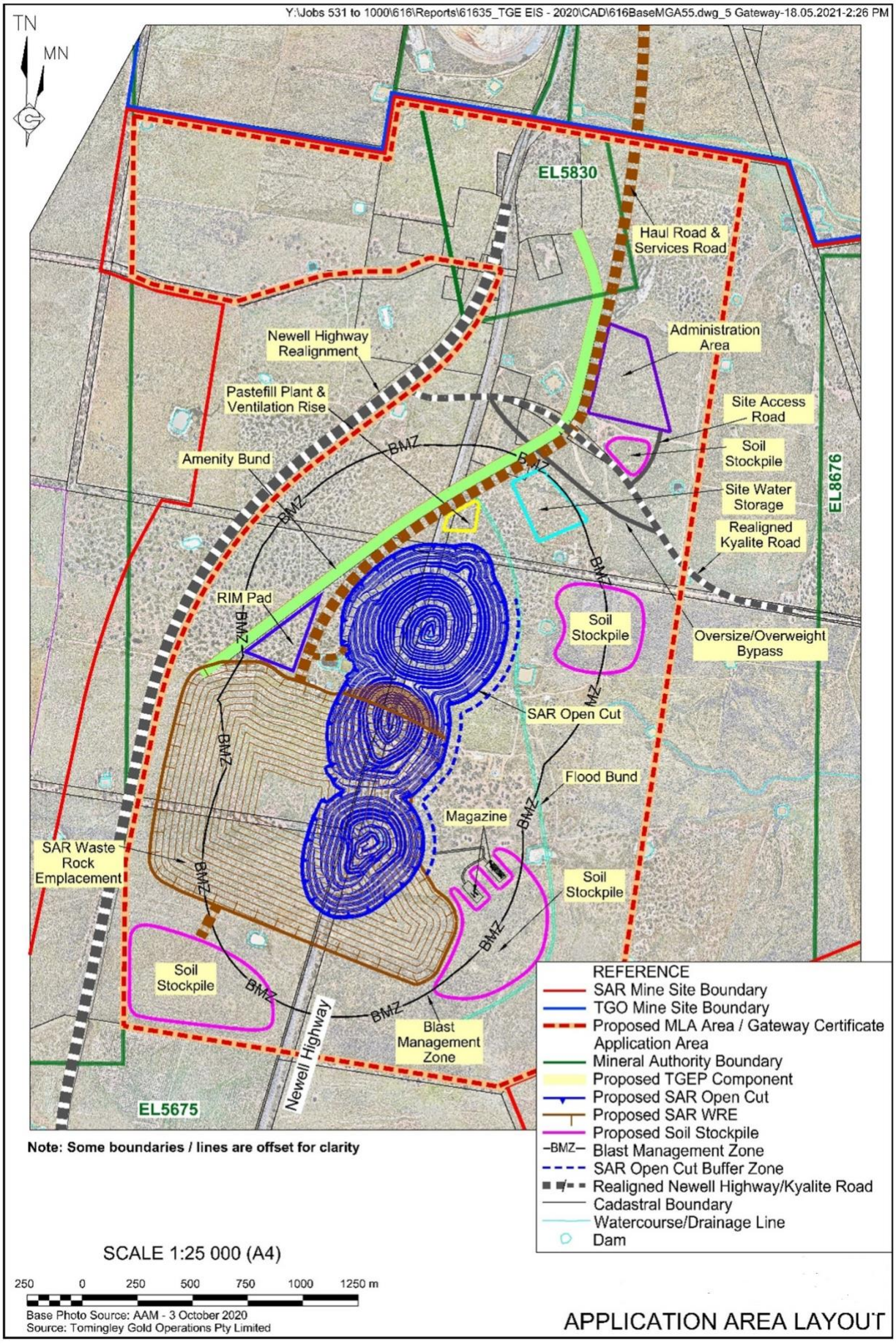
Planned San Antonio and Roswell Open Cuts	Tonnes (Mt)	Gold Grade g/t	Gold Metal (contained Koz)
Indicated	7.585	1.98	482
Inferred	0.18	1.18	7
Total	**7.765**	**1.96**	**489**

Planned open cuts and resource models (L to R: San Antonio One, San Antonio Two, Roswell)



Planned waste rock emplacement locations from planned open cut mining





Processing

Under the current Project Approval the processing facility has permission to process 1.5Mtpa of ore; this approval was sought to allow faster processing of oxide material from the original pits. The processing facility has run for some months at 1.4Mtpa rates on oxide in the early years of operation.

Analysis shows that modest upgrades can lift the capacity of processing to 1.5Mtpa on fresh rock, this upgrade has been assumed for the LOM plan.

Part of the new Project Approval will therefore include seeking to increase the license to 1.75Mtpa to allow some headroom in periods of favourable operating conditions.

Plant modifications include:

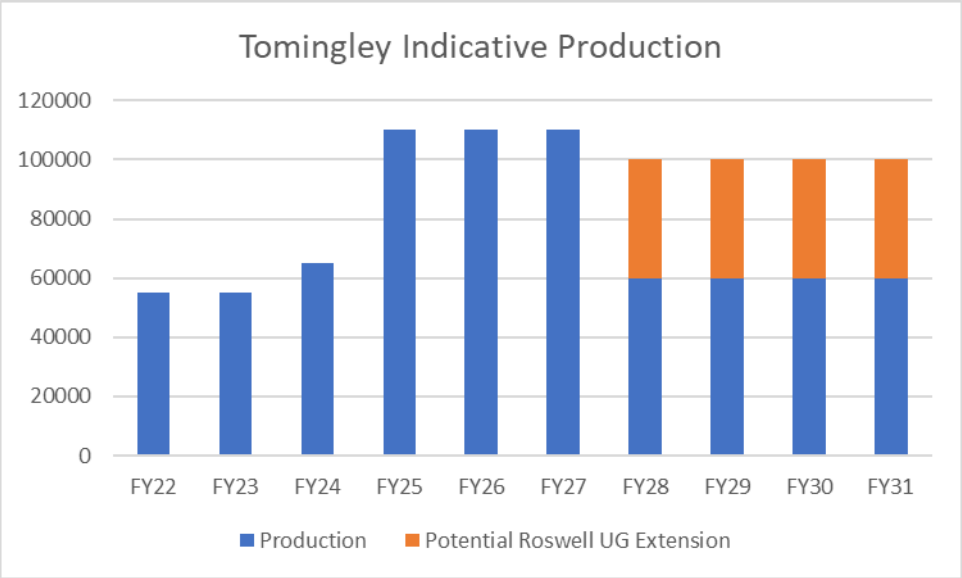
- Changing the crushing circuit so that the secondary crusher does not recycle and crushing down to ~40mm.
- Adding an ~1.5MW mill before the existing ball mill, with its own cyclone pack and feed pumps.
- Adding an additional Knelson gravity concentrator and upgrading the Acacia capacity.
- Upgrading the tailings thickening circuit.
- Associated electrical and reagent upgrades.

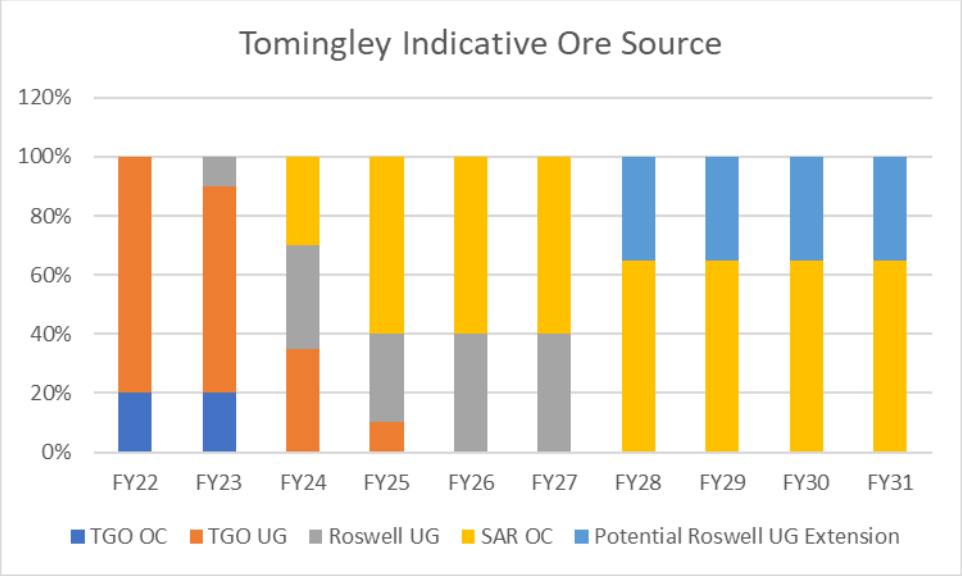
Recoveries and costs have been assumed based on the current operating cost of Tomingley combined with updated geological information.

Production

A summary of the resulting anticipated mine production is given below. As detailed in the mining sections above, approximately 14% of the tonnes mined to meet the plan are from material currently classified as Inferred. The decision to include Inferred resources in the mine plan was supported by the operating experience and reconciliations in the existing open cut pits and underground.

Financial Years	**FY22, FY23**	**FY24**	**FY25, FY26, FY27**	**FY28, FY29, FY30, FY31**
Production Range (ozAu)	50,000 – 60,000	60,000 – 70,000	100,000 – 115,000	55,000 – 65,000
Ore Source				
Tomingley Open Cut	20%	-	-	-
Tomingley UG	75%	35%	-	-
Roswell UG	5%	35%	40%	-
SAR Open Cut	-	30%	60%	100%
Expected AISC A$/ozAu	1,350 – 1,450			
Potential Roswell UG Extension Production (ozAu)				35,000 – 45,000





Capital Cost

The capital costs directly related to the extension that will occur before mining are detailed below.

Area	Cost ($M)
Environmental, Application Fees, Offsetting	7
Infrastructure, Relocations, Power, Water	17
Newell Highway Diversion	26
Kyalite Rd Works	9
Geotechnical, Mobilisation, Establishment	3
Process Plant Upgrades	15
Residue Storage Facility (RSF2)	10
Total	**87**

Capital costs have been estimated from a combination of engineering quotes, known prices, existing Tomingley costs and estimates based on recent projects executed within the industry.

Financing

The capital cost is expected to be funded from operating cashflow and debt, preliminary discussions are commencing with potential debt providers.

Land Ownership

Transactions are complete for all properties directly affected by mining operations at Roswell, San Antonio and El Paso, by the extended tailings facility at RSF2 and by the moving of the Newell Highway.

Tailings Storage

Approval has been granted for RSF2 as part of Modification 5 to Tomingley's Project Approval. Approval will be sought to do further lifts on RSF2 with time.

Water Supply

Whilst sufficient water supply exists to allow operation at 1.5Mtpa processing, additional licence(s) will be sought to provide an alternative source and thus mitigate risk from the existing bores.

Road Realignments

There are two major road realignments required – the Newell Highway that currently runs through the centre of the orebody and Kyalite Rd that runs perpendicular to the Newell Highway at the northern end of the orebody.

Newell Highway

- A 50% design has been submitted to Transport for NSW (TfNSW);
- This design replicates current overtaking lanes, shoulders, etc;
- It has new right and left hand turn bays into Kyalite Road;
- Improved intersections at McNivens Lane and Back Tomingley West Road ;
- Design has improved safety (wire rope barriers, improved curves, removal of farm driveway; accesses, removal of advertising signage); and
- The design has improved flood protection (with substantial culverts).

Kyalite Road

- This has undergone extensive consultation with road users;
- An overpass over the haul road will be constructed;
- A bypass of the bridge (for wide loads) will be created for intermittent use; and
- Proposing to seal to the road up to the Site Access Road intersection.

Infrastructure

Infrastructure work will form two parts, the relocation of public infrastructure and new infrastructure required for mining operations. Public infrastructure that will need to be moved includes a power line, the Vocus fibre optic cable and Telstra cables. New mine surface infrastructure will include an office, cribroom, workshop and magazine. Common / relocated infrastructure from Tomingley will be used where possible.

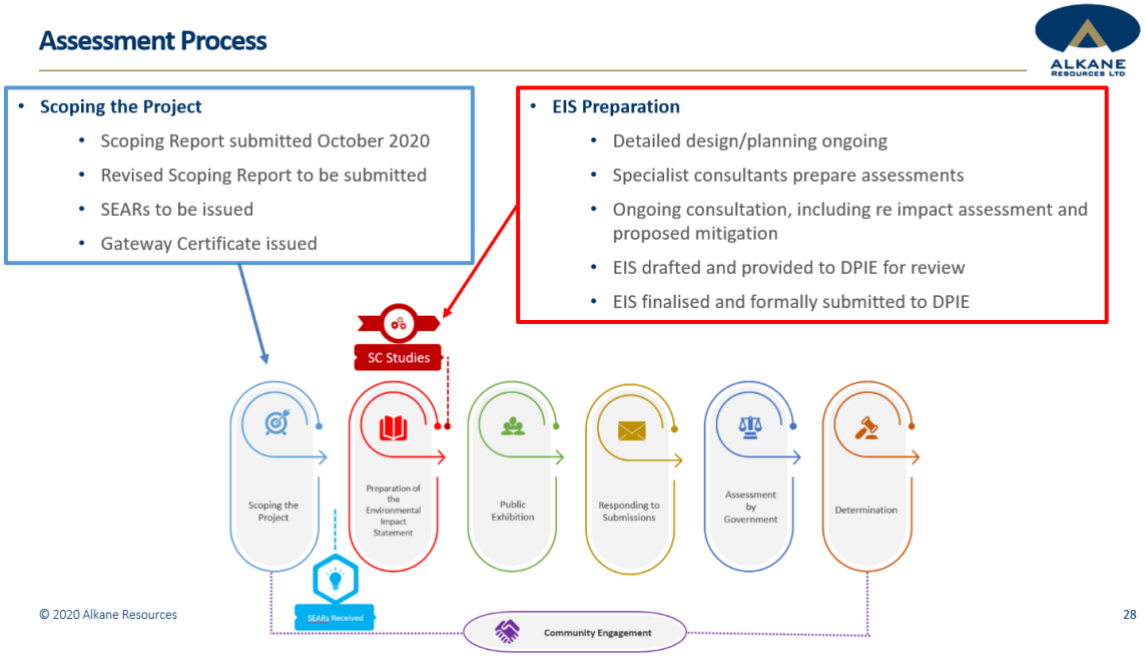
Approvals Process

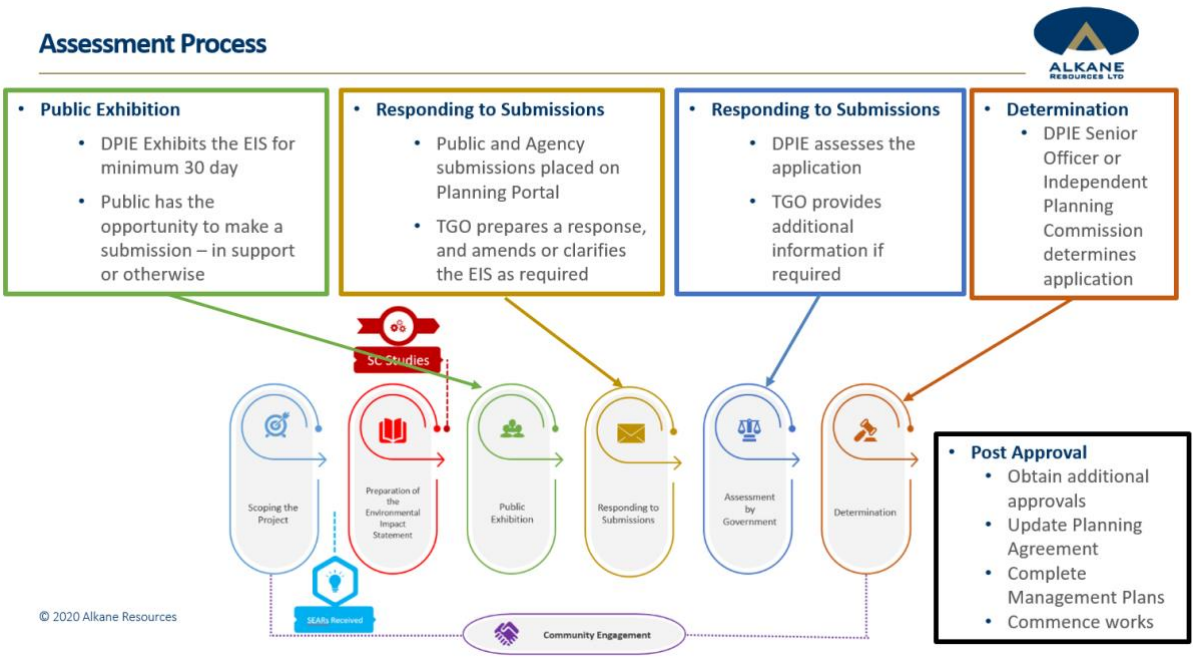
The new Project Approval will require State Significant Development consent because the Capital Investment Value is greater than $30 million. A single consent to incorporate all extension activities is being sought. The current Tomingley consent will be surrendered on activation of the new consent. The Minister for Planning and Public Spaces or the Independent Planning Commission is the determining authority.

Once Project Approval is obtained there are several further approvals that are required. The further approvals of significance include:

- Mining Lease – MEG;
- Environment Protection Licence (new or amended) – EPA;
- Roads approvals – Transport for NSW (WAD) and Council;
- Water approvals – NRAR / DPIE Water; and
- Stewardship agreement – BCD

The following two diagrams show the approval process. Alkane is currently at the "EIS Preparation" stage.





Timeline

Key dates assumed for the extension project:

Milestone	Date
EIS Submission	Q3 2021
EIS Public Display	Q4 2021
RSF2 Construction Commencement	Q2 2022
Project Approval	Q3 2022
Newell Highway Diversion Commencement	Q3 2022
Infrastructure Works at TGEP	Q3 2022
UG Mining Production at Roswell	Q1 2023
OC Mining Production at San Antonio	Q3 2023

Competent Person

Unless otherwise advised above or in the Announcements referenced, 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.

Previous Information

The information in this report that relates to exploration results is extracted from the Company's ASX announcements noted in the text of the announcement and are available to view on the Company's website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcements and that the form and context in which the Competent Person's findings are presented have not been materially altered.

The production target underlying the forecasts in this document include Mineral Resources of which a minor portion is classified as 'inferred' and which have a low level of geological confidence. There is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

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.

This document has been authorised for release to the market by Nic Earner, Managing Director.

ABOUT ALKANE - www.alkane.com.au - ASX: ALK

Alkane Resources is poised to become Australia's next multi-mine gold producer.

The Company's current gold production is from the Tomingley Gold Operations in Central West New South Wales, where it has been operating since 2014 and is currently expediting a development pathway to extend the mine's underground and open pit potential.

Alkane has an enviable exploration track record and controls several highly prospective gold and copper tenements. Its most advanced exploration projects are in the tenement area between Tomingley and Peak Hill, which have the potential to provide additional ore for Tomingley's operations.

Alkane's exploration success includes the landmark porphyry gold-copper mineralisation discovery at Boda in 2019. With a major drill program ongoing at Boda, Alkane is confident of further consolidating Central West New South Wales' reputation as a significant gold production region.

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies, including ~18.6% of Genesis Minerals (ASX: GMD) and ~9.8% of Calidus Resources (ASX: CAI).