Tomingley and Peak Hill Gold Projects, NSW, Australia

Technical Report for NI 43-101

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Acronyms and Abbreviations

Acronym	Description
AAS	Atomic absorption spectrometry
AC	Air core (drilling)
AIG	Australian Institute of Geoscientists
ALK	Alkane Resources Limited
AMD	Acid and metalliferous drainage / acid mine drainage
AMETS	Australian Mining and Exploration Title Services Pty Ltd
AMG	Australian map grid
ASL	Above sea level
ASX	Australian Securities Exchange Ltd
Au	gold
AUD	Australian dollar
AUG	Auger drilling
AusIMM	Australasian Institute of Mining and Metallurgy
BAM	Biodiversity Assessment Methodology
BAMC	BAM Credit Calculator
BC	*Biodiversity Conservation Act 2016*
BCS	Biodiversity, Conservation and Sciences Directorate
BDAR	Biodiversity Development Assessment Report
BH	Blast hole (drilling)
ca	Circa (approximate)
CCC	Community Consultative Committee
CIL	carbon in leach
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
COG	Cut-off grade
CRM	Certified reference material
Cu	copper
DD	Diamond (core) drilling
DF	Development footprint
DO	Dissolved oxygen
DPI	Department of Planning and Infrastructure
DPIE	Department of Planning and Environment
EA	Environmental Assessment
EIS	Environmental Impact Statement

Acronym	Description
EL	Exploration Licence
EP&A	*Environmental Planning and Assessment Act 1979*
EPBC	*Commonwealth Environment Protection and Biodiversity Conservation Act 1999*
EPC	Estimated project cost
EPL	Environmental protection licence
ERM	ERM Australia Consultants Pty Ltd
ESG	Environmental, social and governance
FCPA	Foreign Corrupt Practices Act
FEED	Front end engineering design
FoS	Factor of Safety
GDA	Geodetic datum of Australia (mapping system datum)
GIS	Geographic information system
GL	Gold Lease
GST	Goods and Services Tax
HDPE	High density polyethylene
HASP	Health and Safety Plan
HQ	Drill core (63.5 mm)
HQ3	Drill core collected using a non-rotating barrel to preserve core quality and maximise core recovery
IBRA	Interim Biogeographic Regionalisation for Australia
ICP	inductively coupled spectrometry (analytical technique)
IRR	Internal rate of return
ISG	Integrated survey grid (mapping coordinate system used in New South Wales)
JORC	Joint Ore Reserves Committee of the AusIMM, AIG and MCA
LHOS	Longhole open stope (underground mining method)
LOM	Life of mine
MCA	Minerals Council of Australia
ML	Mining Lease
MRE	Mineral Resource estimate
NAF	Non-acid forming
NL	Australian no liability public company
NPV	Net present value (financial valuation approach)
NQ	Drill core size (47.6 mm)
NQ3	NQ drill core collected using a non-rotating barrel to maximise core quality and recovery
NSR	Net smelter return
NSW	New South Wales
OECD	Organisation for Economic Cooperation and Development
PAF	Potentially acid forming

Acronym	Description
PAX	Potassium amyl xanthate (metallurgical reagent, flotation collector)
PCT	Plant Community Types
PHGM	Peak Hill Gold Mine
QAQC	Quality assurance and quality control
QKNA	Quantative Kriging neighbourhood analysis (grade estimation approach)
QP	Qualified Person
RAB	Rotary air blast (non-cored drilling technique)
RC	Reverse circulation (non-core drilling)
RL	Reduced level (elevation survey)
RMP	Rehabilitation Management Plan
ROM	Run of mine (mine ore production)
RPEEE	Reasonable prospects for eventual economic extraction (for Mineral Resources)
RSF	Residue Storage Facility
RTN	Right to Negotiate
SAII	Serious and Irreversible Impact
SAG	Semiautogenous milling
SAR	San Antonio and Roswell
SSD	State Significant Development
TEC	Threatened ecological communities
TGEP	Tomingley Gold Extension Project
TGO	Tomingley Gold Operations Pty Ltd
TGP	Tomingley Gold Project
TSX	Toronto Stock Exchange
UG	underground
VALMIN	Code and Guidelines for the Technical Assessment and/or Valuation of Mineral and Petroleum Assets and Securities
VAT	Value-Added Tax
WRE	Waste Rock Emplacement

Units of Measurement

Unit	Description
°C	Degrees (Celsius) temperature
g/t	Grams per tonne
ha	hectares
Km	kilometre
kt	Kilotonnes (thousand tonnes)
m	metres

Unit	Description
Ma	million years
mm	millimetres
Mt	Million tonnes
Mtpa	Million tonnes per annum
MW	Megawatt (electrical energy, million watts)
oz	Ounce (Troy ounces are used exclusively for metals, especially gold). 1 troy ounce = 31.1034768 grams
ppm	Parts per million
S	second
t	tonne
μm	Micron (micrometre)

1. SUMMARY

1.1 Introduction

In May 2025, Alkane Resources Ltd ("Alkane," or the "Issuer" or the "Company") and Mandalay Resources Corporation ("Mandalay") commissioned ERM Australia Consultants Pty Ltd ("ERM"), to complete a Technical Report ("Report") compliant with National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1 standards and guidelines on the Tomingley and Peak Hill Projects in New South Wales (NSW), Australia (the "Project").

On 28 April 2025, Alkane announced it had executed a definitive arrangement agreement ("the Agreement") whereby Alkane will acquire all the issued and outstanding common shares of Mandalay pursuant to a court-approved plan of arrangement (the "Transaction"). Following completion of the Transaction, the combined company will continue operating as "Alkane Resources," remain listed on the Australian Stock Exchange ("ASX"), and is seeking a dual listing on the Toronto Stock Exchange ("TSX"). The Transaction will require approval by 66.66% of the votes cast by the shareholders of Mandalay at a special meeting of Mandalay shareholders. The issuance of the Alkane ordinary shares pursuant to the Transaction is also subject to approval by a simple majority of votes cast by the shareholders of Alkane at a special meeting of Alkane shareholders.

Scientific and technical information provided in this Report may be included in the Mandalay management information circular ("Circular") and Alkane disclosure documents on the ASX.

Qualified Persons ("QP" or "QP author") Tony Donaghy and Nick MacNulty conducted a site visit to the Project on the 14-15th April 2025. In addition, Tony Donaghy visited the Peak Hill Alkane Exploration offices and core facility on 15th April 2025.

The Project is considered an "Advanced Property" as defined in Section 1.1. of NI 43-101.

1.2 Property Description and Location

The Project is in the Central West and Orana regions of NSW, Australia. It is approximately 50 kilometres southwest of the City of Dubbo, which is 400 km northwest of Sydney, the capital city of NSW.

The town of Peak Hill, 18 km south of Tomingley, is near the centre of the Project area.

The Project comprises seven Explorations Licences (EL's), 12 Mining Leases (ML's) and a single Gold Lease (GL), 100% owned by Alkane or its wholly owned subsidiary, Tomingley Gold Operations Pty Ltd. The tenements cover an area of approximately 44,540 ha.

1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Project is located approximately 50 kilometres southwest of Dubbo and encompasses the townships of Tomingley and Peak Hill in central western NSW. Access to the area is gained via the Newell Highway linking Dubbo and Parkes, then taking various shire roads off the highway. Shire roads are generally sealed roads in excellent condition or well-maintained gravel roads. Site access within the Project is relatively easy via various shire roads and farm property tracks.

The Project falls in the warm temperate climate zone. Summers are warm to hot (mean daily maximum in January of 33.6°C), and winters cool to cold (mean daily minimum July of 3.1°C), bringing some occurrences of early morning frost but generally no snowfall. Mean average annual precipitation of 594.3mm rainfall is relatively uniformly distributed throughout the year with only a slight increase in average monthly precipitation in the summer months relative to the winter months.

The regional centres of Dubbo, Orange and Parkes provide significant support to existing mining operations in the region. The Project area is fully serviced for electricity and major water supply.

The Project area comprises relatively flat cleared farming country with gentle relief between 250m (lowest) and 280m (highest) above sea level (ASL). Generally, the relief is between 260 to 270m ASL. Peak Hill is the most prominent landform in the area at approximately 345m ASL and is capped with revegetated stands of eucalypt trees and other native vegetation. The major land uses are sheep and cattle grazing and cropping.

1.4 Project History

1.4.1 Tomingley

The depth of cover sequences around Tomingley has effectively inhibited and impeded historic exploration activity in the area. The Myalls United gold mine, 500m south-southeast of the Wyoming mine workings, was discovered in the early 1880s. The mine was worked between 1883 and 1914, with reports that 70,000 oz of Au was extracted, at an average head grade of 12g/t Au. Mining followed two parallel, near vertically dipping quartz veins for their high grade gold to a depth of 200 m.

In 1997, Sipa Resources International Ltd and JV partner Michelago Resources NL drilled 45 aircore holes through the transported cover (up to 50m thick) into weathered bedrock across the projected trend of the Myalls mineralisation to the northwest. Five aircore holes intersected gold grades in excess of 1g/t, with the best intersection of 16m at 1.7g/t Au in hole WY29. However, due to shifting company priorities, these results were never followed up.

In 2001, Alkane Resources in JV with Compass Resources NL and Golden Cross Operations Pty Ltd, followed up the results of the 1997 aircore drilling with an expanded 130 aircore and reverse circulation drilling program. This program resulted in the discovery of the Wyoming 1 deposit, intersecting 117m at 1.5g/t in feldspar porphyry (feldspathic andesite) in hole WY167. This result was followed by an extensive exploration drilling program, resulting in the initial resource estimate at Wyoming in 2002. Sustained exploration by Alkane around the area subsequently increased resources at Wyoming and Caloma. This led to commencement of open pit mining activity and onsite processing of ore at TGO in 2014, and commencement of underground mining operations in 2019.

1.4.2 Peak Hill

The Peak Hill Gold Mine was discovered in 1889. Initially, alluvial gold was worked in drainage channels on the slopes of the prominent hill (Peak Hill). This was followed the next year (1890) by working of outcropping gold mineralisation on the flanks of the hill. Between 1904 and 1917, open cut and underground mining produced 60,000 oz Au from approximately 500,000t of material mined.

The deposit was explored by several companies from 1964 onwards, but exploration activities away from the prominent Peak Hill was difficult due to the thick cover sequences.

The Peak Hill deposit was drilled out by Alkane Exploration NL (in association with Associated Goldfields NL) in the early 1990s, and a decision to mine was made. From 1996 to 2005, Alkane mined 150,000 oz Au from the oxide zone. Treatment was by Heap and Dump Leach. Mining was both open pit and underground until 2001, and then open pit of two smaller pits from 2001 until full site closure in 2005.

The operation has been closed since 2005 and the site rehabilitated.

1.5 Geology and Mineralisation

The Tomingley and Peak Hill projects are located in the central west of NSW near the eastern margin of the Junee-Narromine volcanic belt of the Macquarie Arc in the eastern Lachlan Orogen of eastern Australia.

The Tomingley deposits are located near the eastern margin of the Junee-Narromine volcanic belt, just east of the interpreted Parkes Thrust. This structure separates the flat lying Ordovician Goonumbla volcanic complex from a thin slice of north–south trending andesitic volcanics identified by regional aeromagnetic data and drilling, interpreted to be the Late Ordovician Mingelo Volcanics. The Tomingley Gold Project covers the entirety of this interpreted north–south belt extending north approximately 25 kilometres from Trewilga to Tomingley and being about two kilometres in width. The Peak Hill deposit sits within the Mingelo Volcanics in a high strain zone between the Parkes Thrust to the West and the Narromine-Tumut Fault to the east.

The Mingelo Volcanics are overlain by sediments thought to be equivalents of the Ordo-Silurian Cotton Formation, perhaps part of the Silurian Forbes Group. Drilling data at Tomingley intersects an angular unconformity between the sediments and underlying volcanics. The sediments consist of well-bedded fine quartzose sandstone and laminated siltstone with a diagnostic basal quartz-rich conglomerate.

The Ordovician rocks west of the Parkes Thrust are weakly deformed, with broad open folds and sub-greenschist metamorphic assemblages. In contrast, the Ordovician-Silurian sequences east of the fault, including the rocks hosting the Tomingley deposits, exhibit tight to isoclinal folding with strong axial planar cleavage in greenschist metamorphic assemblages.

1.5.1 Tomingley

The Tomingley area is almost entirely covered by alluvial sequences of clays, sand and gravel up to 60 metres thick. The maghemite bearing cover sequence has made exploration using geophysical techniques problematic and exploration has been primarily completed through drilling and geochemistry.

The gold mineralisation is hosted within volcaniclastic metasediments, and porphyritic subvolcanic units of monzodiotite and andesite to basaltic-andesite composition.

The Tomingley deposits show many similarities to orogenic gold deposits such as alteration, mineralisation and vein style and composition. Each of the deposits has its own structural nuances, however, mineralisation is dominantly hosted within the subvolcanic sills, competent lavas or along their immediate contacts with volcaniclastic metasediments.

Multiple phases and recrystallisation of pyrite and arsenopyrite occur early in the paragenesis. Late fractures in earlier pyrite and arsenopyrite have served as nucleation sites for the precipitation of gold which occurs within or disseminated near the selvages of the quartz - ankerite vein assemblage. Rare sphalerite and chalcopyrite are syngenetic with gold mineralisation.

Wyoming 1

Gold mineralisation at Wyoming 1 is distributed both around and within a small (40 metres by 100 metres near surface, broadening at depth), roughly elliptical, subvertical, feldspar ± augite phyric sill. The deposit has been separated into distinct mineralised zones: the 'porphyry' zone; contact zone; hangingwall zone; and the 'footwall' zone.

The hangingwall zone appears stratigraphically controlled by a thin fine grained carbonaceous mudstone striking north-northwest and is the only defined mineralisation not having a close spatial relationship with a porphyritic sill host. The high grade mineralisation appears to have a strong ore shoot control plunging 40° to the south-southeast. Parasitic fold axes measured in drill core parallels this direction.

The footwall zone is an apparent extension of the hangingwall zone on the western fold limb. The zone of mineralisation is characterised as poddy quartz veining up against the Cotton Formation contact. The gold mineralisation does not extend into the Cotton Formation.

The 'porphyry' zone of mineralisation is dominated by a stockwork-like vein system of irregular silicification (locally described as 'mushy quartz') however, planar veins have a pervasive west-northwest strike.

Caloma 1

The Caloma 1 (previously known as just Caloma) deposit is hosted within two moderately west dipping (steepening at depth) porphyritic sills up to 60 m thick separated by thin metasiltstone units. Gold mineralisation is focused within a shallow to moderate west dipping sheeted vein system that approximately parallels the strike of local stratigraphy. The lodes terminate at the Cotton Formation contact in the west and tends to 'horsetail' when in contact with the volcaniclastic sediments in the east. Mineralisation linking Caloma 1 with Caloma 2 appears to be restricted within or adjacent to a narrow, steeply southwest dipping volcaniclastic sediment unit and is poddy in nature.

Caloma 2

The stratigraphy at Caloma 2 has a distinctive east–west orientation in contrast to the north-northwest orientation at the adjacent Caloma 1 deposit. The linking stratigraphy between Caloma 1 and Caloma 2 dips steeply to the southwest, aligning itself with this major structure to the south. Two dolerite dykes crosscut the stratigraphy and mineralisation and also have late off sets.

The mineralisation at Caloma 2 is constrained to the east by shallow west dipping sheeted veins and to the west by moderately north dipping *en echelon* vein sets. Mineralisation appears to dilate when in contact with a northern bounding volcaniclastic sediment unit. At depth there is evidence for a reverse saddle reef like structure associated with the closure of a moderately west plunging synform.

Roswell

The Roswell deposit is positioned north of a regional northwest trending structure termed the Rosewood Fault. This fault, originally identified in the aeromagnetic geophysics data, appears dextral and is of a similar orientation to the structure that dextrally displaces the Caloma deposits from the Wyoming deposits at Tomingley.

The drilling at Roswell has defined a fault bounded section of volcanic stratigraphy covered by 30 m to 55 m of alluvial clays and sands. The faulted subvertical volcanic stratigraphy is rotated from striking north to striking north-northeast. The mineralisation appears to be hosted by two different volcanic units - monzodiorite and andesite - within a coarse grained volcaniclastic package generating structural zones by a competency contrast between the 'brittle' volcanics and 'ductile' volcaniclastics.

The stratigraphy at Roswell comprises immature volcaniclastic sandstones and conglomerates with lesser siltstones/mudstones. More evolved, fine grained plagioclase phyric multi-phased andesite lavas are slightly magnetic and hosts a significant proportion of the gold mineralisation.

The mineralisation at Roswell is characterised as typical quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics. The mineralised zones range from 2 m to 30 m wide and as stacked tension veins, sometimes becoming more of a stockwork within the andesite host.

The mineralisation, as observed at Tomingley, is displaced by a swarm of postmineralisation dolerite dykes. The dolerite dykes have a similar orientation of dipping steeply to the north-northeast.

San Antonio

The San Antonio deposit is also positioned south of a regional northwest trending Rosewood Fault. A second significant structure named the Kenilworth Fault is oriented west-northwest and transects the southern section of the San Antonio deposit.

The mineralised bedrock lies beneath a Cainozoic alluvium overburden between 20m - 60m thick. Weathering of the mineralised bedrock has developed a saprolitic clay profile extending approximately 35 metres from the base of alluvium to fresh rock.

The stratigraphy at San Antonio comprises immature volcaniclastic sandstones and conglomerates with lesser siltstones/mudstones. More evolved, fine-grained plagioclase phyric multi-phased andesite lavas are slightly magnetic and hosts a significant proportion of the gold mineralisation.

The mineralisation at San Antonio is characterised as quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics and volcaniclastics. The mineralised zones range from 2m to 20m wide and form as sheeted sigmoidal tension veins, sometimes becoming more brecciated and shear hosted along the eastern contact with the andesite host.

1.5.2 Peak Hill

The Peak Hill Au–Cu deposit is hosted by a succession of andesitic volcaniclastic breccias, lesser sandstone and minor lavas and black mudstone that correlated with the Late Ordovician to Early Silurian Mingelo Volcanics.

The Au–Cu mineralisation at Peak Hill occurs in steeply plunging shoots that broadly coincide with a distinctively zoned alteration system. The alteration zone, or lithocap, is evident over a 3km long by 500m width north–south trending zone that appears to be focused on coarser grained permeable breccia and volcaniclastic rocks, with later superimposed structural zones.

Within the broad lithocap envelope, an elliptical core zone 500m by 400m, of advanced argillic alteration is evidenced by extensive pyrophyllite and paragonite with residual silica-pyrite mineralised zones. Pyrite content commonly exceeds 15% and barite is a prominent accessory mineral.

High pyrite concentrations, with the copper sulfide assemblage dominated by enargite, tennantite and luzonite, are often focused within late, higher grade structures within the residual silica-pyrite zones. Gold grades >1g/t at Peak Hill are usually coincident with concentrations of quartz-pyrite-barite veins. These veins are not confined the pyrophyllite core, they also occur in the advanced argillic paragonite-muscovite zone which is proximal to the pyrophyllite core. The zones of high grade <5g/t generally occur in microcrystalline quartz altered domains in the paragonite-muscovite alteration zones. The high grade zones are also associated with tight east–west to west-north-west structures that crosscut the ore body. These structures can be difficult to observe but can be spatially identified with the grade distribution within the tightly spaced blast hole drilling.

Oxidation has extended to >90m. The redox boundary between oxidised and unoxidised rock is irregular due to poddy nature of the primary sulfide interface extending into the overlying oxidised material.

1.6 Exploration

Exploration at Tomingley is impacted by the depth of transported cover containing the paramagnetic mineral maghemite (γ-Fe_2O_3), a magnetic iron oxide mineral. This limits geophysical investigations as the maghemite interferes with typical exploration methods utilised such as electromagnetic and induced polarisation surveys. Similarly, the depth of cover limits geochemical investigation to bedrock drilling techniques capable of penetrating the thick cover sequence to the base of oxidation in bedrock.

Exploration at Tomingley has been focused on successful resource development and mine life extension to sustain Tomingley Operations after the initial discovery at Wyoming in 2001. This exploration led to expansion around the Wyoming 2001 discovery to incorporate new open pit mining areas at Wyoming 1 and Three, Caloma 1 and Two, followed by underground development beneath those pits. Exploration south along the mineralised trend to Myalls and further south led to the discovery of the Roswell and San Antonio deposits, with significant exploration effort required for resource definition and in support of underground mine development at those projects.

Exploration has tested several other targets in parallel to the resource definition work between the Wyoming discovery and the present day. To date, exploration activity has been predominantly in the area within seven kilometres of the Tomingley Operations along the interpreted strike of the Mingelo Volcanics contact with the Cotton Formation. Anomalous gold has been found at several target areas along that strike, as well as in other target areas identified off that main trend. Aside from the discoveries at San Antonio and Roswell, follow-up exploration drilling at most of these prospects to date hasn’t offered sufficient encouragement to justify further exploration.

1.7 Drilling

Due to the longevity of operations, different deposits in the Tomingley-Peak Hill project area have had several generations of different types of drilling and subsequent sampling strategies.

1.7.1 Tomingley Drilling

Drilling was conducted using reconnaissance air core (AC) drilling rigs, high-capacity reverse circulation (RC) drilling rigs, and high-powered diamond core drilling (DD) rigs for the purpose of retrieving large sized samples and for drilling to significant depths.

Initial reconnaissance drilling was completed to fresh rock using 75 mm or 100 mm AC with follow-up and deeper drilling completed by RC (usually 126—140 mm diameter). Detailed resource definition drilling was completed primarily by RC techniques using a 130 mm or 140 mm diameter face sampling hammer. DD holes were precollared using either RC techniques or un-oriented PQ3 (83 mm diameter) core drilling. Precollars were completed to competent material, with holes cased off and completed to depth using HQ3 (61 mm diameter) core. DD was collared with PQ3 and were reduced to HQ3 when the ground became competent. The HQ3 core was oriented using the 'BallMark,' 'EzyMark' or 'Ace' (Reflex Act) core orientation tool depending upon the contractor and time period of when the drill program was drilled.

All underground diamond holes have been drilled using NQ core diameter.

1.7.2 Peak Hill Drilling

The Peak Hill Gold Project has been evaluated using all of the available known blast holes (BH) used during mining, auger (AUG), AC, RC and DD holes. Not all of this drilling lies within the current resource outline.

So-called "modern" exploration at Peak Hill began in the early 1960s. The Peak Hill project was evaluated using the information from the data gathered from the holes below:

- AC - 66 holes for 1,237.5 m.
- RC—361 holes for 26,384.2 m.
- BH grade Control—109,326 holes for 565,517.9 m.
- DD - 95 holes totalling 16,665.53 m. This includes 39 holes which contained RC precollars.

The entire Proprietary deposit was estimated using only the available RC and diamond drill holes. Over 80% of all RC and diamond drill holes used in the estimation were sampled on a 2 m sample basis.

The underground resource that this report relates to incorporates specific RC and diamond holes of varying ages of drilling.

- RC - 54 holes
- DD - 57 holes

The latest drillhole series which includes the "PRD" prefix are diamond drill holes, drilled by Alkane from 1997-1998 and were sampled at a nominal 2m interval down hole.

Detailed resource definition drilling was completed primarily by RC techniques using a 130 mm or 140 mm diameter face sampling hammer. It is assumed the DD holes (without Prefix "PRD") were drilled using NQ3 core drilling. The PRD series diamond holes with precollars were completed to competent material, with holes cased off and completed to depth using HQ3 (61 mm diameter) core with some hole reducing to NQ3.

Much care is given to attempt to intersect mineralisation at an optimal angle, but in complex ore bodies this can be difficult. A number of drilling directions were used in the early drilling phases in an attempt to optimise the intersection angle.

The chosen drilling direction for all future drilling of NE/SW appears optimal based on the mapping and grade control that defined some of the high grade cross cutting structural orientations. The latest holes "PRD" prefix series were all drilled in a northeast direction.

It is not thought that east–west drilling direction will overly bias assay data at Peak Hill as the drill hole density within the system is quite sparse.

1.8 Mineral Processing and Metallurgical Testing

The Tomingley Gold Operation (TGO) operated a standard gravity and carbon-in-leach (CIL) operation. When investigating the Wyoming deposit, it was identified that there was large component of the gold that is sulfide associated (pyrite/arsenopyrite).

Investigative testwork in respect to producing a flotation concentrate, grinding said concentrate and conducting cyanidation on both the ground flotation concentrate and flotation tail was conducted on Wyoming, San Antonio, Roswell and Caloma2 deposits.

This forms the basis of the scoping study (and further FEED) in which a two stage expansion was proposed and costed for the installation of a flotation circuit, regrind and the necessary supporting equipment/capital and further upgrades. A parallel semiautogenous grinding (SAG) mill was provisioned to accommodate an increase in throughput from 1.0 Mtpa to 1.5 Mtpa.

The Stage 1 expansion was completed with commissioning of the new circuit occurring in early November 2024 and handed over to TGO shortly afterwards (18th November 2024).

The existing flowsheet utilised a two stage crush (primary jaw, secondary cone) before feeding into a ball mill with a standard cyclone/gravity arrangement into a CIL circuit. The ball mill discharge would feed into the cyclone to split at a P_{80} of 106 μm with a portion of the underflow reporting to a gravity concentrator and the tail from the gravity concentrator, along with the remaining cyclone underflow returning to the ball mill as a recirculating load.

The gravity concentrate would be leached in an intensive leach reactor followed by electrowinning and smelting.

The cyclone overflow would report to the CIL circuit where the gold would be leached via cyanide and absorbed onto activated carbon. The activated carbon proceeding to elution and the barren carbon would be regenerated.

The stage one upgrade diverts the cyclone overflow to a flotation circuit where a rougher concentrate is generated. The tailings of the flotation circuit reports to the preleach thickener while the concentrate is ground down to a P_{80} of 12 μm via ISAMill. The design mass split intends for 15% of the flotation feed mass to report as concentrate and report to the regrind mill.

The ground concentrate then reports to the preleach thickener (along with the flotation tail) with both proceeding to the CIL circuit to proceed as per the original flowsheet.

Stage 2 entails upgrades in capacity in terms of a parallel SAG mill and additional pregnant liquor tanks and electrowinning cells. No additional CIL tank capacity has been observed in the documentation, and thus it must be concluded that there is a subsequent reduction in residence time. The ultimate goal of the Stage 2 expansion is to increase the throughput capacity from 1 Mtpa to 1.5 Mtpa.

1.9 Mineral Resource Estimates

The Mineral Resource Estimates (MRE) for the Tomingley Gold Project (TGP) are reported with an effective date of 30 June 2024 in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012). The JORC Code uses the same Mineral Resource categories as set out in the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and defined in Section 1.2 of NI 43-101. Measured, Indicated, Measured + Indicated and Inferred Mineral Resources have been reported seperately throughout this report, in addition to the total Mineral Resource estimates for each project.

The Mineral Resource estimates include mineralisation that that is not included in estimates of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The Project includes:

1. the Tomingley Gold Operations (Tomingley or TGO) - includes the Wyoming 1, Caloma 1 and Caloma 2, all of which are now mined by underground operations.
2. the Roswell, San Antonio and McLeans deposits (Tomingley Gold Extension Project or TGEP) - open pittable and underground resources (stope ore production at Roswell commenced in April 2024); and
3. the Peak Hill Gold Project (PHGM) - previously a fully operational open pit gold mine (comprising the main Propriety-Parkers Pit and three satellite pits, Bobby Burns, Crown and Great Eastern), but is not currently mined and is under care and maintenance. Alkane currently has no intention to restart mining operations at PHGM.

Reasonable prospects for eventual economic extraction (RPEEE) were considered in developing open-pit and underground cut-off criteria for the project. Factors considered in determining RPEEE included estimates of open-pit and underground cut-off grades, geological continuity of mineralisation at the selected cut-off grades, commodity prices, mining and mineral processing methods, mining, processing and general administrative costs, predicted metallurgical recovery and smelter and refinery costs and payment terms. These factors were applied rigorously in converting Mineral Resources to Mineral Reserves to ensure that the latter provided an effective basis for economic analysis.

The Mineral Resource estimates for each deposit included in the Tomingley – Peak Hill project were reviewed in detail by the QP author and considered to remain applicable. The QP author is not aware of any new information or data that materially affects the information included in the original MRE, and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The effective dates of the Mineral Resource estimates have been set at 5 May 2025 which corresponds with the conclusion of the QP author's review.

1.9.1 Tomingley Mineral Resources

TGO has been operating since January 2014. The open pittable Mineral Resource is restricted to material within an indicative optimised pit shell, estimated at a gold price of A$2,000 per ounce with the potential open pittable component assessed at ≥0.4g/t gold cut-off to meet the criteria for reasonable prospects for eventual economic extraction (RPEEE). Factors considered in determining RPEEE included estimates of open-pit and underground cut-off grades, geological continuity of mineralisation at the selected cut-off grades, commodity prices, mining and mineral processing methods, mining, processing and general administrative costs, predicted metallurgical recovery and smelter and refinery costs and payment terms. These factors have also been applied rigorously in converting Mineral Resources to Ore Reserves.

The underground Mineral Resource is restricted to material below the current final pit depths to meet the criteria for RPEEE. This includes using underground mining methods assessed at ≥1.3g/t gold and a gold price of A$2,350 per ounce. The MRE was based on a block count method of all material above the cut-off grade. The constraints used are based on all material ≥1.3g/t gold below the current open pit surface and also below the top reduced level (RL) of current underground stope designs, which is in this case below the 180mRL.

Open pit mining ceased at TGO in 2023, and the operation transitioned to fully underground mining at Wyoming 1, Caloma 1 and Caloma 2. The TGO Mineral Resource Estimate, originally published in 2024 and verified by the QP author in May 2025, is shown in Table 1-1.

Table 1-1: TGO Mineral Resources at >1.3 g/t Au cut-off grade (underground) and > 0.4 g/t Au open pit

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Open Pittable Resources (cut-off > 0.4g/t Au)												
Caloma 1	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0
Subtotal	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**
Underground Resources (cut-off > 1.3g/t Au)												
Wyoming 1	1,013	2.7	88	763	2.2	54	1,776	2.2	142	108	2.1	7
Wyoming 3	46	2.2	3	24	2.0	2	70	2.0	5	20	1.9	1
Caloma 1	602	2.2	4.3	916	20	59	1,518	2.0	101	469	2.0	30
Caloma 2	351	2.4	27	1,261	2.4	97	1,612	2.4	124	462	1.8	27
Subtotal	**2,012**	**2.5**	**161**	**2,964**	**2.2**	**212**	**4,976**	**2.3**	**373**	**1,059**	**1.9**	**65**
TOTAL	**2,012**	**2.5**	**161**	**2,964**	**2.2**	**212**	**4,976**	**2.3**	**373**	**1,059**	**1.9**	**65**

Notes

1. Underground Mineral Resources are reported at COG ≥ 1.3g/t Au
2. Mineral Resources are inclusive of Mineral Reserves
3. Rounding may lead to computational discrepancies

1.9.2 Tomingley Gold Extension Project (TGEP) Mineral Resources

The TGEP includes new developments south of the TGO site, primarily the Roswell and San Antonio deposits, linked by an underground drive to the Wyoming 1 pit. The McLeans deposit is also located north of Roswell. Geology and mineralisation at these sites are similar to TGO, with metallurgical tests showing comparable recovery.

Using the TGO cost structures, simple pit shells were estimated to confirm the resources have RPEEE. The open pittable resources at San Antonio have been restricted by an indicative optimised pit shell estimated at a gold price of A$2,000 per ounce and a >0.5g/t Au gold cut-off. Underground Mineral Resources at Roswell, San Antonio and McLeans have been reported using a gold cut-off for eventual extraction by underground mining methods assessed at ≥1.3g/t gold cut-off.

The Roswell deposit resources were reassessed through 3D drilling from new underground developments. The revised resource reflects current TGO operating costs and a gold price of A$2,200 per ounce, optimising the pit shell by excluding inaccessible peripheral ore lenses and incorporating ore zones accessible from underground operations.

The TGEP Mineral Resource, originally prepared in 2024 and verified by the QP author in May 2025, are stated in Table 1-2.

Table 1-2: TGEP Mineral Resources (30 June 2024) at a COG >0.4g/t Au (Roswell 1) and > 0.5g/t Au San Antonio (open pittable) and > 1.3g/t underground

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Open Pittable Resources (cut-off > 0.4g/t Au)												
Roswell 1	0	0.0	0	3,900	1.7	213	3,900	1.7	213	0	0.0	0
San Antonio				5,930	1.8	343	5,930	1.8	343	1,389	1.3	58
Subtotal	**0**	**0.0**	**0**	**9,830**	**1.8**	**556**	**9,830**	**1.8**	**556**	**1,389**	**1.3**	**58**
Underground Mineral Resources (cut-off > 1.3g/t Au)												
Roswell 1	825	3.0	80	3,123	2.8	281	3,948	2.8	361	1,957	2.5	157
McLeans	0	0.0	0	0	0.0	0	0	0.0	0	870	2.5	70
Subtotal	**825**	**3.0**	**80**	**3,123**	**2.8**	**281**	**3,948**	**2.8**	**361**	**2,827**	**2.5**	**227**
TOTAL	**825**	**3.0**	**80**	**12,953**	**2.0**	**837**	**13,778**	**2.8**	**917**	**4,216**	**2.1**	**285**

Notes

1. Open pit Mineral Resources are reported at COG >0.4g/t Au for Roswell and >0.5g/t Au for San Antonio
2. Underground Mineral Resources are reported at COG >1.6g/t Au for Roswell and >1.3g/t Au for McLeans
3. Mineral Resources are inclusive of Mineral Reserves
4. Rounding may lead to computational discrepancies

1.9.3 Peak Hill Gold Project (PHGM) Mineral Resources

The Peak Hill Gold Project (PHGM) is located 15km south of TGO. The PHGM was a fully operational open pit gold mine that is currently under care and maintenance with most site rehabilitation completed away from the existing open cuts. There are four pits: the main Proprietary-Parkers Pit and three satellite pits, Bobby Burns, Crown and Great Eastern.

There has been no recent work completed since 2018 when assessment of potential underground viability was undertaken resulting in the reported underground Mineral Resource below. Alkane currently has no intention of restarting operations.

A review of the existing database in 2018 defined a sulfide resource beneath the Proprietary-Parkers Pit (220mRL— -45mRL) at a 2.0g/t gold lower cut-off. The Proprietary underground deposit is approximately 250m long and 30m wide and the resource estimate was depleted for the known historical underground workings.

The PHGM Mineral Resource as of 30 June 2024 and verified by the QP author 5 May 2025 is shown in Table 1-3.

Table 1-3: PHGM Mineral Resources at a COG >2.0g/t Au

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Underground Resources (cut-off > 2.0g/t Au)												
Proprietary	0	0.0	0	3,900	1.7	213	3,900	1.7	213	1	3.3	106
TOTAL	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**1**	**3.3**	**106**

The Mineral Resource estimate was initially completed in October 2018. The QP author is not aware of any new information or data that materially affects the information included in the original MRE, and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

1.10 Mineral Reserve Estimates

Alkane reports Mineral Reserves for the TGP as of 30 June 2024 in accordance with the JORC Code (2012). The TGP includes the Tomingley Gold Operations (Tomingley or TGO); the Roswell, San Antonio and McLeans deposits (TGEP); and the Peak Hill Gold Project (PHGM). TGOs includes the Wyoming 1, Caloma 1, Caloma 2 and Roswell deposits, all of which are mined underground.

1.10.1 Tomingley (TGO)

At Tomingley, open pit mining ceased in 2023, and the operation transitioned to fully underground mining at Wyoming 1, Caloma 1 and Caloma 2. The underground drilling at the Roswell deposit resulted in a change to the resource envelope and expanded Mineral Reserves.

An initial estimate of Underground Mineral Reserves was completed in 2018 at a 2.50g/t Au cut-off and was reported in ASX Announcements of 4 and 11 June 2018. Underground development commenced mid- 2019, and recovery and delivery of ore to the plant run of mine (ROM) commenced early 2020. Following the increase in gold prices in 2020 and substantial operating data, the cut-off grade was revised. Consequently, the reported 2022 Mineral Reserve was based on the Measured and Indicated Mineral Resources within the defined underground resource base at 1.3g/t Au cut-off, a gold price of A$2,000 per ounce, and application of the current site-based mine design. In 2023, the gold price was raised to A$2,350.

These estimates consider the ore depleted by mining during the 2024 financial year and are set out in Table 1-4. Current mining activities cover underground mining of Wyoming 1, Caloma 1 and Caloma 2 orebodies. Underground drilling is ongoing and designed to both extend the resource base and define reserves as the development progresses. In FY24, 15,566m of core drilling was completed.

The TGO Mineral Reserve has been estimated based on detailed mine development and stope designs. Modifying factors for dilution and mining recovery have been applied postgeological interrogation to generate the final diluted and recovered Mineral Reserve.

Stope size, development placement and ground support strategies have been designed in line with recommendations from the current ground control management plan.

Table 1-4: Tomingley Gold Underground Operations—Mineral Reserves

Deposit	Proven		Probable		Total		Contained Gold (koz)
	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	
Surface Reserves (cut-off 0.40g/t Au)							
Stockpiles	241	1.1	0	0	241	1.1	9
Subtotal	**241**	**1.1**	**0**	**0.0**	**241**	**1.1**	**9**
Underground Reserves (cut-off > 1.3g/t Au)							
Wyoming 1	87	1.9	105	1.7	192	1.8	11
Caloma 1	86	1.8	105	1.8	190	1.8	11
Caloma 2	48	1.8	3	1.2	50	1.8	3
Subtotal	**220**	**1.8**	**213**	**1.8**	**433**	**1.8**	**25**
TOTAL	**461**	**1.5**	**213**	**1.8**	**674**	**1.6**	**34**

The Life of Mine plan used for budgeting at the TGO uses two mining methods

- top down long hole open stoping using rib pillars with no fill
- bottom up long hole open stoping using cemented or loose rockfill.

1.10.2 Tomingley Gold Extension Project (TGEP)

The Tomingley Gold Extension Project (TGEP) encompasses new developments to the immediate south of the TGO site. The primary deposits are Roswell and San Antonio, which have been connected by an underground drive that extends from the Wyoming 1 pit to the north end of the defined Roswell resource.

The geology and mineralisation at Roswell, San Antonio and McLeans is identical to that at TGO, and metallurgical tests confirmed a similar recovery profile. Using the TGO cost structures, simple pit shells were estimated to confirm the resources have 'reasonable prospects of eventual economic extraction.' The open pittable resources have been restricted by an indicative optimised pit shell estimated at a gold price of A$2,350 per ounce.

As a result of a reassessment of the Roswell deposit through 3D grade control drilling from the new underground developments, the resources were revised and reported in February 2024. The revised resource considers the updated TGO site operating costs and gold price for a pit shell at A$2,350 per ounce. This resource also considers that the optimised pit shell eliminates peripheral ore lenses which are not accessible via the open pit, and ore zones that will now be accessed from the underground operations.

An open pit Mineral Reserve was estimated, based upon the resource models, the optimisation work using Whittle Software and modifying factors developed on the existing Tomingley Operations.

Based upon the resource models below the proposed open pit extraction, the Roswell deposit was selected for immediate underground mining using the current mining parameters of the Wyoming 1 and Caloma orebodies. The Roswell orebody is connected to the Wyoming 1 underground operations via a decline that was driven from the Wyoming 1 underground workings to access the Roswell deposit.

At the end of FY23, the drive had reached the north end of Roswell and operational development headings had commenced. The underground core drilling cuddies were established and 51,589m of grade control drilling was completed and the resource and reserves adjusted. The reported underground Mineral Reserve is based on the current Measured and Indicated Mineral Resources using TGO Mine design parameters and incorporates the existing site costs and modifying factors.

The underground mining of ore commenced at Roswell in April 2024. The Mineral Reserve Statement is presented in Table 1-5. All reserves are classified as "Probable Mineral Reserve," as no Measured Resources have been defined for the Project. Inferred Mineral Resources were not considered in this Mineral Reserve estimate.

Table 1-5: Tomingley Gold Extension Project—Mineral Reserves (on 30 June 2024)

Deposit	Proven		Probable		Total		Contained Gold (koz)
	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	
Open Pit Reserves (cut-off 0.40g/t Au)							
Roswell	0	0.0	3,900	1.7	3,900	1.7	213
San Antonio	0	0.0	4,100	1.6	4,100	1.6	214
Subtotal	**0**	**0.0**	**8,000**	**1.6**	**8,000**	**1.6**	**427**
Underground Reserves (cut-off > 1.3g/t Au)							
Roswell	881	2.4	2,202	2.4	3,082	2.4	236
San Antonio	0	0.0	0	0.0	0	0.0	0
Subtotal	**881**	**2.4**	**2,202**	**2.4**	**3,082**	**2.4**	**236**
TOTAL	**881**	**2.4**	**10,202**	**1.8**	**11,082**	**1.9**	**663**

1.10.3 Peak Hill

The Peak Hill Gold Project is located 15km south of Alkane's operating TGO. The Peak Hill Gold Mine (PHGM) was a fully operational open pit gold mine that is currently under care and maintenance with most site rehabilitation completed away from the existing open cuts. There are four pits: the main Proprietary-Parkers Pit and three satellite pits, Bobby Burns, Crown and Great Eastern.

There is only an Inferred Mineral Resource declared and there are no Mineral Reserves declared for the Peak Hill project.

There has been no recent work completed and Alkane have no intention of restarting operations.

1.11 Development and Operations

1.11.1 Operations

The underground mine commenced in January 2018 following the completion of the open pits. The portal was developed in the highwall of the Wyoming 1 pit. The initial plan was to mine Wyoming at a production rate of 500 ktpa, which projected a three-year mine life. The mine was subsequently extended with the Caloma ore body, and in 2021, an exploration decline began development for the Roswell orebody, located approximately 3 km south of the Wyoming portal.

Two mining methods are used to mine the Tomingley underground reserves, namely:

- bottom up Longhole Open Stoping (LHOS) with uncemented or cemented rockfill, and
- top down LHOS with rib pillars and no fill

The choice of mining method is determined by value of the resource, orebody width and geotechnical factors.

Predominantly single-lift stoping is used, with 25 m vertical spacing and 20-30 m strike length. It involves a slot established by conventional drill and blast, retreating along strike. Brow cables and concurrent strike-retreat blasting help maintain ground stability. Upon completion, stopes are filled with cemented or uncemented rockfill, except for LHOS with rib pillars which has no fill.

The proposed method for Roswell is LHOS with full paste fill, with the paste plant delivering paste underground since December 2024. Tailings mixed with cement is piped underground. Ore from Roswell is transported to Wyoming Portal via decline.

Wyoming and Caloma have two intakes and one return airway, providing 285 m^3/s air. Roswell has two 500 kW fans exhausting 315 m^3/s return air.

Waste rock is placed for infrastructure, including roads and waste rock emplacements, filling voids.

Tailings management includes construction of RSF1 and RSF2 and use for paste fill.

The fleet includes trucks, loaders, jumbos and drills totalling 23 units.

Current electrical supply is 10 MW, with usage at 7.5 MW. Power will be redirected from TGO to Roswell as production shifts.

Emergency facilities include escapeways, refuge chambers and a radio system, supported by an active rescue team and ambulance services.

1.11.2 Recoveries

All the ore from TGO and TGEP is trucked to the TGO processing plant which is located adjacent to the Wyoming 3 pit. The plant consists of a crushing circuit, single-stage milling circuit and hybrid CIL circuit with one designated leach tank and numerous adsorption tanks.

The technology associated with processing of TGO ore is currently in operation and is based on industry standard practices. Mine production and cash flow estimates are based on a metallurgical recovery of 87%, which is consistent with current performance. There are no deleterious elements extracted.

1.11.3 CAPEX

The Tomingley budget capital costs for development and drilling (underground (UG) capitalised development) are included in the financial figures. Other capitalised items, such as equipment and infrastructure construction, are also included in the FY2025, within the total amount of A$125.7 million.

1.11.4 Environmental and Social Impacts

The Tomingley Gold Operations Pty Ltd (TGO) submitted an Environmental Assessment (EA) for the Tomingley gold mine to the NSW Department of Planning and Infrastructure (DPI) in May 2011, which was approved on 2 July 2012. The approval allows TGO to extract ore from four open cut pits and three underground workings, process up to 1.5 Mt of ore annually, and operate until 31 December 2025. The mine is regulated under two MLs and an environment protection licence.

On 22 January 2022, TGO lodged an environmental impact statement (EIS) for the Tomingley Gold Extension Project (TGEP), which was approved on 21 February 2023. The TGEP integrates with existing infrastructure and aims to minimise environmental impacts. Key environmental concerns include water resources and biodiversity, with groundwater assessments indicating localised impacts manageable under recommended conditions.

Groundwater systems include a perched aquifer and fractured rock aquifer, with monitoring showing no significant regional impact from mining activities. Surface water assessments identified medium risks related to physical landscape changes and potential mine water releases, but off-site impacts are not anticipated.

A Biodiversity Development Assessment Report (BDAR) identified native vegetation and threatened ecological communities within the TGEP footprint, requiring ecosystem credits under the NSW Biodiversity Offset Scheme. TGO plans to avoid and minimise impacts through project design adjustments.

Community engagement has included consultations with local stakeholders and funding commitments to support community projects. A draft rehabilitation strategy for mine closure aims to create safe, stable landforms suitable for agriculture and conservation. The rehabilitation objectives emphasise environmental safety, water quality and biodiversity preservation.

The calculated rehabilitation security deposit for TGO is A$12.363 million, while Peak Hill Mine's deposit is A$200,000, ensuring compliance with rehabilitation obligations.

1.11.5 Economic Analysis

A financial Life of Mine (LOM) cashflow model for the TGO has been completed by suitably qualified and experienced accounting and financial staff employed by Alkane and verified by the QP authors. The financial model for the financial period 2025 to 2031 demonstrates a cumulative net (notional pre-tax) cashflow of A$318.4 million for the period.

1.12 Conclusions and Recommendations

1.12.1 Conclusions

Despite some missing information on the drilling, sampling, security and quality assurance, quality control (QAQC) procedures for some of the historical drill holes, especially at Peak Hill, the QP author is of the opinion the sample preparation, security and analytical procedures are adequate for the purposes of generating MRE for the project.

In the opinion of the QP authors, all processes and procedures around processing of drill core and chips, core logging procedures and data capture into a dedicated database, sampling and QAQC and sample handling and transport security of samples are consistent, systematic and carried out in accordance with industry best practice.

After a thorough review of the drill hole databases, the QP authors are of the opinion that the data is adequate for the purposes of generating MRE for the project.

The TGO operated a standard gravity and CIL operation. When investigating the Wyoming deposit, via testwork at ALS, it was identified that there was large component of the gold that is sulfide associated (pyrite/arsenopyrite).

The metallurgical testing in respect to identifying the refractory component of the Wyoming, Roswell, Caloma2 and San Antonio deposits and the subsequent flowsheet changes/upgrades to improve recovery has been done methodically and inline with industry standard.

The engineering interpretation of the testwork is sound. The implantation was on time and within budget estimates. The reduced leach performance, likely a result of not maintaining DO levels when the testing indicated maintaining 20ppm, is being addressed by TGO.

Additionally, the carbon fouling via PAX was not identified prior to implementation but has been identified by TGO and actioned. The upgrade to the regen kiln and the ongoing change out of fouled carbon with fresh carbon and the improved absorption efficiency supports this theory. While these two are likely to incur some minor increased capital and operating costs in the short term, the full impact of the refractory upgrade maybe realised.

No major concerns/red flags were identified in the approach, nor execution of the metallurgical testwork program.

The throughput is relatively in line with the budget/forecast figures.

The majority of the planned feed to the plant from 2025 to 2028 is expected to be sourced from Roswell. The expected feed grade is relatively consistent and within the expected bounds for the plant design.

Independent review was completed by the QP author which verified the technical inputs, methodology, parameters and results of the MRE. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of a sufficient confidence to support the reported Mineral Resources.

The QP author is of the opinion that there are RPEEE for the Mineral Resources reported herein.

TGO is currently compliant with environmental regulatory agreements under the NSW Environmental Planning and Assessment Act 1979 and Protection of the Environment Operations Act 1997.

TGO was subject to numerous environmental studies as part of the EA for the TGP during the approvals phase and all required approvals were granted prior to the commencement of mining. The EA included documentation regarding the underground mine which is still relevant today.

At Tomingley, open pit mining ceased in 2023, and the operation transitioned to fully underground mining at Wyoming 1, Caloma 1 and Caloma 2. The underground drilling at the Roswell deposit resulted in a change to the resource envelope and expanded reserves.

The Tomingley Gold Extension Project (TGEP) encompasses new developments to the immediate south of the TGO site. The primary deposits are Roswell and San Antonio, which have been connected by an underground drive that extends from the Wyoming 1 pit to the north end of the defined Roswell resource.

A financial LOM cashflow model for the TGO has been completed by suitably qualified and experienced accounting and financial staff employed by Alkane and verified by the QP authors. The financial model for the financial period 2025 to 2031 demonstrates a cumulative net (notional pre-tax) cashflow of A$318.4 million for the period.

The TGO cashflows roll up into the Company level corporate model and the Net Present Value (NPV) and Internal Rate of Return (IRR) are not assessed at the operational level.

The confidence in the inputs is consistent with the assigned classification of a Mineral Reserve. Confidence in the economic inputs is appropriate to the level of study given that the mining cost inputs are current costs from the TGO.

1.12.2 Recommendations

The QP author notes that:

- the TGO is currently in operation
- the TGEP is under development
- the PHGM is a past operation currently on care and maintenance

As such, these properties represent projects where material exploration activities and engineering studies have largely concluded, and the QP is not in a position to make meaningful recommendations for further work.

Nevertheless, the QP author notes the following recommendations with regard to the MREs.

1.12.3 TGO

Wyoming 1

Extensive underground grade control DD has occurred since the start up (Jan 2019). This ongoing drilling will continue to infill the known mineralisation and also look towards along strike and down dip extensions of the ore lodes. The upper portions of the Wyoming 1 UG deposit are well constrained by drilling, however, the high grade porphyry internal structures remain open at depth.

The QP author recommends that step out and infill drilling be undertaken to continue to expand the resource base and replenish depleted mineral resources as mining progresses.

Caloma 1

Mining within the Caloma open pit commenced in February 2014. Additional surface drilling has been completed to compliment an assessment of mining resources below the open pit by underground methods and also underground diamond infill drilling following up on the mineralisation intersected by the surface drilling.

The QP author recommends that step out and infill drilling continue to be undertaken to continue to expand the current resource base and replenish depleted mineral resources when mining commences.

Caloma 2

Alkane have no further work planned in the short term however, drilling to test the continuation of mineralised structures at depth for underground resource definition will be considered.

The QP author recommends that step out and infill drilling be undertaken to continue to expand the current resource base and replenish depleted mineral resources when mining commences.

1.12.4 TGEP

Roswell

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. A substantial grade control drill program is planned prior to stoping commencing.

The QP author recommends that step out and infill drilling be undertaken to continue to expand the resource base and replenish depleted mineral resources as mining progresses.

San Antonio

The Mineral Resource estimation was calculated down to the 20mRL on average and there is upside to test further depth extensions to the main zones of mineralisation. In particular in the south of San Antonio targeting the dacitic host that appears to correlate well with strong mineralisation. Other exploration targets at San Antonio that remain poorly understood are due to the restricted access of the position of the Newell Highway and include: the western monzodiorite, which is a significant host rock for mineralisation at the Tomingley gold deposits; and the northern zone proximal to the Rosewood Fault. The western monzodiorite is currently defined by deep drilling to a 500m strike length. The unit commonly hosts visible gold bearing structures. The monzodiorite host is open along strike and is poorly constrained by the current drilling due to the position of the Newell Highway. The area between the northern contact of the andesite and the Rosewood Fault is approximately 100m in strike length and remains poorly tested due to the restricted access of the Newell Highway. Drilling has defined the northern contact to the andesite as steeply north plunging. This area within the andesite host has a similar structural setting as the Roswell mineralisation immediately north of the Rosewood Fault and further drilling is planned to test this.

Alkane plan additional drilling into the deeper parts of the deposit to infill the drilling to 20m x 20m spacing to convert Inferred Resources to Indicated and Indicated to Measured. Deep DD drilling is also being planned to test the continuation high grade mineralised structures at depth. The lateral extensions north, south and west of San Antonio remain open due to the restricted access of the Newell Highway. Future drilling is planned from the western side of the highway to better test these extensions. The Mineral Resource will be subject to further infill and extensional drilling with a view to both define the continuity of the mineralisation and high grade zones at depth.

The QP author notes that the planned approach to drill test at depth, along strike, as well as other potential targets is appropriate. The QP author recommends that step-out and infill drilling continue to be undertaken to continue to expand the current resource base and upgrade resources in confidence.

McLeans

The Mineral Resource remains open at depth and the distribution of grade and the modelled shape of the host andesite indicates the bulk of the gold is contained in a ‘keel’ where the andesite host thins at the top and down its northern margin. The high grade mineralisation in the keel remains open at depth along the northern edge and there is potential for improved grade elsewhere in the defined lodes, particularly along the contact of the andesite.

Additional drilling is planned from surface and from the underground drive to infill the drilling to a nominal 40m x 40m spacing to convert the Inferred Resources to Indicated. This drilling will also test the continuation high grade mineralised structures forming along the keel of the andesite at depth.

The QP author recommends that step out and infill drilling be undertaken to continue to expand the current resource base and increase confidence in the current Inferred Resource to Indicated Resource.

1.12.5 PHGM

The current Peak Hill operation is on care and maintenance and Alkane have no plans for restarting mining operations.

The QP author recommends that the current deposit is assessed for the potential for near mine brownfields, and further afield greenfields opportunities, to define exploration targets and potential resources, given the potential for revised economic viability with recent increases in commodity prices.

2. INTRODUCTION

2.1 Issuer and Purpose of the Report

In May 2025, Alkane (the "Issuer") commissioned ERM to complete a Report compliant with NI 43-101, Form 43-101F1 and Companion Policy 43-101CP standards and guidelines on the Tomingley and Peak Hill Projects in NSW, Australia (the "Project").

On 28 April 2025, Alkane announced it had executed an Agreement whereby Alkane will acquire all the issued and outstanding common shares of Mandalay pursuant to a court-approved plan of arrangement (the "Transaction"). Following completion of the Transaction, the combined company will continue operating as "Alkane Resources," remain listed on the ASX, and is seeking a dual listing on the TSX. The Transaction will require approval by 66 2/3 per cent of the votes cast by the shareholders of Mandalay at a special meeting of Mandalay shareholders. The issuance of the Alkane ordinary shares pursuant to the Transaction is also subject to approval by a simple majority of votes cast by the shareholders of Alkane at a special meeting of Alkane shareholders.

Scientific and technical information provided in this Report may be included in the Mandalay Circular and Alkane disclosure documents on the ASX.

Alkane is a publicly listed mining company headquartered in Perth, Western Australia, with its exploration team based in Orange, NSW. The company was incorporated in 1969 and is listed on the ASX under the symbol "ALK." Alkane is focused on discovery and definition of porphyry copper-gold deposits in Australia and maintains a multistage portfolio of exploration and mining projects.

Mandalay is a Canadian-based resource company with producing assets in Australia (Costerfield gold-antimony mine) and Sweden (Björkdal gold mine). The Company is listed on the TSX under the symbol "MND" and is focused on growing its production and reducing costs to generate significant positive cashflow. Mandalay is committed to operating safely and in an environmentally responsible manner, while developing a high level of community and employee engagement.

ERM is a privately owned and fully independent environmental, sustainability and mining consulting company, which has been operating for over 50 years. ERM's headquarters are in London, United Kingdom.

2.2 Terms of Reference

ERM was commissioned by the Company in May 2025 to complete a Report for the TGP in NSW in accordance with NI 43-101 and Form 43-101F1. The TGP encompasses TGO, the Tomingley Gold Extension Project, Peak Hill Gold Mine and a number of ELs.

This Technical Report is based on information known to the QP authors as of 6 June 2025, the effective date of this Technical Report.

The geology and mineralisation for the Project area is discussed, as well as the current Mineral Resources and Mineral Reserves. The metallurgy, processing flowsheet and plant, as well as mining operations and infrastructure associated with the existing operations are considered, in addition to Environmental, Social, and Governance ("ESG") considerations, and other material information associated with the Project.

A significant amount of historical data pertains to past work completed on the TGP and other nearby projects and an effort was made to summarise this to contain the length and readability of the Report.

The Mineral Resource and Mineral Reserve estimates disclosed in this Report were originally completed in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012). The JORC Code standards use the same Mineral Resource categories as set out in the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) ("CIM") and defined in Section 1.2 of NI 43-101. Inferred Mineral Resources have not been added to Indicated and Measured Mineral Resources in this Report, which is permitted under JORC. In order to meet the NI 43-101 standards, the Mineral Resource and Mineral Reserve estimates have been reported in accordance with the resource and reserve categories set out in the CIM definition standards.

The Issuer reviewed draft copies of this Technical Report for factual errors or omissions. Any changes made because of these reviews did not include alterations to the scientific and technical information including any interpretations and conclusions made. Therefore, the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false or misleading as of the effective date of this Technical Report.

The Project is considered an "Advanced Property" as defined in Section 1.1 of NI 43-101.

2.3 Sources of Information

The preparation of the Report has been completed by the QP authors largely based on information provided by the Issuer (Alkane) in the form of a comprehensive digital data room, as well as publicly available information obtained by the QP authors, and information obtained by the QP authors during the site visit to the property.

A full listing of the principal sources of information is included in Section 27 of this report.

The QP authors have endeavoured, by making all reasonable enquiries, to confirm the authenticity, accuracy and completeness of the technical data upon which this Technical Report is based. Unless otherwise stated, information and data contained in this Technical Report, or used in its preparation, has been provided by Alkane in the form of documentation and digital data.

The Report has been based on information available up to and including 6 June 2025.

2.4 Qualified Person Section Responsibility

This Report was prepared by or under the supervision of the QP authors identified in Table 2-1, which lists the sections for which the QP authors are responsible (or co-responsible).
The Report authors are QP's with the relevant experience, education, and professional standing to enable them to complete the portions of the Report for which they are responsible.

The QP's have conducted an internal check to confirm that there are no conflicts of interest in relation to their engagement in this Project or with Alkane and that there is no circumstance that could interfere with the QP's judgement regarding the preparation of this Report.

2.5 Qualified Person Site Visit and Personal Inspections

Report authors and QP's Tony Donaghy, P.Geo. and Nick MacNulty, P.Eng. conducted a site visit to the Tomingley Operations from 14-15 April 2025. In addition, Tony Donaghy visited the Peak Hill Alkane Exploration offices and core facility on 15 April 2025 (Table 2-2).

Table 2-1: Qualified Persons—Report Responsibilities

Qualified Person	Report Section Responsibility
Andrew Waltho Consulting Director Mining Transaction and Corporate Advisory BAppSc (Hons) (Applied Geology), FAIG RPGeo (MinExpl, Mining), FAusIMM, FGS, Professional Member SME, GAICD	Sections 1-3, 11, 13, 18—27
Tony Donaghy Geoscience Director BSc (Hons), P.Geo (Ontario).	Sections 4-11
Sonia Konopa Consulting Director, ANZ MSc (Economic & Mining Geology), BSc (Hons) (Applied Geology), FAusIMM, MAIG	Sections 12, 14
Nicholas MacNulty Principal Underground Mining Engineer BSc Engineering (Mining) Dip Financial Management, Mineral Evaluation Cert, Mine Manager's Certificate of Competency (South African), MSAIMM., FAusIMM	Sections 15-18, 21

Table 2-2: Personal Inspection of Project

Qualified Person	Company	Expertise	Date(s) of Visit	Details of Inspection
Tony Donaghy	ERM	Geology and Mineral Resources	14-15 April 2025	El Paso and San Antonio drilling operations site visits. Peak Hill and Tomingley Operations geology offices and core and sample handling facilities inspections. Drill core inspections of representative drill holes
Nicholas MacNulty	ERM	Mining and Infrastructure	14-15 April 2025	Tomingley Operations geology office and core and sample handling facilities inspections. Drill core inspections of representative drill holes. Tour of the surface and underground facilities. Reviewed the planning practices, mining methods, underground development. Reviewed the geological process that interfaced with the mine planning process

At the Tomingley Operations and Peak Hill core facilities, Alkane staff lead the QP's through the full processes and procedures for handling, logging, photography, density measurements, sampling of drill materials, QAQC and database management. The walkthrough encompassed all core activities from initial drill material reception at the facility from the drill through to transport of samples to the ALS Chemex laboratory for assay testing, and subsequent long-term storage management of drill core and chips, as well as returned laboratory assay pulps.

In addition, representative drill hole intervals through Tomingley deposit mineralisation were laid out for inspection, complete with assay data extracted from the Datashed database.

Nick MacNulty visited the underground mine, including the tele-remote loading facility, development face, loading out a blasted stope, refuelling facility and the ventilation fans.

Tony Donaghy also visited drilling operations on the El Paso target (DD) and infill grid drilling operations on the San Antonio deposit (RC drilling) on 15 April 2025.

Alkane personnel engaged during the site visit included:

- Rod Griffith—General Manager
- Andrew Brown—Mining Manager
- Craig Pridmore—Geology Manager

3. RELIANCE ON OTHER EXPERTS

The QP's have based their review of the Project on information made available by Alkane, along with technical reports prepared by consultants, government agencies and previous tenements holders, and other relevant published and unpublished data.

The QP's have not reviewed the legal status of Alkane's tenure agreements pertaining to the property and have relied on information provided by Alkane with regard to the legal title to the mineral concessions discussed in Section 4 of this Report.

The QP authors of this Report are also not qualified to provide comments on any legal, political, and tax matters associated with the Project and discussed in the Report and have relied on Alkane for this information. The property description discussed in Section 4 of this Report is not intended to represent a legal, or any other opinion as to title.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 Location of Property

The Tomingley Project is in the Central West and Orana regions of NSW, Australia (Figure 4-1). It is approximately 50 kilometres southwest of the City of Dubbo, which is 400 km west-northwest of Sydney, the capital city of NSW. Access to the project from Sydney is west on the Great Western Highway to Bathurst, turning northwest onto the Mitchell Highway to Dubbo, then turning southwest onto the Newell Highway to Tomingley. The town of Peak Hill, 18 km south of Tomingley, is near the centre of the Project area. The approximate coordinates for Peak Hill are 32°43'26"S and 148°11’26"E (611,560 mS, 6,378,694 mN, GDA 2020 Zone 55S).

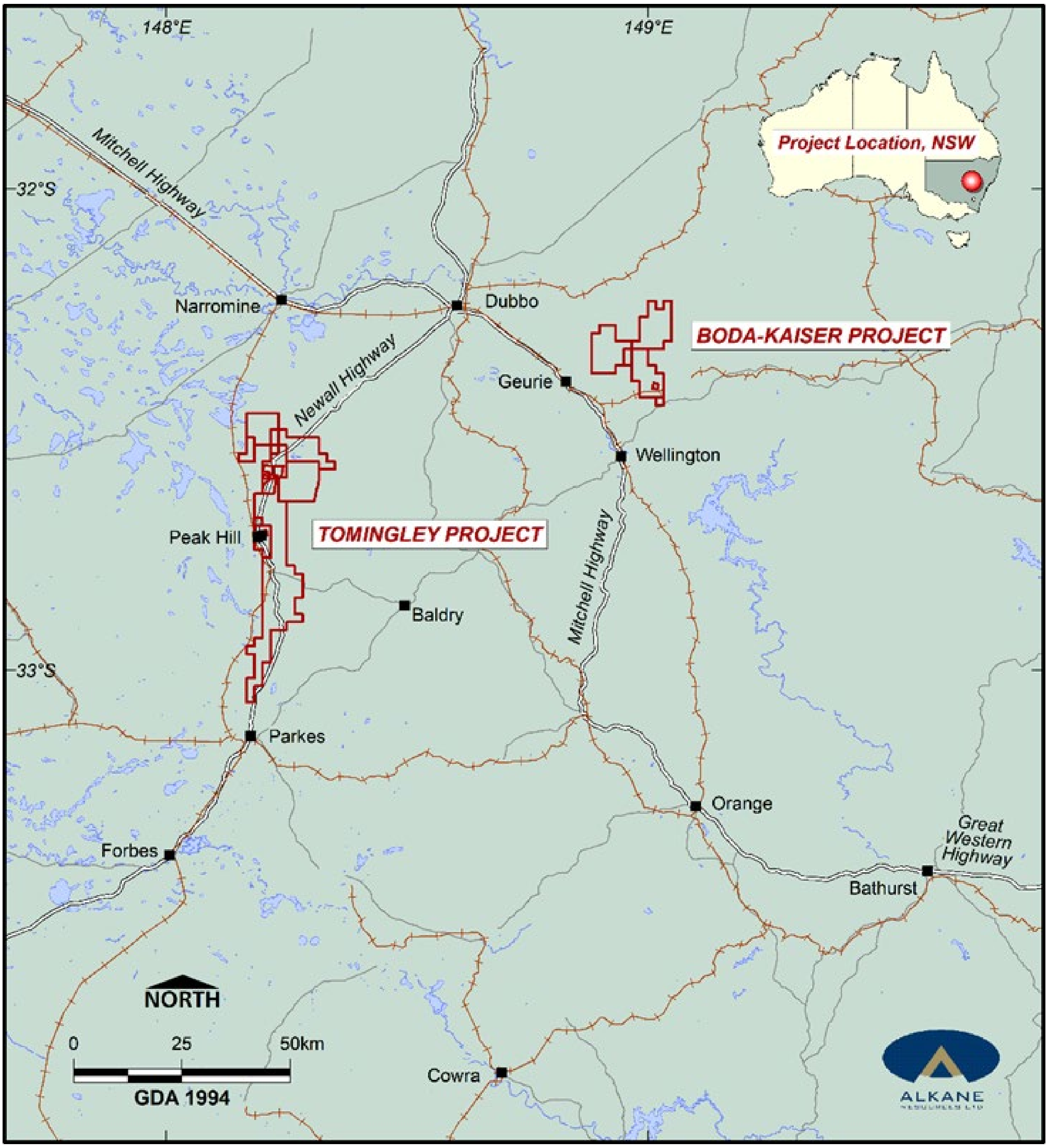


Figure 4-1: Location of the Tomingley Project in NSW. Alkane’s Boda-Kaiser Project is also shown

The TGO Mine consists of two mining areas, as follows.

- The TGO Mine site, located immediately south of Tomingley Village, is the location of the TGO Mine's processing and administration infrastructure, as well as the location of the Wyoming and Caloma open cut and underground mines
- The SAR Mine site, located approximately 3km to the south of the TGO Mine site, is the location of the San Antonio and Roswell (SAR) open cut and underground mines.\

4.2 Tenure

The Tomingley Project comprises seven EL's, 12 ML's and a single GL, 100%-owned by Alkane or a wholly owned subsidiary, TGOs Pty Ltd. The tenements cover an area of approximately 44,540 ha and are described in Figure 4-2 and Table 4-1.

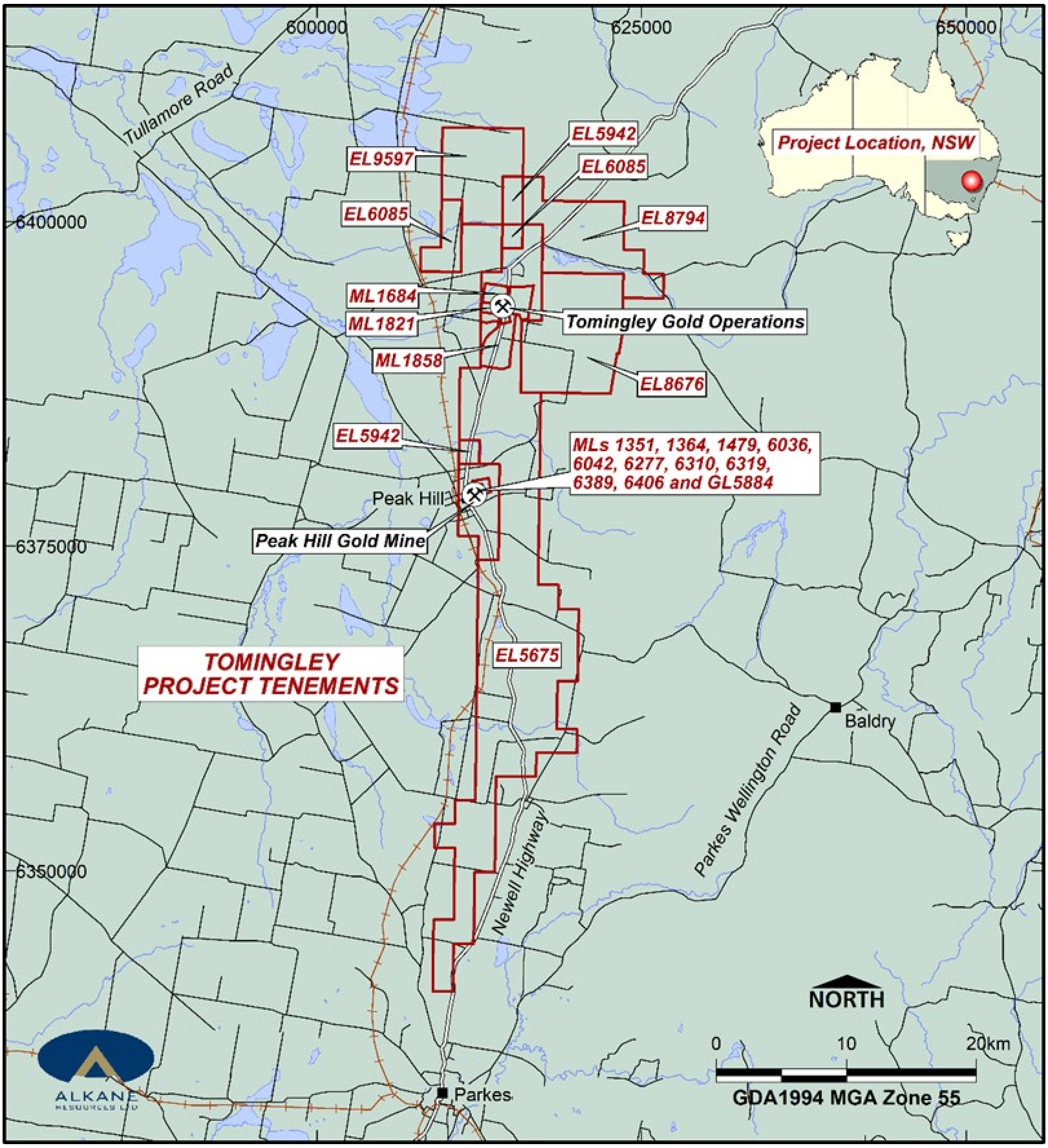


Figure 4-2: Tenement Map of the Tomingley Project in NSW

Table 4-1: Tomingley Project Tenement Schedule

Tenement Type	Tenement ID	Status	Area (ha)	Grant Date	Expiry Date	Remaining Expenditure Commitment	Holder
EL	5675	Granted	23,380	17 Jan 2000	17 Jan 2029	$5,024,000	Alkane Resources Ltd
EL	5942	Granted	867	3 May 2002	3 May 2030	$0	Alkane Resources Ltd
EL	6085[1]	Granted	1,446	20 May 2003	20 May 2030	$183,000	Alkane Resources Ltd
EL	6319	Granted	1,825	12 Oct 2004	12 Oct 2026	$1,000	Alkane Resources Ltd
EL	8676	Granted	6,433	27 Nov 2017	27 Nov 2029	$334,000	Alkane Resources Ltd
EL	8794	Granted	4,917	20 Seo 2018	20 Sep 2030	$186,000	Alkane Resources Ltd
EL	9597	Granted	3,762	22 Aug 2023	22 Aug 2029	$139,000	Alkane Resources Ltd
GL	5884	Granted	2.79	12 Dec 1969	2 Jun 2037		Alkane Resources Ltd
ML	1351	Granted	0.91	15 Jun 1994	24 Sep 2036		Alkane Resources Ltd
ML	1364	Granted	159	14 Mar 1995	25 Dec 2035		Alkane Resources Ltd
ML	1479	Granted	5.10	18 Jan 2001	17 Jan 2043		Alkane Resources Ltd
ML	1684	Granted	733.70	11 Feb 2013	11 Feb 2034		Tomingley Gold Operations Pty Ltd
ML	1821	Granted	88.36	19 Nov 2021	11 Feb 2034		Tomingley Gold Operations Pty Ltd
ML	1858	Granted	893.20	19 Jul 2023	19 Jul 2044		Tomingley Gold Operations Pty Ltd
ML	6036	Granted	3.96	7 Mar 1968	2 Jun 2037		Alkane Resources Ltd
ML	6042	Granted	0.41	21 Feb 1968	2 Jun 2037		Alkane Resources Ltd
ML	6277	Granted	6.42	12 Mar 1971	2 Jun 2037		Alkane Resources Ltd
ML	6310	Granted	2.10	27 Aug 1971	2 Jun 2037		Alkane Resources Ltd
ML	6389	Granted	11.08	6 Apr 1973	2 Jun 2037		Alkane Resources Ltd
ML	6406	Granted	3.42	25 Jan 1974	13 Feb 2037		Alkane Resources Ltd
Total			**44,450.45**			**$5,867,000Table**	

Source: Australian Mining and Exploration Title Services Pty Ltd (AMETS)

Tenement information on the Tomingley tenements was provided by Alkane's independent tenement management firm, Australian Mining and Exploration Title Services Pty Ltd (AMETS), and was current as of 8 April 2025. The QP has checked the tenements by obtaining information from the NSW online MinView web map application (NSW Resources government database) on 8

[1] Royalty payable to OceanaGold Corporation

May 2025. The QP makes no other assessment or assertion as to the legal title of the tenements and is not qualified to do so.

Alkane management warrants that all tenements are in good standing.

The following information has been summarised from NSW Resources (2025). EL must be applied for in mineral groups as prescribed under Schedule 2 of the Mining Regulation 2016:

- Group 1 (Metallic minerals)
- Group 2 (Non-metallic minerals)
- Group 3 (Semiprecious stones)
- Group 4 (Marine aggregate)
- Group 5 (Clay minerals)
- Group 6 (Corundum diamond, ruby and sapphire)
- Group 7 (Opal)
- Group 8 (Geothermal energy)
- Group 9 (Coal)
- Group 9A (Oil shale)
- Group 10 (Mineral sands)
- Group 11 (Uranium)—applications are currently prohibited.

An EL grants the title holder the exclusive rights to explore for a specific mineral or mineral group(s) within a designated area. They are typically granted and renewed for periods of 2–6 years. An EL does not permit mining, nor does it guarantee that a ML will be granted.

In NSW, exploration licence units for minerals (excluding coal) are defined by a graticule system, which divides the state into blocks and then into units. Each unit encompasses one minute of latitude by one minute of longitude, representing an area of approximately 3 km^2.

Before the holder of an exploration licence can access land for exploration, they are required to enter into a land access arrangement with the relevant landholder. While landholders in NSW own the surface land of their properties, most subsurface minerals belong to the state of NSW. Under the Mining Act 1992, the term landholder includes:

- the owner of the land
- the Native Title holder of the land
- the holder of a lease, licence, continued tenure or permissive occupancy issued under the Crown Land Management Act 2016
- in the case of reserved land, the controller of that land
- a person whose interest in the land is identified in any register or record kept by the Registrar General, including lessees or other persons with exclusive rights to the land, or mortgagees in possession of the land

A ML's gives the title holder the exclusive right to extract a specific resource over a selected area. To be granted a ML a development consent must be granted by the relevant consent authority, and an Environmental Protection Licence must have been issued by the NSW Environmental Protection Agency under the Protection of the Environment Operations Act 1997.

A GL is a ML's granted under the Mining Act 1906. They are no longer granted; however, some GLs remain active. Gold Leases can be renewed under the Mining Act 1992, as a ML.

4.3 Ownership, Royalties and Agreements

On 15 December 2003, Alkane Exploration Ltd confirmed the arrangements and agreements in relation to acquiring EL6085 – Wyanga (formerly Exploration Licences 3364 and 3685), made in January 2002 with Climax Mining Ltd (Climax, now OceanaGold Corporation). In March 2003, Climax agreed that in consideration for Alkane entering into the agreement, Climax consented to lodging EL Application 2061 over and including the areas of EL3364 and EL3685. On 20 May 2003, EL6085 was granted to Alkane.

EL3364 and EL3685 were not encumbered and not subject to any third party rights other than a 5% interest held in EL3685 by Transit Mining Pty Limited (Transit). With the consent of Transit, Climax and Alkane agreed to enter into the agreement for exploration and if warranted, mining of EL6085 on the following terms and conditions:

- Alkane to keep EL6085 in good standing
- Alkane can withdraw from the agreement at any time and retain no interest in EL6085, by giving two months' notice, having met pro rata expenditure commitments at the time of withdrawal, conditional upon Alkane rehabilitating affected areas, and transferring EL6085 to Climax without cost

Alkane agreed to pay Climax a royalty, as follows:

1. $0.75/dry tonne of ore treated for the first 500,000 t.
2. In respect to subsequent ore treated, a 3% net smelter return (NSR) for gold and other minerals recovered from such ore until Alkane has produced 150,000 oz of gold (or equivalent), and thereafter a 5% NSR for gold and other minerals produced from such ore.

4.4 Surface Rights

Alkane has not entered into any Native Title agreements with respect to EL5942, EL6085, EL8676, EL8794, EL9597 and GL5884, as the tenements are almost exclusively on freehold land where Native Title is extinguished. Six tenements have no records as the tenement Titles existed both before computer records were created and also prior to the Aboriginal Land Rights Act of 1976 (ML6036, ML6042, ML6277, ML6310, ML6389, ML6406).

The Right to Negotiate (RTN) process was completed and no claimants identified at the end of the notification period for ML1351 (determination date 11 May 1994), ML1364 (determination date 14 March 1995) and ML1858 (determination date 16 May 2023). The RTN process commenced on 13 March 2025 for EL6319 and it was advertised on 22 May 2025. As of 30 October 2022, no claimants had been identified at end of the four month notification period for EL5675.

For ML1479, the RTN was undertaken with the Bogan River Wiradjuri People prior to grant. A S31 deed was entered into and the determination date was 13 November 2000. Proof of Native Title extinguishment was attached at the application stage for ML1821. AMETS could not find any records with respect to the Native Title status of ML1684.

Alkane has land access agreements that partly or wholly cover seven ELs (EL5675, EL5942, EL6085, EL6319, EL8676, EL8794 and EL9597).

4.5 Environmental Liabilities

The QP is not aware of any environmental liabilities pertaining to the Project other than those attached to the granted tenure documents.

The NSW Resources Regulator has determined the assessed security deposit for the fulfilment of rehabilitation obligations is A$12,363,000.

4.6 Permits

Alkane holds all required permits and authorisations to undertake exploration and mining operations. In February 2023, the NSW Government approved the Tomingley Gold Extension Project (TGEP) State Significant Development (SSD).

In May 2011, Tomingley Gold Operations Pty Ltd (TGO), a wholly owned subsidiary of Alkane, lodged an EA for the development of the Tomingley gold mine with the NSW DPI. On 2 July 2012, the DPI approved the development of the Project (MP09-0155) (NSW DPI, 2012). The project approval has been modified seven times and allows TGO to:

- extract ore from:
    - four open cut pits (Wyoming 1, Wyoming 3, Caloma 1 and Caloma 2); and
    - three underground workings located below Wyoming 1 and Caloma 1 and 2 pits.
- process up to 1.5 million tonnes (Mt) of ore per annum
- construct and operate associated mining infrastructure including two residue storage facilities (RSF1 and RSF2), a processing plant, waste rock emplacements and other ancillary infrastructure
- carry out mining operations until 31 December 2025

The mine is also regulated under two mining leases (ML1684 and 1812) issued under the Mining Act 1992 and an environment protection licence (EPL 20169) issued under the Protection of the Environment Operations Act 1997.

On 22 January 2022, TGO lodged an EIS for the development of the Tomingley Gold Extension Project (TGEP). The TGEP was incorporating the existing TGO gold mine with mining of the San Antonio and Roswell deposits (SAR), immediately to the south. The TGEP was approved by the NSW Minister for Planning on 21 February 2023 (SSD-9176045). Alkane has development consent until end-2032. The TGEP mining lease (ML1858) was granted on 19 July 2023, and EPL 20169 was varied on 2 May 2024 to include the additional land and activities associated with the project.

Alkane now has permission to:

- extract ore from:
    - three open cut pits (San Antonio, Roswell, and McLeans); and
    - three underground workings located below these pits.
- process up to 1.75 million tonnes (Mt) of ore per annum; and
- carry out mining operations until 31 December 2032.

4.7 Community Consultation

The project is part of the Narromine and Parkes Shire communities that include the towns of Tomingley and Peak Hill, respectively, with neighbours to the Project being from the towns and farming families.

The Company has set up a Community Consultative Committee (CCC) to provide an avenue for the public to talk directly with Alkane on activities on the mine, their interaction with the local community, and any concerns from local residents (Alkane, 2025). The CCC meets quarterly, and the committee includes:

- independent Chairperson

- TGO - Environment and Community Manager
- Narromine Shire Council Representative
- community Representatives (five)
- Aboriginal Community Representative

The last meeting of the CCC was 27 February 2025.

4.8 Other Significant Factors and Risks

The QP authors are not aware of any other significant factors and risks, other than environmental liabilities and permits that may affect access, title or the right or ability to perform work on the property.

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Tomingley Project is located approximately 50 kilometres southwest of Dubbo and encompasses the townships of Tomingley and Peak Hill in central western NSW, Australia (Figure 4-1). Access to the area is gained via the Newell Highway linking Dubbo and Parkes, then taking various shire roads off the highway. Shire roads are generally sealed roads in excellent condition or well-maintained gravel roads. Site access within the Project is relatively easy via various shire roads and farm property tracks.

5.2 Climate

The project falls in the warm temperate climate zone. Under the Köppen climate classification, the Project has a humid subtropical climate (Cfa) that borders the semiarid climate (BSk). Summers are warm to hot (mean daily maximum in January of 33.6°C), and winters cool to cold (mean daily minimum July of 3.1°C), bringing some occurrences of early morning frost but generally no snowfall. Mean average annual precipitation of 594.3mm rainfall is relatively uniformly distributed throughout the year with only a slight increase in average monthly precipitation in the summer months relative to the winter months.

5.3 Local Resources and Infrastructure

The regional centres of Dubbo, Orange and Parkes provide significant support to existing mining operations in the region. The Central West NSW regional centres provide full services for all consumables supplies, transport logistics, health services, skilled workforce and contractor services and supports a significant regional population of approximately 180,000 people. All Project areas have ready access to major road, rail and air transport hubs with connection to Sydney and other eastern Australian state capital cities.

The project area is fully serviced for electricity and major water supply.

5.4 Sufficiency of Surface Rights

The tenements cover an area of approximately 44,540 ha and are described in Figure 4-2 and Table 4-1.. This provides the Project with sufficient surface area for both the ongoing mining operations and the planned infrastructure, including tailings storage, waste storage, plant infrastructure, workshops, etc., as detailed in Section 18 of this report.

6. HISTORY

6.1 Tomingley

The previous mining and exploration of the project area has been reported by Chapman (2003), Scott et al. (2003), Downes et al. (2004), Chalmers et al. (2007), Meates et al. (2013), and Chalmers and Sutherland (2020). The following is a summary of those reports. The QP author has reviewed the historical information from these reports and takes full responsibility for the summary information disclosed in this section.

The depth of cover sequences around Tomingley has effectively inhibited and impeded historical exploration activity in the area. The Myalls United gold mine, 500 m south-southeast of the Wyoming mine workings, was discovered in the early 1880s. Exact details of Myalls discovery and complete mining history are unknown. The mine was worked between 1883 and 1914, with reports that 70,000 oz of Au was extracted, at an average head grade of 12g/t Au. Mining followed two parallel, near vertically dipping quartz veins for their high grade gold to a depth of 200 m (Figure 6-1).

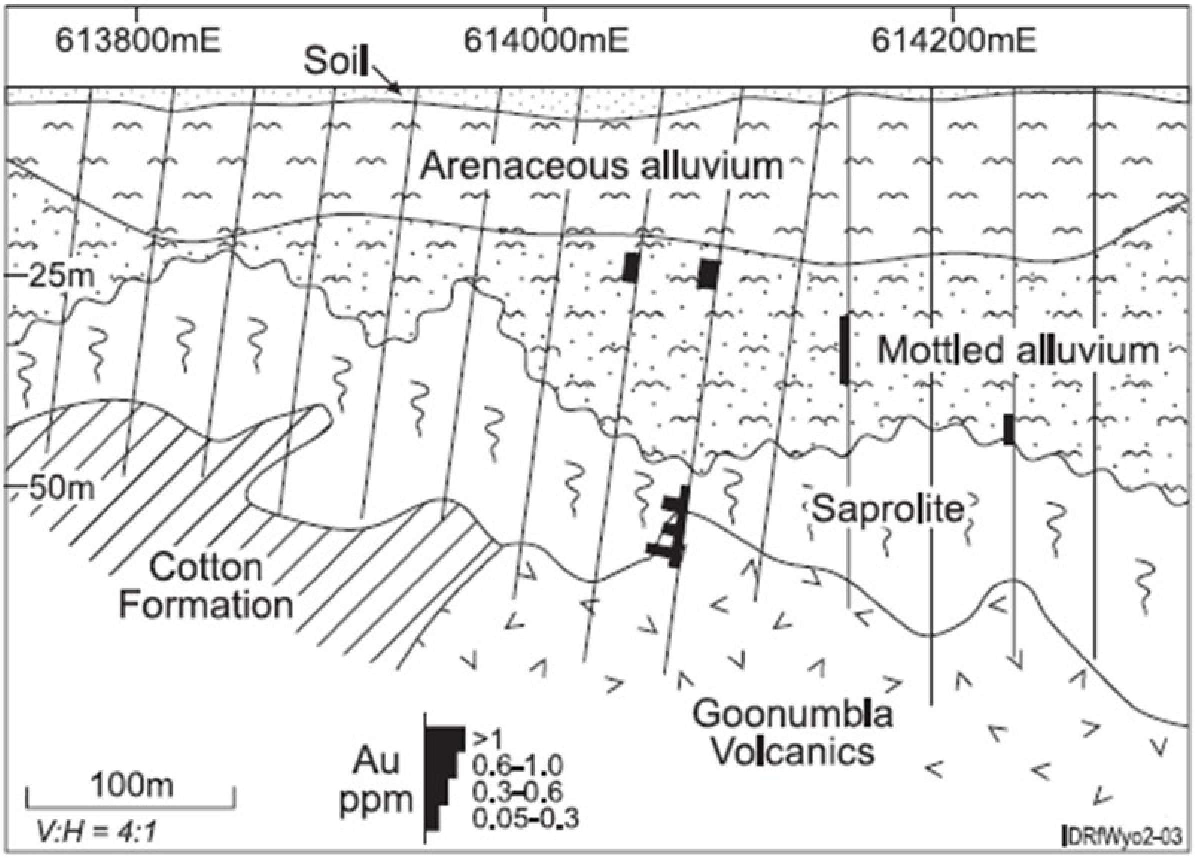


Figure 6-1: Stylised section depicting 1997 aircore drilling results north of Myalls
Source: Scott et al. (2003)

In 1997, Sipa Resources International Ltd and JV partner Michelago Resources NL drilled 45 aircore holes through the transported cover (up to 50 m thick) into weathered bedrock across the projected trend of the Myalls mineralisation to the northwest. Five aircore holes intersected gold grades in excess of 1g/t, with the best intersection of 16 m at 1.7g/t Au in hole WY29. However, due to shifting company priorities, these results were never followed up.

In 2001, Alkane Resources in JV with Compass Resources NL and Golden Cross Operations Pty Ltd, followed up on the results of the 1997 aircore drilling with an expanded 130 aircore and RC drilling program. This program resulted in the discovery of the Wyoming 1 deposit, intersecting 117 m at 1.5g/t in feldspar porphyry (feldspathic andesite) in hole WY167. This result was followed by an extensive exploration drilling program, resulting in the initial resource estimate at Wyoming in 2002. Sustained exploration by Alkane around the area subsequently increased resources at Wyoming and Caloma. This led to commencement of open pit mining activity and onsite processing of ore at TGO in 2014, and commencement of underground mining operations in 2019.

Prior to Alkane's initial resource estimate in 2002, there were no significant historical Mineral Resource and Mineral Reserve estimates for the property.

6.2 Peak Hill

The Peak Hill Gold Mine was discovered in 1889. Initially, alluvial gold was worked in drainage channels on the slopes of the prominent hill (Peak Hill). This was followed the next year (1890) by working of outcropping gold mineralisation on the flanks of the hill. Between 1904 and 1917, open cut and underground mining produced 60,000 oz Au from approximately 500,000t of material mined.

The deposit was explored by several companies from 1964 onwards, but exploration activities away from the prominent Peak Hill was difficult due to the thick cover sequences.

The Peak Hill deposit was drilled out by Alkane Exploration NL (in association with Associated Goldfields NL) in the early 1990s, and a decision to mine was made. From 1996 to 2005, Alkane mined 150,000 oz Au from the oxide zone. Treatment was by Heap and Dump Leach. Mining was both open pit and underground until 2001, and then open pit of two smaller pits from 2001 until full site closure in 2005.

The operation has been closed since 2005 and the site rehabilitated.

7. GEOLOGICAL SETTING AND MINERALISATION

The geological setting and mineralisation of the epithermal Au–Cu deposits of the Macquarie Arc in Central West NSW such as at Peak Hill have been extensively reported by Cooke et al. (2007), Squire et al. (2007), Glen et al. (2007) and Glen et al. (2012). Similarly, the geological setting and mineralisation of the orogenic gold systems such as at Tomingley have been extensively reported by Scott et al. (2003), Chalmers et al. (2007), Meates et al. (2013), Meates et al. (2017) and Meates (2019).

The following is a summary of the geology and mineralisation of the Project. The QP author has reviewed the historical information from these past reports and takes full responsibility for the information disclosed in this section.

7.1 Regional Geology

Peak Hill and Tomingley are located in the central west of NSW near the eastern margin of the Junee-Narromine volcanic belt of the Macquarie Arc in the eastern Lachlan Orogen of eastern Australia. Rocks constituting the Macquarie Arc now occur in four structural belts in the Eastern subprovince of the Lachlan Orogen (Figure 7-1). They are the western Junee—Narromine Volcanic Belt, the central Molong Volcanic Belt, the eastern Rockley—Gulgong Volcanic Belt and the Kiandra Volcanic Belt in the Snowy Mountains farther south. The last may be a southern, strike-slip extension of the Junee—Narromine Volcanic Belt.

Structural and geochemical reconstructions suggest that these belts formed by the accretion and subsequent fragmentation of a single arc, the intraoceanic Macquarie Arc that developed along part of the boundary between the Australian and proto-Pacific plates from the earliest Ordovician to earliest Silurian.

Palaeontological and geochronological data, especially from the Junee—Narromine Volcanic Belt and the Molong Volcanic Belt, show that the arc evolved episodically during a time interval of approximately 50 million years.

High level intrusive porphyries of monzodioritic—dioritic through to monzonite—granodiorite compositions were emplaced into volcanic and volcaniclastic successions in the Macquarie Arc from at least 481 Ma in the Early Ordovician, until around 437 Ma in the earliest Silurian. Using a temporal framework based on geochronological and palaeontological data these porphyries are classified into four types (Figure 7-1).

In summary, evolution of the Macquarie Arc involved Phase 1 Early Ordovician high-K calc-alkaline and shoshonitic magmatism (ca 490 to ca 475 Ma), separated from Phase 2 Middle Ordovician high-K calc-alkaline and shoshonitic activity (466 to ca 450 Ma) by a magmatic hiatus of approximately 9 million years. Groups 1 and 2 porphyry intrusions are related to magmatic Phases 1 and 2, respectively.

The final stages of Phase 2 magmatism may have overlapped with the start of Phase 3 magmatism, the latter producing Group 3 shoshonitic intrusions as well as calc-alkaline compositions termed the Copper Hill Suite. The main episode of Phase 3 magmatism (ca 450—445 Ma) coincided with a hiatus in magmatism established in the western part of the arc that lasted approximately 5 million years, and which was accompanied by uplift, erosion and establishment of a widespread carbonate platform.

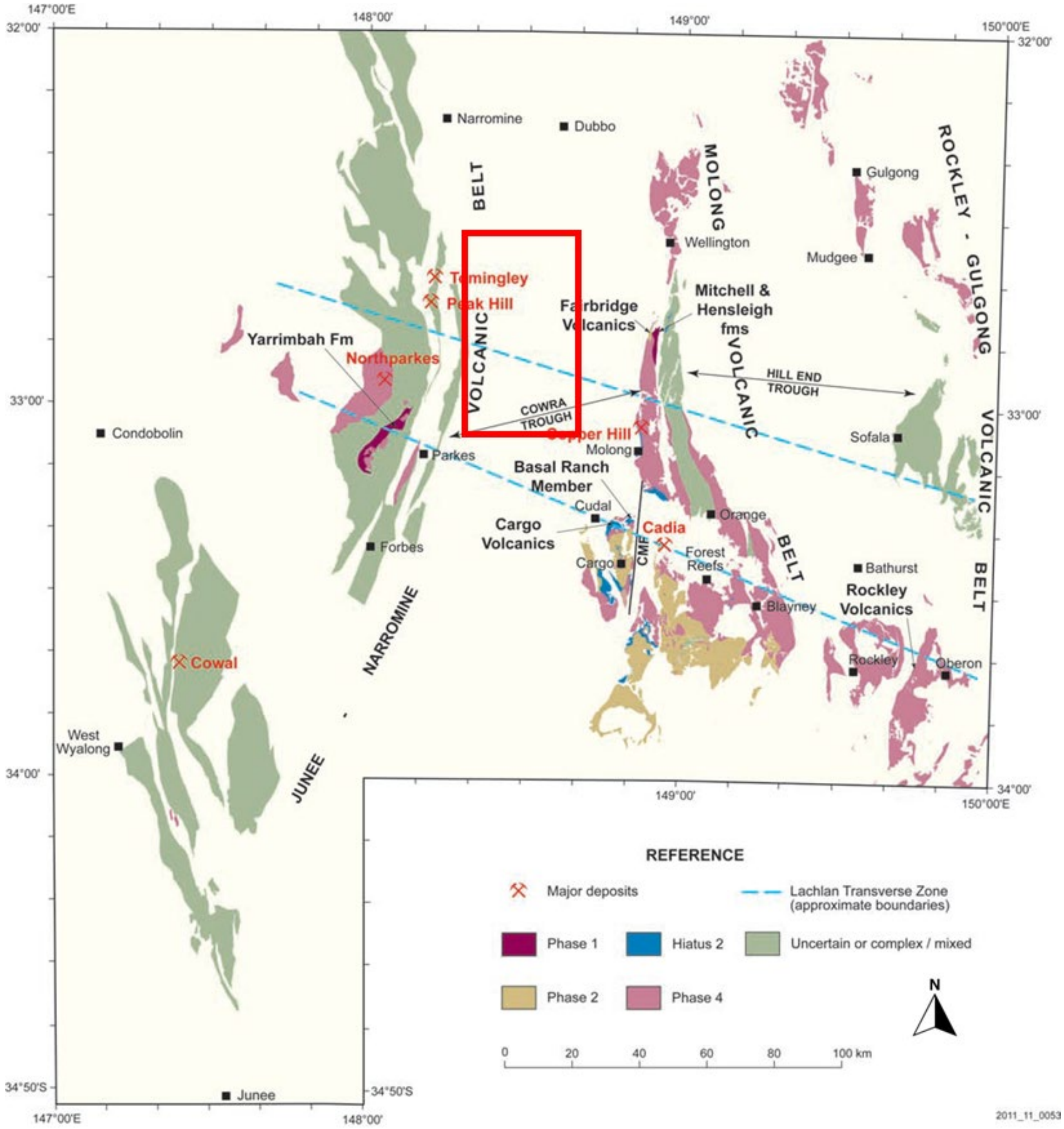


Figure 7-1: Macquarie Arc Belts of Central Western NSW, highlighting the Tomingley-Peak Hill location and major mining projects in the area

Source: Glen et al. (2012)

Phase 4 magmatism, closely associated with much of the major porphyry Cu—Au mineralisation in the Macquarie Arc, is dominantly shoshonitic and occurred apparently diachronous between ca 458 and ca 437 Ma. Between ca 443 and ca 437 Ma, Phase 4 magmatism was manifested by the syn-accretionary emplacement of Group 4 porphyry Cu—Au deposits. The latter Group 4 phase is inferred to encompass the formation of the Peak Hill epithermal deposit, interpreted as potentially peripheral to such a Group 4 porphyry system (refer to Section 8).

The Tomingley deposits are located near the eastern margin of the Junee-Narromine volcanic belt, just east of the interpreted Parkes Thrust (Figure 7-2). This structure separates the flat lying Ordovician Goonumbla volcanic complex from a thin slice of north–south trending andesitic volcanics identified by regional aeromagnetic data and drilling, interpreted to be the Late Ordovician Mingelo Volcanics.

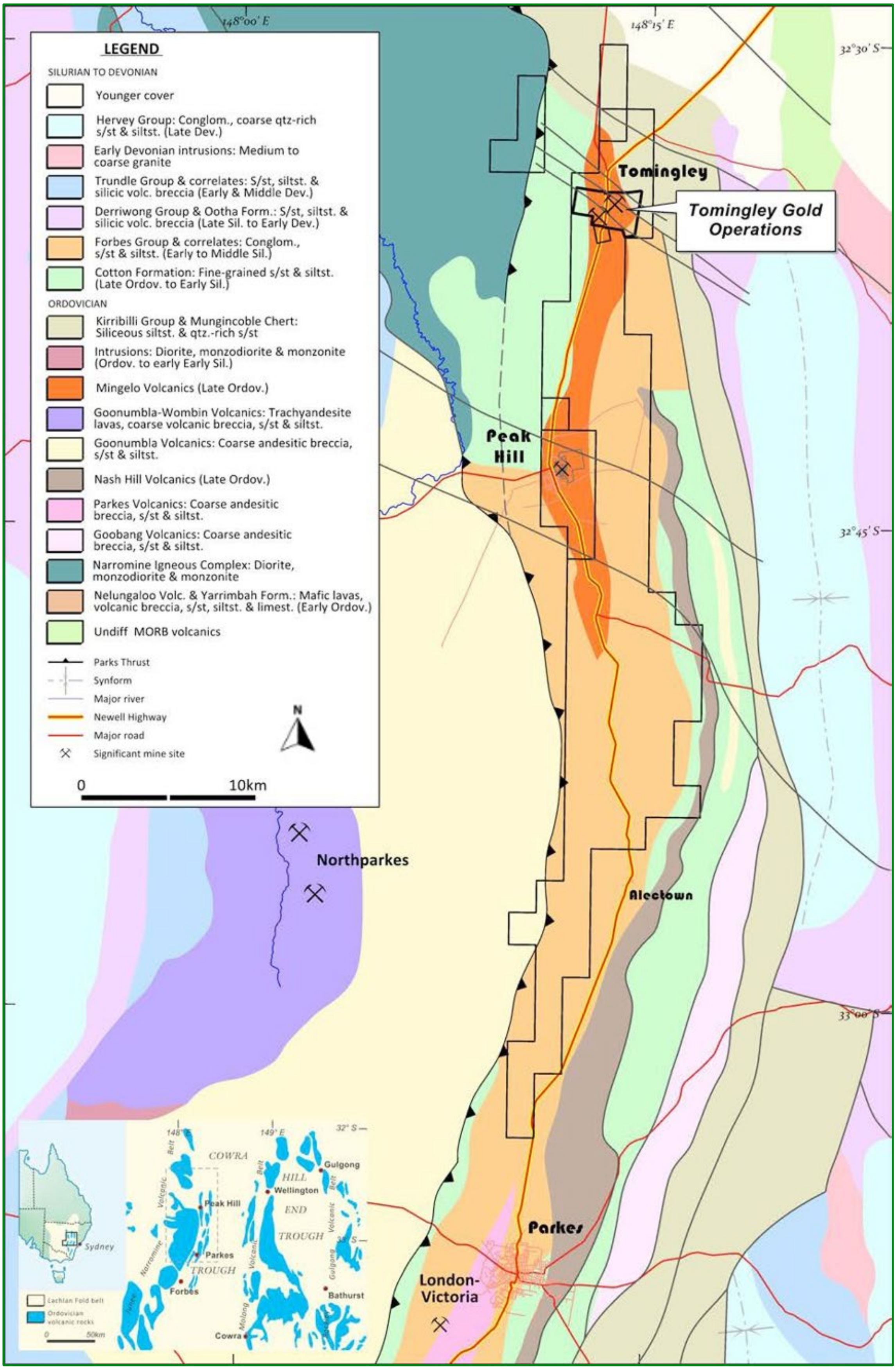


Figure 7-2: Regional geology of the Tomingley and Peak Hill area

Source: Meates et al. (2017)

The TGP covers the entirety of this interpreted north–south belt extending north approximately 25 kilometres from Trewilga to Tomingley and being about two kilometres in width. The Peak Hill deposit sits within the Mingelo Volcanics in a high strain zone between the Parkes Thrust to the West and the Narromine-Tumut Fault to the east.

The Mingelo Volcanics are overlain by sediments thought to be equivalents of the Ordo-Silurian Cotton Formation, perhaps part of the Silurian Forbes Group. Drilling at Tomingley intersects an angular unconformity between the sediments and the underlying volcanics. The sediments consist of well-bedded fine quartzose sandstone and laminated siltstone with a diagnostic basal quartz-rich conglomerate.

The Ordovician rocks west of the Parkes Thrust are weakly deformed, with broad open folds and sub-greenschist metamorphic assemblages. In contrast, the Ordo-Silurian sequences east of the fault, including the rocks hosting the Tomingley deposits, exhibit tight to isoclinal folding with strong axial planar cleavage in greenschist metamorphic assemblages.

Northwest trending transverse structures are also evident in regional magnetic and gravity data, and rarely as faults mappable in outcrop. These structures appear to be long lived fundamental structural breaks that were irregularly reactivated throughout the geological development of the area.

Figure 7-3 shows the local geology of the Mingalo Volcanics and sediments surrounding Tomingley and Peak Hill.

7.2 Tomingley

Figure 7-4, Figure 7-6 and Figure 7-7 depict the local geology maps for each of the major Tomingley deposits. Figure 7-5 depicts cross-sections through the Wyoming and Caloma deposits within the pits.

7.2.1 Tomingley Local Geology

The Tomingley area is almost entirely covered by alluvial sequences of clays, sand and gravel up to 60 metres thick. The transported regolith sediments are thought to have been deposited and weathered at different times, with the lower clayey unit representing a wetter climate, probably during the Middle Miocene to Middle Pliocene, and the upper sandy units indicating drier conditions beginning from the Middle Pliocene to the present.

The maghemite bearing cover sequence has made exploration using geophysical techniques problematic and exploration has been primarily completed through drilling and geochemistry.

The gold mineralisation is hosted within volcaniclastic metasediments, and porphyritic subvolcanic units of monzodiotite and andesite to basaltic-andesite composition. The volcaniclastic metasedimentary rocks, with very rare detrital quartz, are dominated by well-bedded sandstones and siltstones with minor conglomerates and graphitic mudstones centred at Wyoming 1, reducing in grainsize to be dominated by graphitic mudstones and siltstones at Wyoming 3 and Caloma. The volcaniclastic metasediments are intruded by and interbedded with numerous coarse plagioclase ± augite porphyritic bodies which commonly show peperitic contacts and are interpreted as shallowly emplaced sills.

A narrow, marginally discordant, chlorite-talc schist has also been located by drilling just to the east of the sills at Wyoming 1. This likely represents a mafic-ultramafic precursor, similar to olivine rich lavas (picrites) described elsewhere in the Molong Belt.

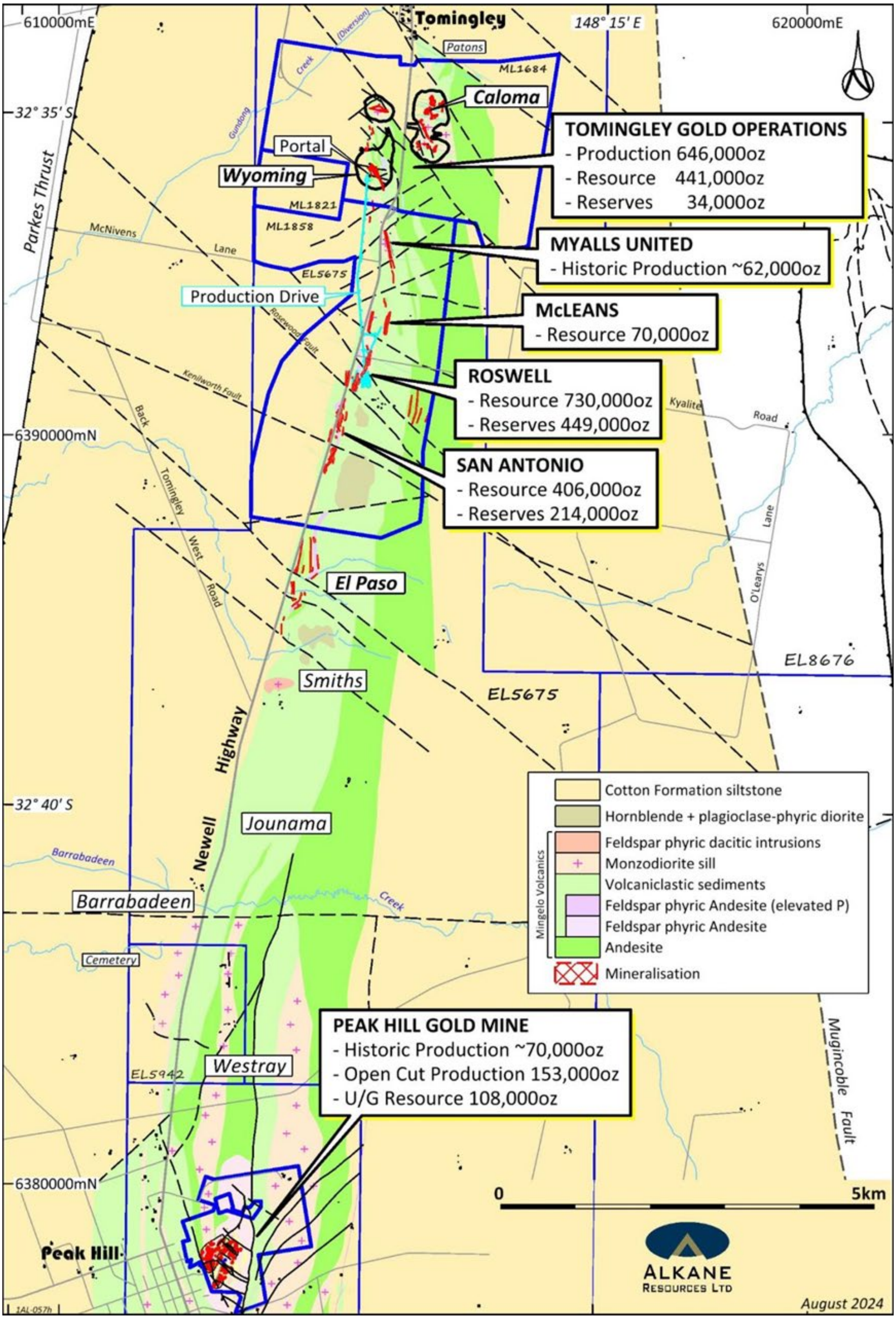


Figure 7-3: Local geology of the Tomingley and Peak Hill area

Source: Alkane 2024 annual resources and reserves statement, ASX Announcement 4 September 2024. Refer to Sections 14 and 15

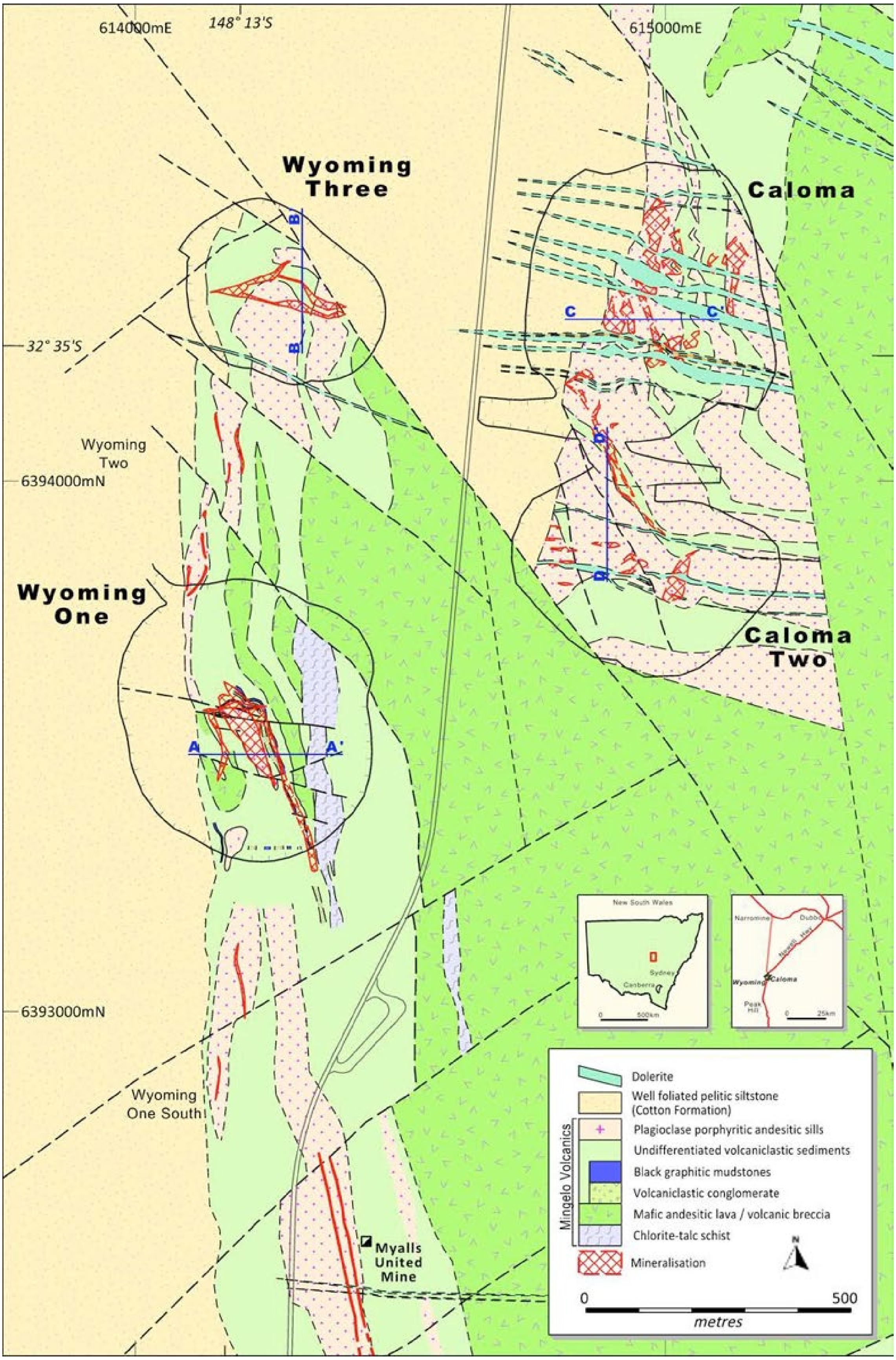


Figure 7-4: Local geology of the Tomingley Wyoming and Caloma area

Source: Meates et al. (2017)

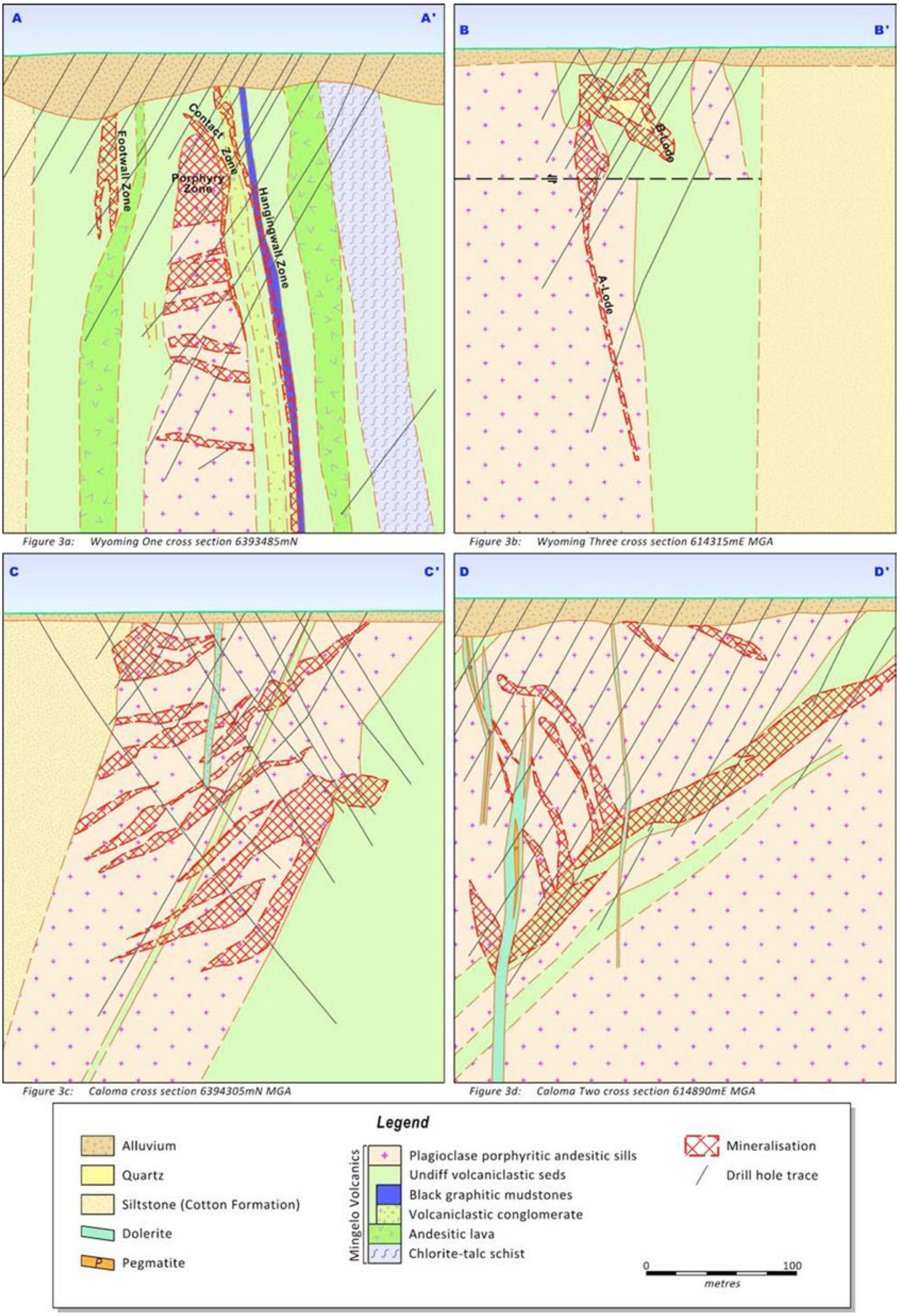


Figure 7-5: Cross-sections of the Tomingley Wyoming and Caloma area

Note drilling traces reflect the state of drilling at time of reference publication in 2017. Refer to Figure 7 4 for section locations. Source: Meates et al. (2017).

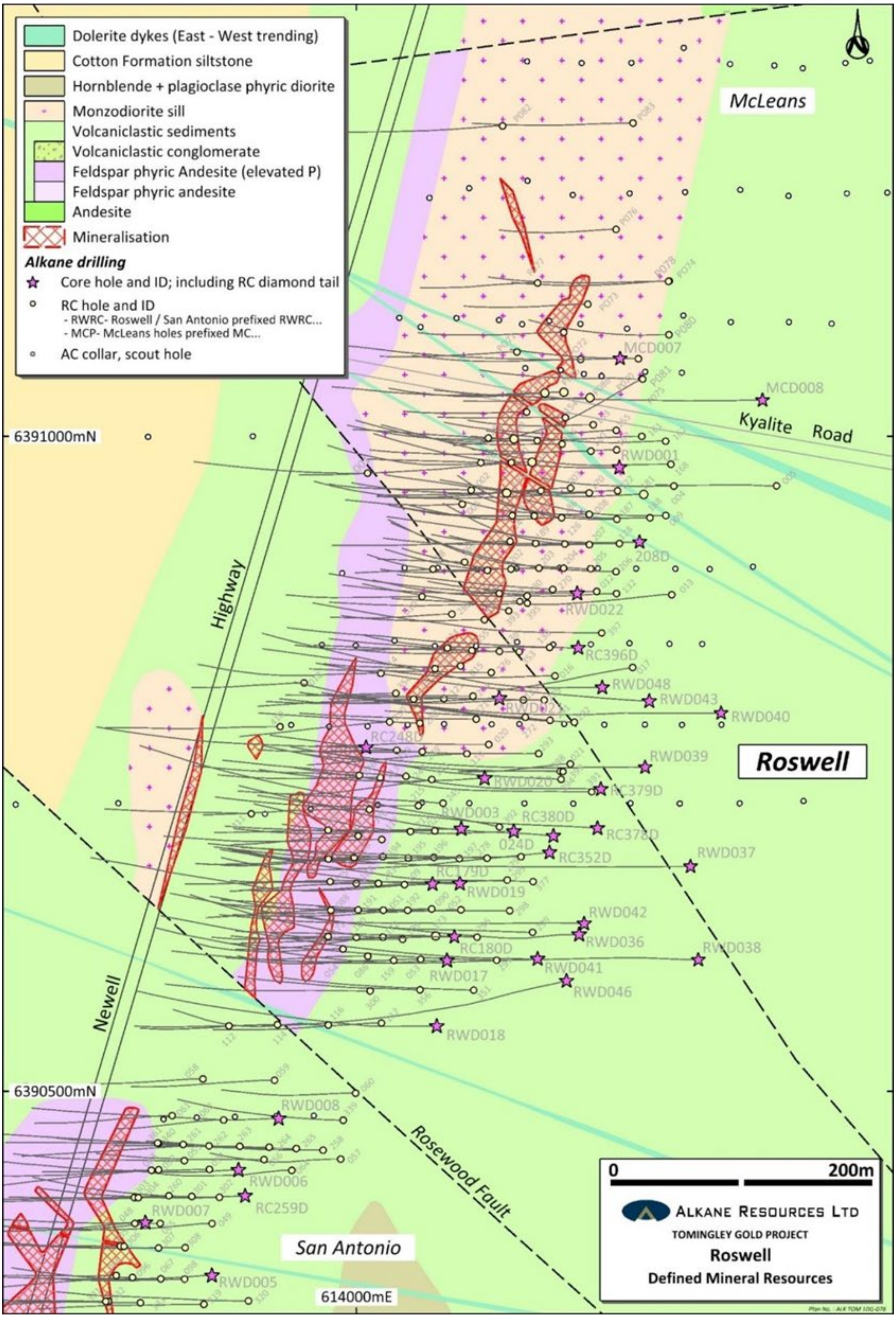


Figure 7-6: Local geology of the Tomingley Roswell area

Source: Alkane ASX Announcement 4 November 2020

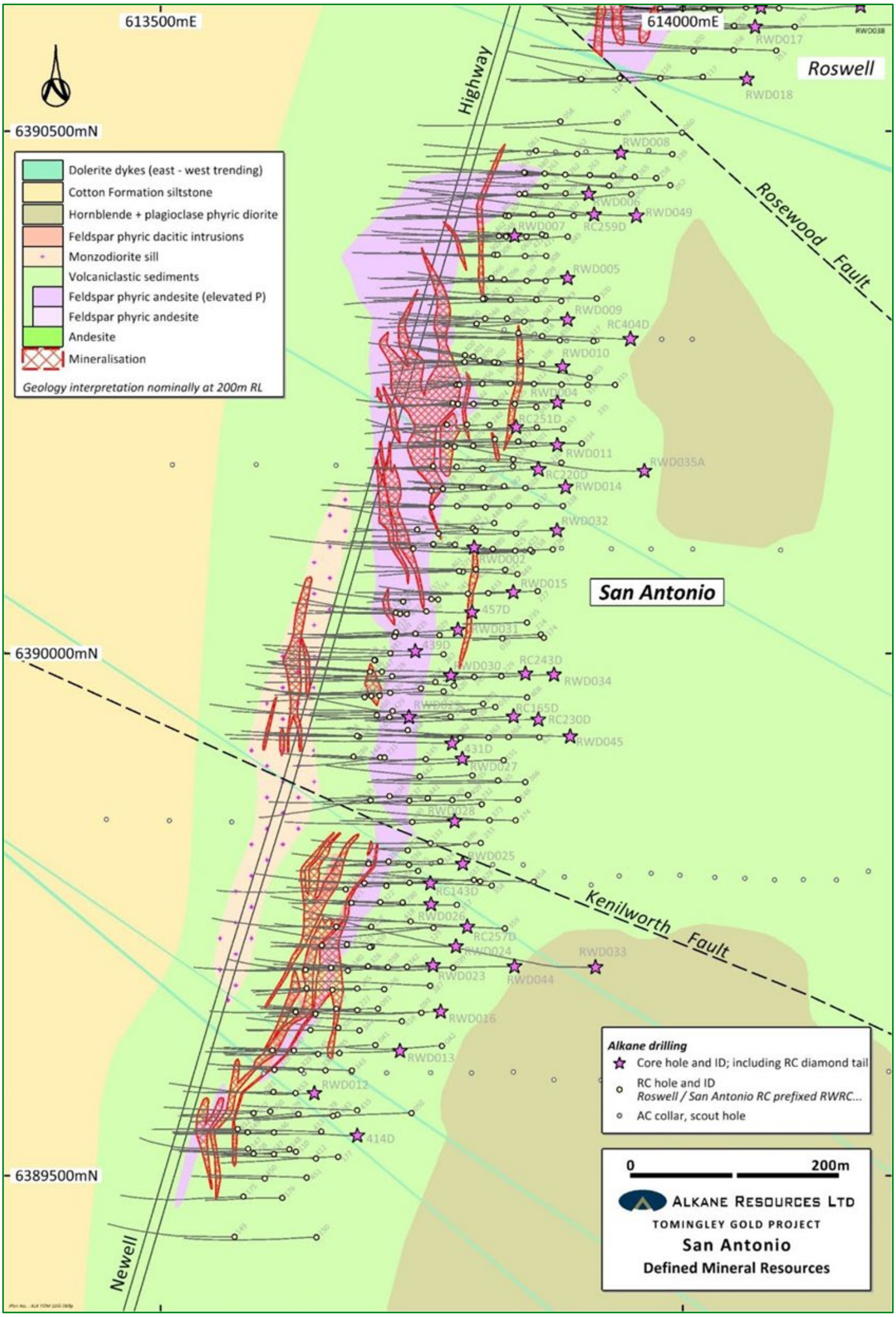


Figure 7-7: Local geology of the Tomingley Roswell area

Source: Alkane ASX Announcement 16 February 2021

The western boundary of the volcanic sequence is defined by an angular uncomfortable contact overlain by well foliated metasiltstones interpreted to correlate with the latest Ordovician to early Silurian Cotton Formation. The eastern margin of the volcanic sequence is uncertain.

Narrow tholeiitic dolerite dykes, of apparent varying ages, crosscut the entire sequence and postdate mineralisation. Also crosscutting the sequence are thin quartz + K-feldspar phyric rhyolitic dykes which are dated from Caloma at 381.8 ± 2.1 Ma.

A deformational history of the Tomingley deposits has been developed from empirical observations recorded from oriented drill core with 3D modelling of structural data and gold assay values.

Reconstructing the structural history of the Tomingley area indicates early east–west compression. This is expressed by dominantly north-northwest striking stratigraphy with subparallel regional foliation, and minor folds. The reverse sense of movement in shears and vertical fibres in the mineralised veins give support to this event controlling the formation of mineralised veins. At Wyoming 1 sinistral transpression was modelled as an important stress regime in developing high gold grade cross structures. Empirical observations of the stratigraphy at Wyoming 3 and Caloma 2 also support an early sinistral transpression event.

Subsequent major dextral wrenching postmineralisation has caused further realignment of stratigraphy including a 1 km southeast offset to the volcanic belt. The regional steep east-dipping stratigraphic orientation has been realigned to form a moderately west dipping stratigraphy on the eastern side of this offset. At Wyoming 3 and Caloma 2 significant folding has realigned the stratigraphy and existing mineralisation with the southeast orientation of the strike slip dextral structure.

Intermittent periods of extension from the early Silurian to at least the Middle Devonian led to various episodes of dyke emplacement.

7.2.2 Tomingley Mineralisation

The Tomingley deposits show many similarities to orogenic gold deposits such as alteration, mineralisation and vein style and composition. Each of the deposits has its own structural nuances, however, mineralisation is dominantly hosted within the subvolcanic sills, competent lavas or along their immediate contacts with volcaniclastic metasediments.

Alteration appears multiphase with repeated cracking, crushing, veining and sealing, leading to heterogeneous, patchy alteration and discontinuous narrow veinlets. Alteration is characterised by a bleaching white mica (muscovite)–carbonate (ankerite)–albite-silica-(± chlorite) as pervasive replacement of the host rock around strong quartz + carbonate (ankerite) + pyrite + arsenopyrite ± albite veining. The veining typically forms subparallel sheets up to 10 m thick and spaced typically 20 - 30 m apart within the sills and lavas and along their contacts.

Multiple phases and recrystallisation of pyrite and arsenopyrite occur early in the paragenesis. Late fractures in earlier pyrite and arsenopyrite have served as nucleation sites for the precipitation of gold which occurs within or disseminated near the selvages of the quartz - ankerite vein assemblage. Rare sphalerite and chalcopyrite are syngentic with gold mineralisation.

7.3 Tomingley Deposit Geology

Wyoming 1

Gold mineralisation at Wyoming 1 is distributed both around and within a small (40 metres by 100 metres near surface, broadening at depth), roughly elliptical, subvertical, feldspar ± augite phyric sill. The deposit has been separated into distinct mineralised zones: the 'porphyry' zone; contact zone; hangingwall zone; and the 'footwall' zone.

The hangingwall zone appears stratigraphically controlled by a thin fine grained carbonaceous mudstone striking north-northwest and is the only defined mineralisation not having a close spatial relationship with a porphyritic sill host. The high grade mineralisation appears to have a strong ore shoot control plunging 40° to the south-southeast. Parasitic fold axes measured in drill core parallels this direction.

The footwall zone is an apparent extension of the hangingwall zone on the western fold limb. The zone of mineralisation is characterised as poddy quartz veining up against the Cotton Formation contact. The gold mineralisation does not extend into the Cotton Formation.

The '376' and '831' zones were originally interpreted as east–west high grade gold zones truncating and transecting the sill. The 'contact' zone was interpreted as a zone of mineralisation focused on the north-eastern contact of the sill. There is currently no evidence from pit mapping for the separation of '831,' '376' and 'contact' structures as interpreted from exploration data. Grade control has now combined all three zones as a high gold grading ellipse shaped 'contact' zone wrapped and focused on the north and north-eastern margin of the sill.

The 'porphyry' zone of mineralisation is dominated by a stockwork-like vein system of irregular silicification (locally described as 'mushy quartz') however, planar veins have a pervasive west-northwest strike.

Caloma 1

The Caloma 1 (previously known as just Caloma) deposit is hosted within two moderately west dipping (steepening at depth) porphyritic sills up to 60 m thick separated by thin metasiltstone units. Gold mineralisation is focused within a shallow to moderate west dipping sheeted vein system that approximately parallels the strike of local stratigraphy. The lodes terminate at the Cotton Formation contact in the west and tends to 'horsetail' when in contact with the volcaniclastic sediments in the east. The sheeted veins are dislocated by an east–west dyke swarm transecting the deposit, slightly rotating the stratigraphy and mineralisation in between dykes. The Caloma 1 mineralisation to the north is terminated near a north-northwest trending structure where sheeted veining is rotated to moderately north dipping. To the south mineralisation has rotated 30°, striking northwest along a porphyritic sill—metasediment contact. Mineralisation linking Caloma 1 with Caloma 2 appears to be restricted within or adjacent to a narrow, steeply southwest dipping volcaniclastic sediment unit and is poddy in nature.

Caloma 2

The stratigraphy at Caloma 2 has a distinctive east–west orientation in contrast to the north-northwest orientation at the adjacent Caloma 1 deposit. This dramatic change in trend is interpreted to be associated with folding along the major northwest trending fault which dislocates stratigraphy from Wyoming 3 to Caloma 2. The linking stratigraphy between Caloma 1 and Caloma 2 dips steeply to the southwest, aligning itself with this major structure to the south. Two dolerite dykes crosscut the stratigraphy and mineralisation and also have late off sets. Synformal folding has been observed within the oxide zone of the Caloma 2 pit.

The mineralisation at Caloma 2 is constrained to the east by shallow west dipping sheeted veins and to the west by moderately north dipping en-echelon vein sets. Mineralisation appears to dilate when in contact with a northern bounding volcaniclastic sediment unit. At depth there is evidence for a reverse saddle reef like structure associated with the closure of a moderately west plunging synform.

Roswell

The Roswell deposit is positioned north of a regional northwest trending structure termed the Rosewood Fault. This fault, originally identified in the aeromagnetic data, appears dextral and is of a similar orientation to the structure that dextrally displaces the Caloma deposits from the Wyoming deposits at Tomingley.

The drilling at Roswell has defined a fault bounded section of volcanic stratigraphy covered by 30 m to 55 m of alluvial clays and sands. The faulted subvertical volcanic stratigraphy is rotated from striking north to striking north-northeast. The mineralisation appears to be hosted by two different volcanic units - monzodiorite and andesite - within a coarse grained volcaniclastic package generating structural zones by a competency contrast between the ‘brittle’ volcanics and ‘ductile’ volcaniclastics.

The stratigraphy at Roswell comprises immature volcaniclastic sandstones and conglomerates with lesser siltstones/mudstones. More evolved, fine grained plagioclase phyric multi-phased andesite lavas are slightly magnetic and hosts a significant proportion of the gold mineralisation. In thin section, the andesite lavas have abundant tiny apatite needles within the plagioclase, accounting for the slightly elevated phosphorous concentration in comparison to the other volcaniclastics and lavas within the stratigraphic package.

Intruding into this volcanic package east of the andesite lavas, is a monzodiorite that appears to have the same petrographic qualities as the subvolcanic sills that host the majority of the mineralisation at the Tomingley deposits, with the exception that it has a holocrystalline texture suggesting it is likely a deeper intrusive. A second, smaller and porphyritic, monzodiorite intrusive was identified west of the andesite lavas at depth by the recent deeper drilling.

The mineralisation at Roswell is characterised as typical quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics. The mineralised zones range from 2 m to 30 m wide and as stacked tension veins, sometimes becoming more of a stockwork within the andesite host.

The mineralisation, as observed at Tomingley, is displaced by a swarm of postmineralisation dolerite dykes. The dolerite dykes have a similar orientation of dipping steeply to the north-northeast.

San Antinio

The San Antonio deposit is also positioned south of a regional northwest trending Rosewood Fault. A second significant structure named the Kenilworth Fault is oriented west-northwest and transects the southern section of the San Antonio deposit.

The mineralised bedrock lies beneath a Cainozoic alluvium overburden between 20m - 60m thick. Weathering of the mineralised bedrock has developed a saprolitic clay profile extending approximately 35 metres from the base of alluvium to fresh rock.

The stratigraphy at San Antonio comprises immature volcaniclastic sandstones and conglomerates with lesser siltstones/mudstones. More evolved, fine grained plagioclase phyric multi-phased andesite lavas are slightly magnetic and hosts a significant proportion of the gold mineralisation. In thin section, the andesite lavas have abundant tiny apatite needles within the plagioclase, accounting for the slightly elevated phosphorous concentration in comparison to the other volcaniclastics and lavas within the stratigraphic package.

Intruding into this volcanic package west of the andesite lava, is a monzodiorite that appears to have the same petrographic qualities as the subvolcanic sills that host the majority of the mineralisation at the Tomingley deposits. This unit is poorly constrained by drilling with only a few drill holes testing along strike from mineralisation defined within the central portion of this unit. This favourable unit for hosting mineralisation is open along strike.

A second type of intrusive, feldspar phyric dacites, are identified only in the southern portion of San Antonio and intrude along or proximal to the contacts of the andesite. Although less than 10m thick where intersected these intrusives are usually strongly mineralised.

The mineralisation at San Antonio is characterised as quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics and volcaniclastics. The mineralised zones range from 2m to 20m wide and form as sheeted sigmoidal tension veins, sometimes becoming more brecciated and shear hosted along the eastern contact with the andesite host.

The mineralisation at San Antonio can be displaced by an occasional 1m - 3m thick postmineralisation dolerite dykes. The dolerite dykes in the region are Devonian aged and have a similar orientation, dipping steeply to the north-northeast.

7.4 Peak Hill

The Peak Hill Au–Cu deposit is hosted by a succession of andesitic volcaniclastic breccias, lesser sandstone and minor lavas and black mudstone that correlated with the Late Ordovician to Early Silurian Mingelo Volcanics.

Well-stratified sandstones and cherts of the Late Ordovician to late Silurian Cotton Formation lie immediately east of the deposit, separated from the volcanic rocks by a large fault, although at Tomingley the contact is observed to be unconformable. Fault bounded slices of Mingelo Volcanics, Cotton Formation and Late Silurian sandstone and mudstone of the Mumbidgle Formation occur between Peak Hill and the Coolac–Narromine Suture, 10 km to the east.

Silicified sandstone and siltstone of the Mugincoble Chert also exist in this zone, although their age and stratigraphic relationships are uncertain. Late Devonian quartz-rich sandstones of the Hervey Group occur east of the Coolac–Narromine Suture.

At least three periods of deformation are recognised at Peak Hill. A steeply dipping, dominantly north–south trending S_1 foliation with a subvertical extension lineation (L_1), which reflects a period of east–west compression, is the most prominent fabric. Narrow thrust surfaces, or a crenulation cleavage (folded about S_2) that overprint and are slightly oblique to S_1, characterise the second deformation. The third deformation is recorded by low-amplitude open cross folds with east–west S3 axial surfaces that occur in both the Mingelo Volcanics and the Cotton Formation.

It is suggested that both the hydrothermal alteration and mineralisation at Peak Hill predated the regional deformation. Evidence for this includes fractured and boudinaged sulfide grains and curved quartz crystals in crack-seal veins interpreted to indicate postmineralisation brittle and plastic deformation, and recrystallisation and grain boundary migration. In addition, multiphase microveins and crack-seal veins that contained quartz, pyrophyllite, sericite and kaolinite in the vein fillings developed during S_2 indicated control by the dominant wall-rock mineralogy (i.e. dissolution and redeposition of pre-existing predeformation alteration assemblages). Rare northwest to west-northwest trending faults dextrally displace alteration boundaries and postdate D_3.

The Au–Cu mineralisation at Peak Hill occurs in steeply plunging shoots that broadly coincide with a distinctively zoned alteration system (Figure 7-8 and Figure 7-9). The alteration zone, or lithocap, is evident over a 3 km long by 500 m width north–south trending zone that appears to be focused on coarser grained permeable breccia and volcaniclastic rocks, with later superimposed structural zones.

Within the broad lithocap envelope, an elliptical core zone 500 m by 400 m of advanced argillic alteration is evidenced by extensive pyrophyllite and paragonite with residual silica-pyrite mineralised zones. Pyrite content commonly exceeds 15% and barite is a prominent accessory mineral.

Pyrophyllite in the core of the alteration system grades out through white-mica-bearing alteration assemblages to propylitic chlorite ± epidote bearing margins. It is speculated that steeply dipping pyroclastic units in its core represented important controls on the geometry of the ore shoots. The hydrothermal alteration assemblages, ore minerals and textures to be consistent with emplacement at relatively shallow crustal levels (cf. 3 to 5 km), similar to modern epithermal deposits.

High pyrite concentrations, with the copper sulfide assemblage dominated by enargite, tennantite and luzonite, are often focused within late, higher grade structures within the residual silica-pyrite zones. Gold grades >1g/t at Peak Hill are usually coincident with concentrations of quartz-pyrite-barite veins. These veins are not confined the pyrophyllite core, they also occur in the advanced argillic paragonite-muscovite zone which is proximal to the pyrophyllite core. The zones of high grade <5g/t generally occur in microcrystalline quartz altered domains in the paragonite-muscovite alteration zones. The high grade zones are also associated with tight east–west to west-north-west structures that crosscut the ore body. These structures can be difficult to observe but can be spatially identified with the grade distribution within the tightly spaced blast hole drilling.

Oxidation has extended to >90 m. The redox boundary between oxidised and unoxidised rock is irregular due to poddy nature of the primary sulfide interface extending into the overlying oxidised material.

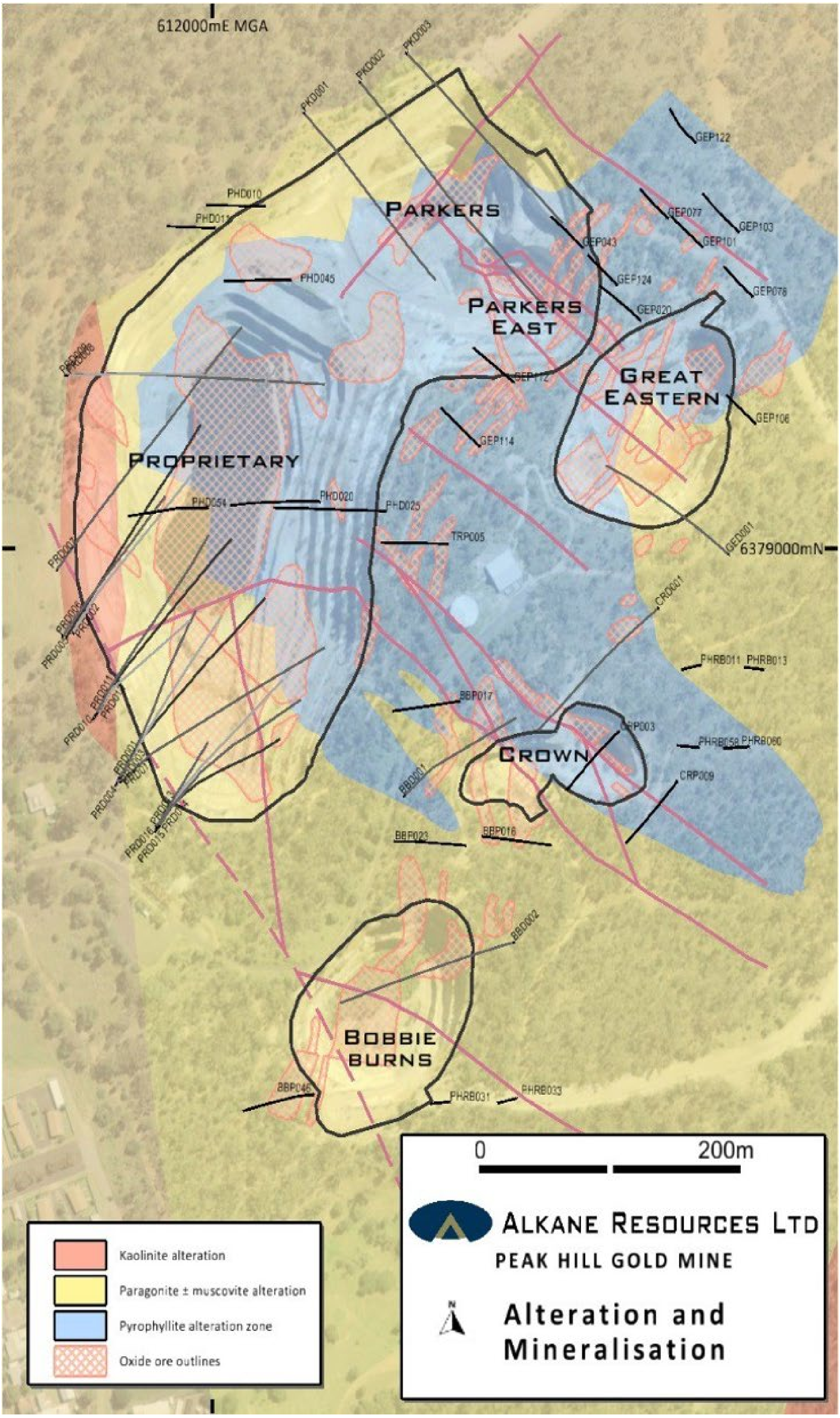


Figure 7-8: Alteration geology of the Peak Hill deposit

Source: Alkane ASX Announcement 18 October 2018

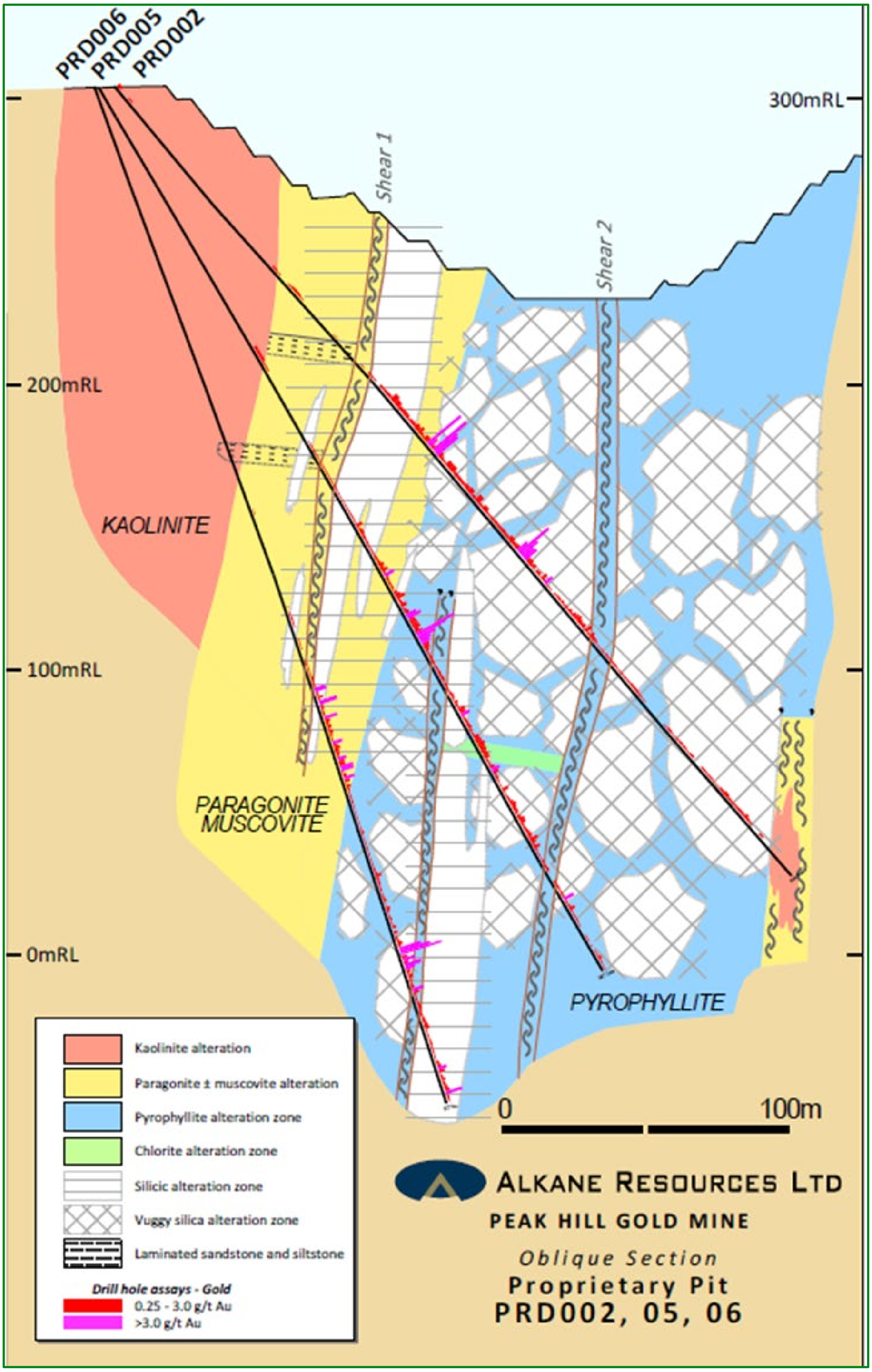


Figure 7-9: Typical cross-section alteration geology of the Peak Hill deposit

Source: Alkane ASX Announcement 18 October 2018

8. DEPOSIT TYPES

The deposit models applied to the epithermal Au–Cu deposits of the Macquarie Arc in Central West NSW such as at Peak Hill have been extensively reviewed by Cooke et al. (2007), Squire et al. (2007), Glen et al. (2007), Glen et al. (2012). Deposit models applied to the orogenic gold systems such as at Tomingley have been extensively reviewed by Scott et al. (2003), Chalmers et al. (2007), Large (2013), Meates et al. (2013), Meates et al. (2017) and Meates (2019). For reference to deposit locations refer to Figure 7-1.

The Macquarie Arc hosts porphyry Cu-Au, epithermal and structurally controlled Au–Cu deposits. It is the world's second major alkalic porphyry province, largely because of the Au-rich porphyry deposits associated with alkalic intrusions in the Cadia district in the Molong Volcanic Belt. The combined resources from Cadia make it the sixth largest Au-rich porphyry system on Earth, with Ridgeway and Cadia East among the world's highest grade porphyry Au resources. Mines include those of the Cadia Valley, those in the Northparkes area and the Cowal mine. Significant resources also occur at Copper Hill, at Tomingley (orogenic Au) and at the high-sulfidation epithermal deposit at Peak Hill Mine.

A schematic model of the linkage between alkalic porphyry gold—copper deposits related to monzonite intrusive complexes in NSW, and related epithermal deposits such as Peak Hill, is given in Figure 8-1. Depth estimates in the schematic are generalised. The following text relates to the figure.

(1) Skarns form where monzonites have intruded carbonate wall-rocks. The alkalic deposits are centred in and around monzonite porphyries and are associated with potassic and propylitic alteration assemblages (2). Deep and shallow sodic assemblages may also be present. The porphyries are cut by late-stage faults with phyllic alteration haloes. These phyllic faults contain carbonate—base-metal mineralisation and may be feeders to epithermal gold mineralisation (3). If acidic gases (SO_2, HCl) exsolved from the crystallising porphyry ascended along near-vertical structures, they may have produced advanced argillic and silicic alteration zones analogous to those associated with Peak Hill-style high-sulfidation epithermal mineralisation (4). Although no shallow-level alkalic epithermal gold deposits have yet been found in NSW, is speculated that an Emperor-style deposit may exist (5), if an appropriate erosional window can be identified. Surficial outflow of acidic gas condensates may have produced a lithocap on top of the system (6).

The formation of orogenic gold deposits is a three stage process (Figure 8-2 and Figure 8-3). The first stage involves preconcentration of gold in a suitable source rock, such as carbonaceous black shales, felsic volcaniclastics or komatiitic volcanics. The second stage involves the release of gold (commonly with arsenic and/or tellurium) from the source rocks, during metamorphism or magmatic intrusive events, accompanied by the replacement of source rock pyrite by pyrrhotite. Recent research suggests that syn-sedimentary gold, trapped in the structure of diagenetic arsenian pyrite in reduced carbonaceous facies of continental margin sedimentary basins, is an ideal source of gold for many orogenic style gold deposits. The conversion of diagenetic arsenian pyrite to pyrrhotite, during greenschist facies metamorphism and deformation, is the key process releasing gold and arsenic to the metamorphic fluid during the deformation events. This gold charged fluids are then transported along structurally induced permeability zones such as faults and shears until they encounter structural trap sites that coincide with changes in redox and/or other thermodynamic properties to force precipitation to form the deposits.

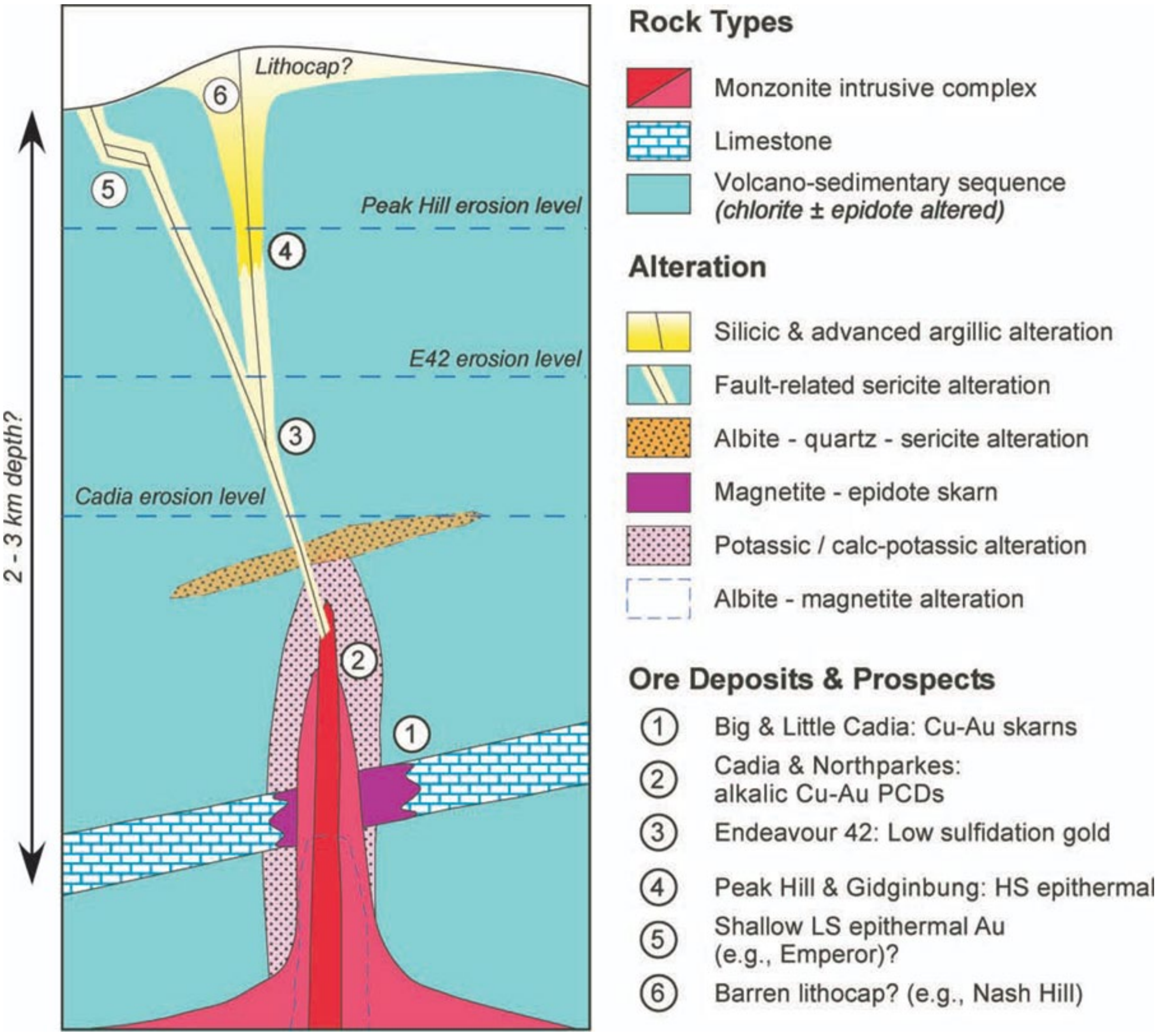


Figure 8-1: Schematic model of alkalic porphyry gold—copper deposits and related epithermal deposits in NSW.
Refer to text for explanations. Source: Cooke et al. (2007)

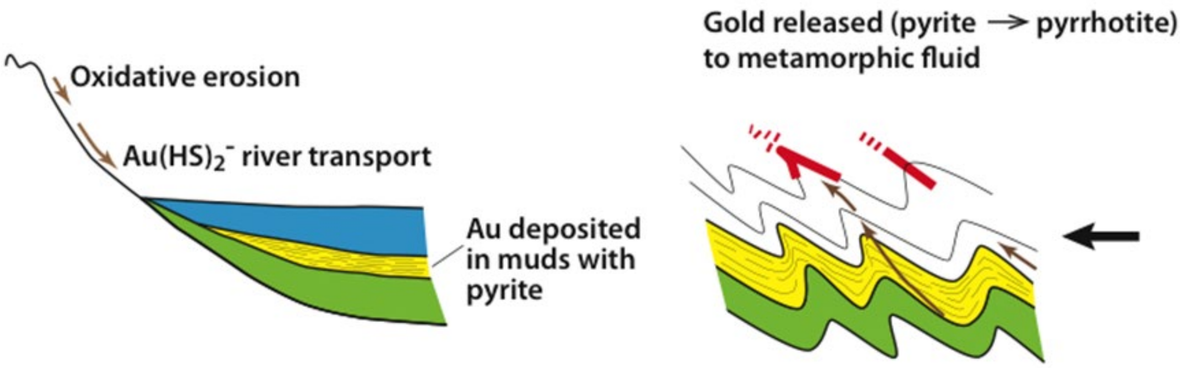


Figure 8-2: Schematic model of orogenic gold deposits
A: oxidative erosion of gold from continents, transport via river systems and deposition in marine carbonaceous mudstones. B: Basin inversion and metamorphism converts gold bearing diagenetic pyrite to pyrrhotite with release of Au, As and Te to ore fluid. Source: Large (2013)

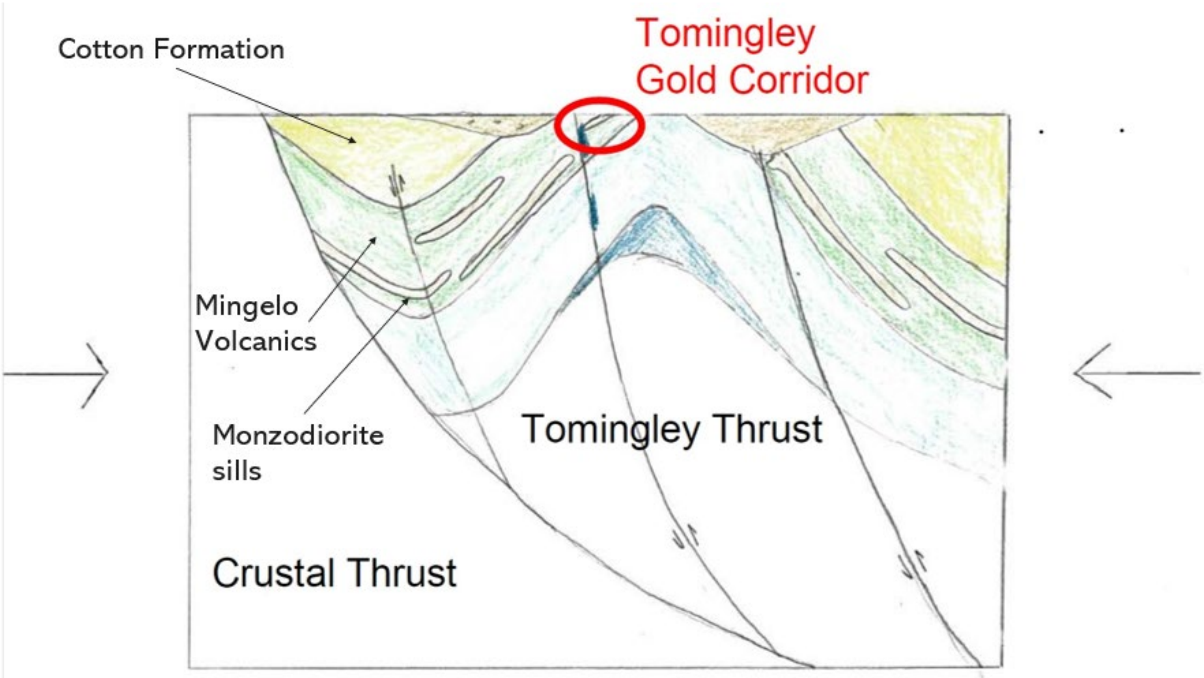


Figure 8-3: Schematic model of orogenic gold deposits (cont.)

C: Inverted basin deformed against crustal thrust (extension to Parkes Thrust?). Tomingley Thrust forming during accretion 'Tomingley Structure/ Gold Corridor' within regional anticline. Gold camps locally positioned at intersections of Tomingley Thrust and northwest (NW) transpressional faults (sinistral) in brittle hosts in upper Mingelo stratigraphy. Deposition of As-Au to form deposits in structural locations associated with multiphase alteration assemblages and competency contrasts within and marginal to subvolcanic intrusives in the Mingelo sequence. Source: modified from Meates (2019).

9. EXPLORATION

9.1 Tomingley

Exploration work at Tomingley is impacted by the depth of transported cover containing the paramagnetic mineral maghemite. This limits geophysical investigations as the maghemite interferes with typical exploration methods utilised such as electromagnetic and induced polarisation surveys. Similarly, the depth of cover limits geochemical investigation to bedrock drilling techniques capable of penetrating the thick cover sequence to the base of oxidation in bedrock.

In summary, exploration at Tomingley has been focused on successful resource development and mine life extension to sustain Tomingley Operations after the initial discovery at Wyoming in 2001. This exploration led to expansion around the Wyoming 2001 discovery to incorporate new open pit mining areas at Wyoming 1 and Three, Caloma 1 and Two, followed by underground development beneath those pits. Exploration south along the mineralised trend to Myalls and further south lead to the discovery of the Roswell and San Antonio deposits, with significant exploration effort required for resource definition and in support of underground mine development at those projects.

Exploration has tested several other targets in parallel to the resource definition work between the Wyoming discovery and the present day (refer to Figure 9-1 and exploration prospects highlighted therein). To date, exploration activity has been predominantly in the area within seven kilometres of the Tomingley Operations along the interpreted strike of the Mingelo Volcanics contact with the Cotton Formation. Anomalous gold has been found at each of the target areas identified in Figure 9-1 and Figure 9-2along that strike, as well as in other target areas identified off that main trend. Aside from the discoveries at San Antonio and Roswell, follow-up exploration drilling at most of these prospects to date hasn't offered sufficient encouragement to justify further exploration.

The most advanced exploration prospects are (from south to north):

- El Paso
- Plains
- McLeans
- Tomingley 2
- Allendale/Coldstream

9.1.1 McLeans Prospect

The McLeans Prospect is positioned 500 metres northeast of the Roswell deposit and adjacent to the underground exploration drive from Wyoming 1. The prospect area had been historically tested by nominal 100 metre spaced AC and rotary air-blast (RAB) drilling traverses, and 17 RC drill holes, with shallow mineralisation and alteration evident over a 400-metre strike length masked by approximately 1 to 20 metres of alluvium.

McLeans is primarily hosted by one 'brittle' andesite with similar texture and geochemistry as the andesite that is host to the majority of mineralisation at the nearby Roswell deposit. This andesite is host to structural zones generated by a competency contrast between the 'brittle' volcanics and surrounding 'ductile' volcaniclastic sediments. The multiple gold zones are associated with either sheeted quartz veins or as pyrite-silica cemented breccias, hosted within and along the contacts of the andesite host (Figure 9-3).

The McLeans host andesite starts approximately 130 m below the surface, extends approximately 250 m in strike and remains open at depth. The andesite averages a thickness of 60 m but thins to 25 m along its upper and northern margins forming a 'keel.'

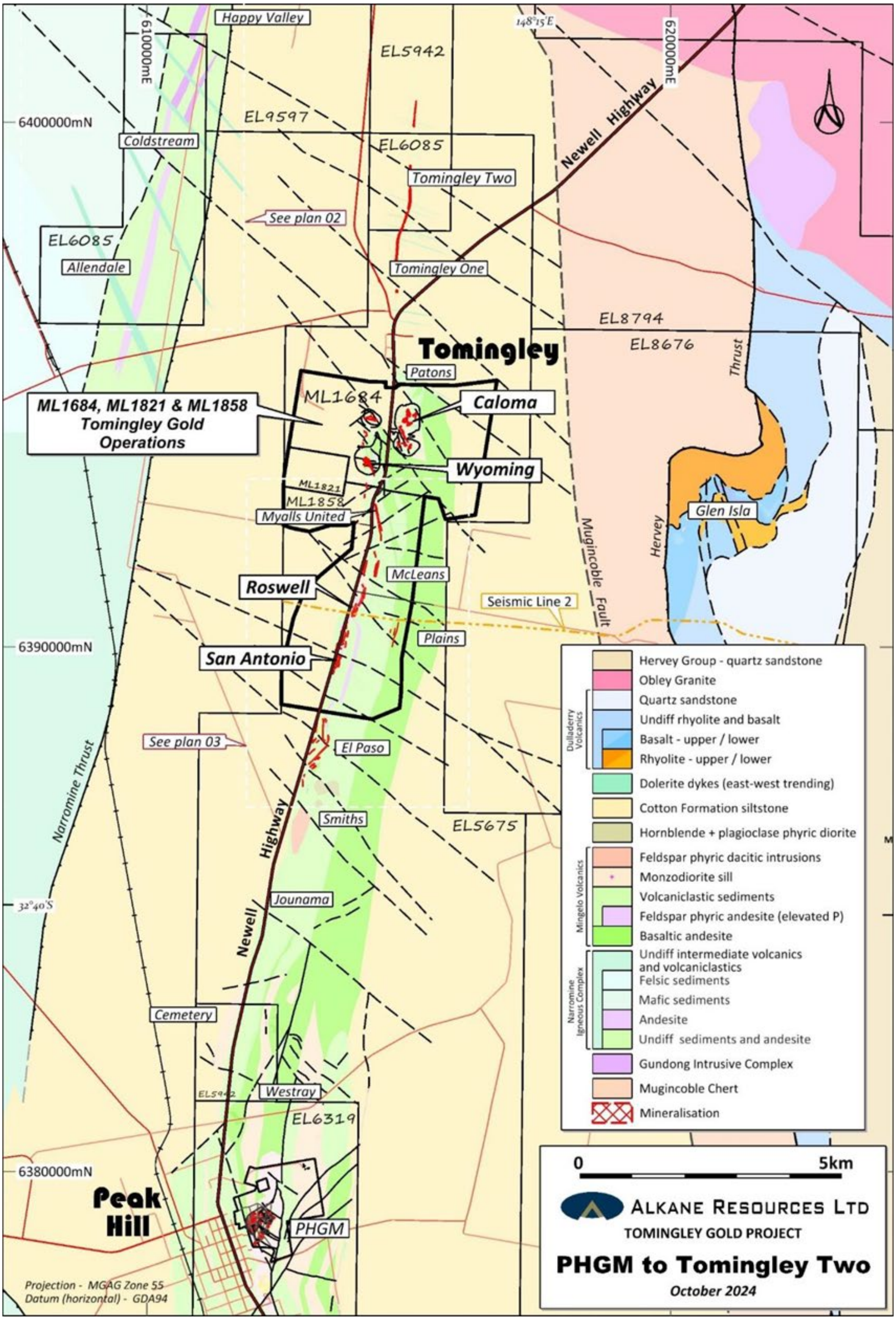


Figure 9-1: Exploration prospect locations, Tomingley and Peak Hill

Exploration prospects are highlighted in white text boxes, resource and mining areas are highlighted in bold text boxes. Source: Alkane ASX Announcement 7 October 2024

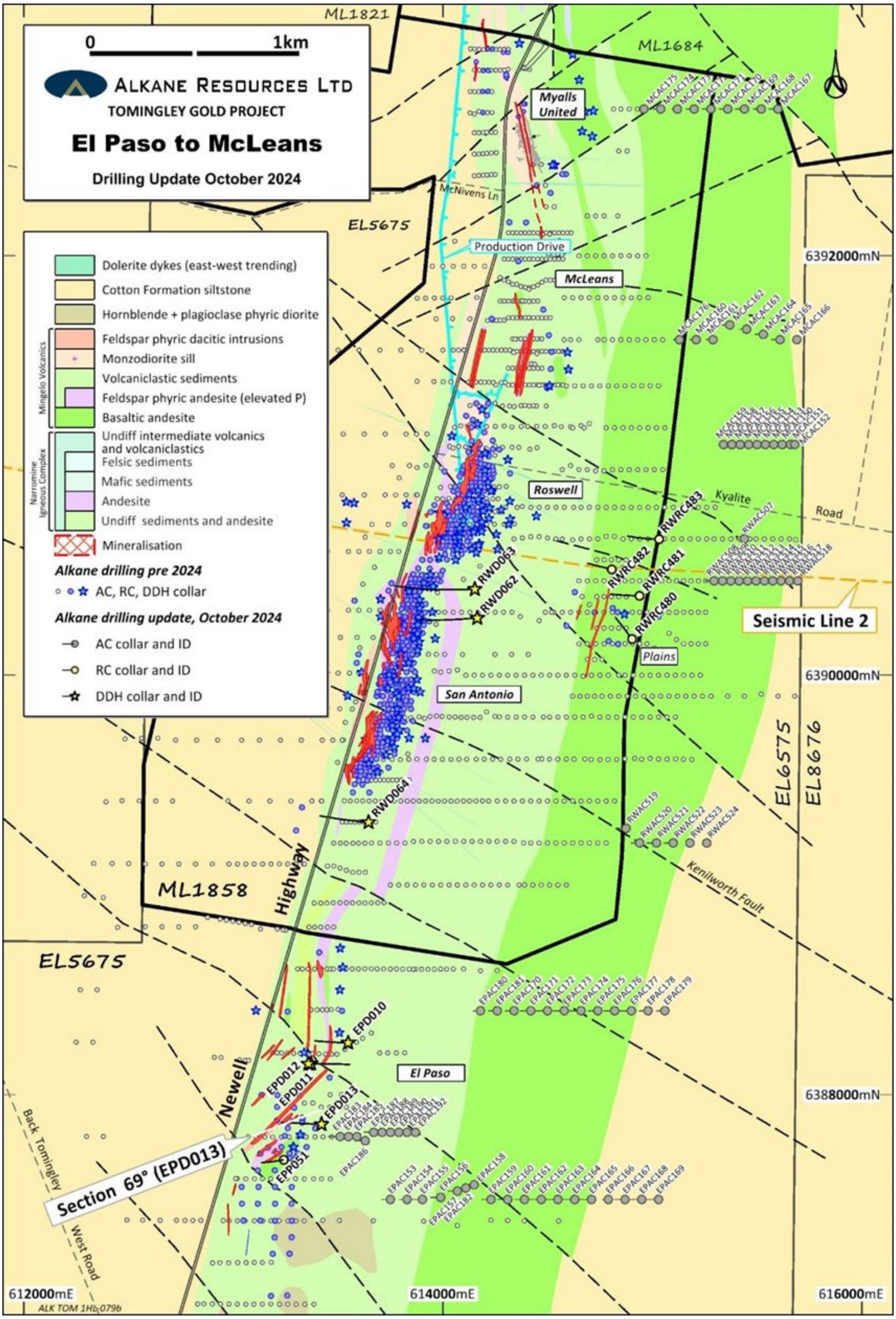


Figure 9-2: Exploration activity, El Paso to McLeans Prospects

Exploration prospects are highlighted in white text boxes. Source: Alkane ASX Announcement 7 October 2024

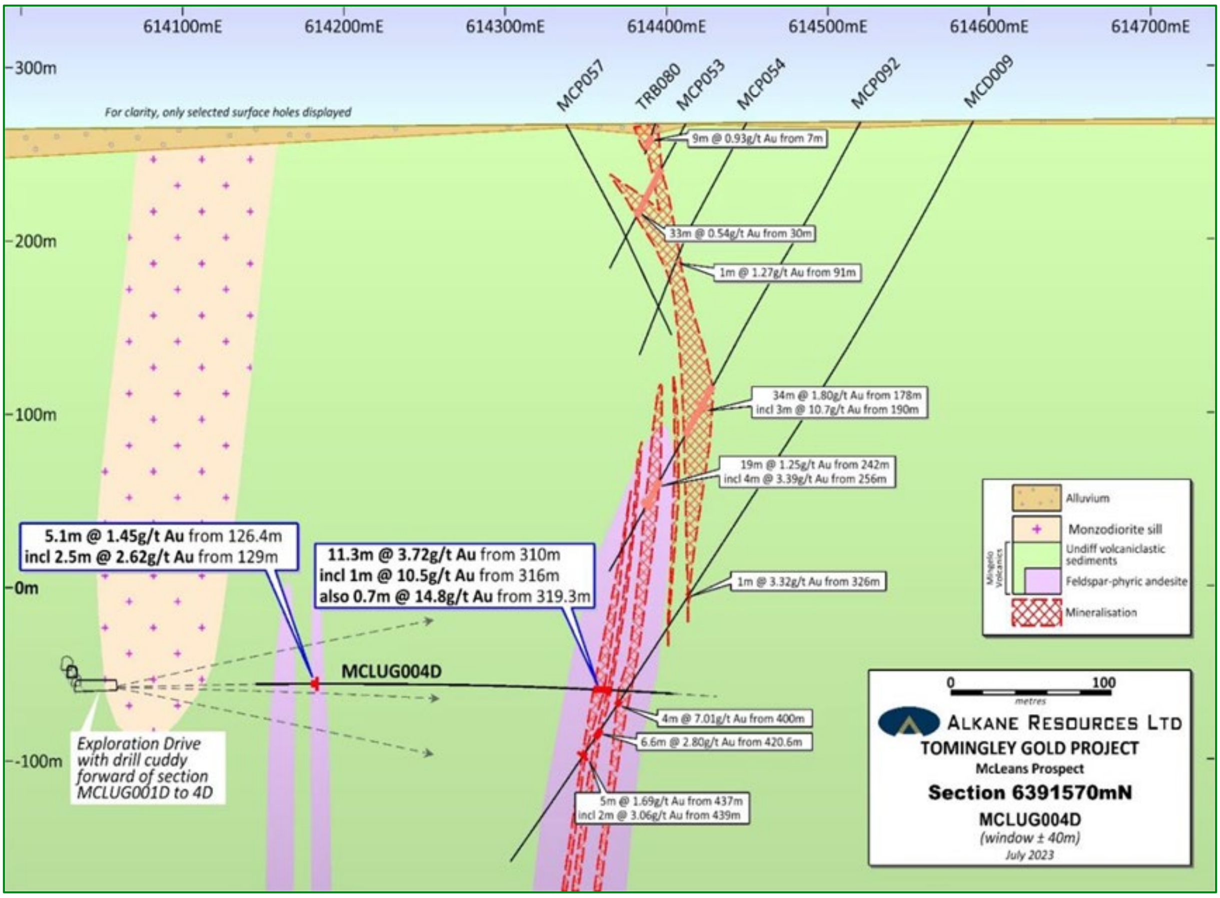


Figure 9-3: Cross-section looking north, McLeans Prospect

9.1.2 El Paso Prospect

The El Paso prospect is located approximately 1 km to the south of the San Antonio deposit. Mineralisation associated with thin andesitic volcanic units was discovered at this prospect in 2017. Several campaigns of drilling (when not conducting the San Antonio-Roswell resource drill out) intersected multiple zones of mineralisation (Figure 9-4, Figure 9-5). However, the complexity of the geology, the widespread alteration and difficult drilling conditions has so far impeded the effective delineation of substantial gold resources. Alkane is currently conducting further DD on the El Paso project as of the effective date of this Report with assay results still pending.

9.1.3 Plains Prospect

The Plains prospect lies approximately 1 km east of San Antonio. Drilling has mapped an approximate zone of anomalous gold-arsenic mineralisation of approximate dimensions of 500 m x 200 m, striking northeast and associated with a magnetic low beneath shallow alluvium cover of 15 m. The current interpretation of the gold mineralisation is of stacked northeast-striking, southeast-dipping lodes within a thick basaltic-andesite unit (Figure 9-6).

The Plains prospect is located approximately 1 km southeast of the Roswell deposit in a structurally favourable corridor, sharing the same northwest trending structural zone that hosts the Roswell gold deposit. Further work is necessary to identify major structures within the Plains volcanics to host economic mineralisation.

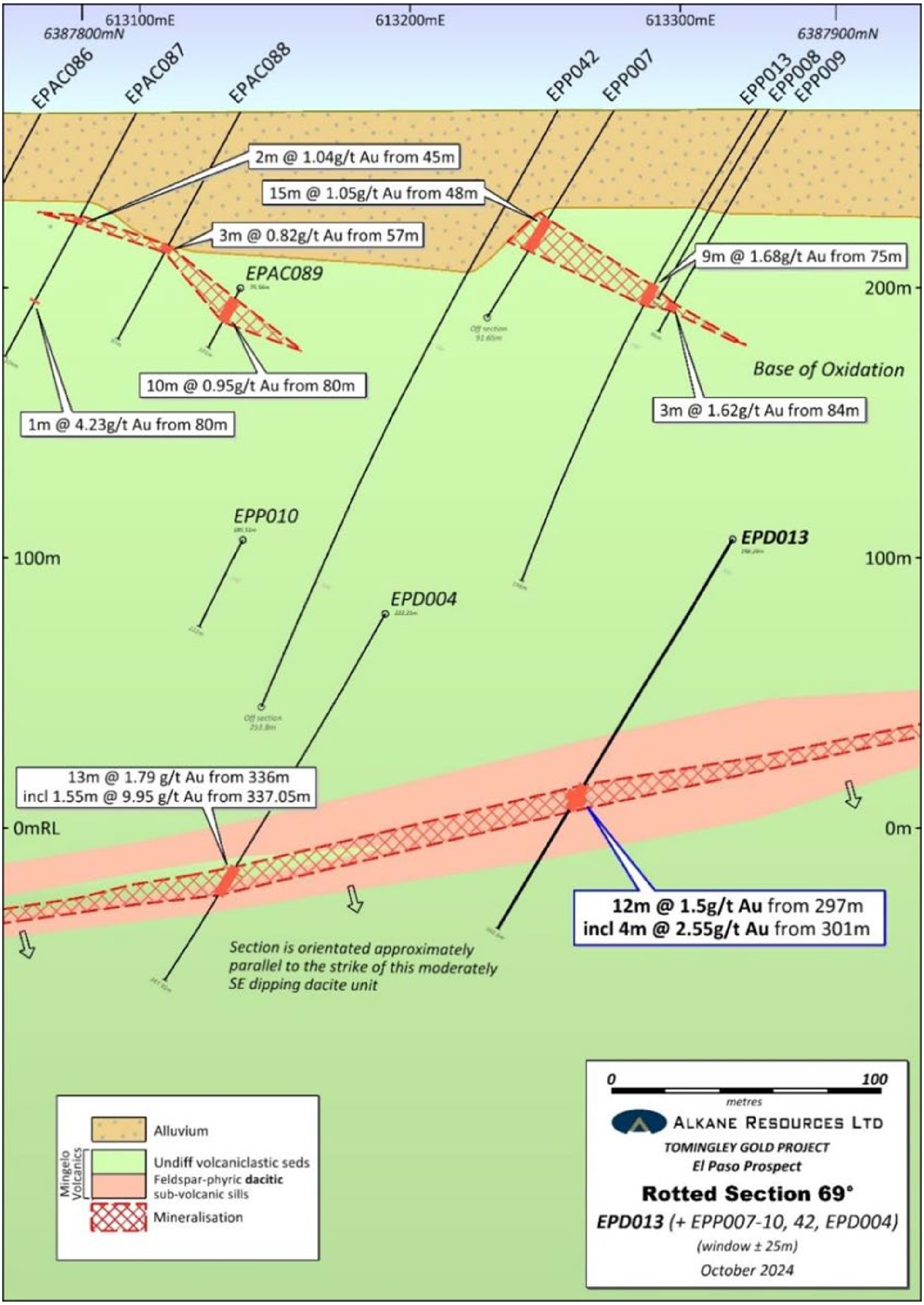


Figure 9-4: Cross-section view looking north, El Paso Prospect

Source: Alkane ASX Announcement 7 October 2024

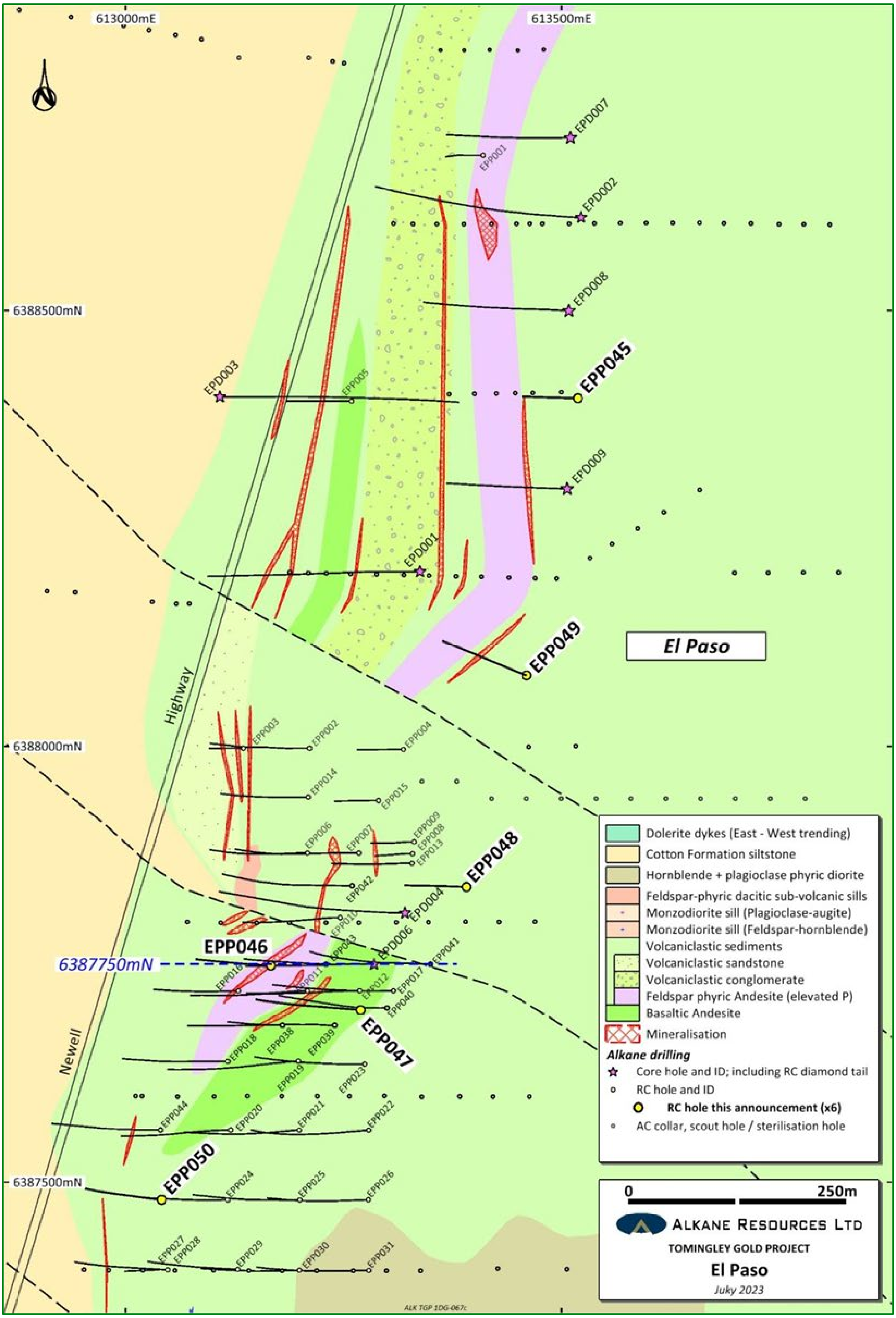


Figure 9-5: Plan view, El Paso prospect

Source: Alkane ASX Announcement 10 July 2023

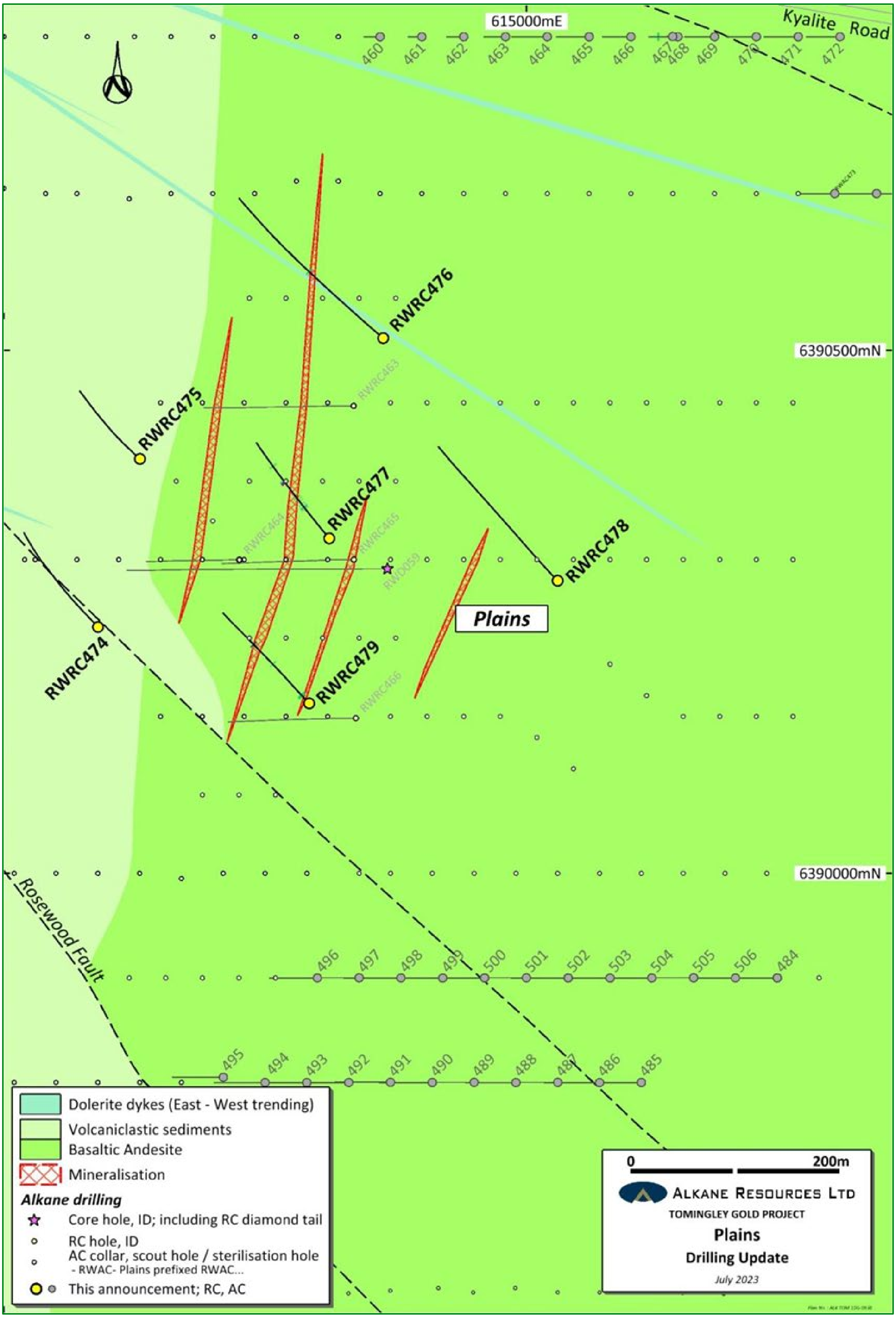


Figure 9-6: Plan view, Plains prospect

Source: Alkane ASX Announcement 10 July 2023

9.1.4 Tomingley 2 Prospect

Significant gold mineralisation strikes north–south over 800 metres. The mineralisation has an apparent moderate east dip in the form of stacked, en-echelon quartz veins, with elevated arsenic levels. Mineralisation appears to be controlled by the north–south trending 'Tomingley Structure' identified from aeromagnetic data and encompassing the trend of structure from the Wyoming/Caloma area north (Figure 9-1). Mineralisation is associated with strong veining and intense sericite alteration with sulfide development in metasedimentary host rocks and remains open along strike and down dip.

The prospect lies under 100 metres of transported overburden and had not previously been considered suitable for open pit mining. However, the development of the underground operation at Tomingley is prompting a reassessment that could provide the infrastructure for underground operations.

9.1.5 Allendale/Coldstream Prospect

The Allendale/Coldstream prospect area lies approximately 5 km northwest of Tomingley on the western side of a regional east-dipping fault (the Narromine Thrust) (Figure 9-7). This regional thrust separates the largely undeformed andesitic volcanics and intrusives of the Narromine Igneous Complex, that hosts the Corvette-Kingswood Cu-Au deposit (contained metal of 0.29Mt Cu, 0.24Moz Au—Magmatic Resources Ltd ASX announcement dated 11 July 2023) from the highly deformed and faulted volcanics and volcaniclastics to the east that are host to the orogenic gold mineralisation at Tomingley. The entire prospect area is covered by 30 - 80 metres of alluvial sands and clays and all previous exploration was limited to AC drilling and three diamond drill hole tails.

9.1.6 Other Exploration Activities

In addition, Alkane Exploration conducted:

- Regional aircore drilling in 2024 that identified new zones of gold mineralisation in the eastern portion of the host Mingelo Volcanics. The most significant zone is from three adjacent holes about 1km southeast of the El Paso prospect (Figure 9-2):
    - EPAC158 3 metres grading 0.43g/t Au from 96 metres; and 2 metres grading 0.68g/t Au from 108 metres
    - EPAC159 3 metres grading 0.70g/t Au from 78 metres
    - EPAC182 3 metres grading 0.31g/t Au from 75 metres
- High-resolution airborne magnetic and gravity surveys for the greater TGP. Targets resulting from these geophysical surveys will be tested.
- 42 line kilometres of 2D reflection seismic traverses across the Tomingley area 2km southwest of the TGO site acquired in 2021. 2024 reprocessed 2D seismic data has identified a high priority drill target characterised as a flexure in a significant structure inferred to be a major gold conduit 2 km southwest of TGO and only 800m below surface (Figure 9-8).

9.2 Peak Hill

In January 2019, 10 PQ3 diamond cores were drilled from the western edge of the rehabilitated Proprietary open cut, angled below historic underground workings (Figure 9-9 and Figure 9-10). The drill results were largely as anticipated from the previous core drilling in this target area

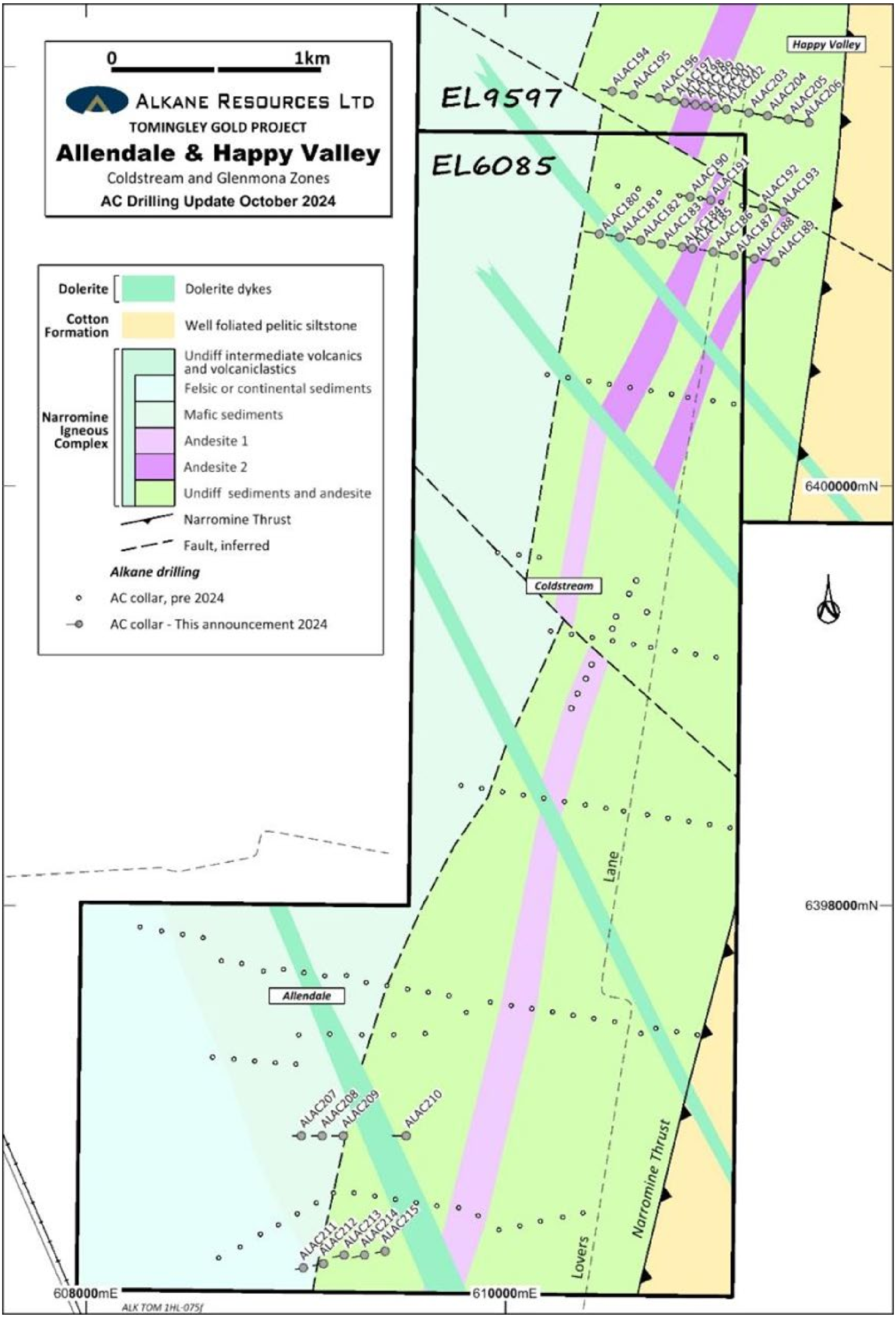


Figure 9-7: Plan view, Allendale Prospect

Source: Alkane ASX Announcement 7 October 2024

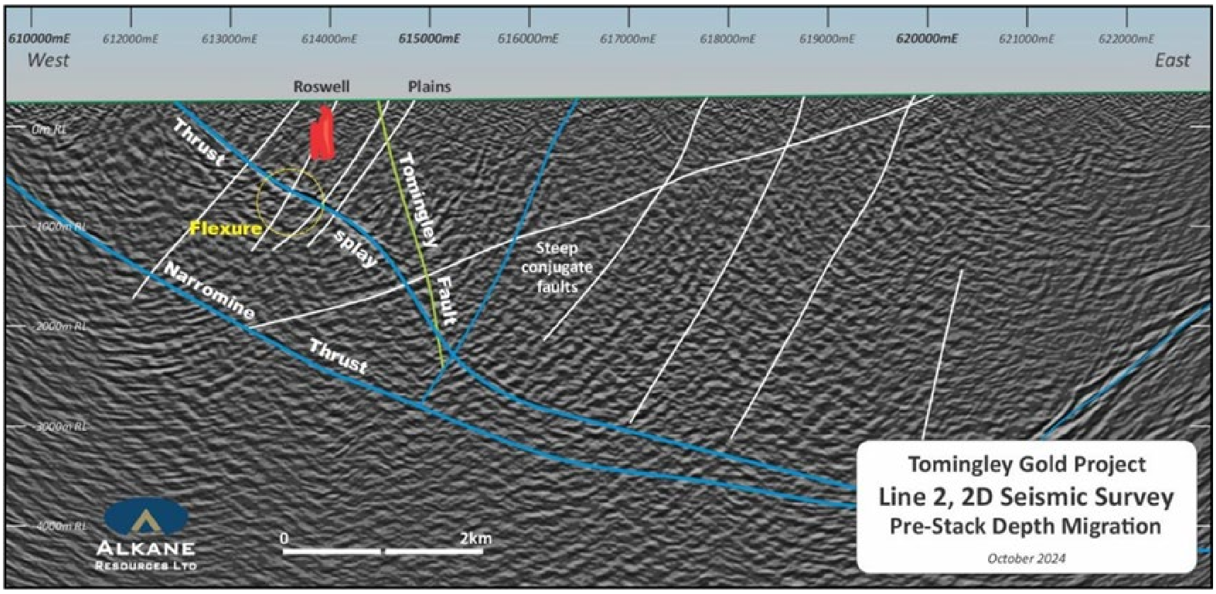


Figure 9-8: Reflection seismic section across the Tomingley area 2 km southwest of TGO

Source: Alkane ASX Announcement 7 October 2024

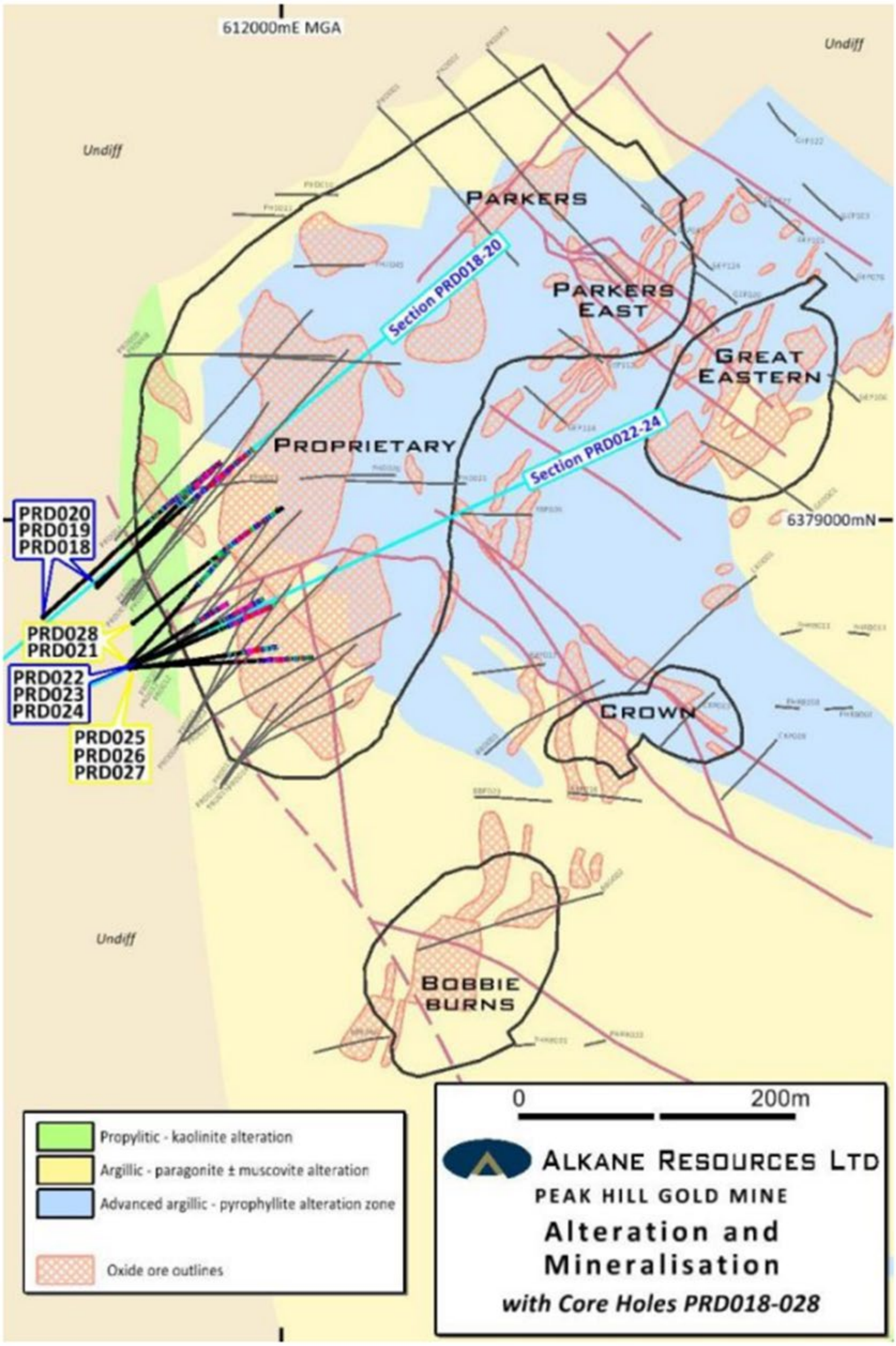


Figure 9-9: Drill plan, Peak Hill 2019 drilling

Source: Alkane ASX Announcement 29 July 2019

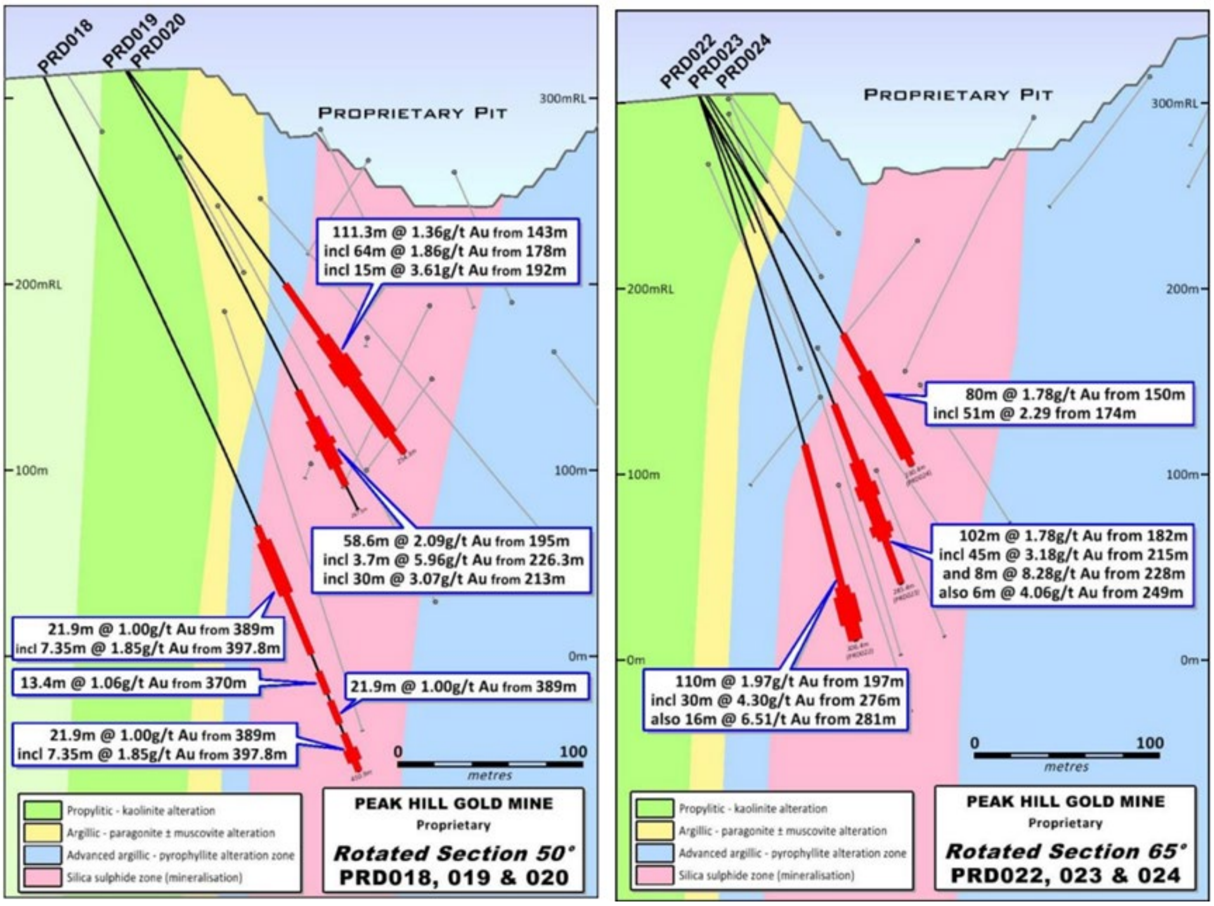


Figure 9-10: Drill sections, Peak Hill 2019 drilling

Source: Alkane ASX Announcement 29 July 2019

10. DRILLING

10.1 Introduction

Due to the longevity of operations, different deposits in the Tomingley-Peak Hill project area have had different generations of different types of drilling and subsequent sampling strategies. Drilling by previous project owners has been discussed in Section 6 of this Report. All drilling programs discussed below have been completed by Alkane.

10.2 Tomingley Drilling

Drilling at Tomingley was conducted using reconnaissance AC drilling rigs, high-capacity RC drilling rigs and high-powered DD rigs for the purpose of retrieving large sized sample and for drilling to significant depths.

Initial reconnaissance drilling was completed to fresh rock using 75 mm or 100 mm AC with follow-up and deeper drilling completed by RC (usually 126—140 mm diameter). Detailed resource definition drilling was completed primarily by RC techniques using a 130 mm or 140 mm diameter face sampling hammer. DD holes were precollared using either RC techniques or un-oriented PQ3 (83 mm diameter) core drilling. Precollars were completed to competent material, with holes cased off and completed to depth using HQ3 (61 mm diameter) core. DD was collared with PQ3 and were reduced to HQ3 when the ground became competent. The HQ3 core was oriented using the 'BallMark,' 'EzyMark' or 'Ace' (Reflex Act) core orientation tool depending upon the contractor and time period of when the drill program was drilled.

All underground diamond holes have been drilled using NQ core diameter.

All drill holes were originally laid out in AMG66 grid however, since mining commenced in February 2014 have been transformed to MGA94 grid system to conform to reporting requirements for mine operations. All drill collars have been located with cadastral survey.

RC & AC drill holes were surveyed using a single shot electronic camera at a nominal 30 m down hole intervals. DD holes were surveyed at nominal 30 m down hole during drilling to maintain drilling direction and then at 6 m intervals on retrieval of rod string using a multi shot electronic camera. Some of the more recent surface DD holes were surveyed by north seeking gyro.

AC and RC - sample recovery was visually estimated and was generally very good (>90%) aided by the use of oversized shrouds through oxide material. Samples were even in size. Samples were rarely damp or wet. Sample quality was assessed by the sampler by visual approximation of sample recovery and if the sample was dry, damp or wet. A riffle splitter was used to ensure a representative sample was achieved for 1 metre samples.

Diamond core loss was identified by drillers and calculated by geologists when logging. Generally, ≥99% was recovered with any loss usually in portions of the transported cover and oxide zone. Triple tube coring was used at all times to maximise core recovery in the surface drilling with larger diameter (PQ3) core or RC precollars used in the transported cover and oxide zones.

There is no known relationship between sample recovery and grade.

Drill holes used are too numerous to depict in a meaningful way. All drill data has been previously reported in public releases to the ASX and have been incorporated into the MRE discussed in Section 14 of this Report. All holes are closely spaced and in an operating mine area.

Much care was given to attempt to intersect mineralisation at an optimal angle, but in complex ore bodies and drilling from different surface and underground locations, this can be difficult. It is not thought that drilling direction will bias assay data. Given the closely spaced, multiple drill intersections in multiple orientations in any given area of the orebodies, it is the opinion of the QP author that there will be no systematic bias in grade estimation from drill orientation.

10.2.1 Wyoming 1

The Wyoming 1 area has been evaluated using AC, RC and DD techniques between May 2001 and June 2024, although not all of this drilling lies within the current resource outline. Information used for estimation purposes is derived from:

- AC - 185 holes for 14,593.8 m—inclusive of three precollars totalling 294.2 m
- RC—149 holes for 25,356 m—inclusive of 29 precollars totalling 4,552.9 m
- RC grade control—1,187 hole for 30,331 m
- DD - 535 holes totalling 98,851.85 m
- underground face samples: 1,267 faces totalling 7,497.15 m
- sludge samples: 159 holes for 2,695.7 m

The resource model includes grade control holes drilled within the Wyoming 1 pit. These RC grade control holes have limited impact on the Wyoming 1 Underground estimation but were essential to the creation of the entire geological model.

The majority of exploration drilling at Wyoming 1 within the open pit was completed along east–west lines spaced 25m apart. However, once the east–west lode orientation was confirmed for the '376' zone (this zone is the high grade mineralisation on the eastern contact of the porphyry intrusive contact) this portion of the deposit was assessed by south drilled holes was completed along north–south sections spaced 25m apart.

The underground infill drilling during the 2016/2017 campaign was drilled to ensure the drill hole intercept spacing within each lode was covered to a nominal 30m pattern. The drilling direction of these holes was optimised best as practical to the orientation of the mineralisation and geology to remove/reduce any potential sample bias for the estimation.

The drill hole spacing is similar to that used at other Tomingley deposits and has been established to be sufficient.

Surface in-pit RC grade control drilling was undertaken on a nominal 10m x 10m drill spacing on all ore lodes.

All underground grade control DD infilled all lodes beneath the Wyoming 1 open pit on a nominal 15 x 20m spacing.

Areas within the underground have been infilled using face sampling and sludge drilling techniques.

10.2.2 Caloma 1

The Caloma area has been evaluated using AC, RC and DD techniques between August 2004 and June 2022 although not all of this drilling lies within the current resource outline. In addition, RC grade control drilling is undertaken on a campaign basis to assist in ore mark-up in the pit. Blast Holes (BH) drilled in-pit mining operations have also been sampled

- AC - 342 holes for 19,955.4 m
- RC - 335 holes for 37,337.5 m—inclusive of 12 precollars totalling 453 m
- RC grade control—2,892 holes for 78,217 m
- DD - 172 holes totalling 28,292.4 m

- face samples 226 faces totalling 1,437.5 m
- sludge samples 20 faces totalling 295.0 m
- BH—232 holes for 1,382.6 m

Drilling was completed on east–west sections spaced nominally 20 m apart with holes spaced at 20 m intervals along the lines. The line spacing was increased to a nominal 40m in zones thought peripheral to the main ore body and to the north. Grade control drilling is completed on a pattern ensuring a minimum of 10 m x 10 m pattern when combined with resource definition drill holes.

The drill hole spacing is similar to that used at other Tomingley deposits and has been established to be sufficient.

The chosen drilling direction (east at inclination of -60°) appears optimal based on reconciliation from the early mining periods.

10.2.3 Caloma 2

The Caloma 2 area has been evaluated using AC, RC and DD techniques between May 2007 (early reconnaissance) and March 2012. Not all of this drilling lies within the current resource outline; there is some overlap in drilling with the southern end of Caloma (although there is no overlap in resources) and none of the AC drilling samples were used in the resource estimate preparation.

- AC - 48 holes for 3,424 m
- RC - 196 holes for 2,8404m (inclusive of two precollars totalling 72 m)
- RC grade control—443 holes for 15,361 m
- DD - 319 holes totalling 47,077.78 m
- face Sampling—280 faces for 1,691.7 m
- sludge samples 2 hole for 14.9 m

During 2015, four geotechnical diamond holes were drilled into the Caloma 2 deposit. These are included in the total DD holes drilled.

A significant surface DD and underground grade control diamond program, infilling the known Caloma 2 underground resource occurred during the 2020/2021 year. All these holes have been incorporated and used in the resource model.

Exploration drilling was completed on north–south sections spaced nominally 20 m apart with holes spaced at 20 m intervals along the lines. The line spacing was increased to a nominal 40 m in zones thought peripheral to the main ore body and to the east.

Underground grade control infill drilling and the 2020/2021 surface infill drilling was completed on a nominal 15 m x 20 m spacing. The drill hole spacing is similar to that used at other Tomingley deposits and has been established to be sufficient. Some areas have been reduced to 15 m x 15 m due to the structural complexity of certain areas.

10.2.4 Roswell

The Roswell deposit has been evaluated using all of Alkane’s RC and DD holes within the prospect area. No previous companies’ exploration drilling in the region (shallow AC and RAB holes) was used in the assessment. Alkane AC drilling was not included in the resource estimation.

Drilling at the Roswell deposit has been completed in six phased programs since January 2018 for a total of 198 RC and diamond core holes for 55,425.9 m. Drillit Consulting Pty Ltd. completed reconnaissance AC drilling and the initial RC and DD. Mitchells Services Ltd. were used for the initial phase of resource definition RC drilling and two diamond core holes. Ophir Drilling Pty Ltd. were used for the remainder of the DD. Strike Drilling Pty Ltd. were contracted to complete the infill resource RC drilling. Drilling statistics are summarised in Table 10-1.

Table 10-1: Roswell drilling statistics

Hole Type	AC (Diamond Precollars)	RC (Diamond Precollars)	Reverse Circulation	HQ3 Diamond	Total
No. Holes	2	31	165	33	198
Metres Drilled	179.95	5,978.31	40,569.9	8,697.72	55,425.90

Note:
AC drill holes excluded
Total drill holes do not include precollars

Initial shallow reconnaissance drilling to fresh rock is completed using 90 mm (3.5”) AC. Gold and arsenic anomalism was followed up with deeper drilling completed by RC (usually 144mm or 5¾”) and RC precollared HQ3 DD. Resource definition drilling has been completed on east–west sections. Sections are spaced 20 m apart with drill holes at 20 m intervals along these sections.

Nominal drill hole intersection spacing is 20 m x 20 m, moving out to variable spacing approaching 40 m at depth. Intersections are approximately 60% of true widths. The QP author is of the opinion that drilling direction will not bias assay data at Roswell.

10.2.5 San Antonio

The San Antonio deposit has been evaluated using all of Alkane’s RC and DD holes within the prospect area. No previous historical exploration drilling in the region (shallow AC and RAB holes) or Alkane’s reconnaissance AC drilling was used in the assessment.

Drilling at the San Antonio deposit has been completed in six phased programs since January 2018 for a total of 345 RC and diamond core holes for 75,196 m. Mitchells Services Ltd. were contracted for the initial phase of resource definition RC drilling and two diamond core holes. Ophir Drilling Pty Ltd. were used for the remainder of the DD. Strike Drilling Pty Ltd. were contracted to complete the infill resource RC drilling. Drilling statistics are summarised in Table 10-2.

Table 10-2: San Antonio drilling statistics

Hole Type	AC (Diamond Precollars)	RC (Diamond Precollars)	Reverse Circulation	HQ3 Diamond	PQ3 Diamond	Total
No. Holes	13	36	296	46	3	345
Metres Drilled	1,026.9	5,294.6	57,952.5	10,556.4	365.5	75,195.9

Note:
AC drill holes excluded

Initial shallow reconnaissance drilling to fresh rock is completed using 90 mm (3.5”) AC. Gold and arsenic anomalism was followed up with deeper drilling completed by RC (144mm or 5¾”) and HQ3 and PQ3 DD. Resource definition drilling has been completed on east–west sections. Drill sections are spaced 20m apart with drill holes at 20m intervals along these sections.

Nominal drill hole intersection spacing is 20 m x 20 m, moving out to variable spacing approaching 40 m at depth. Intersections are approximately 60% of true widths. It is not thought that drilling direction will bias assay data at Roswell.

10.2.6 McLeans

A deep RC drill hole (MCP092) intersected the McLeans andesite (correlates with the andesites that host the majority of the gold resources at the Roswell and San Antonio deposits) approximately 100m below surface, intercepting 34 m @ 1.80g/t Au from 178m and 19 m @ 1.25g/t Au from 242m (source: Alkane ASX Announcement 16 September 2021). Subsequent drilling defined the Inferred Mineral Resource completed in 2023 and reported in Section 14 of this Report.

The McLeans resource is based on 7 RC drill holes totalling 2,257 m (including diamond precollars) and seven diamond core (DD) drill holes totalling 2,551 m of core.

Diamond drill holes were either drilled from surface (1 hole); or precollared from surface using RC drilling through to competent material averaging 250 m depth and cased down to triple tube HQ3 (61mm diameter) core tails (2 holes); or drilled HQ from underground (4 holes).

Nominal drill hole spacing is 60-80 m but can nearer to 100 m in some deeper parts of the deposit.

The drill hole spacing is deemed appropriate to determine grade and geological continuity for an Inferred Mineral Resource Classification at McLeans.

Surface drilling has intersected the subvertical lodes at approximately 50% of true width and normal to their strike. Drilling from underground has intersected the lodes at approximately 90% of true widths.

The QP author is of the opinion that drilling direction will not bias the interpretation of assay results at McLeans.

10.2.7 Plains Prospect

Significant intersections from 2023 and 2024 drilling (Figure 9-2) include:

- RWRC477 8 metres grading 0.97g/t Au from 134 metres.
  - including 2 metres grading 2.02g/t Au from 136 metres.
- RWRC478 4 metres grading 1.54g/t Au from 183 metres.
  - including 1 metre grading 5.54g/t Au from 183 metres.
- RWRC479 6 metres grading 0.84g/t Au from 164 metres.
  - including 3 metres grading 1.48g/t Au from 167 metres.
- RWRC481 9 metres grading 0.76g/t Au from 165 metres; and 4 metres grading 0.89g/t Au from 184 metres
- RWRC482 6 metres grading 1.31g/t Au from 312 metres
- RWRC483 9 metres grading 0.49g/t Au from 180 metres

10.2.8 Allendale/Coldstream Prospect

During 2024, thirty-six AC drill holes for a total of 4,560 metres were drilled along five traverses at ~100 metre collar spacings to follow-up on encouraging gold and copper intercepts from the previous year's drilling (ASX Announcement 10 July 2023). The drilling was generally angled west along the traverses and drilled to refusal at fresh bedrock. Bottom of hole lithogeochemistry assaying was conducted to map the Ordovician basement and the weathered bedrock beneath the cover.

Infilling drilling around the significant gold intercept (ALAC176—13m @ 0.99g/t Au from 127m to EOH; ASX Announcement 10 July 2023) from 2023 failed to intersect further mineralisation. Minor copper anomalism (>0.05% Cu) showed a subtle trend of increasing concentration towards the north, though it may be the result of supergene weathering of mafic volcanics in the bedrock.

10.3 Peak Hill Drilling

All available historical data was located in various digital formats. There was not a single Peak Hill database file where all drill hole data was captured. It is assumed that the digital drill hole data found is correct and previously verified. There is no digital lab assay data (certificates of analysis) available to confirm assay values, with the exception of the PRD series holes. Due to the historical data being in various formats and the potential to have duplication of drill holes, Sample Id's etc. The data was given to an external source for collating and to undertake QAQC on the data.

Documentation has shown that the hole coordinates post 1996 are assumed to be correct (PRD series). The hole collars with the PHNSW prefix are not fully correct due to the small angular error with the grid rotation but these holes do fall in an acceptable error.

The coordinates for each point were provided in Australian Map Grid (AMG), Integrated Survey Grid (ISG) and local grids. ISG values were adopted from a number of stations in the mine area, including the Peak Hill Trig/SSM while local coordinate values were adopted from pit survey stations 900 and 901. AMG66 coordinate values were calculated from the ISG values. The final AMG coordinates were then transformed to MGA94.

The hole coordinate conversions were cross checked with the original assumed coordinates of the PRD hole series to ensure a high degree of accuracy. The collar coordinates for historical holes pre 1996 have been checked and final coordinates adopted from the transformation based on 73 known points of reference:

- 48 drill holes
- 10 survey stations, including one photo control point
- 10 tenement corner pegs and,
- 5 points along a traverse between the mine site and Westray

RC and DD holes within the resource estimation were surveyed at nominal 20 m down hole during drilling to maintain drilling direction using a single shot camera. Data was also verified on import into mining related software. Other than PRD holes which were surveyed by down hole camera, the method of orientation is not known.

All Peak Hill drillhole data is stored in a Datashed Microsoft SQL database.

DD and RC sample recovery was visually estimated and was generally very good (>90%) aided by the use of oversized shrouds through oxide material. Samples were even in size. Samples were rarely damp or wet.

Good drillhole summary data for the PRD series DD holes has been attained. Core loss was identified by drillers and calculated by geologists when logging. Generally, ≥95% was recovered and any core loss was usually in portions of the oxide zone. Triple tube core (HQ3) was used through the oxide material to ensure the highest recovery.

The QP author is of the opinion that all the RC and DD was completed to industry standards at the time.

10.3.1 Peak Hill

In January 2019, 10 PQ3 diamond cores were drilled from the western edge of the rehabilitated Proprietary open cut, angled below historic underground workings (Figure 9-9 and Figure 9-10). Including open hole precollars and PRD025 which failed to reach the target zone, a total of 2,778 metres was completed. The drill results were largely as anticipated from the previous core drilling in this target area.

Significant intercepts include:

- PRD022 110 m grading 1.97g/t Au from 197 m.
  - including 30 m grading 4.30g/t Au from 276 m
  - also 16 m grading 6.51/t Au from 281 m
- PRD023 102 m grading 1.78g/t Au from 182 m.
  - including 45 m grading 3.18g/t Au from 215 m
  - including g 8 m grading 8.28g/t Au from 228 m
  - also including 6 m grading 4.06g/t Au from 251 m

The Peak Hill Gold Project has been evaluated using all of the available known blast holes (BH) used during mining, auger (AUG), AC, RC and DD holes. Not all of this drilling lies within the current resource outline.

Modern exploration at Peak Hill began in the early 1960s. The Peak Hill project was evaluated using the information from the data gathered from the holes below:

- AC - 66 holes for 1,237.5 m.
- RC—361 holes for 26,384.2 m.
- BH grade control—109,326 holes for 565,517.9 m.
- DD - 95 holes totalling 16,665.53 m. This includes 39 holes which contained RC precollars.

The entire Proprietary deposit was estimated using only the available RC and diamond drill holes. Over 80% of all RC and diamond drill holes used in the estimation were sampled on a 2 m sample basis.

The underground resource that this report relates to incorporates specific RC and diamond holes of varying ages of drilling.

- RC - 54 holes
- DD - 57 holes

The latest drill hole series which includes the PRD prefix are diamond drill holes completed by Alkane from 1997-1998 and were sampled at a nominal 2 m interval.

Detailed resource definition drilling was completed primarily by RC drilling techniques using a 130 mm or 140 mm diameter face sampling hammer. It is assumed the DD holes (without Prefix PRD) were drilled using NQ3 core drilling. The PRD series diamond holes with precollars were completed to competent material, with holes cased off and completed to depth using HQ3 (61 mm diameter) core with some hole reducing to NQ3.

Much care is given to attempt to intersect mineralisation at an optimal angle, but in complex ore bodies this can be difficult. A number of drilling directions were used in the early drilling phases in an attempt to optimise the intersection angle.

The chosen drilling direction for all future drilling of NE/SW appears optimal based on the mapping and grade control that defined some of the high grade cross cutting structural orientations. The latest holes PRD prefix series were all drilled in a NE direction.

The QP author is of the opinion that east–west drilling direction will not overly bias assay data at Peak Hill as the drill hole density within the system is quite sparse.

10.4 Drilling, Sampling or Recovery Factors

The QP author is not aware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the drill hole results used in the Mineral Resource and Mineral Reserve estimates for the Project.

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

Due to the longevity of operations, different deposits in the Tomingley-Peak Hill project area have had different generations of different types of drilling and subsequent sampling and QAQC strategies. Also, there are some minor procedural differences between Alkane exploration practices and those adopted by Tomingley Operations around the handling, logging, sampling and database management of drilling materials and information. However, these differences are minor and do not impede information exchange and data utilisation between the two groups.

11.1 Presample Preparation

For the Alkane drilling at Tomingley, all drilling is geologically logged on a laptop into a digital logging sheet as part of a Geobank database management system. Tomingley Operations geologically log information into a Microsoft Excel ("Excel") spreadsheet before importing the information into a Datashed database management system. Both the Excel and the Geobank logging platform utilise a drill logging template customised with pull-down field options for lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity), magnetic susceptibility and mineralisation (type, character and volume percentage). Any intervals for the above criteria that do not readily fit into the customised template are flagged and peer reviewed by the senior exploration management team. If required, the templates are then changed to incorporate the new interval codes and capture the information into the database.

A detailed geotechnical log is also undertaken collecting parameters such as core recovery, RQD, fracture count and fracture type and orientation. Measurements are also taken of magnetic susceptibility at 1 m spaced intervals downhole. The Alkane Exploration group take bulk density measurements at 20 m spaced intervals downhole. Tomingley Operations do not conduct density measurements of materials, instead relying on the Alkane density database for the relevant deposit and lithologies.

All core is photographed prior to sampling.

Alkane use preprinted sequentially numbered calico bags for all samples, with different numbering series for each of diamond and RC drill sampling.

For Peak Hill, due to the age of the historical drilling only the methodology of the PRD series holes can be described.

For Peak Hill RC drilling each one metre interval was geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage).

For the Peak Hill DD drilling all core was laid out in core trays and geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage). A brief geotechnical log was also undertaken collecting parameters such as core recovery, RQD. No Peak Hill core photos have been located.

11.2 Tomingley

11.2.1 Sample Preparation

Samples from the AC and RC drilling were collected at 1 m intervals via a cyclone and placed into large plastic bags. Spear samples were collected from each 1 m sample and composited to 3 m for initial assay analysis, unless the geologist on site determined visually strong mineralisation, then 1 m samples were collected via a splitter below the cyclone and sent for analysis.

All composites subsequently assayed as ≥0.1g/t Au or ≥0.1% Cu, together with their upper and lower bounding composite samples, were resubmitted as the original 1 metre samples collected into a calico bag via a splitter below the cyclone when drilling.

For surface drilling, triple tube coring was used at all times to maximise core recovery with larger diameter (PQ3) core or RC precollars used in the transported overburden and oxide zones.

For surface drilling, half core samples of PQ3 and HQ3 size were collected from all geologically logged and potentially mineralised zones. The core was cut in half using a Core Wise or equivalent core cutting saw and sampled in a range of 0.3 m to 1.3 m intervals as determined by the geologist based on lithological contacts, alteration zones and mineralisation zones. The remaining half core is stored at the Orange exploration facility. For NQ3 drilling, the entire core interval was sampled.

For underground drilling, the mineralised zones were determined by the geologist and sampled in a range of 0.3 m to 1.3 m intervals as determined by the geologist based on lithological contacts, alteration zones and mineralisation zones. A nominal width of 5 m of barren lithologies either side of the mineralised zone was also sampled using the same sampling procedure. The entire NQ3 drill core was sampled for all underground drill holes.

11.2.2 QAQC Field Samples

For Alkane drilling, commercially prepared Certified Reference Materials (“CRM”) and blanks were inserted at between 1 in 35 and 1 in 50 samples. CRM’s were not identifiable to the laboratory (blind sample).

For underground DD, CRM’s are inserted randomly into each drill hole sample run.

Field duplicate samples were inserted at between 1 in 40 and 1 in 50 samples (alternate to CRM’s) for RC drilling programs.

For DD, duplicates are determined via approximately 1% of laboratory pulps being sent to an umpire laboratory (SGS in West Wyalong) for check assay. SGS is independent of Alkane.

Field duplicates were not routinely used for AC drilling.

11.2.3 Sample Handling and Security

All samples were bagged in tied numbered calico bags, grouped into larger tied polyweave bags and transported to ALS Chemex in Orange from:

- Peak Hill exploration offices by Parkes Couriers
- Orange exploration offices by Alkane personnel directly
- Tomingley Operations via (i) site stores personnel who collect the transport bag from the core yard and take it to the site stores area where (ii) WPE Transport collect and transport to the laboratory

Sample submission sheets were delivered with the samples and also emailed to the laboratory. All sample submissions were documented via ALS tracking system and all assays were reported via email.

ALS Chemex is independent of Alkane.

11.2.4 Analyses

Drill core was oven dried prior to crushing to <6mm using a jaw crusher, split to 3kg if required then pulverised in an LM5 (or equivalent) to ≥85% passing 75 µm. Bulk rejects for all samples were discarded. A pulp packet (±100g) is stored for future reference.

The entire AC and RC sample (3 kg) was dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75 µm. Bulk rejects for all samples were discarded. A pulp packet (±100 g) is stored for future reference.

For all 1 m AC and RC samples and all DD samples used in the resource estimate gold was determined using a 50 g charge fused at approximately 1,100°C with alkaline fluxes, including lead oxide. The resultant sample was dissolved in aqua regia and gold determined by flame atomic absorption spectrometry (AAS). For 3 m composite samples gold was determined using a 30 g charge (more rarely 50 g charge).

For other geochemical elements, samples were digested in aqua regia with each element concentration determined by inductively coupled plasma (ICP) Atomic Emission Spectrometry or ICP Mass Spectrometry. These additional elements were generally only used for geological interpretation purposes, are not of economic significance and are not routinely reported.

11.2.5 Metallurgical Samples

Three major scopes of work, in terms of metallurgical testing, have been identified in the development of the scoping study and the Front End Engineering Design (FEED) report for the TGO Refractory Upgrade Project.

- Wyoming Underground (Sep 2018-Dec 2018). ALS Reports A18711, A19113, A19373. 4 Composites generated (Compositing believed to be in A18711)
  - No information available on provided data as to the drill holes and associated location for the four. Assumed to be ½ drill core. Requires confirmation.
- San Antonio & Roswell (Dec 2019), ALS Report A20087. 8 Composites
  - Received as composites identified as RC. Specific identifiers on the source of the composites (in relation to drill hole, depth and associated spatial location) are not available for review.
- Roswell and Caloma (August 2023), ALS Report A23832. 9 Roswell Composites, four Caloma Composites
  - Half-drill core received from eight drillholes at a variety of depths. 5 drill holes for Roswell and three for Caloma.

The most recent program of work (Aug 2023, ALS A23832) has utilised half core (unspecified size and classified as broken) with a strong emphasis on Roswell and Caloma across a variety of lithologies. Cross-sections showing the location of the drillholes can be seen in Figure 11-1.

11.3 Peak Hill

11.3.1 Sample Preparation

Due to the age of the project limited collated meta data for the nature of the quality of sampling is unavailable. Certain assumptions have been made based on the quality of the sampling methods.

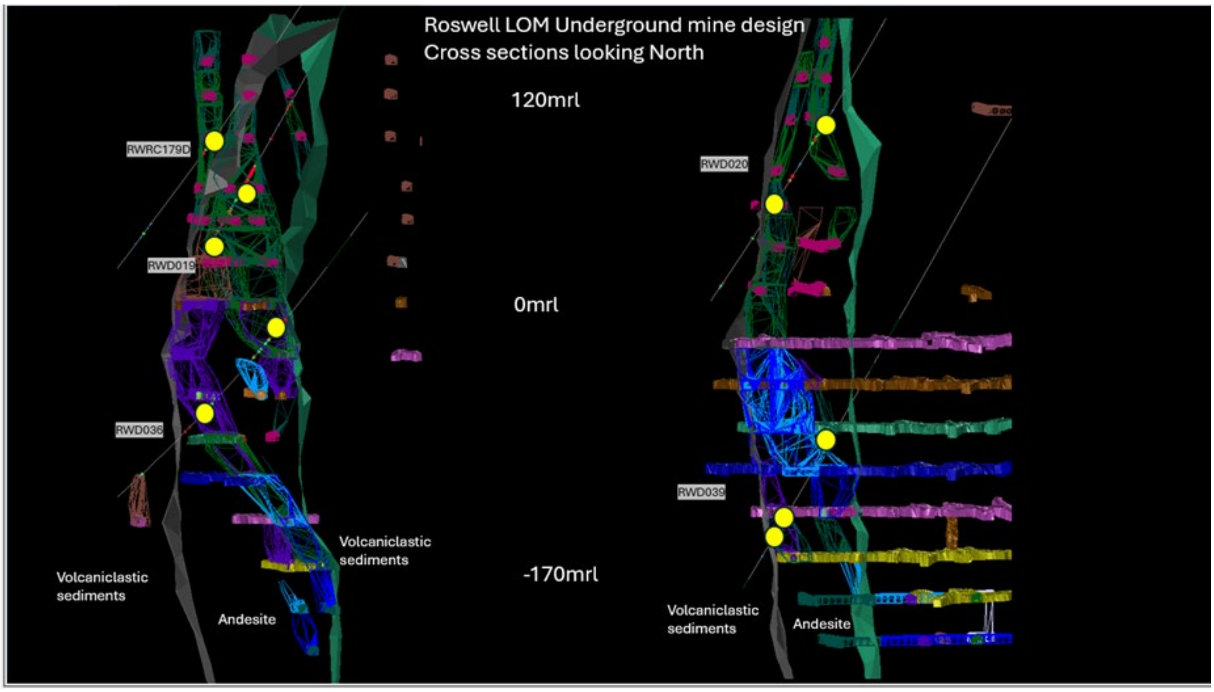


Figure 11-1: Drillhole locations for A23832 metallurgical testwork program

Source: Alkane, Geology Manager Craig Pridmore, 15/5/25 email

For RC drilling, it is assumed the entire RC sample was collected at predominantly 2 m intervals and delivered into a large plastic bag via a cyclone where it would have been split through a riffle splitter. The split samples would then have been placed in a prenumbered calico bag. It is assumed the 2 m composites were taken due the sampling intervals received from the historical databases. No data is available to assess if the samples were wet or dry.

For DD drilling, sample intervals were defined by geologists during logging. The predominant sample interval was 2 m although some intervals were 1m sampled. Sampling intervals were not based on geology, the 2 m intervals in length crossing logged geological features. All diamond core was sampled. It is presumed that the core was cut in half with a saw. It is assumed that all core other than the PRD series was half-cored due to the unavailability of any reference core to site check. For the PRD series holes the core was marked up by the geologist and predominantly quarter-cut using an Almonté (or equivalent) core cutting saw. Some zones were half-cored and sampled.

Sample sizes are assumed to be within industry standard and considered appropriate.

11.3.2 QAQC Field Samples

For the PRD series diamond holes, the repeat checks were undertaken on specific holes intersections, nominally every 20 m. It is unclear if the core was re-cut and sampled, or if the pulps were re-assayed or underwent umpire checks through a secondary laboratory. Commercially prepared CRM and blanks were inserted at 1 in 50 samples. CRM's were not identifiable to the laboratory.

QAQC data for all other holes was not available to report. The assumption is that quality control procedures with standards and field duplicates would have been performed.

11.3.3 Sample Handling and Security

All drillhole sample data used in the estimation is historical and the manner in which samples were handled and the measures taken to ensure the security are unknown.

11.3.4 Analyses

Drill core was oven dried prior to crushing to <6mm using a jaw crusher, split to 3kg if required then pulverised in an LM5 (or equivalent) to ≥85% passing 75 µm. Bulk rejects for all samples were discarded. A pulp packet (±100g) is stored for future reference.

The entire AC and RC sample (3 kg) was dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75 µm. Bulk rejects for all samples were discarded. A pulp packet (±100 g) is stored for future reference.

For all 1 m AC and RC samples and all DD samples used in the resource estimate gold was determined using a 50 g charge fused at approximately 1,100°C with alkaline fluxes, including lead oxide. The resultant sample was dissolved in aqua regia and gold determined by flame AAS. For 3 m composite samples gold was determined using a 30 g charge (more rarely 50 g charge).

For other geochemical elements, samples were digested in aqua regia with each element concentration determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. These additional elements were generally only used for geological interpretation purposes, are not of economic significance and are not routinely reported.

11.3.5 QP Author Opinion

Despite some missing information on the drilling, sampling, security and QAQC procedures for some of the historical drill holes, especially at Peak Hill, the QP author is of the opinion the sample preparation, security and analytical procedures are adequate for the purposes of generating MRE for the project.

12. DATA VERIFICATION

QP authors Tony Donaghy and Nick MacNulty conducted a site visit to the Tomingley Project and operations localities and the Alkane Exploration office and core facility in Peak Hill on the 14-15th April 2025.

At Peak Hill and Tomingley Mine core facilities, Alkane staff lead the QP authors through the full processes and procedures for handling, logging, photography, density measurements, sampling of drill materials, QAQC and database management. The walkthrough encompassed all core activities from initial drill material reception at the facility from the drill through to transport of samples to the ALS Chemex laboratory for assay, and subsequent long-term storage management of drill core and chips, as well as returned laboratory assay pulps.

In addition, representative drill hole intervals were laid out for inspection, complete with assay data extracted from the Datashed (Tomingley Operations) and Geobank (Alkane Exploration) databases. Drill hole intervals inspected include:

- RWD024—194.92 m to 265.30 m downhole interval
- PE642—297.0-349.7 m downhole interval

In all intervals inspected, the lithologies, alteration and mineralisation matched descriptions and controls on mineralisation as described in logging. In addition, the species, content and distribution of sulfide mineralogy matched the distribution and values for copper and gold assay intervals for the respective hole intervals observed.

In addition, visits were conducted to DD operations on the El Paso target (HQ3 drilling hole EPD014—results pending) and RC drilling operations grid drilling vertical holes on a 20 m x 20 m pattern on the San Antonio deposit. Both drilling operations were in accordance with industry best practice for drill operation and core and drill chip handling and recovery.

In the opinion of the QP authors, all processes and procedures around processing of drill core and chips, core logging procedures and data capture into a dedicated database, sampling and QAQC and sample handling and transport security of samples are consistent, systematic and carried out in accordance with industry best practice.

After a thorough review of the drill hole databases, the QP authors are of the opinion that the data is adequate for the purposes of generating MRE for the project.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Overview

The following data has been provided by Alkane for the TGO in respect to the current operation and the "Refractory Upgrade Project."

- Capital Expenditure Request for the TGO Refractory Upgrade Project; Patel, V
- Metallurgical testwork reports
    - Wyoming Underground samples, reports A19113 and A19373; ALS Metallurgy 2018
    - San Antonio and Roswell, Report A20087; ALS Metallurgy 2019
    - Roswell and Caloma2, Report A23832; ALS Metallurgy 2023
- Scoping and FEED Reports; MACA Interquip 2022 and 2023
- Tomingley Monthly Reports; Tomingley 2023-2025
- LOM financial models/budgets FY25-35 Rev007; Tomingley 2025

These sets of documents form the basis of the discussion around the historical and current operating practices and economics and the base case for being able to process and expand throughput for other gold deposits identified as refractory.

The TGO operated a standard gravity and CIL operation. When investigating the Wyoming deposit, via testwork at ALS, it was identified that there was large component of the gold that is sulfide associated (pyrite/arsenopyrite).

Investigative testwork in respect to producing a flotation concentrate, grinding said concentrate and conducting cyanidation on both the ground flotation concentrate and flotation tail was conducted on Wyoming, San Antonio, Roswell and Caloma 2 deposits.

This forms the basis of the scoping study (and further FEED) in which a 2-stage expansion was proposed and costed for the installation of a flotation circuit, regrind and the necessary supporting equipment/capital and further upgrades. A parallel semiautogenous grinding (SAG) mill was provisioned to accommodate an increase in throughput from 1.0 Mtpa to 1.5 Mtpa.

The stage 1 expansion was completed with commissioning of the new circuit occurring in early November 2024 and handed over to TGO shortly afterwards (18th November 2024).

13.2 Flowsheet

A summary of the existing flowsheet and the additional equipment in both Stage 1 and Stage 2 are shown in the block flow diagr below (Figure 13-1).

The existing flowsheet utilised a two stage crush (Primary Jaw, secondary cone) before feeding into a ball mill with a standard cyclone/gravity arrangement into a CIL circuit. The ball mill discharge would feed into the cyclone to split at a P_{80} of 106um with a portion of the underflow reporting to a gravity concentrator and the tail from the gravity concentrator, along with the remaining cyclone underflow returning to the ball mill as a recirculating load.

The gravity concentrate would be leached in an intensive leach reactor followed by electrowinning and smelting.

The cyclone overflow would report to the CIL circuit where the gold would be leached via cyanide and absorbed onto activated carbon. The activated carbon proceeding to elution and the barren carbon would be regenerated.

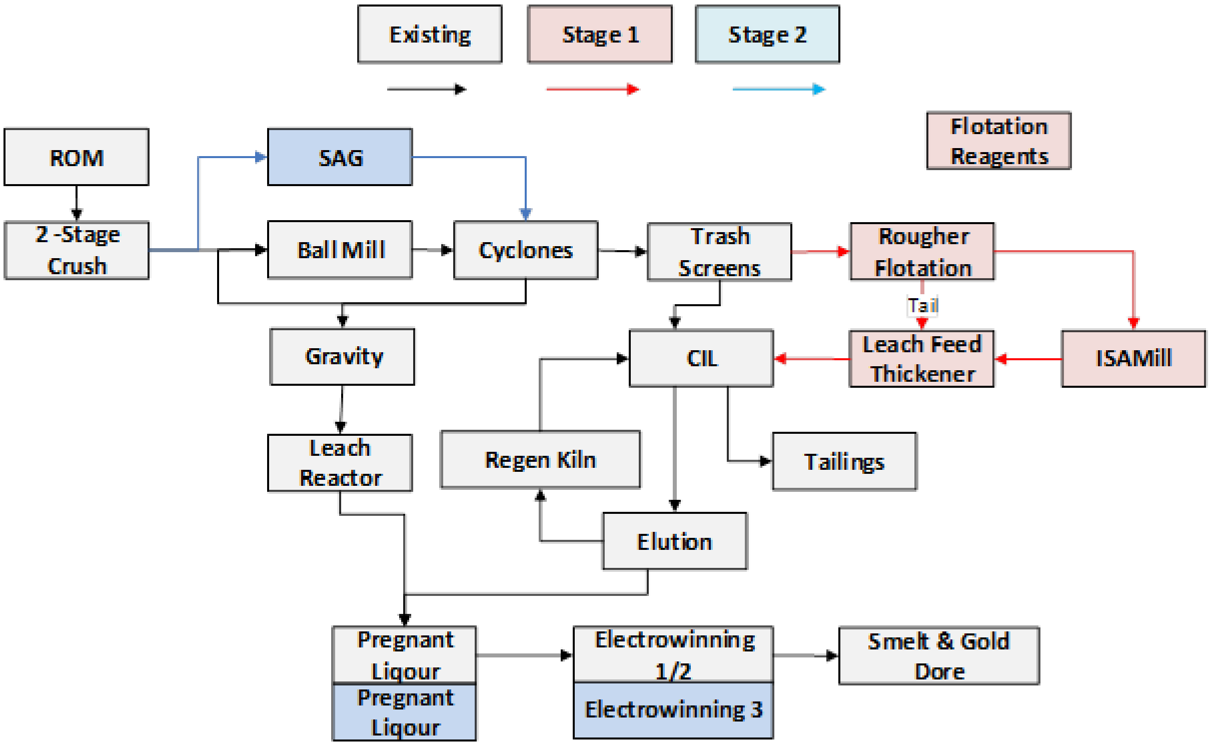


Figure 13-1: Flowsheet as interpreted from Scoping Study Engineering documents

Source: MCA Interquip, 2022

The stage one upgrade diverts the cyclone overflow to a flotation circuit where a rougher concentrate is generated. The tailings of the flotation circuit reports to the preleach thickener while the concentrate is ground down to a P_{80} of 12 µm via ISAMill. The design mass split intends for 15% of the flotation feed mass to report as concentrate and report to the regrind mill.

The ground concentrate then reports to the preleach thickener (along with the flotation tail) with both proceeding to the CIL circuit to proceed as per the original flowsheet.

Stage 2 entails upgrades in capacity in terms of a parallel SAG mill and additional pregnant liquor tanks and electrowinning cells. No additional CIL tank capacity has been observed in the documentation, and thus it must be concluded that there is a subsequent reduction in residence time. The ultimate goal of the Stage 2 expansion is to increase the throughput capacity from 1 MTPA to 1.5 Mtpa. Noting that the original throughput for the project has been stated as 1.0 Mtpa for fresh ore and 1.3 Mtpa for oxide ore.

13.3 Metallurgical Testwork

TGO has focused on metallurgical testwork in the definition of the increasing refractory nature of deposits to be processed. This can be broken down into two periods.

- 2018-2019 investigation and development. These have focused on the assessment of where gold deportment is located in the Wyoming underground, San Antonio and Roswell deposits.
- 2023 testwork on the Roswell and Caloma deposits providing further performance and engineering data for incorporation into the FEED study.

13.3.1 Investigation and Development

A series of testwork programs were conducted across 4 composites of Wyoming Underground (Table 13-1) and eight composites of the San Antonio and Roswell deposits.

Table 13-1: Wyoming Scoping Investigation

Sample	Gold Extraction (%)	
	Whole of Ore	Combined ground flotation concentrate + tailings
946	72.0	90.9
85.4945-L	75.3	85.4
942-H	85.6	92.5
945-H	76.7	87.6

Source: ALS Metallurgy Dec 2018

Wyoming

The initial investigation involved diagnostic leach testwork along with mineralogy on Wyoming composites and identified a significant proportion of the gold presented locked in sulfide components after the standard (existing) flowsheet conditions (cyanide leach of whole of ore at 106 µm) were executed (Figure 13-2).

Further work was conducted on composites of San Antonio and Roswell replicating this flowsheet at a variety of flotation concentrate grind sizes showing a similar improvement in recovery (Figure 13-3).

Roswell and Caloma

Following a scoping study (MACA Interquip 2022), further testwork was conducted on ½ drill core with nine composites generated for Roswell and four composites for Caloma2. This focused on firming up recovery expectations and further defining specific engineering inputs. The testing involved the following.

- four drill core samples for SMC testwork to define further comminution requirements (Stage 2 expansion)
- CIL leach testwork following the designated flowsheet (re-ground flotation concentrate combined with flotation tails)
- flotation testwork on a master blended composite at variable water composition—Assessing the impact of recirculated water on flotation performance
- signature Plot testwork on a master flotation concentrate to provide input into specific energy requirements for the regrind mill (IsaMill™) for engineering sizing and confirmation
- impact of regrind size (53/25/15/12/8µm) of flotation concentrates across 4 Roswell composites
- dynamic thickening testwork on flotation concentrate and flotation tailings samples to confirm thickener sizing requirements
- oxygen uptake rate testwork on combined flotation products to assess oxygen demands
- cyanide detoxification testwork to assess stochiometric requirements

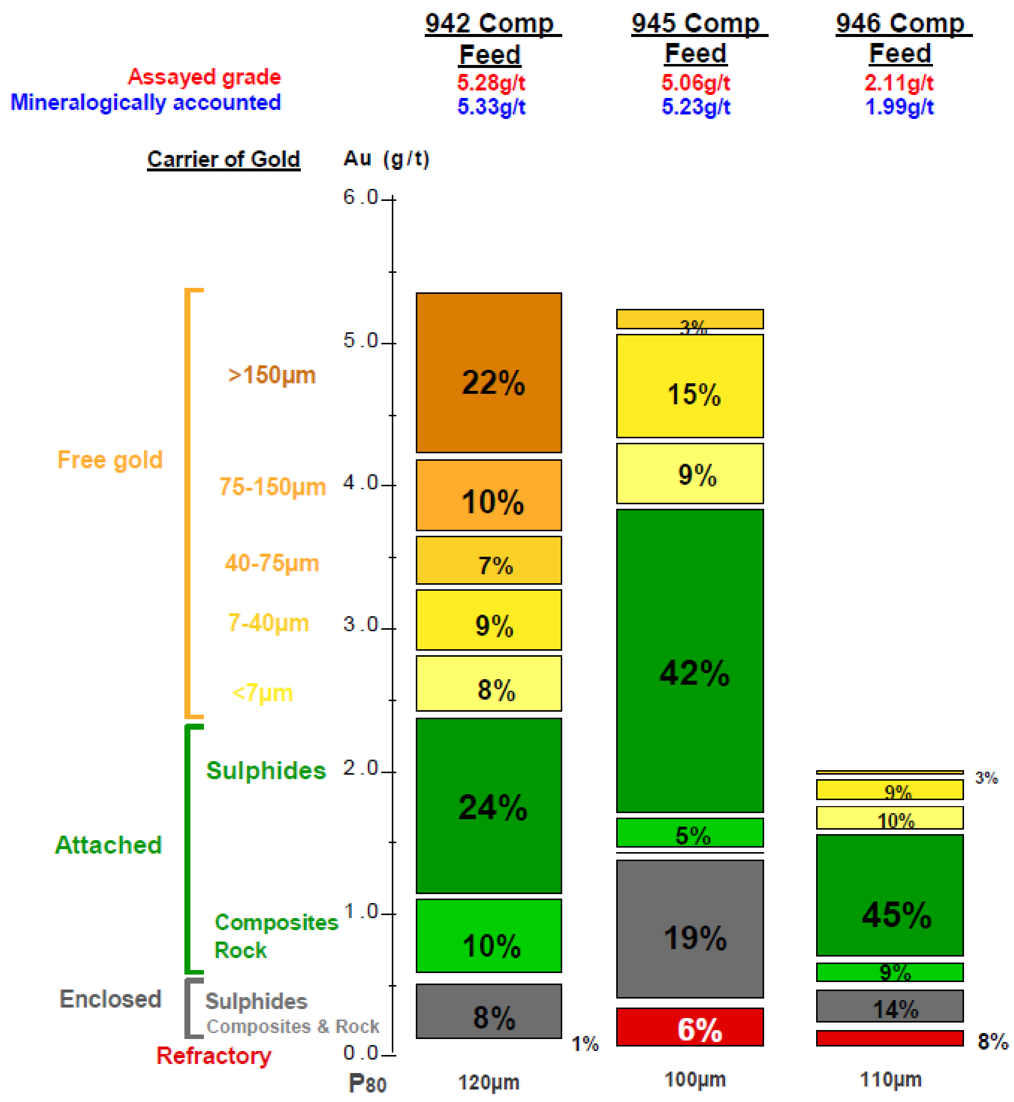


Figure 13-2: Gold Deportment in Wyoming underground samples

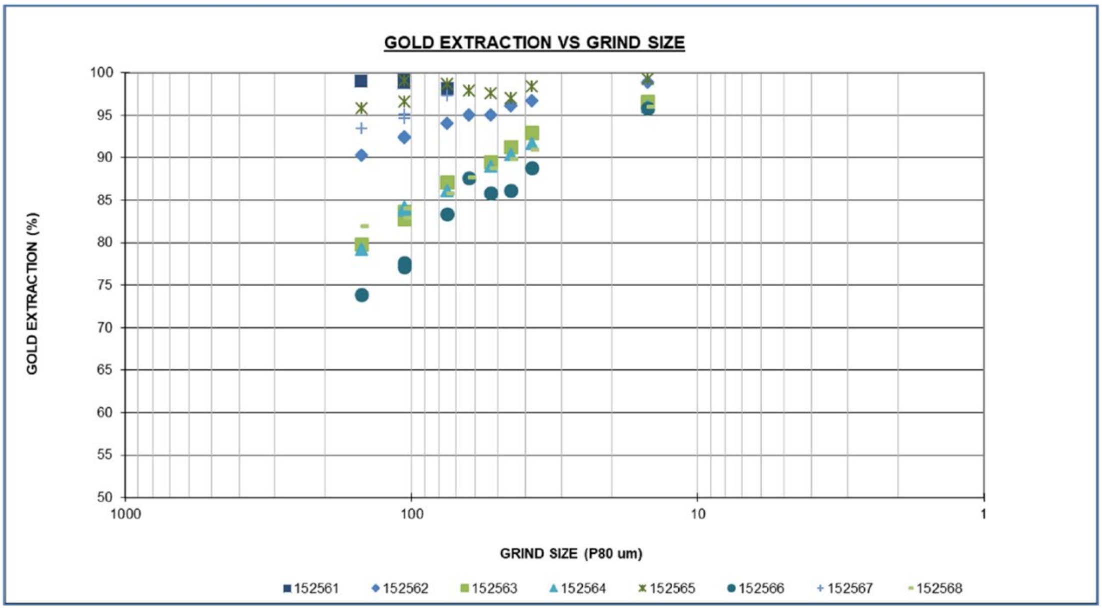


Figure 13-3: San Antonio and Roswell Leach Testwork at various flotation concentrate grind sizes

Source: ALS Metallurgy 2019

- Jameson sighter flotation testwork to assess the amenability/value of Jameson cell inclusion in the flotation circuit.

The testwork scope was a substantial body of work defining remaining inputs required. A summary of the extractions observed across each of the composites is shown below (Figure 13 4).

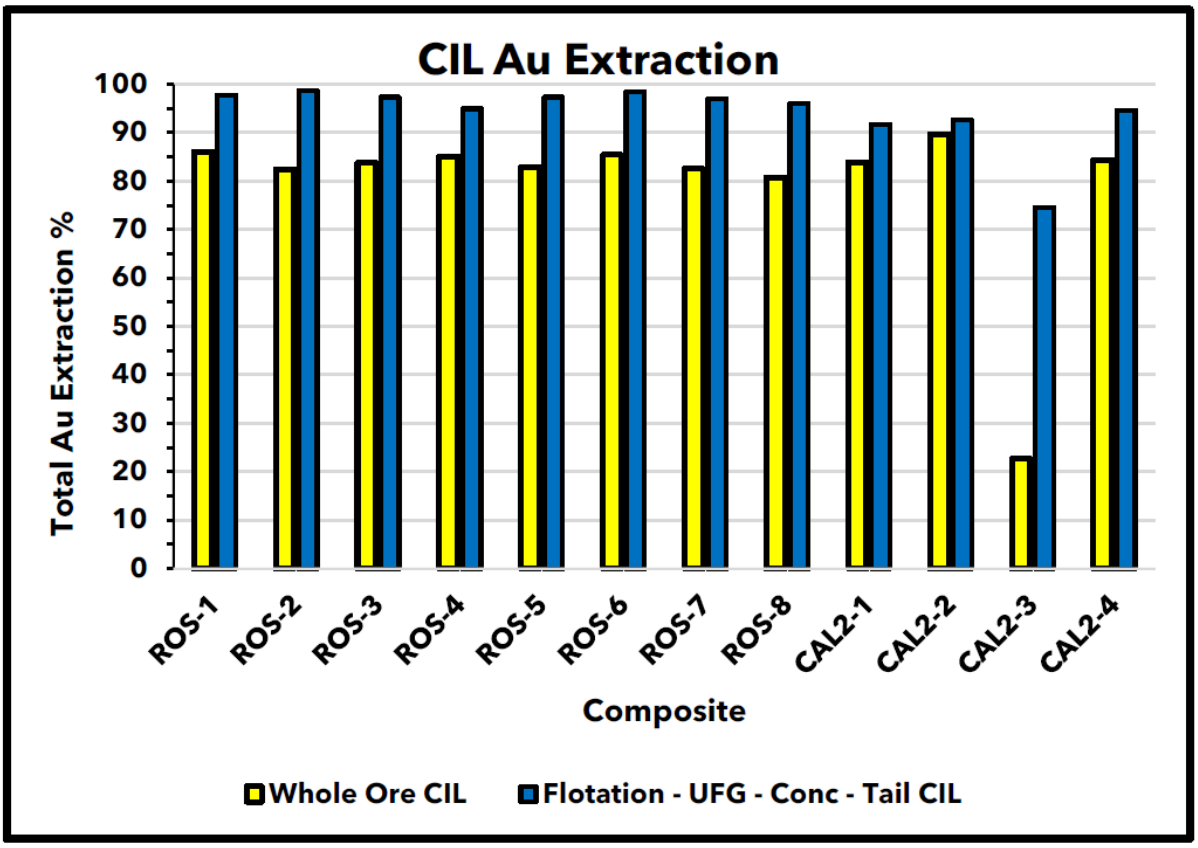


Figure 13-4: Roswell and Caloma 2 overview, Report A23832
Source: ALS Metallurgy 2023

No major concerns/red flags were identified in the approach, nor execution of the metallurgical testwork program.

13.4 Processing Performance

Key Processing and metallurgy indicators as reported in the Monthly Reports (Tomingley 2023-2025) are highlighted in the figures below (Figure 13-5).

To keep consistency with the data available, and in light of the installation and commissioning of the stage 1 expansion (Refractory upgrade) in November 2024, the data below has been presented from June 2024 to March 2025. More recent data than April 2025 is not available.

Figure 13-5: Key Processing Parameters derived from the Monthly Report in the period of Jun 2024 - April 2025

Source: Tomingley 2023-2025

The throughput is relatively in line with the budget/forecast figures. The feed grade appears to be decreasing and lower than budgeted figures. The overall recovery is relatively in line with budget figures/estimates until the installation of the Stage 1 circuit. There is a clear decrease in absorption efficiency and this has been highlighted by personnel in the monthly reporting and attributed to PAX (the flotation collector) fouling the activated carbon in the circuit. The increase in absorption efficiency coincides with the removal of fouled activated carbon in the circuit and fresh carbon addition. It should be noted that the leach testwork conducted did not indicate carbon fouling (with most of the Au loaded on the carbon and insignificant solution grades), however, testwork typically utilises fresh, attritioned carbon on every test.

The monthly reports indicate that engineering studies are underway, with Ausenco, in the modification/upgrade of the regeneration kiln in order to improve carbon activity in respect to the PAX fouling in addition to removing the odours that have been associated with the introduction of PAX to the kiln (via fouling). This appears to have been rectified in April 2025 with no more odours observed after modifications made.

It can also be seen from Figure 13-5 that the full leach recoveries have not achieved the expected 92-95% as was observed in the testwork, with a maximum improvement to ~ 90%. A breakdown of the feed blend as per the monthly reports is shown below (Figure 13-6).

It has been indicated that combating the lower than expected leach recoveries, additional focus is being made to increase the oxygen addition to CIL Tank #1 and CIL Tank #2. Dissolved Oxygen (DO) logs from the operation were not available for review at the time of writing this report. Oxygen uptake testing was conducted on Roswell samples in 2023 and was identified as exhibiting generally low expectation demands.

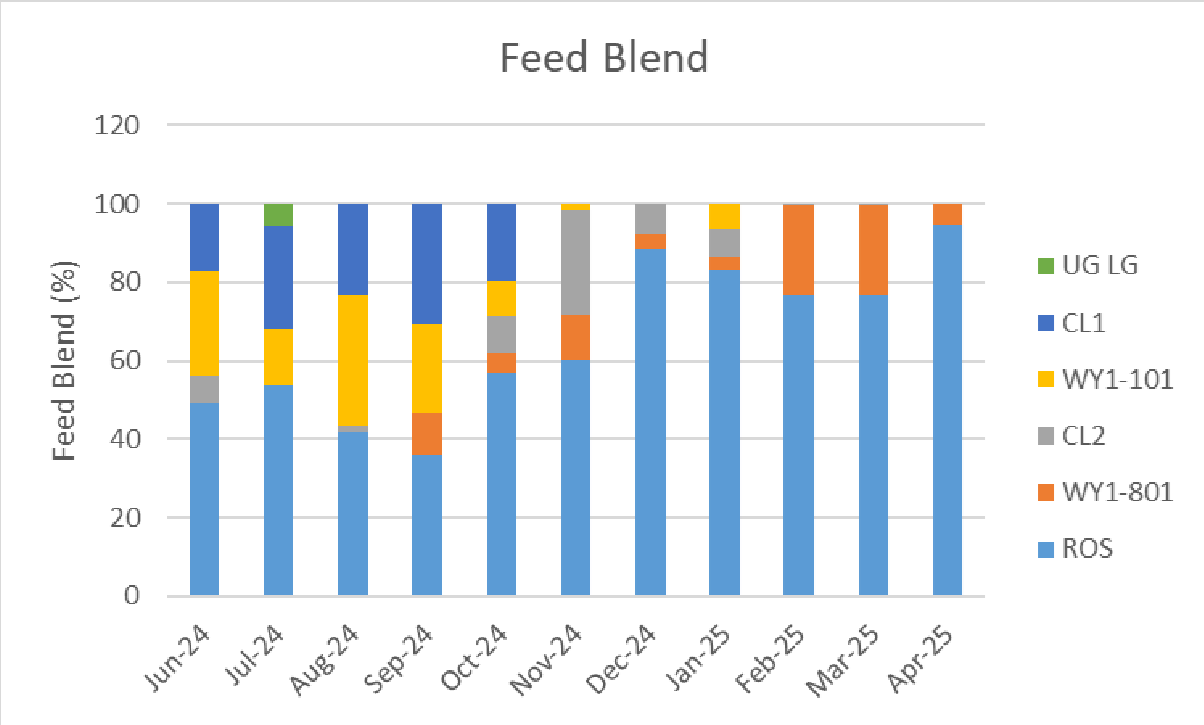


Figure 13-6: Mill Feed Blend as per Monthly Reports
Source: Tomingley mill monthly reports 2023-2025

It was observed in much of the leach testwork that DO levels of 20ppm were maintained throughout the tests (32-48hrs) and would indicate that some emphasis on continual oxygen sparging is likely to be required. Typically, operating plants have difficulty maintaining >12 ppm DO without continual sparging.

13.5 Future Forecast / Budget Physicals

The budget forecast as supplied has been built with each ore deposit and an associated recovery. These are shown in Table 13-2.

The figures within the budget are conservative in respect to the testwork results. However, these (Roswell and Caloma 1) are based entirely on the expectation of maximum performance from the circuit improvements (improving leach and adsorption efficiency) as has been discussed in the sections above, which is currently not being achieved due to the combination of carbon fouling and oxygen injection.

The feed grade and deposit source of material to the plant from 2025 to 2028 is shown in the tables below. The majority of the feed is expected to be sourced from Roswell (Figure 13-7).

The expected feed grade is relatively consistent and within the expected bounds for the plant design (Figure 13-8).

Table 13-2: Process Plant Recovery figures in Budget, 2025-2030

One Source	Recovery (%)
Wyoming—101W	92.5
Wyoming—801	90.5
Caloma 1 - underground	85.5
Caloma 2—underground	80.5
Roswell—underground	92.5
San Antonio - underground	92.5
OP-HG	92.5
OP-MG	92.5
UG-LG	85.5
OP-LG	85.5

Source: Tomingley 2025

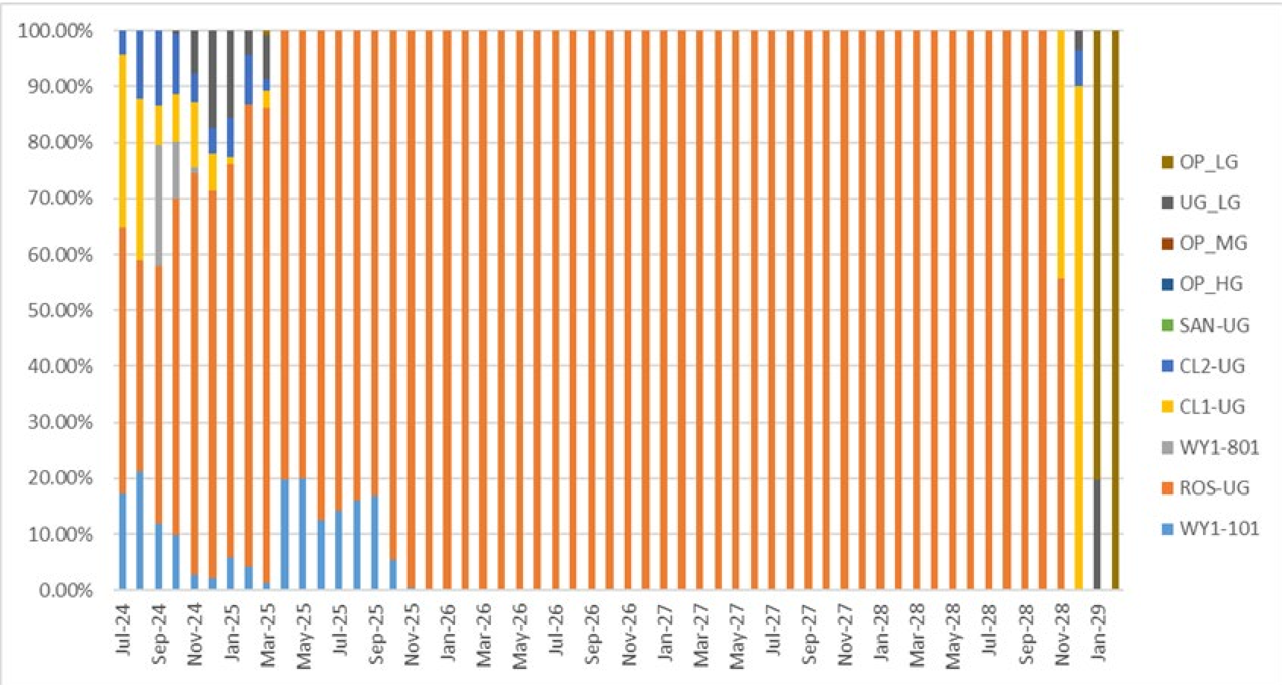


Figure 13-7: Plant feed as derived from Budget supplied
Source: Tomingley 2025

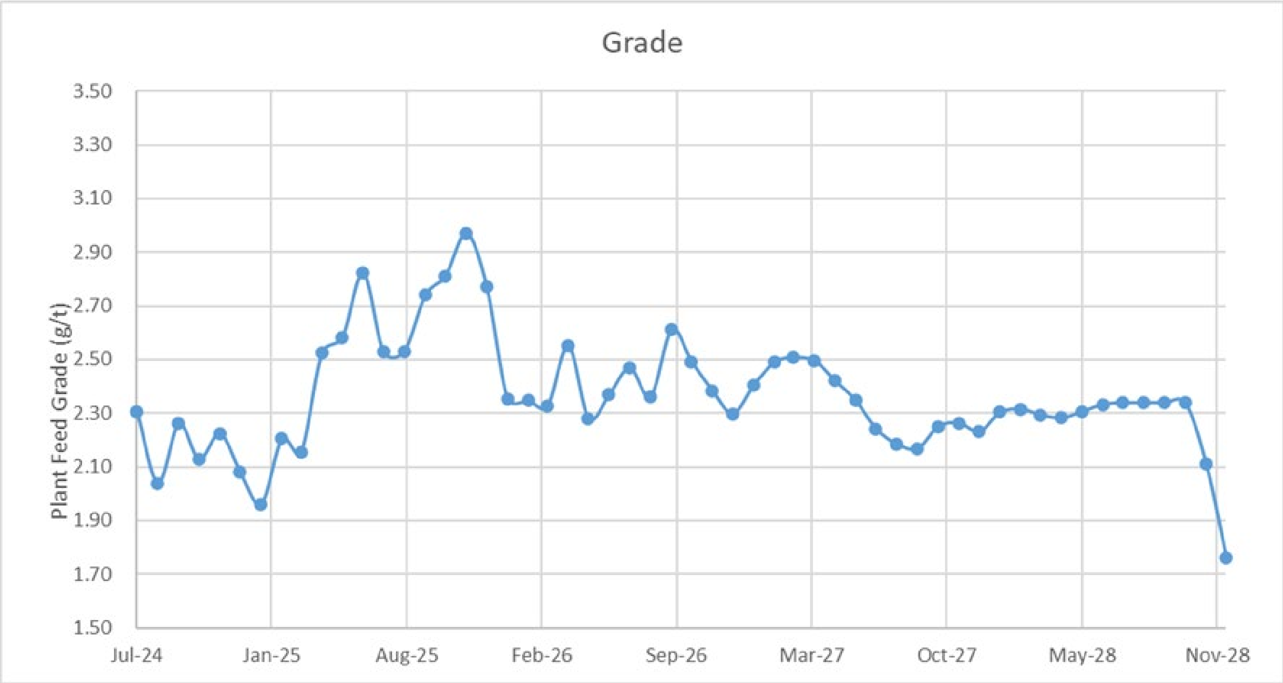


Figure 13-8: Feed grade estimated from Budget

Source : Tomingley 2025

14. MINERAL RESOURCE ESTIMATES

The MRE for the TGP were originally reported with an effective date of 30 June 2024 in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012). The review of the estimates, completed by the QP author 5 May 2025 revealed no new information that should be incorporated in the estimates. JORC Code uses similar Mineral Resource categories to those set out in the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and defined in Section 1.2 of NI 43-101. Inferred Mineral Resources have not been added to Indicated and Measured Mineral Resources in this Report, which is permitted under JORC. The Mineral Resource estimates include mineralisation that has not been included in Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The Project includes:

- the Tomingley Gold Operations (Tomingley or TGO) - includes the Wyoming 1, Caloma 1 and Caloma 2, all of which are now mined by underground operations.
- the Roswell, San Antonio and McLeans deposits (Tomingley Gold Extension Project or TGEP) -open pittable and underground resources (at the end of FY23, the drive had reached the north end of Roswell and operational development headings had commenced); and
- the Peak Hill Gold Project (PHGM) - previously a fully operational open pit gold mine (comprising the main Propriety-Parkers Pit and three satellite pits, Bobby Burns, Crown and Great Eastern), but is not currently mined and is under care and maintenance. Alkane currently has no intention to restart mining operations at PHGM.

14.1 TGO Mineral Resources

TGO has been operating since January 2014. The open pittable Mineral Resource is restricted to material within an indicative optimised pit shell, estimated at a gold price of A$2,000 per ounce with the potential open pittable component assessed at ≥0.4g/t gold cut-off to meet the criteria for reasonable prospects for eventual economic extraction (“RPEEE”). The RPEEE assessment by the QP author included estimates of open-pit and underground cut-off grades, geological continuity of mineralisation at the selected cut-off grades, commodity prices, mining and mineral processing methods, mining, processing and general administrative costs, predicted metallurgical recovery and smelter and refinery costs and payment terms. These factors were applied rigorously in converting Mineral Resources to Mineral Reserves to ensure that the latter provided an effective basis for economic analysis.

The underground Mineral Resource is restricted to material below the current final pit depths to meet the criteria for reasonable prospects for eventual economic extraction (RPEEE). This includes using underground mining methods assessed at ≥1.3g/t gold and a gold price of A$2,350 per ounce. The MRE was based on a block count method of all material above the cut-off grade. The constraints used are based on all material ≥1.3g/t gold below the current open pit surface and also below the top RL of current underground stope designs, which is in this case below the 180mRL.

Open pit mining ceased at TGO in 2023, and the operation transitioned to fully underground mining at Wyoming 1, Caloma 1 and Caloma 2. The TGO 2024 Mineral Resource Estimate is shown in Table 14-1 and the previous 2023 Mineral Resource estimate is shown in Table 14-2.

14.1.1 Wyoming 1

Drill Data, Survey, Logging, Sampling and Assays

Wyoming 1 has been evaluated using AC, RC and DD drilling techniques between May 2001 and June 2024, although not all of this data lies within the current resource outline. Drilling and surveying details including drill technique, drill size and number of metres; surface and down hole survey technique, and survey frequency; are summarised in Section 10.2 of this Technical Report. Details for database, logging, sampling and analytical techniques, and QAQC processes, are provided in Section 11.2 of this Report.

Table 14-1: TGO Mineral Resources (30 June 2024) at a COG >1.3g/t Au

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Open Pittable Resources (cut-off > 0.4g/t Au)												
Caloma 1	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0
Subtotal	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**
Underground Resources (cut-off > 1.3g/t Au)												
Wyoming 1	1,013	2.7	88	763	2.2	54	1,776	2.2	142	108	2.1	7
Wyoming 3	46	2.2	3	24	2.0	2	70	2.0	5	20	1.9	1
Caloma 1	602	2.2	43	916	20	59	1,518	2.0	101	469	2.0	30
Caloma 2	351	2.4	27	1,261	2.4	97	1,612	2.4	124	462	1.8	27
Subtotal	**2,012**	**2.5**	**161**	**2,964**	**2.2**	**212**	**4,976**	**2.3**	**373**	**1,059**	**1.9**	**65**
TOTAL	**2,012**	**2.5**	**161**	**2,964**	**2.2**	**212**	**4,976**	**2.3**	**373**	**1,059**	**1.9**	**65**

Notes

1. Underground Mineral Resources are reported at COG ≥ 1.3g/t Au
2. Mineral Resources are inclusive of Mineral Reserves
3. Rounding may lead to computational discrepancies

Table 14-2: TGO Mineral Resources (30 June 2023), COG >1.3g/t Au

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Open Pittable Resources (cut-off > 0.4g/t Au)												
Caloma 1	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0
Subtotal	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**
Underground Resources (cut-off > 1.3g/t Au)												
Wyoming 1	988	2.8	89	725	2.2	51	1,713	2.5	140	375	1.8	22
Wyoming 3	46	2.2	3	24	2.0	2	70	2.1	5	20	1.9	1
Caloma 1	359	2.5	29	1,113	2.0	72	1,472	2.1	100	328	2.0	21
Caloma 2	115	2.5	9	1,066	2.3	79	1,181	2.3	88	360	2.2	25
Subtotal	**1,508**	**2.7**	**130**	**2,928**	**2.2**	**203**	**4,436**	**2.3**	**334**	**1,108**	**2.0**	**69**
TOTAL	**1,508**	**2.7**	**130**	**2,928**	**2.2**	**203**	**4,436**	**2.3**	**334**	**1,108**	**2.0**	**69**

Notes

1. Underground Mineral Resources are reported at COG ≥ 1.3g/t Au
2. Mineral Resources are inclusive of Mineral Reserves
3. Rounding may lead to computational discrepancies

The resource model includes grade control holes drilled within the Wyoming 1 pit. These RC grade control holes have a limited impact on the Wyoming 1 Underground estimation but were essential to the creation of the entire geological model.

Bulk Density

Bulk density (density) measurements were completed by commercial laboratories on DD core samples of the different material types (alluvium, saprolite, totally oxidised and fresh). Oxidation was far more important than variations in lithology or alteration. Density has been applied to the Mineral Resource for tonnage estimates on a dry basis.

In December 2015, a large in-house density analysis campaign occurred on all the deposits with over 3,182 additional measurements taken. Using wet/dry density methods.

All diamond hole drilled in the 2016/2017 campaign had measurements undertaken using the wet/dry method (SG = Mass of object/ (Mass of object) – (Mass of object in water)). All measurements in the fresh material were constrained to each geological domain. The average specific gravity reading was applied to each domain and used in the estimation.

Drillhole Spacing and Distribution

The majority of exploration drilling at Wyoming 1 within the open pit was completed along east–west lines spaced 25m apart. However, once the east–west lode orientation was confirmed for the '376' zone (the high grade mineralisation on the eastern contact of the porphyry intrusive contact) this portion of the deposit was assessed by south drilled holes completed along north–south sections spaced 25m apart.

The underground infill drilling during the 2016/2017 campaign was drilled to ensure the drill hole intercept spacing within each lode was covered to a nominal 30m pattern. The drilling direction of these holes was optimised best as practical to the orientation of the mineralisation and geology to remove/reduce any potential sample bias for the estimation.

The drill hole spacing is similar to that used at other Tomingley deposits and has been established to be sufficient.

Surface in-pit RC grade control drilling was undertaken on a nominal 10m x 10m drill spacing on all ore lodes. All underground grade control DD, infilled all lodes beneath the Wyoming 1 open pit on a nominal 15 x 20m spacing.

Areas within the underground have been infilled using face sampling and sludge drilling techniques.

Geological and Domain Interpretation

The geological model was built on structural data from core lithological logging, in-pit grade control logging, pit mapping and underground mapping. Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips and drill core. Mapped lithological contacts have been surveyed and digitised to complete the current model.

Alteration and mineralisation estimates along with grade guided the interpretation of the ore envelope wireframes at a nominal 0.5g/t Au lower cut-off. Mineralisation is associated with extensive alteration and quartz veining of the porphyry and volcanic host rocks.

A total of 18 mineralisation wireframes (domains) were interpreted to constrain the estimation. This includes an enclosing background domain which was modelled to capture minor mineralisation outside the main domains. Additionally, four surfaces were also used to separate material types: topography, alluvium, saprolite and base of oxidation surfaces.

Data Preparation, Interpretation and Statistics

The drill hole data were flagged by the domain wireframes in priority order, to prevent double use of the data in the intersecting zones. The samples were composited to 1m, the most common sample length, and flagged by the topography, alluvium, saprolite and base of oxidation surfaces. Univariate statistical analysis was completed. Top-cuts were selected for each domain based on histograms, probability plots and cutting statistic plots. The top-cuts ranged from 7g/t gold to 40g/t gold.

The data was transformed into Standard Gaussian space and each domain was assessed for spatial continuity and Gaussian variogram modelling was completed with a subsequent back transformation of the variogram into real space to use in the estimation process.

The variograms show clear evidence of a relatively low nugget effect (between 14% and 25%), with the exception of the footwall lode which does not impact on the underground. This coupled with a rapid deterioration in continuity over a distance of several metres, as indicated by the first spherical structure ranges and sills. These features are evident when the composite gold values are visually inspected, with gold values generally being similar within a distance of 2 m to 3 m but then changing rapidly at greater distances. As a consequence, the second spherical structure does not exercise great influence over an OK estimate, generally having low sill values, with the exception of the hanging wall lode which is more continuous than the rest.

Block Modelling and Grade Estimation

The underground resource model incorporates the entire Wyoming 1 project and includes the estimation for the open pit. Grade estimation was completed in Surpac software using Ordinary Kriging technique. The orientation of the search ellipse for each domain was controlled by a Dynamic Anisotropy model that provided a unique dip and dip-azimuth for each block. Grade estimates were made for gold, arsenic and copper.

Grade control drilling data is incorporated with exploration data and a new block model generated using the same parameters as the resource model for that sector of the ore body subject to the grade control drilling.

Primary block size is 5mE x 5mN x 5mRL (due to the narrow steeply dipping geometry of the mineralised zones) with subblocking down to 2.5mE x 2.5mN x 2.5mRL. These block sizes were used in the open pit based on the practical mining considerations and the fact the variogram nugget effects are low. The same block sizes were used in the underground model. Maximum search radius ratio is 3:1.

Mineral Resource Reporting

Results

The quoted underground resources are global, being based on drill hole data at exploration spacing. To ensure the resources have RPEEE the underground Mineral Resource is restricted to material below the current final pit depth (based on an indicative optimised pit shell estimated at a gold price of A$2,000) and also below the top RL of current underground stope designs and using underground mining methods assessed at ≥1.3g/t gold and a gold price of A$2,350 per ounce. The MRE was based on a block count method of all material above the cut-off grade. The Mineral Resource is shown in Table 14-1. Figure 14-1 illustrates those blocks >1.3g/t gold relative to the current underground mine design and the overlying open pit shell.

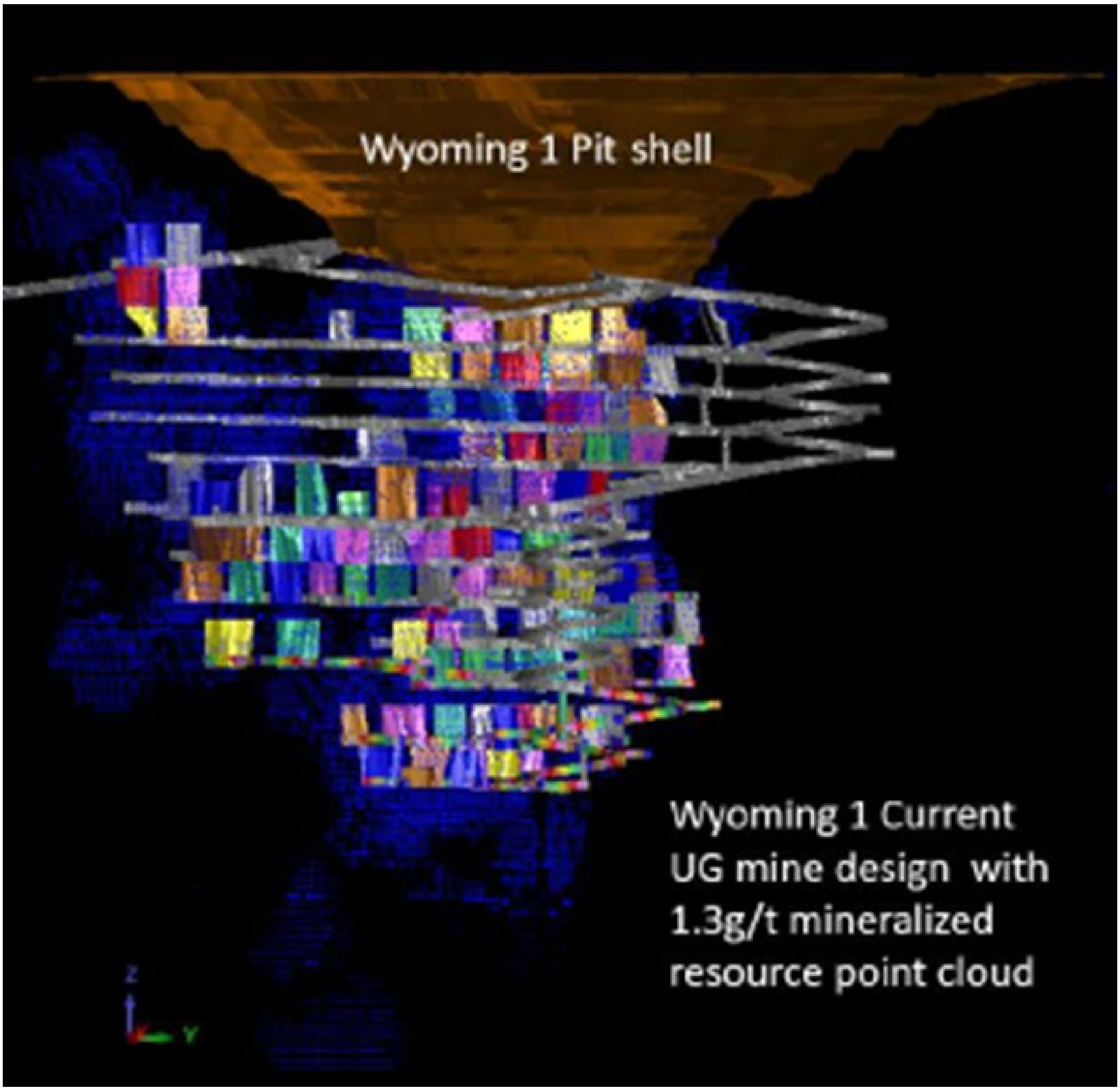


Figure 14-1: Wyoming 1 Mineral Resource model and mine design development

Source: Alkane Sept 2024

Factors That May Affect the Mineral Resource Estimate

Accuracy of the estimate is strongly dependent on:

- accuracy of the interpretation and geological domaining
- accuracy of the drill hole data (location and values)
- orientation of local anisotropy
- estimation parameters which are reflected in the global resource classification

The QP author considers that these factors are well considered and accounted for within the current Mineral Resource model.

The Mineral Resource may be affected by a change in cut-off grade which is significantly affected by the variable costs and prevailing economic environment.

Comparison with Previous Historical Resource

The MREs were compared to those of previous published resource estimate made by Alkane. Variances were found to be acceptable and are the result of changes based on modifications to the geological domains and mineralised domains which have been updated. These modifications were based on the in-pit geological mapping, underground mapping and greater definition through a significant underground grade control program and additional surface diamond holes. The previous (2023) Mineral Resource is shown in Table 14-2.

Reconciliation

Mining of ore from the Wyoming 1 ore body commenced in 2016 and to date reconciliations have shown that the original resource model was performing well within expectations, with the exception of poorly defined inferred mineralisation in the background domain. Reconciled tonnes, grade and total ounces mined are all within ~10% of the original resource model prediction with and overall increase in ounces.

Over the period of mining the block estimation model has been modified and improved, with the open pit and underground run simultaneously and captured within the same block model.

The estimation method has been changed from ID2 (original resource model estimate) to Ordinary Kriging. Close spaced grade control drilling has been ongoing since the start of the open pit. This additional data collected with the mapping justified a change in modelling parameters and estimation techniques from ID2 to Ordinary Kriging. This change in estimation method has been used for the underground resource model which is an extension of the current open pit grade control block model.

Comparisons between the underground reconciled mined tonnes and grade and the grade control model (same as the underground resource model) have shown that the reconciled mined tonnes are +13%, grade 16%% with an overall increase of+30% ounces. This indicates the model being implemented does have a reasonable level of accuracy with respect to grade estimation. The increase in grade has come from the high grade 101 porphyry lode where significant localised visible gold was noted during the mining process.

Risks

The Wyoming 1 deposit has been drilled at a close-spacing in several different drilling campaigns and in several different drilling directions, reducing the likelihood that the geological interpretation will change significantly.

The Mineral Resources could be affected by environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property. A change in the global economic and financial environment may also affect the mining cost and in turn affect the reported Mineral Resources.

Audits and Reviews

The Wyoming data was reviewed in 2010 and 2011 by Behre Dolbear (BDA) as part of the due diligence phase of the development of the project. BDA did not express any specific concerns with respect to the data other than to recommend the completion of some round robin assaying and completion of additional density determinations, both of which were undertaken for the Caloma 2 and Wyoming 1 resource drilling. Cube Consulting have reviewed the spatial continuity of the data for estimation purposes and completed variogram modelling.

An independent review was completed by the QP author which verified the technical inputs, methodology, parameters and results of the Mineral Resource estimate. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of a sufficient confidence to support the reported Mineral Resource. No external audit of the MRE has been undertaken by Alkane.

The QP author is not aware of any significant factors or risks, other than risks associated with environmental liabilities and permits which may affect access, title, or the right or the ability to perform work on the Project or materially affect the Mineral Resource estimate.

14.1.2 Caloma 1

Drill Data, Survey, Logging, Sampling and Assays

Caloma 1 has been evaluated using AC, RC and DD drilling techniques between August 2004 and June 2022, although not all of this data lies within the current Mineral Resource outline. Drilling and surveying details including drill technique, drill size and number of metres; surface and down hole survey technique, and survey frequency; are summarised in Section 10.2 of this Technical Report. Details for database, logging, sampling and analytical techniques, and QAQC processes, are provided in Section 11.2 of this Technical Report.

The resource model includes grade control holes drilled within the Caloma 1 pit. These RC grade control holes have a limited impact on the Caloma 1 underground estimation but were essential to the creation of the entire geological model.

Bulk Density

Bulk density (density) measurements were completed by commercial laboratories on DD core samples of the different material types (alluvium, saprolite, totally oxidised and fresh). Oxidation was far more important than variations in lithology or alteration. Density has been applied to the Mineral Resource for tonnage estimates on a dry basis.

In December 2015 a large in-house density analysis campaign occurred on all the deposits with over 3,182 additional measurements taken. Using wet/dry density methods.

Drill Spacing and Distribution

Drilling was completed on east–west sections spaced nominally 20 m apart with holes spaced at 20 m intervals along the lines. The line spacing was increased to a nominal 40 m in zones thought peripheral to the main ore body and to the north. Grade control drilling is completed on a pattern ensuring a minimum of 10 m x 10 m pattern when combined with resource definition drill holes.

The drill hole spacing is similar to that used at other Tomingley deposits and has been established to be sufficient.

A conditional simulation study for optimal drill spacing has been undertaken. There is a case to reduce the spacing from 10 m x 10 m to 10 m x 8 m, however, the current drill spacing has been deemed to still be appropriate.

Geological and Domain Interpretation

The geological model was built on structural data from core lithological logging, in-pit grade control logging and pit mapping. Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips and drill core. Mapped lithological contacts have been surveyed and digitised to complete the current model.

The Caloma 1 deposit consists of a series of moderate to shallow west dipping mineralised structures within the steep west dipping feldspar porphyritic host which is bounded by several thin volcaniclastic sediment lenses. These structures trend north–south over a strike length of 500m and range in width from a few metres to in excess of 20 m. The mineralised structures have been displaced and offset by numerous east–west barren postmineralisation dolerite dykes.

Mineralisation is associated with extensive alteration (silica, arsenopyrite, pyrite) and quartz veining of the porphyry and volcanic rocks. Alteration and mineralisation estimates, along with grade, guided the interpretation of the ore envelope wireframes at a nominal 0.25g/t Au lower cut-off.

A total of eight mineralisation wireframes (domains) were interpreted to constrain the main high grade mineralised zones during estimation, as well as two enclosing background domain which was modelled to capture minor mineralisation outside the main domains. Additionally, four surfaces were also used to separate material types: topography, alluvium, saprolite and base of oxidation surfaces.

Data Preparation, Interpretation and Statistics

The drill hole data were flagged by the domain wireframes in priority order, to prevent double use of the data in the intersecting zones. The samples were composited to 1m, the most common sample length, and flagged by the topography, alluvium, saprolite and base of oxidation surfaces. Univariate statistical analysis was completed. Top-cuts were selected for each domain based on histograms, probability plots and cutting statistic plots. The top-cuts ranged from 10.0g/t gold to 30.0g/t gold for the mineralised zones.

The data was transformed into Standard Gaussian space and each domain was assessed for spatial continuity and Gaussian variogram modelling was completed with a subsequent back transformation of the variogram into real space to use in the estimation process

Block Modelling and Grade Estimation

Grade estimation was completed in Surpac software using Ordinary Kriging technique. The orientation of the search ellipse for each domain was controlled by a Dynamic Anisotropy model that provided a unique dip and dip-azimuth for each block. Grade estimates were made for gold, arsenic and copper. Hard boundaries were used for estimating the domains.

Grade control drilling data is incorporated with exploration data and a new block model generated using the same parameters as the resource model for that sector of the ore body subject to the grade control drilling.

Primary block size is 5mE x 2.5mN x 2.5mRL with subblocking down to 2.5mE x 1.25mN x 1.25m RL. These block sizes were used in the open pit based on the practical mining considerations and the fact the variogram nugget effects are low. The search radius for each domain is variable based on the variograms with a range from 30m to 60m, with a ratio of Major/Semi of 1 and Major/Minor of 5.

Resource Classification and Validation

The Caloma 1 underground Mineral Resource is classified as Measured, Indicated and Inferred using the JORC Code. The resources were classified taking into account drill density, geological confidence and mineralisation continuity. The actual breakpoints for the different resource classes were chosen by inspection of the model in relation to the drilling density and geological continuity. Any blocks outside the main mineralised/geological domains were classified as Inferred.

As a general rule all areas with a 10 m x 10 m drill spacing was classified as Measured. Zones with a nominal drill spacing of 20 m x 25 m have been classified as Indicated, material that has been drilled to a 30 m x 40 m spacing is in the Inferred category. The classifications are based on the confidence of ounce conversion. Measured would have a 90% conversion probability, Indicated would have a 75% confidence level and Inferred a 50% confidence in ounce conversion if mined.

The estimates were verified using several different techniques, including a ID2 check estimate, and checked for local variability by comparing the estimated block grades with the average of the top-cut composites in each block. Visual checks of the block estimation against composite and raw drill hole data both on plan and section were also carried out.

Mineral Resource Reporting

Results

The quoted underground resources are global, being based on drill hole data at exploration spacing. To ensure the resources have RPEEE the underground Mineral Resource is restricted to material below the current final pit depth (based on an indicative optimised pit shell estimated at a gold price of A$2,000) and also below the top RL of current underground stope designs and using underground mining methods assessed at ≥1.3g/t gold and a gold price of A$2,350 per ounce. The MRE was based on a block count method of all material above the cut-off grade.

The Mineral Resource is shown in Table 14-1. Figure 14-2 illustrates those blocks >1.3g/t gold relative to the current underground mine design and the overlying open pit shell.

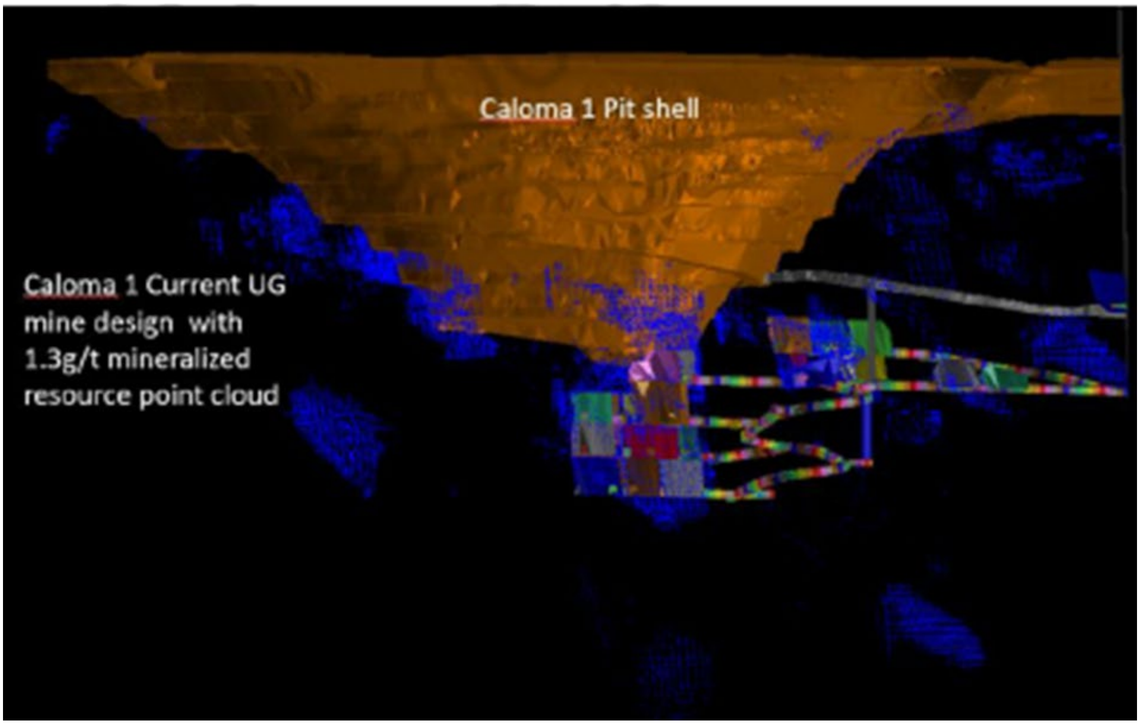


Figure 14-2: Caloma 1 Mineral Resource model and mine design development

Source: Alkane, Sept 2024

Factors That May Affect the Mineral Resource

Accuracy of the estimate is strongly dependent on:

- accuracy of the interpretation and geological domaining
- accuracy of the drill hole data (location and values)
- orientation of local anisotropy
- estimation parameters which are reflected in the global resource classification

Alkane consider that these factors are well considered and accounted for within the current Mineral Resource model.

The Mineral Resource may be affected by a change in cut-off grade which is significantly affected by the variable costs and prevailing economic environment.

Comparison with Previous Historical Resource

The MREs were compared to those of the previously published resource estimate made by Alkane. Variances were found to be acceptable and are the result of changes based on modifications to the geological domains and mineralised domains, which have been updated. The previous (2023) MRE is shown in Table 14-2.

Reconciliation

Mining has been ongoing from the Caloma 1 open pit since January 2014. In June 2015, a new geological/structural model was generated based on detailed in-pit mapping, relogging of diamond core holes and logging of grade control holes. The estimation method was changed from ID2 to Ordinary Kriging and the reconciliation process was reviewed and modified. Additionally, the geological model has been updated routinely since mining commenced. Since these changes the Caloma 1 pit grade control model has reconciled very well with the new estimation process. With +1% tonnes, +3% grade for +4% increase in ounces.

Risks

The Caloma 1 deposit was drilled at a close-spacing (including grade control drilling at 10m x 10m spacing) in several different drilling campaigns and in several different drilling directions, reducing the likelihood that the geological interpretation will change significantly.

The Mineral Resources could be affected by environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property. A change in the global economic and financial environment may also affect the mining cost and in turn affect the reported Mineral Resources.

Audits and Reviews

Cube Consulting have reviewed the estimation parameters for Caloma 1 including: exploratory data analysis (EDA) analysis, top-cut strategy, spatial continuity analysis, and Quantitative Kriging Neighbourhood Analysis (QKNA) of the data for estimation purposes; as well as review of grade control, drill spacing. No external audits have been carried out on the resource estimation.

Independent review was completed by the QP author which verified the technical inputs, methodology, parameters and results of the Mineral Resource estimate. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of a sufficient confidence to support the reported Mineral Resource. No external audit of the MRE has been undertaken by Alkane.

The QP author is not aware of any significant factors or risks, other than risks associated with environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property or materially affect the Mineral Resource estimate.

14.1.3 Caloma 2

Drill Data, Survey, Logging, Sampling and Assays

Caloma 2 has been evaluated using AC, RC and DD drilling techniques for historical data between May 2007 and March 2012, and a significant surface DD and underground grade control DD program in 2020-2021. Drilling and surveying details including:

- drill technique
- drill size
- number of metres drilled
- surface and down hole survey technique
- survey frequency

are summarised in Section 10.2 of this Technical Report. Details for database, logging, sampling and analytical techniques, and QAQC processes, are provided in Section 11.2 of this Report.

The resource model includes grade control holes drilled within the Caloma 2 pit. These RC grade control holes have a limited impact on the Caloma 2 underground estimation but were essential to the creation of the entire geological model.

Bulk Density

Bulk density (density) measurements were completed by commercial laboratories on DD core samples of the different material types (alluvium, saprolite, totally oxidised and fresh). Oxidation was far more important than variations in lithology or alteration. Density has been applied to the Mineral Resource for tonnage estimates on a dry basis.

In December 2015 a large in-house density analysis campaign occurred on all the deposits with over 3,182 additional measurements taken. Using wet/dry density methods.

Drill Spacing and Distribution

Exploration drilling was completed on north–south sections spaced nominally 20 m apart with holes spaced at 20 m intervals along the lines. The line spacing was increased to a nominal 40 m in zones peripheral to the main ore body and to the east.

Underground grade control infill drilling and the 2020-2021 surface infill drilling was completed on a nominal 15x20m spacing. The drill hole spacing is similar to that used at other Tomingley deposits and has been established to be sufficient. Some areas have been reduced to 15 x 15 due to the structural complexity of certain areas.

Geological and Domain Interpretation

The geological model was built on structural data from core lithological logging, in-pit grade control logging and pit mapping. Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips and drill core. Mapped lithological contacts have been surveyed and digitised to complete the current model.

Mineralisation at Caloma 2 is developed within a series of ‘quartz lodes’ which dip north at flat to moderate angles and hosted dominantly within the subvolcanic sills. Mineralisation is also developed along a sediment contact zone which appears to be a potential linking structure with the Caloma mineralisation to the north. There is also evidence for the development of an inverted saddle reef at depth. The lodes are crosscut by a number of post-mineralisation dolerite dykes

Mineralisation is associated with extensive alteration (silica, arsenopyrite, pyrite) and quartz veining of the porphyry and volcanic rocks. Alteration and mineralisation estimates, along with grade, guided the interpretation of the ore envelope wireframes at a nominal 0.25g/t Au lower cut-off.

A total of 25 mineralisation wireframes (domains) were interpreted to constrain the main high grade mineralised zones during estimation, as well as five dolerite (non-mineralised) wireframes. Additionally, four surfaces were also used to separate material types: topography, alluvium, saprolite and base of oxidation surfaces.

Data Preparation, Interpretation and Statistics

The drill hole data were flagged by the domain wireframes in priority order, to prevent double use of the data in the intersecting zones. The samples immediately outside the mineralised zones were re-flagged, if they contained more than 0.25g/t gold, in order to prevent any overestimation that could be caused by use of assay boundaries. This re-flagging is also useful for the RC samples that are not broken at barren dyke boundaries.

The samples were composited to 1m, the most common sample length, and flagged by the topography, alluvium, saprolite and base of oxidation surfaces. Univariate statistical analysis was completed. Top-cuts were selected for each domain based on histograms, probability plots and cutting statistic plots.

Average variogram models were fitted for the mineralised zones and the dolerite dykes.

Block Modelling and Grade Estimation

Grade estimation was completed in Datamine Studio 3 (V22) software using Ordinary Kriging technique. The orientation of the search ellipse for each domain was controlled by a Dynamic Anisotropy model that provided a unique dip and dip-azimuth for each block. Grade estimates were made for gold, arsenic and copper. Hard boundaries were used for estimating the domains.

Grade control drilling data is incorporated with exploration data and a new block model generated using the same parameters as the resource model for that sector of the ore body subject to the grade control drilling.

Primary block size is 5mE x 2.5mN x 5mRL with subblocking down to 1.25mE x 1.25mN x 1.25mRL. These block sizes were used on the basis that the average drill spacing for the open pit is 10 m x 10 m and 15 m x 20 m in the underground. The search radius for each domain is variable based on the variograms with a range from 30 m to 60 m, with a ratio of Major/Semi of 1 and Major/Minor of 5.

Resource Classification and Validation

The Caloma 2 underground Mineral Resource is classified as Measured, Indicated and Inferred using JORC Code. The MREs were classified taking into account drill density, geological confidence and mineralisation continuity. The actual breakpoints for the different resource classes were chosen by inspection of the model in relation to the drilling density and geological continuity. Any blocks outside the main mineralised/geological domains were classified as Inferred.

As a general rule all areas with a 10 m x 10 m drill spacing was classified as Measured. Zones with a nominal drill spacing of 20 m x 25 m have been classified as Indicated, material that has been drilled to a 30 m x 40 m spacing is in the Inferred category. The classifications are based on the confidence of ounce conversion. Measured would have a 90% conversion probability, Indicated would have a 75% confidence level and Inferred Mineral Resource a 50% confidence in ounce conversion if mined.

The estimates were verified using several different techniques, including a ID2 check estimate, and checked for local variability by comparing the estimated block grades with the average of the top-cut composites in each block. Visual checks of the block estimation against composite and raw drill hole data both on plan and section were also carried out.

Mineral Resource Reporting

Results

The quoted underground resources are global, being based on drill hole data at exploration spacing. To ensure the resources have RPEEE the underground Mineral Resource is restricted to material below the current final pit depth (based on an indicative optimised pit shell estimated at a gold price of A$2,000) and also below the top RL of current underground stope designs and using underground mining methods assessed at ≥1.3g/t gold and a gold price of A$2,350 per ounce. The MRE was based on a block count method of all material above the cut-off grade.

The Mineral Resource is shown in Table 14-1. Figure 14-3 illustrates those blocks >1.3g/t gold relative to the current underground mine design and the overlying open pit shell.

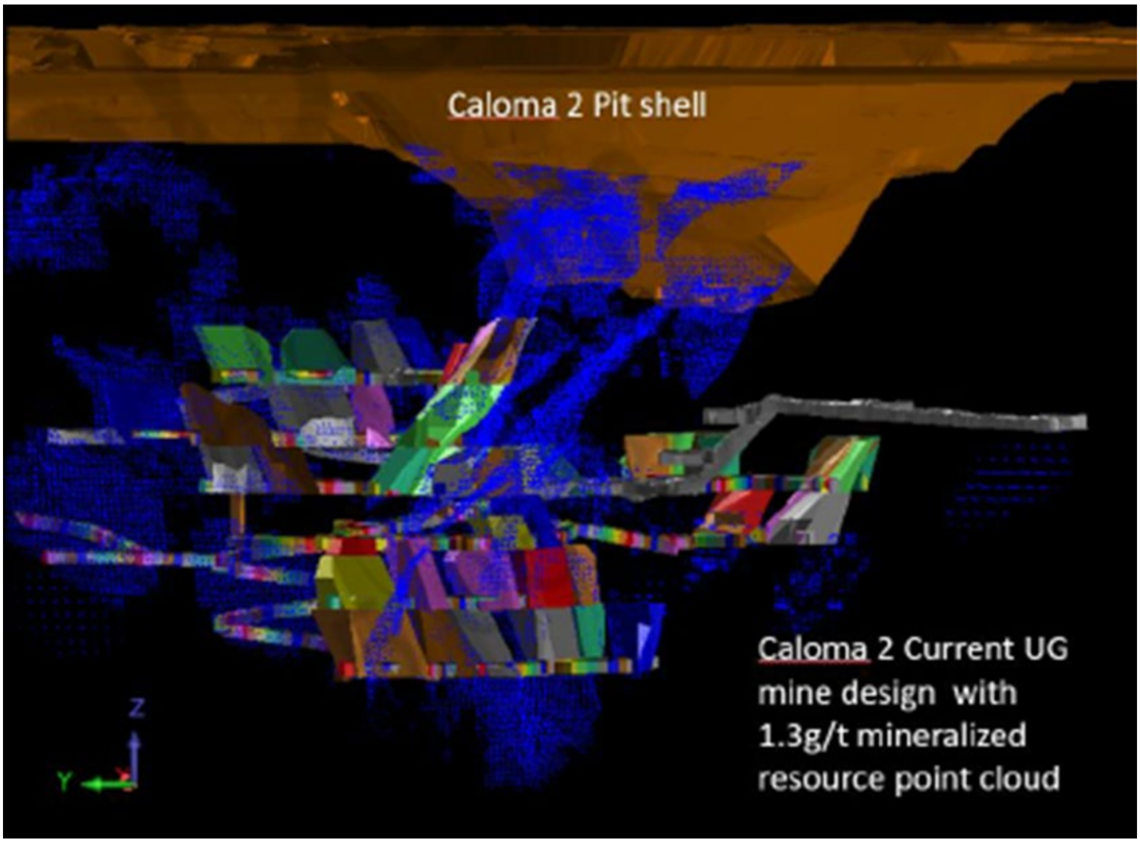


Figure 14-3: Caloma 2 Mineral Resource model and mine design development
Source: Alkane, Sept 2024

Factors That May Affect the Mineral Resource Estimate

Accuracy of the estimate is strongly dependent on:

- accuracy of the interpretation and geological domaining
- accuracy of the drill hole data (location and values)
- orientation of local anisotropy
- estimation parameters which are reflected in the global resource classification

Alkane consider that these factors are well considered and accounted for within the current Mineral Resource model.

The Mineral Resource may be affected by a change in cut-off grade which is significantly affected by the variable costs and prevailing economic environment.

Comparison with Previous Historical Resource

The MREs were compared to those of previous published resource estimate made by Alkane. Variances were found to be acceptable and are the result of changes based on modifications to the geological domains and mineralised domains which have been updated. The previous historical estimate is shown in Table 14-2.

Reconciliation

Mining of ore from the Caloma 2 ore body commenced in 2017 and to date reconciliations have shown that the original resource model was performing within expectations, with the exception of poorly defined Inferred mineralisation in the background domain. Reconciled tonnes, against the original exploration resource model were aligned, however, there was a discrepancy of reconciled grade with 32% higher than predicted with an overall total ounces mined increase of 32%.

Over the period of mining the block estimation model has been modified and improved, with the open pit and underground run simultaneously and captured within the same block model.

Close spaced grade control drilling has been ongoing since the start of the open pit. This additional data collected with the mapping has justified a review of change in modelling parameters and estimation techniques from ID2 to Ordinary Kriging. This change in estimation method has been used for the underground resource model which is an extension of the current open pit grade control block mode going forward.

Comparisons between the open cut reconciled mined tonnes and grade of the grade control model have shown that the reconciled mined tonnes are +6%, grade +8% with an overall increase of +14% ounces. This indicates the model being implemented does have a reasonably high level of accuracy, although it is slightly conservative.

Risks

The Mineral Resources could be affected by environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property. A change in the global economic and financial environment may also affect the mining cost and in turn affect the reported Mineral Resources.

Audits and Reviews

The Caloma 2 data has not been audited nor reviewed by external parties however, the data for other deposits within the TGP was reviewed in 2010 and 2011 by Behre Dolbear (BDA). BDA did not express any specific concerns with respect to the data other than to recommend the completion of some round robin assaying and completion of additional density determinations, both of which were undertaken for the Caloma 2 resource drilling.

An independent review was completed by the QP author which verified the technical inputs, methodology, parameters and results of the Mineral Resource estimate. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of a sufficient confidence to support the reported Mineral Resource. No external audit of the MRE has been undertaken by Alkane.

The QP author is not aware of any significant factors or risks, other than risks associated with environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property or materially affect the Mineral Resource estimate.

14.2 TGEP MINERAL RESOURCES

The TGEP encompasses new developments to the immediate south of the TGO site. The primary deposits are Roswell and San Antonio, which have been connected by an underground drive that extends from the Wyoming 1 pit to the north end of the defined Roswell resource (Figure 7-3), along with the more recently delineated McLeans deposit located to the north of Roswell.

The geology and mineralisation at Roswell, San Antonio and McLeans is identical to that at TGO, and metallurgical tests confirmed a similar recovery profile. Using the TGO cost structures, simple pit shells were estimated to confirm the resources have RPEEE. The open pittable resources at San Antonio have been restricted by an indicative optimised pit shell estimated at a gold price of A$2,000 per ounce and a >0.5g/t Au gold cut-off. Underground Mineral Resources at Roswell, San Antonio and McLeans have been reported using a gold cut-off for eventual extraction by underground mining methods assessed at ≥1.3g/t gold cut-off.

As a result of a reassessment of the Roswell deposit, through 3D grade control drilling from the new underground developments, the resources were revised. The revised resource takes into account updated TGO site operating costs and gold price for a pit shell at A$2,200/oz. This resource also takes into account that the optimised pit shell eliminates peripheral ore lenses which are not accessible via the open pit, and ore zones that will now be accessed from the underground operations.

The TGO 2024 Mineral Resource is shown in Table 14-3 and the previous 2023 Mineral Resource estimate is shown in Table 14-4.

Table 14-3: TGEP Mineral Resources (30 June 2024), COG >1.3g/t Au

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Open Pittable Resources (cut-off > 0.4g/t Au Roswell and > 0.5g/t Au San Antonio)												
Roswell	0	0.0	0	3,900	1.7	213	3,900	1.7	213	0	0.0	0
San Antonio	0	0.0	0	5,930	1.8	343	5,930	1.8	343	1,389	1.3	58
Subtotal	**0**	**0.0**	**0**	**9,830**	**1.8**	**556**	**9,830**	**1.8**	**556**	**1,389**	**1.8**	**58**
Underground Resources (cut-off > 1.3g/t Au)												
Roswell	825	3.0	80	3,123	2.8	281	3,948	2.8	361	1,957	2.5	157
McLeans	0	0.0	0	0	0.0	0	0	0.0	0	870	2.5	70
Subtotal	**825**	**3.0**	**80**	**3,123**	**2.2**	**281**	**3,948**	**2.8**	**361**	**2,872**	**2.5**	**227**
TOTAL	**825**	**3.0**	**80**	**12,953**	**2.0**	**837**	**13,778**	**2.8**	**917**	**4,216**	**2.1**	**285**

Notes

1. Open pit Mineral Resources are reported at COG >0.4g/t Au for Roswell and >0.5g/t Au for San Antonio
2. Underground Mineral Resources are reported at COG ≥ 1.3g/t Au
3. Mineral Resources are inclusive of Mineral Reserves
4. Rounding may lead to computational discrepancies

14.2.1 Roswell

Drill Data, Survey, Logging and Assays

Roswell has been evaluated using RC and DD drilling techniques since January 2018. Drilling and surveying details including drill technique, drill size and number of metres; surface and down hole survey technique, and survey frequency; are summarised in Section 10.2 of this Report. Details for database, logging, sampling and analytical techniques, and QAQC processes, are provided in Section 11.2 of this report.

Table 14-4: TGEP Mineral Resources (June 30, 2023)

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Open Pittable Resources (cut-off > 0.4g/t Au Roswell and > 0.5g/t Au San Antonio)												
Roswell	0	0.0	0	5,615	1.8	325	5,615	1.7	307	791	1.0	25
San Antonio	0	0.0	0	5,930	1.8	343	5,930	1.8	343	1,389	1.3	58
Subtotal	**0**	**0.0**	**0**	**11,545**	**1.8**	**668**	**11,545**	**1.8**	**650**	**2,180**	**1.2**	**83**
Underground Resources (cut-off > 1.3g/t Au)												
Roswell	0	0.0	0	1,897	2.7	165	1,897	2.7	165	4,244	2.6	355
McLeans	0	0.0	0	0	0.0	0	0	0.0	0	870	2.5	70
Subtotal	**0**	**0.0**	**0**	**1,897**	**2.7**	**165**	**1,897**	**2.7**	**165**	**5,114**	**2.6**	**425**
TOTAL	**0**	**0.0**	**0**	**13,442**	**1.9**	**833**	**13,442**	**1.9**	**815**	**7,294**	**1.9**	**508**

Notes

1. Open Pit Mineral Resources are reported at COG >0.4g/t Au for Roswell and >0.5g/t Au for San Antonio
2. Underground Mineral Resources are reported at COG ≥ 1.6g/t Au for Roswell and >1.3g/t Au for McLeans
3. Mineral Resources are inclusive of Mineral Reserves
4. Rounding may lead to computational discrepancies

Bulk Density

Bulk density (density) measurements were completed by commercial laboratories on DD core samples of the different material types (alluvium, saprolite, totally oxidised and fresh). Oxidation was far more important than variations in lithology or alteration. Density has been applied to the Mineral Resource for tonnage estimates on a dry basis.

In December 2015 a large in-house density analysis campaign occurred on all the deposits with over 3,182 additional measurements taken using wet/dry density methods.

Drill Spacing and Distribution

Exploration drilling was completed on north–south sections spaced nominally 20m apart with holes spaced at 20m intervals along the lines. The line spacing was increased to a nominal 40m in zones peripheral to the main ore body and to the east.

Geological and Domain Interpretation

The geological model was built on geological structural data from core lithological logging. Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips and drill core. Mapped lithological contacts have been surveyed and digitised to complete the current model.

The majority of mineralisation at Roswell is hosted by a quartz veined and altered andesite, however, there is evidence along the western margin that mineralisation is also hosted within the volcaniclastics. A lesser portion of mineralisation is hosted within the monzodiorite located in the northeast of the Roswell deposit. A third volcanic body identified by deeper drilling west of the andesite also hosts a small portion of mineralisation. Dolerite dykes postdate mineralisation and all mineralised lodes are truncated and stoped out by the modelled dolerites. A postmineral alluvial cover covers the deposit and is used to truncate the top of the modelled mineralised domains.

Mineralisation is directly associated with extensive alteration (silica, arsenopyrite, pyrite) and quartz veining of the porphyry and volcanic rocks. Alteration and mineralisation estimates, along with grade, guided the interpretation of the ore envelope wireframes at a nominal 0.20g/t Au lower cut-off.

A total of 23 mineralisation wireframes (domains) were interpreted to constrain the main high grade mineralised zones during estimation, as well as four dolerite (non-mineralised) wireframes, and three volcanic hosted wireframes. Additionally, three surfaces were also used to separate material types: topography, alluvium and base of oxidation surfaces.

Data Preparation, Interpretation and Statistics

The drill hole data were flagged by the domain wireframes in priority order, to prevent double use of the data in the intersecting zones.

The samples were composited to 1m, the most common sample length, and flagged by the topography, alluvium and base of oxidation surfaces. Univariate statistical analysis was completed. A top-cutting assessment was completed and top-cuts were selected for each domain based on histograms, probability plots and cutting statistic plots. Capping was deemed necessary for most domains.

A QKNA assessment was completed and variogram models were fitted for the mineralised zones and the dolerite dykes. Search ellipses were based on the QKNA outputs. Estimation was one pass with the exception of the western monzodiorite domain which used three search passes.

Block Modelling and Grade Estimation

Grade estimation was completed in Datamine Studio RM software using Ordinary Kriging technique. The orientation of the search ellipse for each domain was controlled by a Dynamic Anisotropy model that provided a unique dip and dip-azimuth for each block. Grade estimates were made for gold. Estimation utilised a 2-way skin within 5 m either side of the modelled oxide surface between the oxide and fresh domains. All other domain boundaries are hard boundaries where only composite samples within that domain were used to estimate blocks coded as within that domain.

Primary block size is 5mE x 10mN x 10mRL with subblocking down to 2.5m E x 2.5m N x 2.5m RL. These block sizes were used on the basis that the average drill spacing for the open pit is 20m x 20m.

Resource Classification and Validation

The Roswell underground Mineral Resource is classified as Measured, Indicated and Inferred under JORC Code. The resources were classified taking into account drill density, geological confidence and mineralisation continuity. The actual breakpoints for the different resource classes were chosen by inspection of the model in relation to the drilling density and geological continuity. Any blocks outside the main mineralised/geological domains were classified as Inferred.

Measured and Indicated Mineral Resources were defined where a high level of geological confidence in geometry, continuity and grade, was demonstrated, and were identified as areas where: drill spacing was averaging a nominal 10m (Measured) or 20m (Indicated), or where drilling was within 20m of the block estimate; estimation quality is considered to be of high confidence in respect to low kriging variance; and number of samples used to estimate individual domains. Remaining estimated blocks made within the defined mineralisation domains were classified as Inferred Resources where geological continuity could be defined.

The estimates were verified using several different techniques, including a ID2 check estimate, and checked for local variability by comparing the estimated block grades with the average of the top-cut composites in each block. Visual checks of the block estimation against composite and raw drill hole data both on plan and section were also carried out.

Mineral Resource Reporting

Results

The open pittable resources at Roswell have been restricted by an indicative optimised pit shell estimated at a gold price of A$2,200 per ounce and a >0.4g/t Au gold cut-off.

The quoted open pit and underground resources are global, being based on close spaced grade control drill data and exploration drill spacing. The underground mineral resources have been restricted by reporting below an indicative optimistic pit shell estimated at a gold price of A$2,200 per ounce, and a gold cut-off for eventual extraction by underground mining methods assessed at ≥1.3g/t gold. The Mineral Resource is shown in Table 14-3. Figure 14-4 illustrates all resource blocks coloured by gold grade.

Factors That May Affect the Mineral Resource

Accuracy of the estimate is strongly dependent on:

- accuracy of the interpretation and geological domaining
- accuracy of the drill hole data (location and values)
- orientation of local anisotropy
- estimation parameters which are reflected in the global resource classification

Alkane consider that these factors are well considered and accounted for within the current Mineral Resource model.

The Mineral Resource may be affected by a change in cut-off grade which is significantly affected by the variable costs and prevailing economic environment.

Comparison with Previous Historical Resource

The MREs were compared to those of previous published resource estimate made by Alkane. Variances were found to be acceptable and are the result of changes based on modifications to the geological domains and mineralised domains which have been updated. The previous (2023) Mineral Resource is shown in Table 14-4.

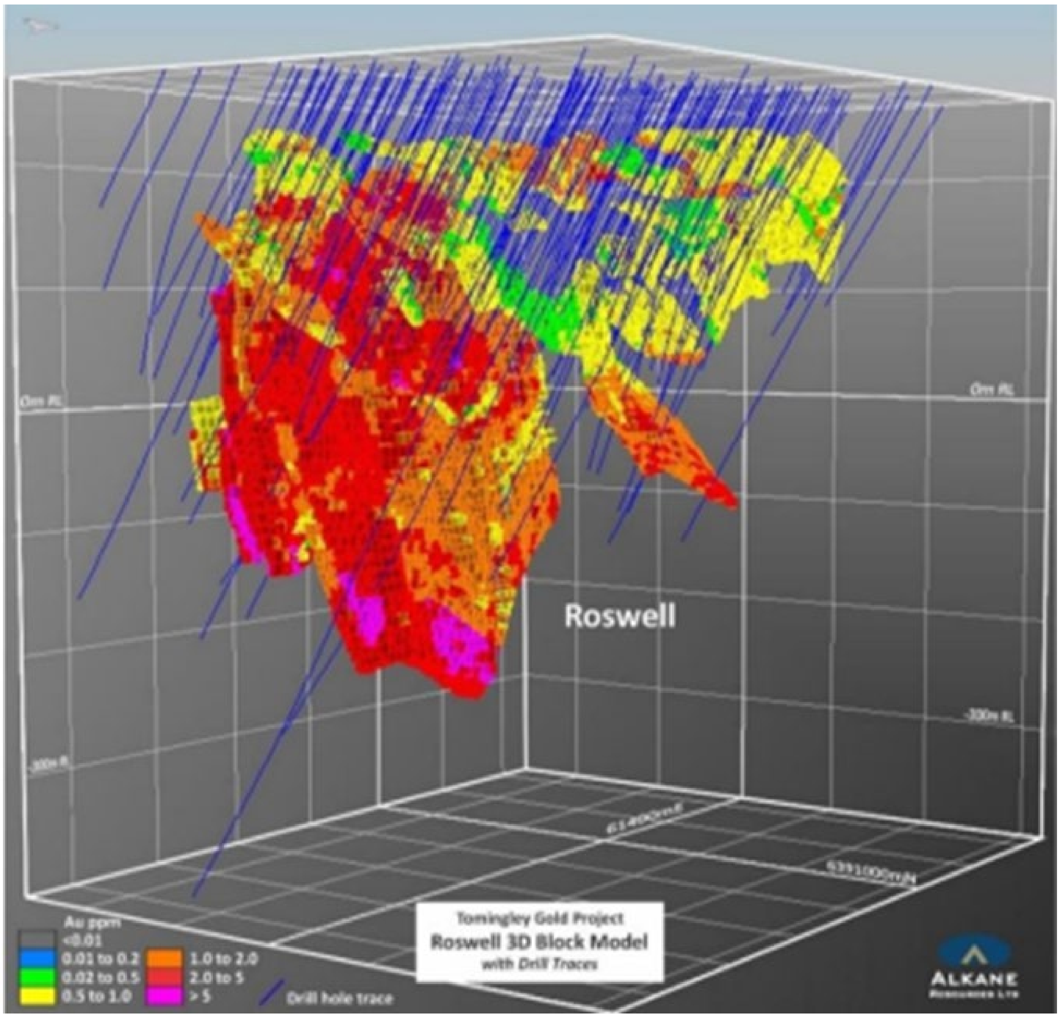


Figure 14-4: Roswell Mineral Resource model
Source: Alkane May 2022

Reconciliation

There are no reconciliation results available from open pit mining for the QP author to form an opinion on.

Risk

Environmental liabilities and permits could affect mineral resources, which may affect access, title or the right or ability to perform work on the property. A change in the global economic and financial environment may also affect the mining cost, which in turn will affect the reported Mineral Resources.

Audits and Reviews

The Roswell resource has not been audited nor reviewed by external parties.

Independent review was completed by the QP author which verified the technical inputs, methodology, parameters and results of the Mineral Resource estimate. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of a sufficient confidence to support the reported Mineral Resource. No external audit of the MRE has been undertaken by Alkane.

The QP author is not aware of any significant factors or risks, other than risks associated with environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property or materially affect the Mineral Resource estimate.

14.2.2 San Antonio

Drill Data, Survey, Logging, Sampling and Assays

San Antonio has been evaluated using RC and DD drilling techniques since January 2018. Drilling and surveying details including drill technique, drill size and number of metres; surface and down hole survey technique, and survey frequency; are summarised in Section 10.2 of this Report. Details for database, logging, sampling and analytical techniques, and QAQC processes, are provided in Section 11.2 of this Report.

Bulk Density

Bulk density (density) measurements were completed by commercial laboratories on DD core samples of the different material types (alluvium, saprolite, totally oxidised and fresh). Oxidation was far more important than variations in lithology or alteration. Density has been applied to the Mineral Resource for tonnage estimates on a dry basis.

In December 2015, a large in-house density analysis campaign occurred on all the deposits with over 3,182 additional measurements taken using wet/dry density methods.

Drill Spacing and Distribution

Exploration drilling was completed on north–south sections spaced nominally 20m apart with holes spaced at 20 m intervals along the lines. The line spacing was increased to a nominal 40 m in zones peripheral to the main ore body.

Geological and Domain Interpretation

The geological model was built on geological structural data from core lithological logging. Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips and drill core. Mapped lithological contacts have been surveyed and digitised to complete the current model.

Mineralisation at San Antonio is similar to the well documented Tomingley gold deposits. San Antonio like Tomingley is associated with quartz veining and alteration focused within andesitic volcanics and adjacent volcaniclastic sediments. The deposits appear to have formed as the result of a competency contrast between the volcanics and the surrounding volcaniclastic sediments, with the volcanics showing brittle fracture and the sediments ductile deformation and have many similarities to well documented orogenic - lode-style gold deposits. A postmineral alluvial cover (20m to 60m thick) covers the deposit and is used to truncate the top of the modelled mineralised domains. A steeply east-dipping interpretation was initially proposed over the entire San Antonio deposit; however, this was inconsistent with structural measurements obtained from oriented drill core in some sections of the deposit. This original orientation remains the case for the northern domains, however, domains in the southern andesite are vertical and in the central monzodiorite are vertical to slightly overturned and steep west dipping. This alternative interpretation had a marginal negative effect (<5%) on the original Inferred resource previously modelled.

Mineralisation is directly associated with extensive alteration (silica, arsenopyrite, pyrite) and quartz veining of the porphyry and volcanic rocks. Alteration and mineralisation estimates, along with grade, guided the interpretation of the ore envelope wireframes at a nominal 0.20g/t Au lower cut-off.

A total of 26 mineralisation wireframes (domains) were interpreted to constrain the main high grade mineralised zones during estimation, as well as four dolerite (non-mineralised) wireframes, two faults and four volcanic hosted wireframes. Additionally, three surfaces were also used to separate material types: topography, alluvium and base of oxidation surfaces.

Data Preparation, Interpretation and Statistics

The drill hole data were flagged by the domain wireframes in priority order, to prevent double use of the data in the intersecting zones.

The samples were composited to 1m, the most common sample length, and flagged by the topography, alluvium and base of oxidation surfaces. Univariate statistical analysis was completed. A top-cutting assessment was completed and top-cuts were selected for each domain based on histograms, probability plots and cutting statistic plots. Capping was deemed necessary for most domains.

A QKNA assessment was completed and variogram models were fitted for the mineralised zones and the dolerite dykes. Search ellipses were based on the QKNA outputs. Estimation was one pass with the exception of the western monzodiorite domain which used three search passes.

Block Modelling and Grade Estimation

Grade estimation was completed in Datamine Studio RM software using Ordinary Kriging technique. The orientation of the search ellipse for each domain was controlled by a Dynamic Anisotropy model that provided a unique dip and dip-azimuth for each block. Grade estimates were made for gold. Estimation utilised a 2-way skin within 5 m either side of the modelled oxide surface between the oxide and fresh domains. All other domain boundaries are hard boundaries where only composite samples within that domain were used to estimate blocks coded as within that domain.

Primary block size is 5mE x 10mN x 10mRL with subblocking down to 2.5m E x 2.5m N x 2.5m RL. These block sizes were used on the basis that the average drill spacing for the open pit is 20m x 20m.

Resource Classification and Validation

The San Antonio open pit Mineral Resource is classified as Indicated and Inferred mineral resources. The resources were classified taking into account drill density, geological confidence and mineralisation continuity. The actual breakpoints for the different resource classes were chosen by inspection of the model in relation to the drilling density and geological continuity. Any blocks outside the main mineralised/geological domains were classified as Inferred.

Indicated Mineral Resources were defined where a high level of geological confidence in geometry, continuity and grade, was demonstrated, and were identified as areas where: drill spacing was averaging a nominal 20 m (Indicated), or where drilling was within 20 m of the block estimate; estimation quality is considered to be of high confidence in respect to low kriging variance; and number of samples used to estimate individual domains. Remaining estimated blocks made within the defined mineralisation domains were classified as Inferred Resources where geological continuity could be defined.

The estimates were verified using several different techniques, including a ID2 check estimate, and checked for local variability by comparing the estimated block grades with the average of the top-cut composites in each block. Visual checks of the block estimation against composite and raw drill hole data both on plan and section were also carried out.

Mineral Resource Reporting

Results

The quoted open pittable resources are global, being based on close spaced grade control drill data and exploration drill spacing. To ensure the resources have RPEEE the resources have been restricted by an indicative optimistic pit shell estimated at a gold price of A$2,000 per ounce and a gold cut-off for eventual economic extraction at ≥0.5g/t gold. The Mineral Resource is shown in Table 14-3. Figure 14 5 illustrates all blocks for the open pittable resource coloured by gold grade.

Factors That May Affect the Mineral Resource

Accuracy of the estimate is strongly dependent on:

- accuracy of the interpretation and geological domaining
- accuracy of the drill hole data (location and values)
- orientation of local anisotropy
- estimation parameters which are reflected in the global resource classification

The QP author considers that these factors are well considered and accounted for within the current Mineral Resource model.

The Mineral Resource may be affected by a change in cut-off grade, which is significantly affected by the variable costs and prevailing economic environment.

Comparison with Previous Historical Resource

The MREs were compared to those of previous published resource estimate made by Alkane. Variances were found to be acceptable and are the result of changes based on modifications to the geological domains and mineralised domains which have been updated. The previous (2023) Mineral Resource is shown in Table 14-4.

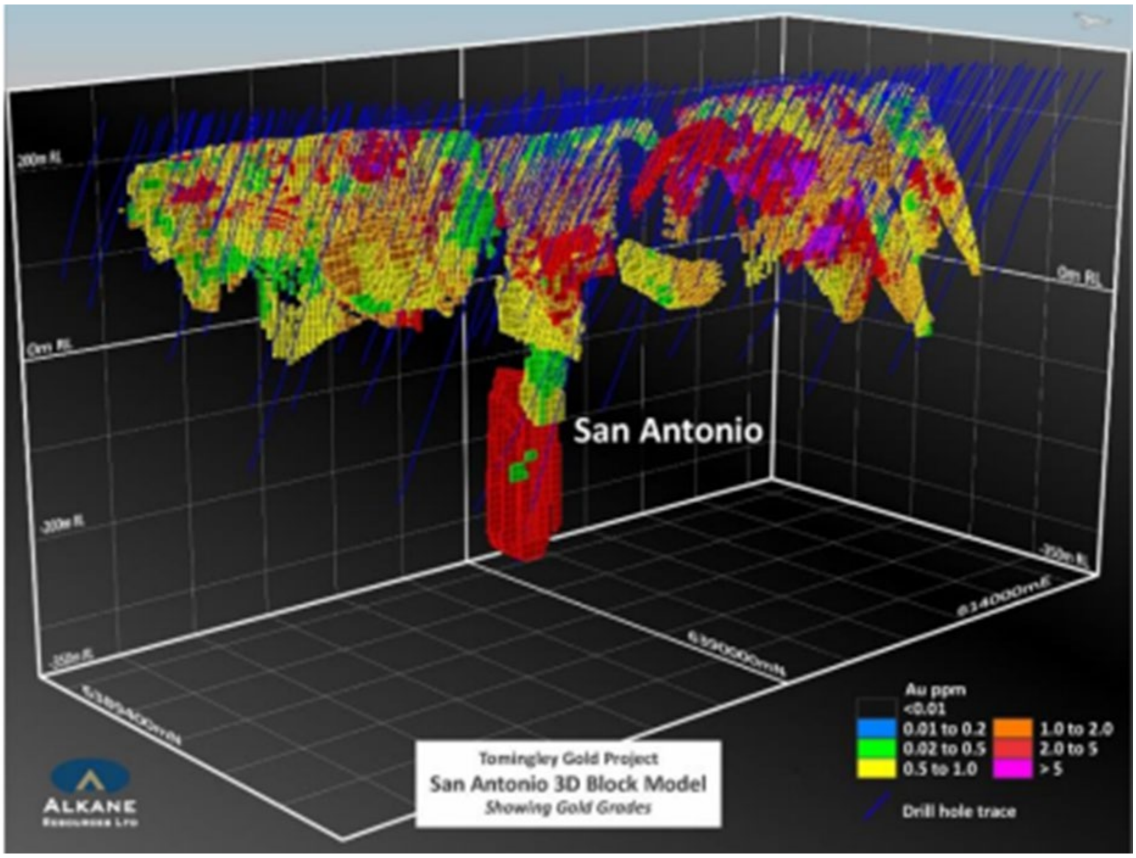


Figure 14-5: San Antonio Mineral Resource model

Source: Alkane Feb 2021

Reconciliation

There are no reconciliation results available from open pit mining for the QP to form an opinion on.

Risks

Environmental liabilities and permits could affect mineral resources, which may affect access, title or the right or ability to perform work on the property. A change in the global economic and financial environment may also affect the mining cost, which in turn will affect the reported Mineral Resources.

Audits and Reviews

The San Antonio MRE has not been audited nor reviewed by external parties.

Independent review was completed by the QP author, which verified the technical inputs, methodology, parameters and results of the Mineral Resource estimate. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of sufficient confidence to support the reported Mineral Resource. No external audit of the MRE has been undertaken by Alkane.

The QP author is not aware of any significant factors or risks, other than risks associated with environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property or materially affect the Mineral Resource estimate.

14.2.3 McLeans

Drill Data, Survey, Logging, Sampling and Assays

McLeans has been evaluated using a total of 14 RC and DD drilling techniques since 2004. Drilling and surveying details including drill technique, drill size and number of metres; surface and down hole survey technique, and survey frequency are summarised in Section 10.2 of this Report. Details for database, logging, sampling and analytical techniques, and QAQC processes, are provided in Section 11.2 of this Report.

Bulk Density

Bulk density (density) measurements were completed by commercial laboratories on DD core samples of the different material types (alluvium, saprolite, totally oxidised and fresh). Oxidation was far more important than variations in lithology or alteration. Density has been applied to the Mineral Resource for tonnage estimates on a dry basis.

The bulk of mineralisation at McLeans sits within the main andesite host, the subset of specific gravity samples collected within the andesite (n = 86/172) were used to provide the average density used in the resource estimate. An average density of 2.77t/m^3 was used.

Drill Spacing and Distribution

Drilling is broadly spaced (60 to 80m) along east–west sections, except for four HQ diamond drilled holes that were fanned from an underground drill cuddy/stockpile.

Geological and Domain Interpretation

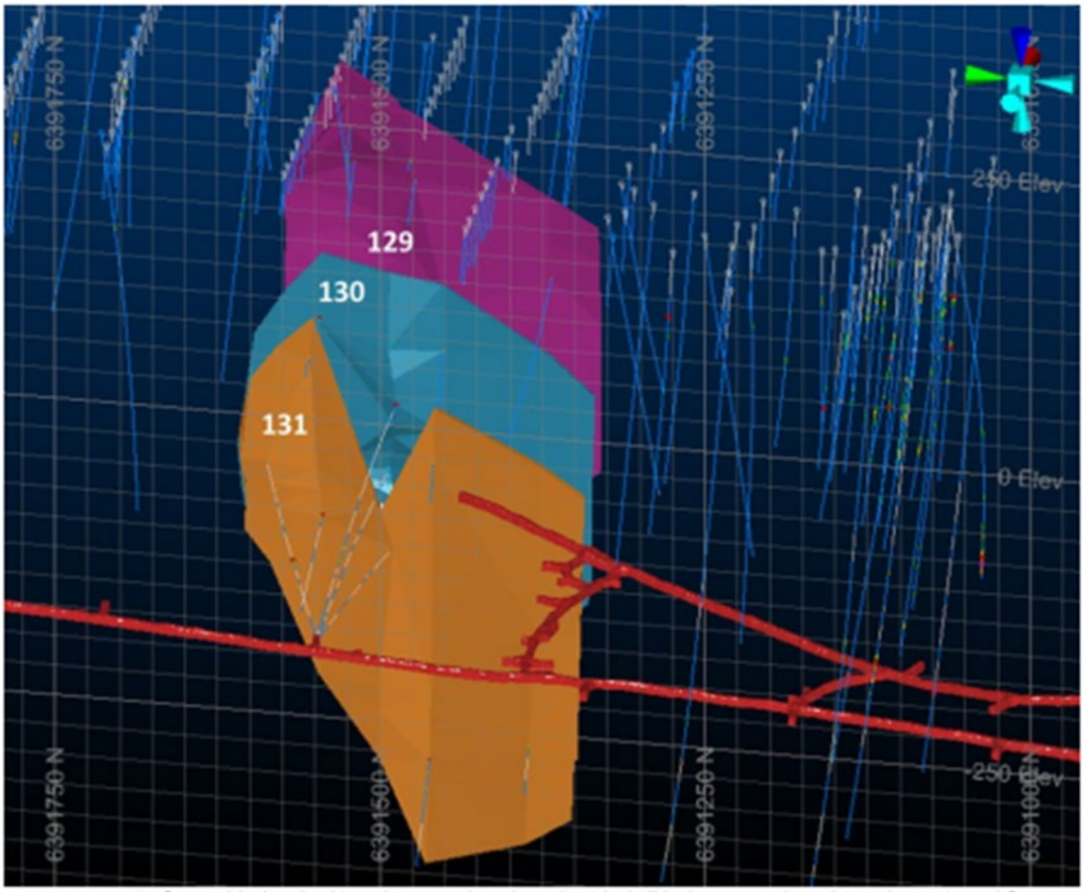
The McLeans Prospect is located 2km south of the Wyoming 1 pit and is adjacent to the Roswell exploration drive. McLeans host rocks and mineralisation are identical to the Tomingley and Roswell-San Antonio deposits. The McLeans host andesite starts approximately 130 m below the surface, extends approximately 250 m in strike and remains open at depth. The andesite averages a thickness of 60 m but thins to 25 m along its upper and northern margins forming a 'keel.'

The geological model was built on geological structural data from core lithological logging. Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips and drill core. Mapped lithological contacts have been surveyed and digitised to complete the current model.

Mineralisation is characterised as similar to the Tomingley gold mineralisation, as quartz-carbonate-pyrite-arsenopyrite veins hosted in a phyllic altered volcanic unit. The mineralisation at McLeans is interpreted as three subvertical en-echelon sheeted lodes. With high grade ore shoots focused along the 'keel' that remains open at depth along the northern edge of the andesite. The mineralisation at the McLeans deposit is displaced by postmineral dolerite dykes that were modelled but are volumetrically very minor, generally less than 1 m true thickness weathering of the volcaniclastic bedrock overlying the andesite has developed a saprolitic clay profile extending approximately 20 m from the base of alluvium to fresh rock. The weathered bedrock lies beneath a Cainozoic alluvium overburden of 5 m thick lode-style gold deposits.

Mineralisation is directly associated with extensive alteration (silica, arsenopyrite, pyrite) and quartz veining of the porphyry and volcanic rocks. Alteration and mineralisation estimates, along with grade, guided the interpretation of the ore envelope wireframes at a nominal 0.20g/t Au lower cut-off.

A total of three mineralisation wireframes (domains) were interpreted to constrain the main high grade mineralised zones during estimation, and one volcanic host wireframe, Figure 14-6. Additionally, two surfaces were also used to separate material types: topography and base of oxidation surfaces.



McLeans wireframed lodes, looking down and to the NE with drill hole traces. SAR drive shown in red for context.

Figure 14-6: McLeans Mineral Resource model

Source: Alkane Sept 2023

Data Preparation, Interpretation and Statistics

The drill hole data were flagged by the domain wireframes in priority order, to prevent double use of the data in the intersecting zones.

The samples were composited to 1 m, the most common sample length, and flagged by the topography, alluvium and base of oxidation surfaces. Univariate statistical analysis was completed. A top-cutting assessment was completed and top-cuts were selected for each domain based on histograms, probability plots and cutting statistic plots. Capping was deemed necessary for two of the three domains and applied at 15g/t Au.

Block Modelling and Grade Estimation

Grade estimation was completed in Datamine Studio RM software using ID2 technique. The orientation of the search ellipse for each domain was controlled by a Dynamic Anisotropy model that provided a unique dip and dip-azimuth for each block. Search volume was 100m x 100 m x 30 m, with additional passes set by multiplying the original volume by 2 and 3 respectively. Grade estimates were made for gold. All other domain boundaries are hard boundaries where only composite samples within that domain were used to estimate blocks coded as within that domain.

Primary block size is 5mE x 5mN x 5mRL with subblocking down to 2.5mE x 2.5mN x 2.5mRL. These block sizes were used on the basis that the average drill spacing of 20m x 20m.

Resource Classification and Validation

The McLeans underground Mineral Resource is classified as Inferred Mineral Resource. The resources were classified taking into account drill density, geological confidence and mineralisation continuity.

Inferred Mineral Resources were defined where a good level of geological confidence in geometry, continuity and grade, was demonstrated, and were identified as areas where: drill spacing was averaging a nominal 80m, or where drilling was within 80m of the block estimate; domains were restricted to the strike extent of the modelled andesite; and number of samples used to estimate individual domains. Remaining estimated blocks made within the defined mineralisation domains were unclassified if after three search passes there were no more than four samples selected from a minimum of two drill holes. The estimates were verified using several different techniques, including a check for local variability by comparing the estimated block grades with the average of the top-cut composites in each block. Visual checks of the block estimation against composite and raw drill hole data both on plan and section were also carried out.

Mineral Resource Reporting

Results

The quoted underground resources are global, being based on wider exploration drill spacing. The underground Mineral Resource has been restricted by eventual economic extraction by underground mining methods assessed at ≥1.3g/t gold. The Mineral Resource is shown in Table 14-3. Figure 14-7 illustrates all resource blocks coloured by gold grade.

Factors That May Affect the Mineral Resource

Accuracy of the estimate is strongly dependent on:

- accuracy of the interpretation and geological domaining
- accuracy of the drill hole data (location and values)
- orientation of local anisotropy
- estimation parameters which are reflected in the global resource classification

The QP author considers that these factors are well considered and accounted for within the current Mineral Resource model.

The Mineral Resource may be affected by a change in cut-off grade which is significantly affected by the variable costs and prevailing economic environment.

Comparison with Previous Historical Resource

The MREs were compared to those of previous published resource estimate made by Alkane. Variances were found to be acceptable and are the result of changes based on modifications to the geological domains and mineralised domains which have been updated. The previous (2023) Mineral Resource is shown in Table 14-4.

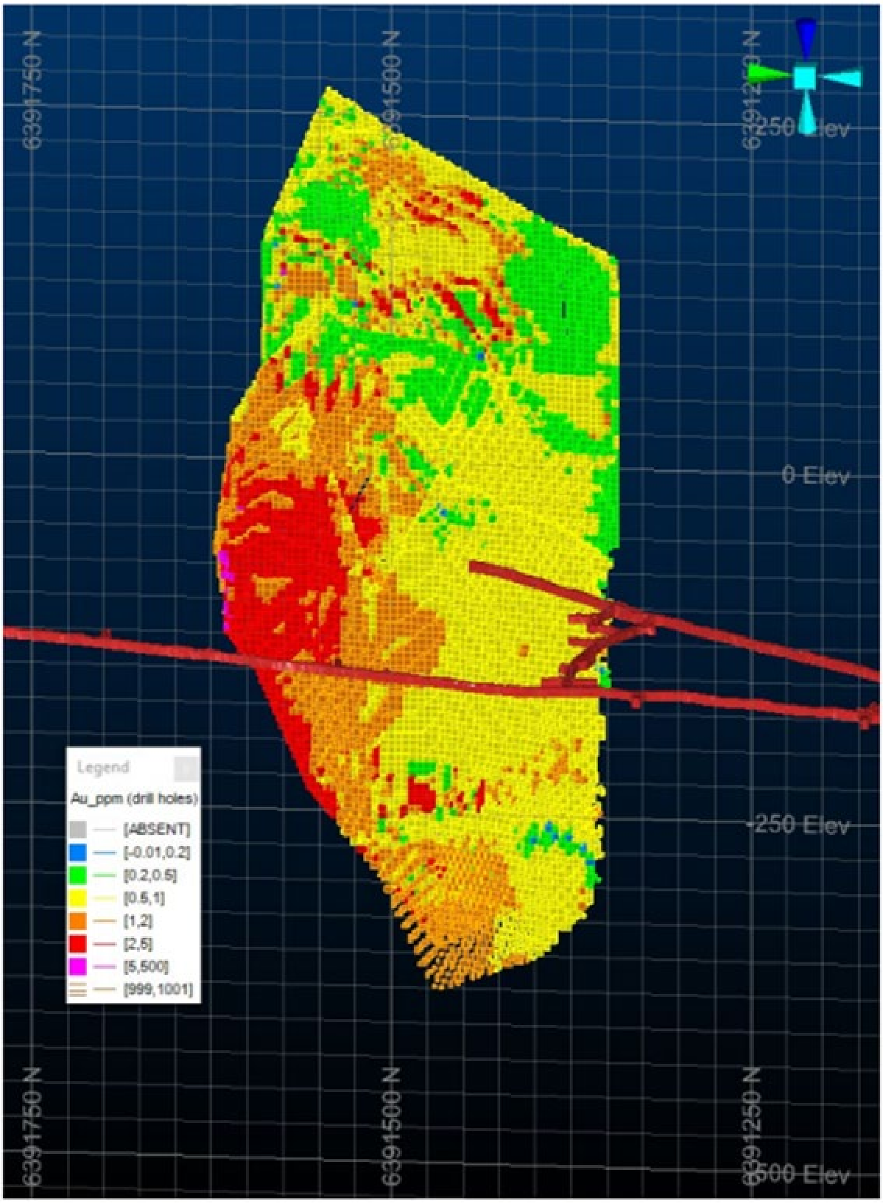


Figure 14-7: McLeans Mineral Resource model
Source: Alkane Sept 2023

Reconciliation

There has been no production from the McLeans deposit.

Risks

The Mineral Resources could be affected by environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property. A change in the global economic and financial environment may also affect the mining cost and in turn affect the reported Mineral Resources.

Audits and Reviews

The McLeans MRE has not been audited nor reviewed by external parties.

Independent review was completed by the QP author which verified the technical inputs, methodology, parameters and results of the Mineral Resource estimate. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of a sufficient confidence to support the reported Mineral Resource.

The QP author is not aware of any significant factors or risks, other than risks associated with environmental liabilities and permits which may affect access, title or the right or the ability to perform work on the property or materially affect the Mineral Resource estimate.

14.3 PHGM Mineral Resources

The Peak Hill Gold Project (PHGM) is located 15km south of TGO. The PHGM was a fully operational open pit gold mine that is currently under care and maintenance, since 2002, with most site rehabilitation completed away from the existing open cuts. There are four pits: the main Proprietary-Parkers Pit and three satellite pits, Bobby Burns, Crown and Great Eastern. There has been no recent work completed since 2018 when assessment of potential underground viability was undertaken resulting in the reported underground Mineral Resource below. Alkane have no intention of restarting operations.

A review of the existing database in 2018 defined a sulfide resource beneath the Proprietary-Parkers Pit (220mRL—-45mRL) at a 2.0g/t gold lower cut-off. The Proprietary underground deposit is approximately 250m long and 30m wide and the resource estimate was depleted for the known historical underground working,

The quoted underground resources are global, being based on exploration and resource delineation drilling and medium densely drilled spacing within the Proprietary-Parkers Pit. The underground mineral resources have been restricted by consideration of eventual economic extraction by underground mining methods assessed at ≥2.0g/t gold cut-off.

The PHGM Mineral Resource as of 30 June 2024 is shown in Table 14-5. The 2024 Mineral Resource is unchanged from 2023, which has remained unchanged since 2018. Figure 14-8 illustrates all underground resource blocks >2.0g/t Au cut-off grade relative to the historical PHGM open pit shells.

Table 14-5: PHGM Mineral Resources (at 30 June 2024) at a COG >2.0g/t Au

Deposit	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)	Tonnes (kt)	Grade (Au g/t)	Metal (koz)
Underground Resources (cut-off > 1.3g/t Au)												
Proprietary	0	0.0	0	0	0.0	0	0	0.0	0	1,000	3.3	106
TOTAL	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**0**	**0.0**	**0**	**1,000**	**3.3**	**106**

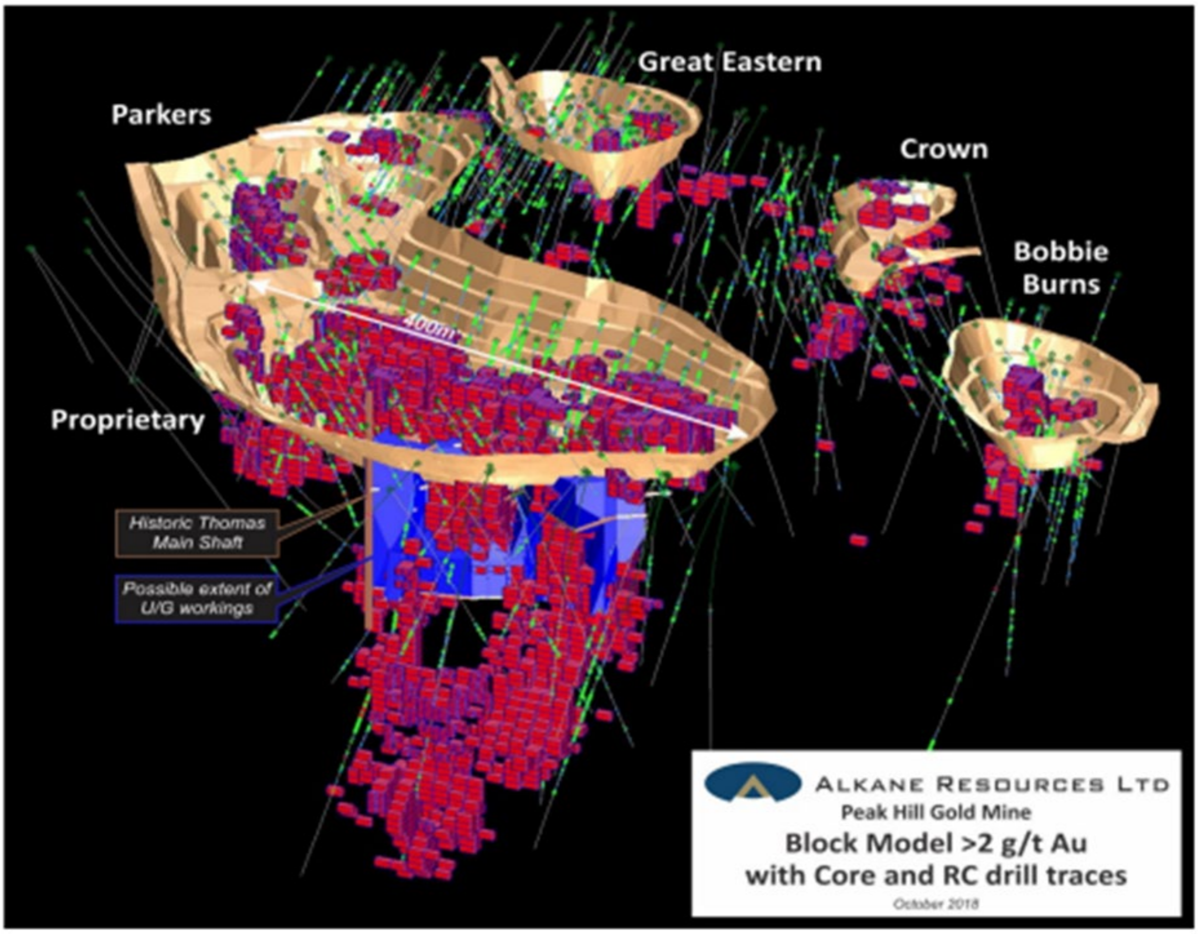


Figure 14-8: PHGH Proprietary Underground Mineral Resource model with historical open pit shells

Source: Alkane Sept 2018

The Mineral Resource estimate was initially completed in October 2018. The QP author is not aware of any new information or data that materially affects the information included in the original Mineral Resource and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

15. MINERAL RESERVE ESTIMATES

The QP author reports Mineral Reserves for the TGP with an effective date of 30 June 2024 in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012). The JORC Code uses similar Mineral Reserve categories as set out in the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) and defined in Section 1.3 of NI 43-101.

The TGP includes the Tomingley Gold Operations (Tomingley or TGO); the Roswell, San Antonio and McLeans deposits (Tomingley Gold Extension Project or TGEP); and the Peak Hill Gold Project (PHGM). TGO includes the Wyoming 1, Caloma 1, Caloma 2 and Roswell deposits, all of which are mined underground. All projects are located in central west NSW.

15.1 Tomingley Mineral Reserves

Open pit mining at Tomingley ceased in 2023 and the operation transitioned to fully underground mining at Wyoming 1, Caloma 1 and Caloma 2. The underground drilling at the Roswell deposit resulted in a change to the resource envelope and expanded reserves.

An initial estimate of Underground Mineral Reserves was completed in 2018 at a 2.50g/t Au cut-off and was reported in ASX Announcements of 4 and 11 June 2018. Underground development commenced mid-2019, and recovery and delivery of ore to the plant ROM commenced early 2020. Following the increase in gold prices in 2020 and substantial operating data, the cut-off grade was revised. Consequently, the reported 2022 Mineral Reserve was based on the Measured and Indicated Mineral Resources within the defined underground resource base at 1.3g/t Au cut-off, a gold price of A$2,000 per ounce, and application of the current site-based mine design. In 2023, the gold price was raised to A$2,350.

The Mineral Reserve estimates disclosed below consider the ore depleted by mining during the 2024 financial year and are set out in Table 15-1. Current mining activities cover underground mining of Wyoming 1, Caloma 1 and Caloma 2 orebodies. Underground drilling is ongoing and designed to both extend the resource base and define reserves as the development progresses. In FY24, 15,566m of core drilling was completed.

Table 15-1: Tomingley Gold Underground Operations—Mineral Reserves (at June 2024)

Deposit	Proven		Probable		Total		Contained Gold (koz)
	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	
Surface Reserves (cut-off 0.40g/t Au)							
Stockpiles	241	1.1	0	0	241	1.1	9
Subtotal	**241**	**1.1**	**0**	**0.0**	**241**	**1.1**	**9**
Underground Reserves (cut-off > 1.3g/t Au)							
Wyoming 1	87	1.9	105	1.7	192	1.8	11
Caloma 1	86	1.8	105	1.8	190	1.8	11
Caloma 2	48	1.8	3	1.2	50	1.8	3
Subtotal	**220**	**1.8**	**213**	**1.8**	**433**	**1.8**	**25**
TOTAL	**461**	**1.5**	**213**	**1.8**	**674**	**1.6**	**34**

15.1.1 Classification

The Mineral Reserve includes only Proven and Probable Reserve classifications as defined in the CIM definition standards.

The Mineral Reserve is in line with expectations, given the low capital cost associated with the project and the locality. The QP author is confident that it is an accurate estimation of the current TGO Mineral Reserve.

The economically minable component of the Measured Mineral Resource has been classified as a Proven Mineral Reserve.

The economically minable component of the Indicated Mineral Resource has been classified as a Probable Mineral Reserve.

15.1.2 Cut-off Parameters

Two cut-off grades have been calculated and applied based on current costs and modifying factors for the LOM plan. A gold price of A$2,350/oz was provided by Alkane Resources Ltd and was used in this calculation.

- **Fully Costed** cut-off grade of 1.3g/t and this includes all costs associated with the extraction and processing of ore material
- **Incremental Development** cut-off grade of 0.5g/t applies to all development ore material.

15.1.3 Mining Factors, Dilution and Mining Recovery

The TGO Mineral Reserve has been estimated based on detailed mine development and stope designs. Modifying factors for dilution and mining recovery have been applied post-geological interrogation to generate the final diluted and recovered Mineral Reserve.

The LOM plan used for budgeting at the TGO uses two mining methods

- top down long hole open stoping using rib pillars with no fill
- bottom up long hole open stoping using cemented or loose rockfill.

Stope size, development placement and ground support strategies have been designed in line with recommendations from the current ground control management plan.

10,200m of grade control and exploration drilling is planned within Caloma 1 and Caloma 2 orebodies. Grade control drilling is complete at Wyoming 1.

The model used to estimate the Mineral Reserve is consistent with that which forms the basis of the Mineral Resource estimate for the TGO deposits. The models are internally known as wyoming1_gc_05072024.mdl, caloma_05072024.mdl and caloma2_11072024.mdl.

Planned dilution has been accounted for in the creation of the stope shapes. Unplanned mining dilution of 15% for LHOS with pillars and LHOS using cemented rock fill (CRF) or uncemented rockfill has been used. This factor has been applied in Deswik Scheduler.

A 95% mining recovery factor has been applied to both LHOS using rib pillars and LHOS using cemented or uncemented rockfill.

Waste development excavations are given a 10% overbreak. No further dilution factors or mining recovery factors have been applied to development ore.

A global minimum mining width of 3m is used. While the ore body width generally exceeds the minimum mining width, where the ore body is narrower stoping outlines are designed to honour the minimum width and include planned dilution.

All ore in the Mineral Reserve estimate is classified as a Proven or Probable Mineral Reserve. No Inferred Mineral Resources is included in the Mineral Reserve. The Inferred Mineral Resources in the LOM plan have been removed from the Mineral Reserve estimate.

The infrastructure requirements of the stoping methods used are already in place and maintenance of this infrastructure has been included in the economic evaluation.

The capital and operating costs of this additional infrastructure to support underground mining have been included in the economic evaluation which demonstrates the economic viability of the Mineral Reserve.

15.1.4 Environmental

TGO is currently compliant with environmental regulatory agreements under the NSW Environmental Planning and Assessment Act 1979 and Protection of the Environment Operations Act 1997.

TGO was subject to numerous environmental studies as part of the EA for the TGP during the approvals phase and all required approvals were granted prior to the commencement of mining. The EA included documentation regarding the underground mine which is still relevant today.

The original Project Approval (PA 09_0155) has been superseded by a more recent Development Consent (SSD 9176045) that covers both the TGO and TGEP deposits. All previously approved activities continue under the new approval which will remain in force until 31 December 2032. PA 09_0155 will be surrendered within 12 months of physical commencement under SSD 9176045.

To facilitate the commencement of underground mining within the SAR deposits, Modification 1 for SSD 9176045 was granted 8 September 2023 to permit temporary relocation of surface infrastructure, and revised staging to biodiversity offsetting requirements.

The Rehabilitation Management Plan (RMP) has been prepared and is available on the Alkane website. The RMP, Rehabilitation Risk Assessment and the Rehabilitation Outcome Documents have all been prepared in accordance with our obligations under the MLs and the NSW Mining Regulation 2016.

All external reporting against the environmental licences is recorded and reported in the Annual Environmental Report available on the Alkane Resources Ltd website. In addition, the Annual Report and Forward Program are also available on the website in accordance with the new rehabilitation reporting requirements under the NSW Mining Regulation 2016.

15.2 Tomingley Gold Extension Project (TGEP)

The Tomingley Gold Extension Project (TGEP) encompasses new developments to the immediate south of the TGO site. The primary deposits are Roswell and San Antonio, which have been connected by an underground drive that extends from the Wyoming 1 pit to the north end of the defined Roswell resource as shown in Figure 15-1.

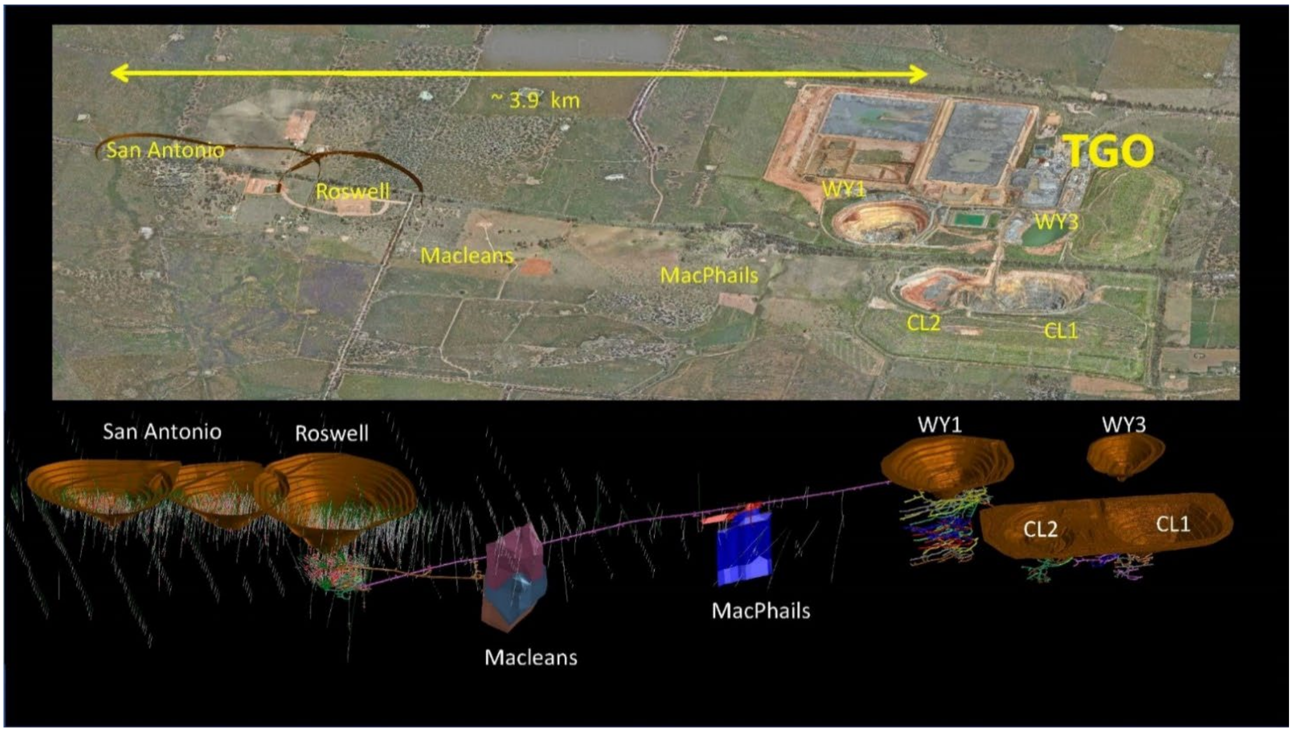


Figure 15-1: Layout of the TGEP

The geology and mineralisation at Roswell, San Antonio and McLeans is identical to that at TGO, and metallurgical tests confirmed a similar recovery profile. Using the TGO cost structures, simple pit shells were estimated to confirm the resources have 'reasonable prospects of eventual economic extraction.' The open pittable resources have been restricted by an indicative optimised pit shell estimated at a gold price of A$2,350 per ounce.

As a result of a reassessment of the Roswell deposit through 3D grade control drilling from the new underground developments, the resources were revised. The revised resource considers the updated TGO site operating costs and gold price for a pit shell at A$2,350/oz. This resource also considers that the optimised pit shell eliminates peripheral ore lenses which are not accessible via the open pit, and ore zones that will now be accessed from the underground operations.

15.2.1 Open Pit Mineral Reserves

Based upon the resource models, the optimisation work using Whittle Software (WSP) and modifying factors developed on the existing Tomingley Operations, an open pit reserve was estimated with the following observations:

- The project is sensitive to block model cell size, gold price and wall angle. The conservative case for wall angle as proposed by WSP has been adopted for design purposes.
- The project has limited sensitivity to resource category. The extent of the Indicated resource is such that the Inferred category has limited effect on the optimisation and is generally below the range of the Revenue Factor shells.
- The project has limited sensitivity to mining cost increments within the range of this study. Reducing mining costs by 10% may be achieved by increasing the size of trucks for the oxide prestrip.
- Shell selection for design was based upon a gold price of A$2,200 per ounce, and revenue factor 1 shell. This was considered the most robust of the lower gold price options.

15.2.2 Underground Mineral Reserves

Based upon the resource models below the proposed open pit extraction, the Roswell deposit was selected for immediate underground mining using the current mining parameters of the Wyoming 1 and Caloma orebodies. The Roswell orebody is connected to the Wyoming 1 underground operations via a decline that was driven from the Wyoming 1 underground workings to access the Roswell deposit (See Figure 15 1).

At the end of FY23, the drive had reached the north end of Roswell and operational development headings had commenced. The underground core drilling cuddies were established and 51,589m of grade control drilling was completed and the resource and reserves adjusted. The reported Mineral Reserve is based on the current Measured and Indicated Mineral Resources using TGO Mine design parameters and incorporates the existing site costs and modifying factors.

The underground mining of ore commenced at Roswell in April 2024 and the paste plant has been delivering paste underground since December 2024. The Mineral Reserve Statement is presented in Table 15-2. All reserves are classified as "Probable Mineral Reserve," as no Measured Resources have been defined for the Project. Inferred Mineral Resources were not considered in this Mineral Reserve estimate.

Table 15-2: Tomingley Gold Extension Project—Mineral Reserves (at 30 June 2024)

Deposit	Proven		Probable		Total		Contained Gold (koz)
	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Tonnage (kt)	Grade (g/t Au)	
Open Pit Reserves (cut-off 0.40g/t Au)							
Roswell	0	0.0	3,900	1.7	3,900	1.7	213
San Antonio	0	0	4,100	1.6	4,100	1.6	214
Subtotal	**0**	**0.0**	**8,000**	**1.6**	**8,000**	**1.6**	**427**
Underground Reserves (cut-off > 1.6g/t Au)							
Roswell	881	2.4	2,202	2.4	3,082	2.4	236
San Antonio	0	0.0	0	0.0	0	0.0	0
Subtotal	**881**	**2.4**	**2,202**	**2.4**	**3,082**	**2.4**	**236**
TOTAL	**881**	**2.4**	**10,202**	**1.8**	**11,082**	**1.9**	**663**

The QP author is not aware of any other relevant factors that could materially affect this Mineral Reserve estimate.

15.2.3 Classification

- The Mineral Reserve includes only Proven and Probable classifications.
- The Mineral Reserve is in line with expectations given the low capital cost associated with the project and due to the locality. The Competent Person is confident that it is an accurate estimation of the current TGEP Mineral Reserve.
- The economically minable component of the Measured Mineral Resource has been classified as a Proven Mineral Reserve.
- The economically minable component of the Indicated Mineral Resource has been classified as a Probable Mineral Reserve.

15.2.4 Classification

Two cut-off grades have been calculated and applied based on current costs and modifying factors for the LOM plan. A gold price of A$2,350/oz was provided by Alkane Resources Ltd and was used in this calculation.

- **Fully Costed** cut-off grade of 1.6g/t and this includes all costs associated with the extraction and processing of ore material
- **Incremental Development** cut-off grade of 0.5g/t applies to all development ore material.

15.2.5 Mining Factors, Dilution and Mining Recovery

- The Roswell (TGEP) Mineral Reserve has been estimated based on detailed mine development and stope designs. Modifying factors for dilution and mining recovery have been applied postgeological interrogation to generate the final diluted and recovered Mineral Reserve.
- The LOM plan used for budgeting at Roswell Underground utilises long hole open stoping with paste fill.
- Stope size, development placement and ground support strategies have been designed in line with preliminary geotechnical recommendations.
- 40,000m of grade control and exploration drilling is planned within the Roswell orebody.
- The model used to estimate the Mineral Reserve is consistent with that which forms the basis of the Mineral Resource estimate for the Roswell deposit. The model is internally known as roswell_05072024.mdl.
- Planned dilution has been accounted for in the creation of the stope shapes. Unplanned mining dilution of 15% has been used for all stope shapes. This factor has been applied in Deswik Scheduler.
- A 95% mining recovery factor has been applied for stoping.
- Waste development excavations are given a 10% overbreak. No further dilution factors or mining recovery factors have been applied to development ore.
- A global minimum mining width of 3m is used. While the ore body width generally exceeds the minimum mining width, where the ore body is narrower stoping outlines are designed to honour the minimum width and include planned dilution.
- All ore in the Mineral Reserve estimate is classified as a Proven or Probable Mineral Reserve. No Inferred Mineral Resources is included in the Mineral Reserve. The Inferred Mineral Resources in the LOM plan have been removed from the Mineral Reserve estimate.
- The infrastructure and infrastructure maintenance requirements for the underground mining of Roswell have been included in the economic evaluation, which demonstrates the economic viability of the Mineral Reserve.

15.2.6 Environmental

- Project approval was received on 21 February 2023. EPL20169 was modified to include the SAR deposits on 22 June 2023. ML1858 was granted over the SAR deposits on 19 July 2023.
- The TGO Rehabilitation Management Plan (RMP) has been revised to include TGEP and the SAR deposits, in accordance with the NSW Mining Regulation 2016.
- The Rehabilitation Security for TGO has been revised to include up to Stage 1a of the TGEP.

- All external reporting against the environmental licences is recorded and reported in the Annual Review available on the Alkane Resources Ltd website.

15.2.7 Social

- Alkane Resources Ltd.'s social licence to operate is underpinned by the excellent relationship that the Company has built, over many years, with the local community of Tomingley
- TGO/TGEP has a set-up a community consultation committee that meets quarterly to discuss the activities on the mine, interaction with the local community and any concerns from local residents, the committee includes:
  - independent Chairperson
  - TGO Environment and Community Manager
  - TGO Operations Manager
  - Narromine Shire Council Representative
  - three Community Representatives
  - an Aboriginal Community Representative

15.3 Peak Hill Gold Project

The Peak Hill Gold Project is located 15 km south of Alkane's operating TGO. The PHGM was a fully operational open pit gold mine that is currently under care and maintenance with most site rehabilitation completed away from the existing open cuts. There are four pits: the main Proprietary-Parkers Pit and three satellite pits, Bobby Burns, Crown and Great Eastern.

There is only an Inferred Mineral Resource declared and there are no Mineral Reserves declared for the Peak Hill project.

Since mining ended in 2005, the site has been extensively rehabilitated.

Alkane retains its ML's and Environment Protection Licence for Peak Hill Gold Mine, but any further mine development would require further EA, government approval and consultation with the community and Parkes Shire Council.

16. MINING METHODS

16.1 Introduction

Two mining methods are used to mine the underground reserves, namely:

- **Bottom Up Longhole Open Stoping** (LHOS) with uncemented or cemented rockfill, and
- **Top Down LHOS** with rib pillars and no fill

The choice of mining method is determined by value of the resource, orebody width and geotechnical factors.

The stoping configurations are predominantly single-lift stoping, based on a 25 m vertical level spacing and a strike length of 20-30 m. The stoping method involves establishing a slot using conventional long hole drill and blast techniques and then the stoping front is retreated along strike. The installation of brow cables and the use of a concurrent strike-retreat blasting sequence assist in controlling ground stability. Depending on the mining method used, cemented rockfill or uncemented rockfill is filled into the stopes upon completion of mining. For the LHOS with rib pillars there is no fill placement.

16.2 Mine Layout

The general layout of the mine is shown in Figure 16-1.

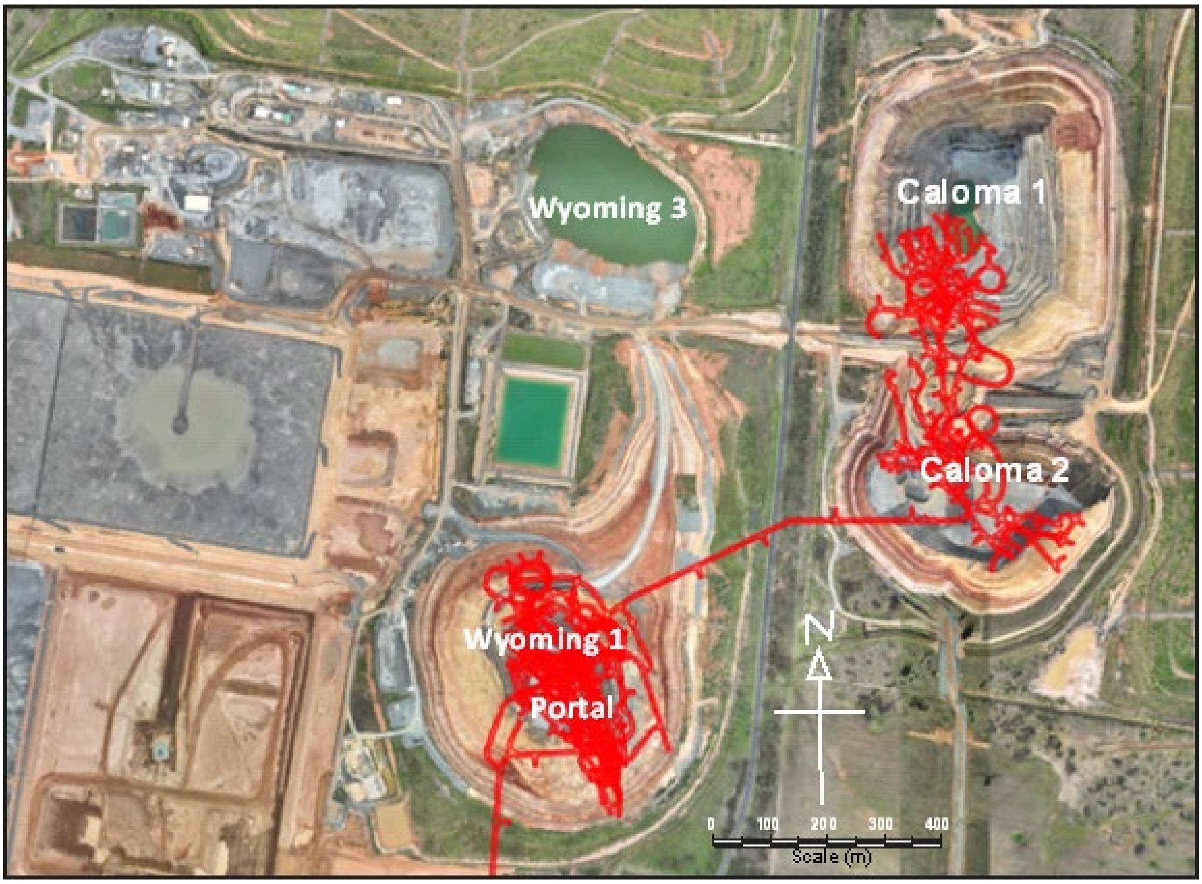


Figure 16-1: Plan View of the Tomingley Mine with Development

Source: Tomingley Update 171024.ppt

The underground mine commenced in January 2018 after the completion of the open pits. The Portal was developed in the highwall in the Wyoming 1 pit. The initial plan was to mine the Wyoming at a production rate of 500 ktpa giving a three-year mine life. The mine was extended with the Caloma ore body and in 2021, an exploration decline started to be developed the Roswell orebody, situated some 3km to the south of Wyoming Portal, as shown in Figure 16-2.

Figure 16-2: Exploration Decline from Wyoming Portal to Roswell Orebody

Source: Tomingley Update 171024.ppt

The mining method proposed for mining the underground portion of the Roswell resource is Longhole Open Stoping (LHOS) with full paste fill. The choice of mining method is determined by value of the resource, orebody width and geotechnical factors. The paste fill plant is complete and has been delivering paste underground since November 2024. The paste plant uses tailings that are piped from the processing plant. The tailings are filtered and mixed with cement. The paste is delivered underground via a number of bore holes ensuring there is redundancy built into the paste fill system.

Ore from the Roswell stopes will be tipped into ore passes to a truck loading level and out to the Wyoming Portal along the decline. The ore flow from the levels is shown in Figure 16-3.

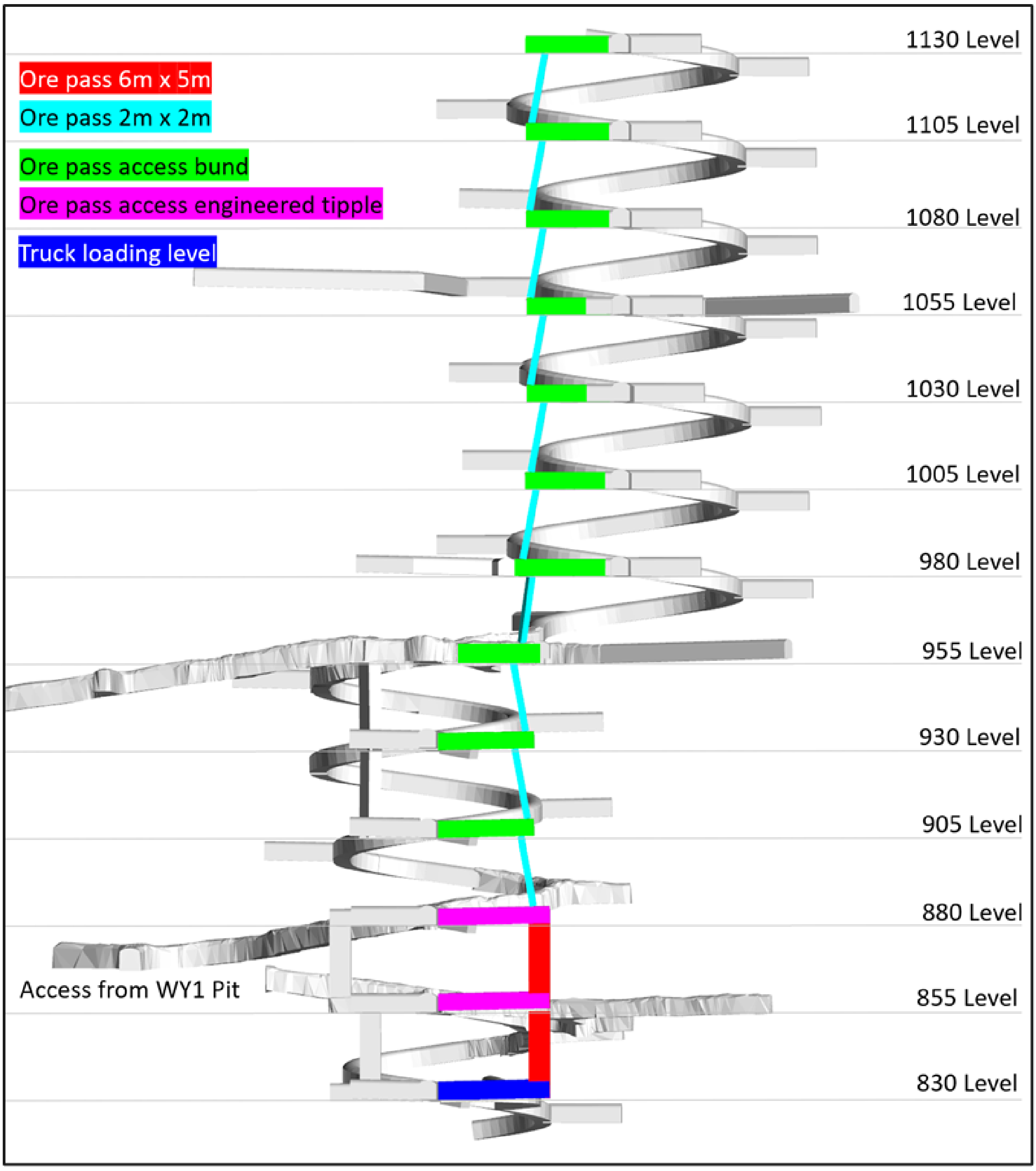


Figure 16-3: 3D Schematic of the Ore Flow to Loading Level 830 Level

Source: Tomingley Update 171024.ppt

The ore from the stopes is loaded by a fleet of CAT 20900XE LHD which can be remotely controlled from either surface or from underground in a dedicated facility.

16.3 Tomingley LOM Production Schedule

The Tomingley mine LOM Production Schedule is based on the current Mineral Reserve for FY2024. The average underground production rate is 1.1 Mtpa until FY2028 when the current Mineral Reserves for Roswell is depleted. The surface mining starts in FY2027, ramping up to 800ktpa until FY2031 (Table 16-1).

The LOM production graph is shown in Figure 16 4.

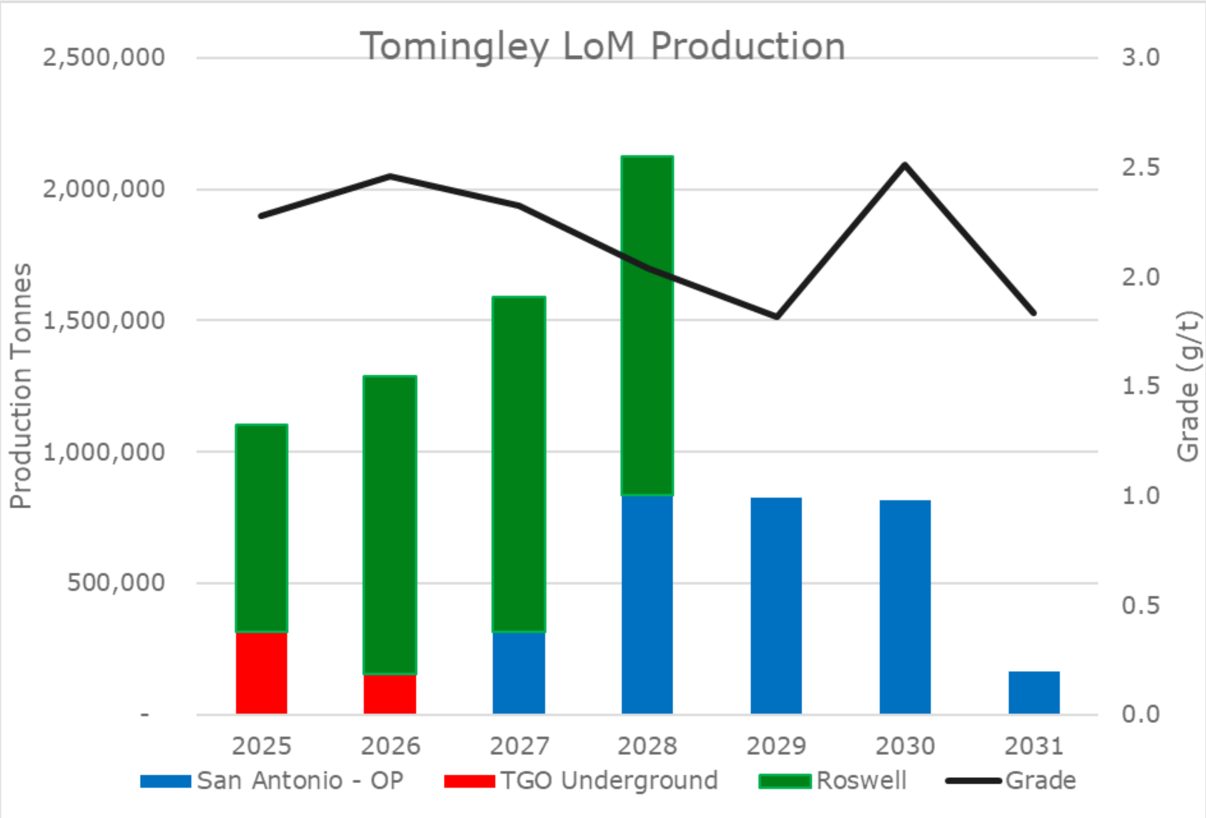


Figure 16-4: Tomingley LOM Production

Source: TGO LOMP FY25-35 BUDGET 002 (Feb Actual).xlsb

Planned dilution (Equivalent Linear Overbreak Oversloughing) of 0.5m in the footwall and the hangingwall has been accounted for in the generation of the stope shapes. The unplanned mining dilution of 15% for LHOS with pillars and LHOS using cemented rockfill or uncemented rockfill has been used. This factor has been applied in Deswik Scheduler.

The waste development has an applied overbreak of 10%. There are no dilution factors or mining recovery factors applied to the development ore.

The minimum mining width is three metres. Where the ore body width is narrower, the stope shapes are designed to honour the minimum width and include the planned dilution.

Currently, production has increased to approximately 1.1Mtpa and the expected LOM is seven years to 2031.

Table 16-1 Tomingley LOM Production Schedule

			LOM Totals	2025	2026	2027	2028	2029	2030	2031
TGO Underground Mining										
	Development Advance									
	Wyoming 1 decline	metres								
	Caloma 1 decline	metres	146	146						
	Caloma 2 decline	metres								
	TGO Level Development	metres	295	295						
	TGO Ore Drives	metres	780	780						
	Other Development—Vertical	metres	43	43						
	TOTAL	**metres**	**1,264**	**1,264**						
	Development Ore									
	Ore Mined	tonnes	37,990	37,990						
	Grade	g/t Au	1.20	1.20						
	Gold Mined	**ozs**	**1,469**	**1,469**						
	Stope Ore									
	Ore Mined	tonnes	428,433	275,275	153,158					
	Grade	g/t Au	1.81	1.81	1.79					
	Gold Mined	ozs	26,354	17,517	8,837					
	Total Ore Mined	**tonnes**	**466,423**	**313,265**	**153,158**					
	Grade	**g/t Au**	**1.76**	**1.74**	**1.79**					
	Gold Mined	**ozs**	**26,354**	**17,517**	**8,837**					
Roswell Underground Mining										
	Development Advance									
	Roswell Decline	metres	1,420	996	424					

			LOM Totals	2025	2026	2027	2028	2029	2030	2031
	SAR Exploration Drive	metres								
	TGEP Level Development	metres	2,453	1,454	999					
	Ore Drives	metres	6,941	3,374	2,856	454	256			
	Other Development—Air Rises	metres	377	216	161					
	Total	**metres**	**11,190**	**6,040**	**4,441**	**454**	**256**			
	Total ex. SAR Exploration Drive	**metres**	**11,190**	**6,040**	**4,441**	**454**	**256**			
	Development Ore									
	Ore Mined	tonnes	364,077	199,978	163,492	607				
	Grade	g/t Au	2.54	2.45	2.65	1.63				
	Gold Mined	**oz**	**29,696**	**15,724**	**13,940**	**32**				
	Stope Ore									
	Ore Mined	tonnes	4,121,247	590,440	968,180	1,273,205	1,289,242			
	Grade	g/t Au	2.4	2.5	2.5	2.4	2.3			
	Gold Mined	**oz**	**319,811**	**47,542**	**78,723**	**99,162**	**94,382**			
Open Cut—San Antonio										
	Waste Movement	bcm	19,306,257		2,573,049	4,788,772	4,229,474	4,022,869	3,852,015	110,078
	Ore Mined	bcm	1,201,042		516	140,078	362,183	306,511	319,387	72,367
	Total Material Movement	bcm	20,507,299		2,573,564	4,928,850	4,591,657	4,329,380	3,901,402	182,446
	Ore Mined	tonnes	2,953,623		1,160	315,176	835,382	822,671	816,071	163,162
	Grade	g/t Au	2.0		2.0	1.9	1.7	1.8	2.5	1.8
	Gold Mined	**oz**	**188,194**		**73**	**19,532**	**44,949**	**48,096**	**65,939**	**9,605**
Totals from All Mining Sources										
	Total Ore Mined	**tonnes**	**7,905,370**	**1,103,683**	**1,285,990**	**1,588,989**	**2,124,804**	**822,671**	**816,071**	**163,162**
	Grade	g/t Au	2.20	2.28	2.46	2.32	2.04	1.82	2.51	1.83
	Gold Mined	**oz**	**564,054**	**80,783**	**101,574**	**118,726**	**139,331**	**48,096**	**65,939**	**9,605**

16.4 Ventilation

16.4.1 Wyoming and Caloma

The primary ventilation for Wyoming and Caloma is shown in Figure 16-5.

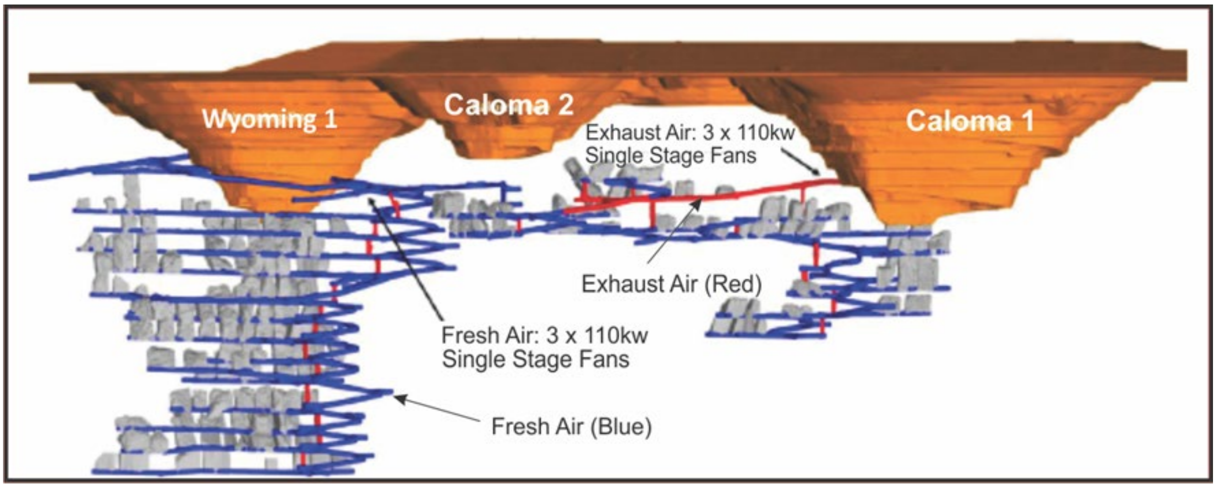


Figure 16-5: Wyoming and Caloma—Primary Ventilation

Source: Tomingley Update 171024.ppt

There are two intakes and one return airways serving the Wyoming and Caloma stoping area.

The two intakes, including the Portal, provides some 285 m³/s, which is split between the Caloma (145 m³/s) and Wyoming (140 m³/s) mining areas. The return air from Caloma is vented into the Caloma 1 pit. Each mining area is serviced by three 110 kW fans installed underground. Figure 16-6 shows the airways along with the Portal are part of the ventilation system for Wyoming and Caloma mining areas.

Figure 16-6: Additional Airways in the Wyoming Pit

There is an additional intake and fans to provide fresh air (248 m³/s) to the decline linking Wyoming and Roswell.

16.4.2 Roswell

The primary ventilation for Rowel is shown in Figure 16-7.

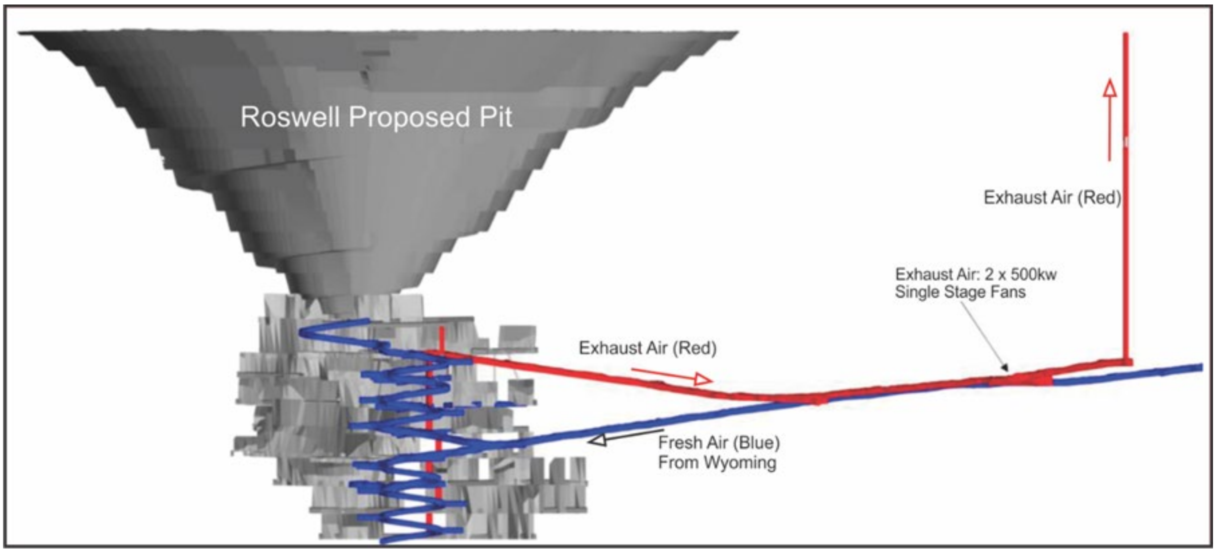


Figure 16-7: Primary Ventilation—Roswell

Source: Tomingley Update 171024.ppt

The Roswell mining area is serviced by two 500Kw fans that exhausts return air up the ventilation return raise at 315 m³/s. The additional intake air is provided by a ventilation raise situated, off the linking decline, approximately halfway between Wyoming and Roswell, providing 315 m³/s intake air to the mining area (Figure 16-8).

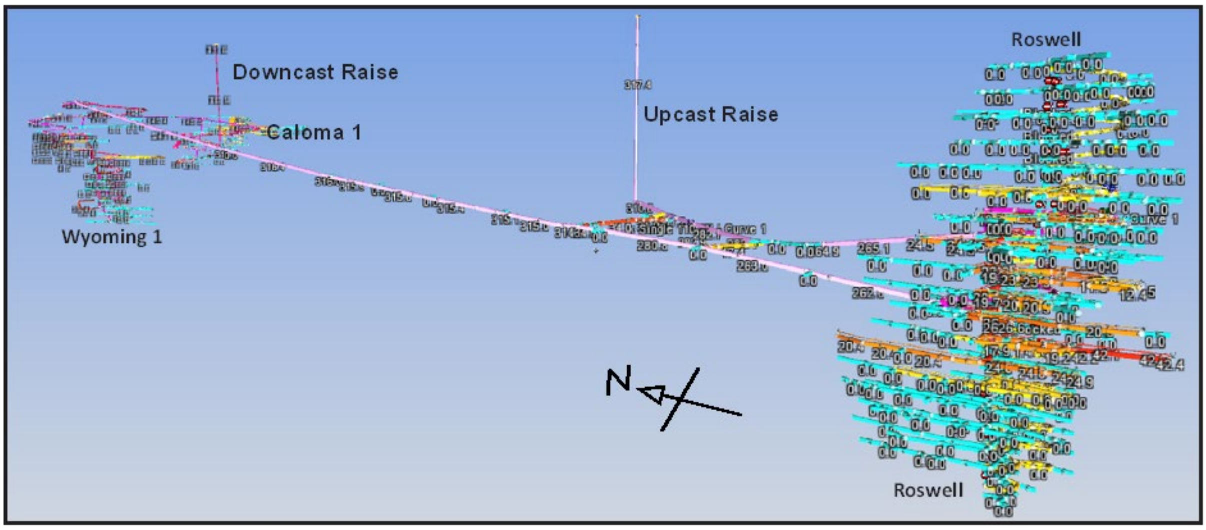


Figure 16-8: Mine Layout and Ventilation—Wyoming, Caloma and Roswell

Source: Tomingley_Master_Model v5 2025.vsm

16.5 Waste Rock

During mining operations, waste rock is placed as follows:

- infrastructure, including for construction of the Haul Road, Services Road, SAR Amenity Bund, SAR Administration Area and other infrastructure, including public roads if of suitable quality

- Caloma Waste Rock Emplacement comprising an in-pit emplacement that would completely fill the final voids, with a maximum elevation of 277m Australian Height Datum (AHD) or approximately 5m above the premining land surface
- SAR Waste Rock Emplacement, comprising an in-pit and out-of-pit emplacement that would completely fill the South and Central Pits, with a maximum elevation of 335m AHD or approximately 72m above the premining land surface
- Wyoming 1 open cut, as required
- the embankment for ongoing lifts for Residue Storage Facility 2 and capping and rehabilitation of Residue Storage Facility 1 and 2
- temporary surface stockpiles to allow material to be stockpiled for use during the Project lifetime

16.6 Tailings

Tailings are dealt with as follows:

- construction and use of the approved RSF1 (to Stage 9, Cell 1) and RSF2 (to Stage 2)
- construction and use of Stages 3 to 9 of RSF2 to form an integrated landform with a maximum elevation of 286.5m AHD or approximately 21m above the premining land surface
- used for paste fill within the underground workings

16.7 Underground Equipment Fleet

The Tomingley mine fleet is shown in Table 16-2.

Table 16-2: Tomingley Production Fleet

Type	Make	Model	Size	No.	Comments
Truck	Epiroc	MT65	65 t	6	Ore and waste
Loader	Cat	2900XE	17.2 t	4	Ore and waste
Jumbo	Sandvik	DD-420	Twin boom	1	Development drill
Jumbo	Sandvik	DD-422	Twin boom	2	Development drill
Production Drill	Sandvik	DL-432	Stope drill	1	Longhole stope drill
Production Drill	Sandvik	DL-422	Stope drill	2	Longhole stope drill
Grader	Cat	140M3		1	Roadway maintenance
Telehandler Utility	Volvo	Various		4	ITC supports underground
Explosive loader	Nomet	Charmec		2	Stoping and development
Total				23	

16.8 Power

The current electrical infrastructure supplying TGO has been upgraded to a 15 MW grid connection, with a new substation and transformer yard. The current usage is 7.5 MW, which is below the 15 MW peak allowance. The underground mining at TGO is 3 MW and this power will be redirected to Roswell as the TGO underground production ramps down and underground production at Roswell ramps up. The power is reticulated from TGO to Roswell by overhead power lines.

16.9 Emergency Facilities

The emergency facilities at Tomingley consists of a combination of escapeways and refuge chambers. There is a mine wide radio system and a backup of a stench gas release system to alert the underground operators. Figure 16-9 shows a typical underground refuge chamber.

Figure 16-9: Typical underground refuge chamber

The site maintains an active mines rescue team and is well equipped for emergencies. There a four-wheel drive ambulance capable of transferring any injured personnel to surface. The nearest hospital is located in Dubbo, approximately 52km away.

17. RECOVERY METHODS

All the ore from TGO and TGEP is trucked to the TGO processing plant which is located adjacent to the Wyoming 3 pit. The plant consists of a crushing circuit, single-stage milling circuit and hybrid CIL circuit with one designated leach tank and numerous adsorption tanks.

Gold is recovered from activated carbon into concentrated solution. Electrowinning and smelting are conducted in an adjacent secure gold room. The tailings from the process are thickened and pumped to a paddock type tailings storage facility with multi-spigot distribution.

The technology associated with processing of TGO ore is currently in operation and is based on industry standard practices. Mine production and cash flow estimates are based on a metallurgical recovery of 87%, which is consistent with current performance. There are no deleterious elements extracted.

At current production rates, the current approved tailings storage facility is adequate for processing until mid-2027. An additional 10.5Mt of storage capacity can be achieved by raising the dam to its full design height.

As of October 2024, the processing facility has been upgraded to deal with refractory ore (finer grained gold associated with sulfides) with the addition of a flotation circuit. This has incorporated the addition of a rougher flotation circuit, an IsaMILL™ to grind the produced flotation concentrate, a thickener to combine the ground flotation concentrate and flotation tailings being reintroduced into the existing CIL circuit. Ancillary equipment (reagents for flotation) has been installed with the upgrade.

18. PROJECT INFRASTRUCTURE

The TGO Mine consists of two mining areas, as follows.

- The TGO Mine site (Figure 18-1), located immediately south of Tomingley Village, is the location of the TGO Mine's processing and administration infrastructure, as well as the location of the Wyoming and Caloma open cut and underground mines
- The SAR Mine site (Figure 18-2), located approximately 3 km to the south of the TGO Mine site, is the location of the SAR open cut and underground mines

Infrastructure has been constructed for underground mining and processing. Works on site include access road, a water pipeline, a 66 KV power line, site drainage, topsoil stockpiling, waste dump construction, residue storage dams, process water dams, associated offices, workshops, fuel and laydown areas. This layout and construction of this surface infrastructure will support the processing ore at 1.1 Mtpa.

The underground specific infrastructure in place includes

- Underground primary ventilation fans
- secondary fans
- portals
- pump station
- mobile equipment
- compressors
- HV to portals
- electrical Substations
- rescue equipment

The labour is sourced from Tomingley, Narromine, Dubbo and Parkes region and as such the operation requires no accommodation or messing facilities. The central NSW has many active mining operations within a short distance of TGO and as such the ability to procure labour and infrastructure services for the operation does not pose any major challenges.

Additional infrastructure is required in preparation for the start of mining and production from Roswell. The work on surface includes, access road, water pipeline, a 66 KV power line, site drainage, topsoil stockpiling, waste dump construction, Residue Storage Dams, process water dams, associated offices, workshops, fuel and laydown areas. Sufficient site infrastructure has been constructed to process ore at 1.1 Mtpa.

The underground specific infrastructure in place includes

- primary ventilation fans and 5.0m diameter return air rise to the surface
- secondary fans
- portals
- pump station
- mobile equipment
- compressors
- HV reticulation to portals and underground workings
- substations
- rescue equipment
- civil work and foundations for the paste plant
- paste fill reticulation, boreholes and piping

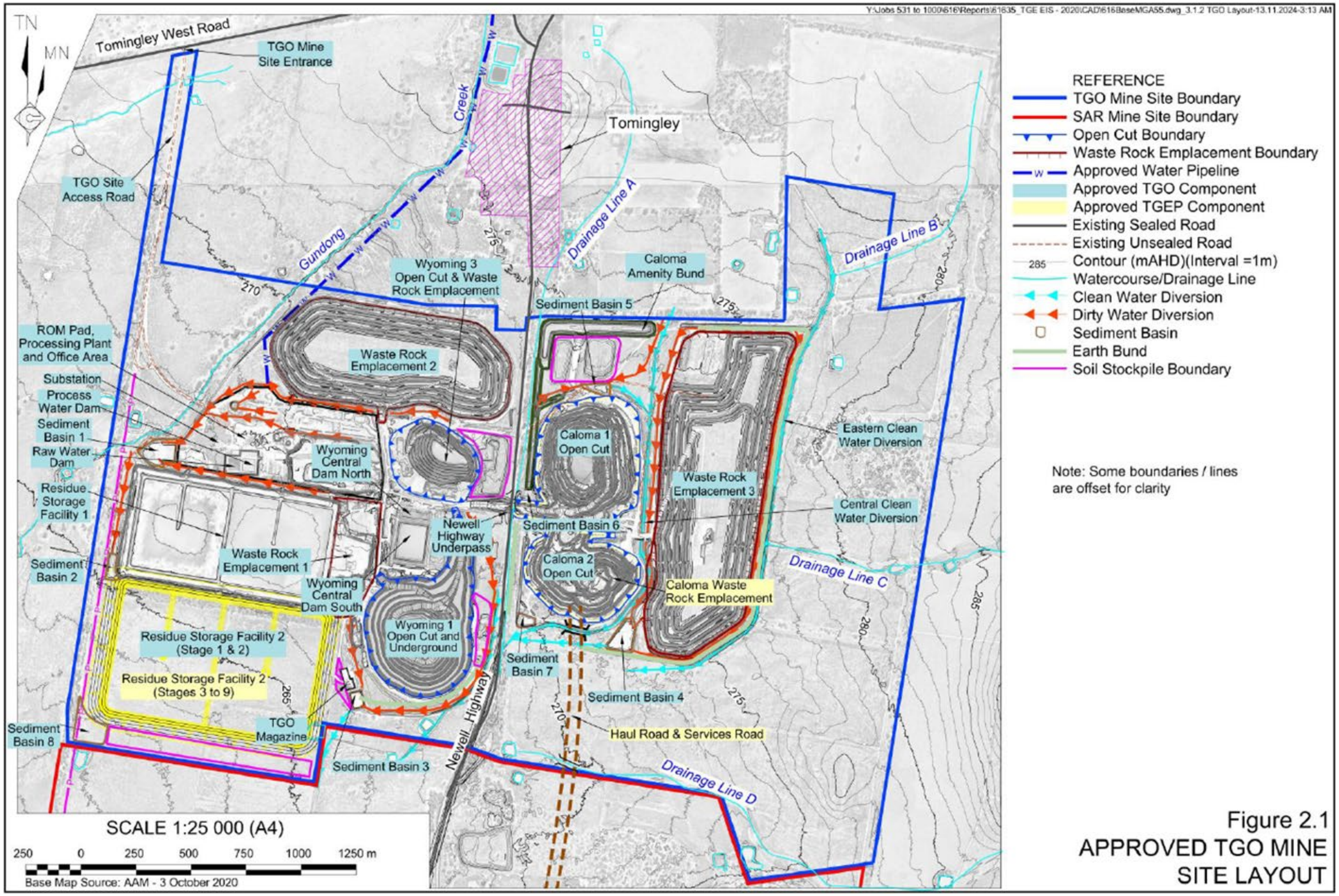


Figure 18-1: Approved TGO Mine Site Layout

Source: R.W. Corkery & Co. Pty Limited, 2024

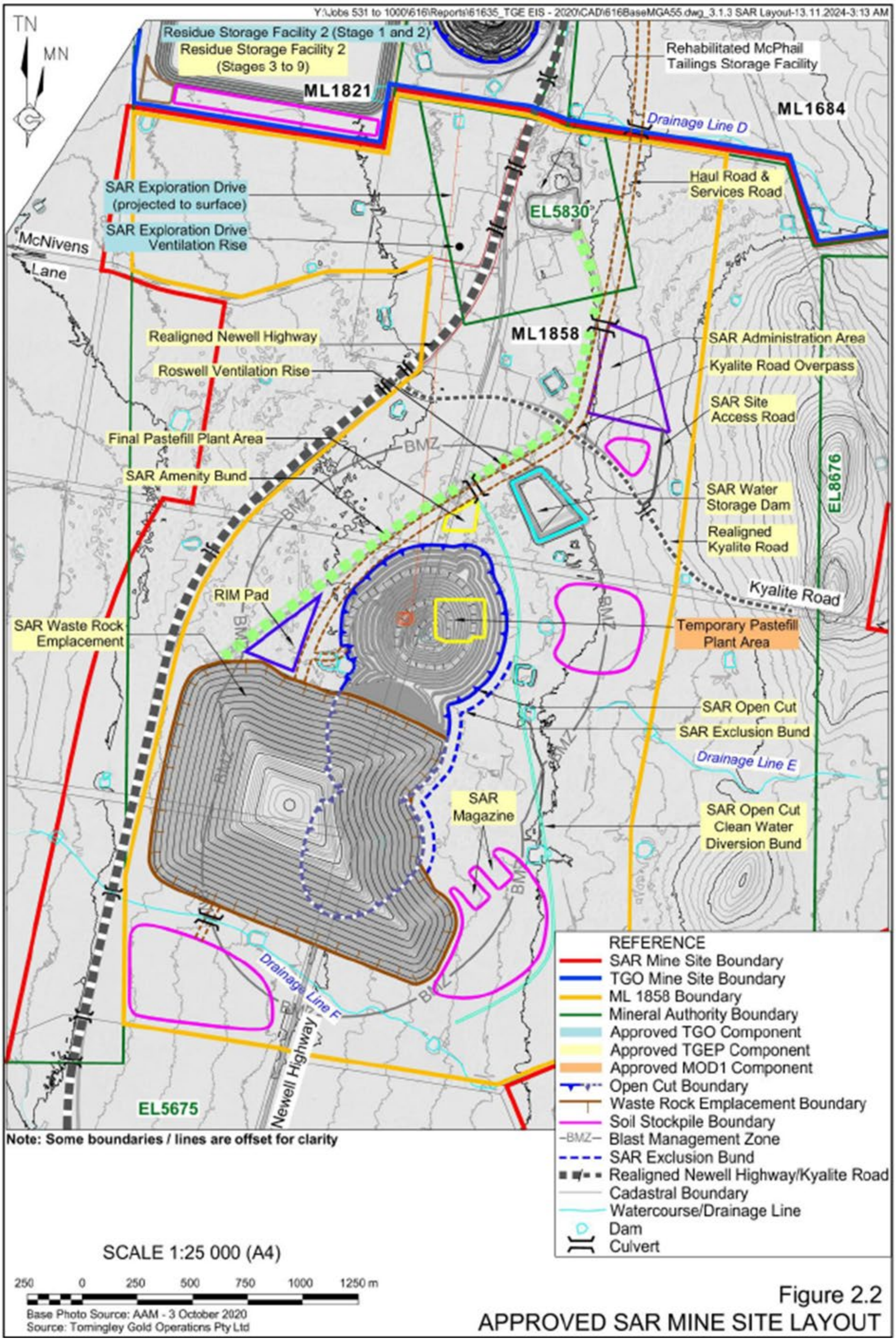


Figure 18-2: Approved SAR Mine Layout

Source: R.W. Corkery & Co. Pty Limited, 2024. Note planned Newell Highway realignment

- Refuelling facilities

The Newell Highway currently runs through the planned mining operations over the SAR Mine area (Figure 4-2 and Figure 16-1). The planned SAR Mine development involves realigning a portion of the Newell Highway and Kyanite Road so that the road does not fall within the Blast Management Zone (Figure 18-2). The road realignment will allow Alkane to mine the resources from surface, and traffic on the roads will not have to be stopped during blasting operations.

The diesel refuelling and lubrication facilities in Roswell are shown in Figure 18-3.

Figure 18-3: Roswell refuelling and lubrication facilities

Process plant infrastructure is depicted in Figure 18-4.

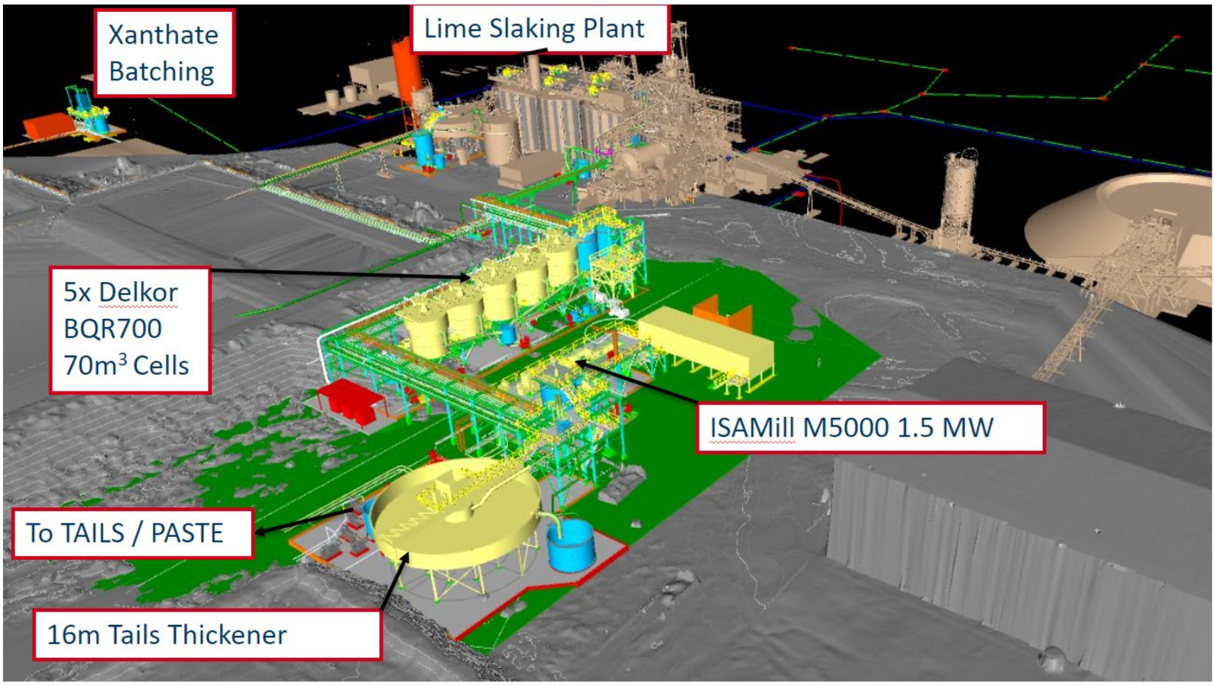


Figure 18-4: Process plant infrastructure
Source: Patel, undated

19. MARKET STUDIES AND CONTRACTS

Alkane does not provide specific details regarding the arrangements of its gold sales or material gold offtake contracts. Bullion revenue is recognised at a point in time upon transfer of control to the customer and is measured at the amount to which the group expects to be entitled, which is based on the contractual agreements. However, the Company indicates that the group's sales revenue from gold is predominantly denominated in Australian dollars. Furthermore, Alkane employs derivative instruments, including Australian dollar-denominated gold forward contracts and put options, to effectively manage gold price risks.

The gold market currently exhibits high liquidity, allowing for the immediate sale of the product at prevailing spot prices to dealers, banks or brokers directly from the refinery. Consequently, this product does not necessitate extensive market studies or entry strategies.

19.1 Gold Forward Sales and Hedging

The group proactively manages the future risk associated with gold sales by employing a variety of derivative instruments. This strategy primarily involves a combination of Australian dollar-denominated gold forward contracts and put options to hedge a portion of anticipated future gold sales. The Australian dollar-denominated gold forward contracts are specifically designed to enable the physical delivery of gold bullion; consequently, these contracts are not reflected in the financial statements.

The intrinsic value of gold options is determined by the applicable spot market exchange rate. The variance between the agreed strike rate and the discounted spot market exchange rate is termed the time value, which is subject to discounting when substantial. Fluctuations in the time value of options linked to hedged items are deferred in the cash flow hedge reserve.

In accordance with its risk management policy, the group utilises derivatives, including gold forward contracts and gold put options, to strategically manage the price risk linked to a portion of projected gold sales. Alkane has integrated these gold forward sales and put options into a comprehensive risk mitigation strategy designed to counter potential downward price pressures while processing low-grade stockpiles at Tomingley throughout the year.

The gold forward sales contracts detailed in Table 19-1 do not meet the criteria for classification as financial instruments for accounting purposes, as they fall under the normal purchase/sale exemption due to the delivery of physical gold as stipulated in the contract. As a result, these contracts are accounted for as sale contracts, with revenue recognised in the period when the commitment to deliver gold is fulfilled. The values indicated in Table 19-1 correspond with the contracts scheduled for delivery through the transfer of physical gold.

The company has adopted hedging strategies to mitigate the substantial material risk associated with fluctuations in gold prices, which can significantly affect revenue generation.

Alkane has engaged in commodity put option contracts and holds the following put options indicated in Table 19-2. Ownership of the options means that nearly 100% of the non-hedged ounces forecast to be produced from underground over FY2025-27 cannot receive revenue less than A$3,000/oz. These contracts are strategically structured to protect against potential downward price pressures while also enabling participation in favourable price movements.

Table 19-1:Gold forward sales contracts (AUD)

Quarter	Average Forward Price AUD/oz	Delivery Ounces
March 2025	2,804	6,600
June 2025	2,818	7,200
September 2026	2,832	7,250
December 2025	2,843	8,200
March 2026	2,855	8,700
June 2026	2,870	8,500
September 2026	2,884	7,800
December 2026	2,896	7,200
March 2027	2,821	7,300
June 2027	2,844	6,650
Total	**2,847**	**75,400**

Source: Alkane Resources Ltd - Quarterly Activities Report to 31 December 2024

19.2 Refining and Sales Contracts

Commercial terms have been agreed with ABC Refinery (Australia) Pty Ltd for gold sales at the Loco London Spot A$metal bid and these have been included in the financial model.

Risk and liability to the material (Gold and Silver Dore) passes at the Delivery Point or the Initial Delivery Point as the case requires. ABC must obtain and maintain an insurance policy to cover material stored at the Delivery Point or the Initial Delivery Point.

Alkane provides the Dore to ABC, and the final refined value is credited to a bullion account and ABC will take ownership when Alkane sells the gold (same process with Macquarie Bank). Alkane only sells to ABC/Macquarie and does not ship back any bullion for sale to any other parties.

19.3 Commodity Prices

The review of the gold prices used in the TGO cashflow model, a flat notional rate of A$2,900/oz, was compared to long-term consensus metal prices current as of 20 January 2025 (Consensus Economics Inc.). The forecast price used by Alkane would appear reasonable based on the long-term forecasts.

19.4 Foreign Exchange Rate

Alkane only operates in Australia and consequently has little exposure to other currencies. Payments that Alkane makes in other currencies are infrequent and immaterial.

Table 19-2: Gold Put Option Contracts (AUD)

Expiry Date	Strike Price AUD/oz	Put Option Ounces
29 January 2025	3,000	3,537
26 February 2025	3,000	3,537
31 March 2025	3,000	3,537
30 April 2025	3,000	3,896
30 May 2025	3,000	3,896
30 June 2025	3,000	3,896
29 July 2025	3,000	3,899
28 August 2025	3,000	3,899
26 September 2025	3,000	3,899
29 October 2025	3,000	3,870
27 November 2025	3,000	3,870
29 December 2025	3,000	3,870
29 January 2026	3,000	4,983
26 February 2026	3,000	4,983
27 March 2026	3,000	4,983
28 April 2026	3,000	4,386
28 May 2026	3,000	4,386
26 June 2026	3,000	4,386
29 July 2026	3,000	4,196
27 August 2026	3,000	4,196
28 September 2026	3,000	4,196
29 October 2026	3,000	3,877
26 November 2026	3,000	3,877
29 December 2026	3,000	3,877
28 January 2027	3,000	3,920
25 February 2027	3,000	3,920
29 March 2027	3,000	3,920
28 April 2027	3,000	4,029
27 May 2027	3,000	4,029

Source: Alkane Resources Ltd - Quarterly Activities Report to 31 December 2024

20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 Environmental Assessment and Permitting

In May 2011, Tomingley Gold Operations Pty Ltd (TGO), a wholly owned subsidiary of Alkane, lodged an EA for the development of the Tomingley gold mine with the NSW DPI. On 2 July 2012, the DPI approved the development of the Project (MP09-0155) (NSW DPI, 2012). The project approval has been modified seven times and allows TGO to:

- extract ore from:
  - four open cut pits (Wyoming 1, Wyoming 3, Caloma 1 and Caloma 2); and
  - three underground workings located below Wyoming 1 and Caloma 1 and 2 pits.
- process up to 1.5 million tonnes (Mt) of ore per annum
- construct and operate associated mining infrastructure including two residue storage facilities (RSF1 and RSF2), a processing plant, waste rock emplacements and other ancillary infrastructure
- carry out mining operations until 31 December 2025

The mine is also regulated under two mining leases (ML1684 and ML1812) issued under the Mining Act 1992 and an environment protection licence (EPL 20169) issued under the Protection of the Environment Operations Act 1997.

On 22 January 2022, TGO lodged an EIS for the development of the Tomingley Gold Extension Project (TGEP) (R.W. Corkery, 2022). The TGEP was incorporating the existing TGO Mine with mining of the San Antonio and Roswell deposits (SAR), immediately to the south. The TGEP was approved by the NSW Minister for Planning on 21 February 2023 (SSD-9176045) (NSW DPIE, 2023). Alkane has development consent until end-2032. The TGEP mining lease (ML1858) was granted on 19 July 2023, and EPL 20169 was varied on 2 May 2024 to include the additional land and activities associated with the Project.

The Company has developed the following plans and strategy for the operation of the TGEP that are located on Alkane's website (Alkane, 2025):

- Water Management Plan (15 August 2024)
- Traffic Management Plan (31 July 2024)
- Noise Management Plan (31 July 2024)
- Blast Management Plan (29 February 2024)
- Aboriginal Cultural Heritage Management Plan (31 January 2024)
- Air Quality & Greenhouse Gas Management Plan (31 January 2024)
- Historic Heritage Management Plan (31 January 2024)
- Environmental Management Strategy (30 November 2023)
- Pollution Incident Response Management Plan (31 August 2023)
- SAR Mine Stage 1a Construction Environmental Management Plan (31 August 2023)
- Biodiversity Management Plan (7 November 2020)
- Hazardous Materials Management Plan (1 April 2017)
- TGO RMP (31 May 2024)

20.2 Environmental Studies

The TGEP is a brownfield extension that integrates with existing mine processing infrastructure, minimising environmental impact compared to building a new greenfield site elsewhere in NSW. In their assessment of the TGEP EIS, the NSW DPIE considered the key environmental issues relate to water resources and biodiversity. In the DPIE's opinion, the Project's key water impacts relate to groundwater drawdown from mine dewatering activities, potential acid mine drainage, and changes in flood behaviour (NSW DPIE, 2023).

Groundwater and surface water assessments were prepared by Jacobs Australia Pty Ltd (Jacobs) for the TGEP EIS. Overall, the DPIE considered that impacts on water resources would be relatively localised and could be effectively managed under the recommended conditions of consent including strict water performance measures, the preparation of a comprehensive Water Management Plan and review of the groundwater model within three years of commencing mining operations in the SAR (NSW DPIE, 2023).

20.3 Groundwater

The groundwater setting of the Project is comprised of three key systems within the Lachlan Fold Belt groundwater source, including a perched aquifer, Cainozoic alluvial system (unsaturated) and fractured rock aquifer.

The perched aquifer is considered to be disconnected from the fractured rock aquifer due to a thick clay alluvium cover and significant separation distance between the systems. Within the project area, the perched aquifer is generally unsaturated.

Across the Project area, groundwater levels within the fractured rock aquifer lie approximately 60 m below ground level, with localised declines in areas of mining activity. Monitoring data indicates regional groundwater levels have not been significantly affected by mining.

Groundwater quality is generally saline limiting the beneficial use category to 'industrial.' In accordance with the NSW Aquifer Interference Policy, yield and water quality characteristics indicate it is of low productivity.

The Project area is located within the Macquarie-Bogan Catchment between two ephemeral creeks (Gundong Creek and Bulldog Creek). Both creeks drain east to west towards the Bogan River which is located 10 km to the southwest. There are also six drainage lines within and surrounding the Project some of which transverse the area to be disturbed.

TGO claimed the Project would not have a significant impact on groundwater resources in the vicinity of the Project Site for the following reasons:

- Jacobs predicted that groundwater drawdown would not impact on bores other than monitoring bores surrounding the Project Site.
- The fractured rock aquifer to be impacted by the Project is hydraulically disconnected from the shallow alluvial aquifer.
- The quality of groundwater within the fractured rock aquifer is poor, with limited beneficial use, other than for mining operations.
- The Applicant would undertake detailed monitoring of groundwater levels and quality, and groundwater take throughout the life of the Project. If observations deviate from that predicted by Jacobs, TGO would undertake an investigation and implement remedial actions, including remodelling and/or obtaining additional licence allocation.

- TGO would review and revise the groundwater model before 31 December 2024 and, if required, obtain additional licence allocation before 31 December 2025, in advance of the predicted maximum rate of groundwater inflow in 2026.

The DPIE SSD assessment confirmed the groundwater assessment was fit for purpose to inform groundwater impacts of the Project (NSW DPIE, 2023).

20.4 Surface Water

To assess the potential impacts of the Project on the regional and local surface water and flooding environment, a surface water assessment was undertaken by Jacobs. They identified risk sources with the potential to result in surface water impacts and an assessed risk of "medium" or above, after the adoption of standard mitigation measures, as follows:

- Physical changes to the landscape resulting in:
    - the reduction or change of catchments causing a reduction in downstream flow (medium risk)
    - changes in overland flow resulting in increased erosion and/or flooding risk (medium risk)
    - changes in overland flow resulting in reduced water availability for downstream users and changes in ecological processes (medium risk)
- release of process and/or mine water to downstream watercourses resulting in disruption to aquatic ecosystem function (medium risk)
- failure of the Residue Storage Facility resulting in damage to infrastructure and impacts on watercourses and aquatic ecosystem function (medium risk)

Jacob concluded that off-site impacts to surface water quality are not anticipated. The Project will cause minor changes to surface water flow and flood levels near the site, improving flood protection for the realigned Newell Highway. These changes mainly affect overland flows, not well-defined watercourses and are unlikely to significantly impact surrounding watercourses. Most changes would occur on Alkane's land, with ongoing consultation with two potentially affected landholders (R.W. Corkery, 2022).

GHD has prepared a Water Management Plan for Alkane to address water impact issues within the Project Site (GHD, 2024).

20.5 Biodiversity

In December 2021, a BDAR was prepared for the TGEP EIS by AREA Environmental & Heritage Consultants Pty Ltd (AREA, 2021). The BDAR provides an assessment of the likely impact to biodiversity for the TGEP, and a full site-based assessment was undertaken using the Biodiversity Assessment Methodology 2020 (BAM). The following is summarised from the BDAR.

The TGEP's Development Footprint (DF) considered by the BDAR covers an approximate 494.28 ha area, of which approximately 76.03 ha is native vegetation. Approximately 402.22 ha of the DF is consistent with Category 1 Land (Exempt Land) under the Local Land Services Act 2013 with scattered trees, and 16.03 ha of the DF is not native vegetation and include roads, buildings and other areas of bare Earth.

The BDAR includes an assessment of landscape values in the DF and surrounding areas, the vegetation communities present in the DF and their condition, the known or potential presence of threatened flora or fauna species and populations, as well as potential matters of Serious and Irreversible Impact (SAII) listed in NSW under the Biodiversity Conservation Act 2016 (BC Act) and/or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

Native vegetation within the DF consists of remnant vegetation along road corridors, including 'paper' roads, and across a few paddocks. Four Plant Community Types (PCT) were recorded in the DF in several condition states:

- PCT55 Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions—three conditions states
- PCT82 *Western Grey Box - Poplar Box - White Cypress Pine tall woodland on red loams mainly of the eastern Cobar Peneplain Bioregion*—three condition states
- PCT201 *Fuzzy Box Woodland on alluvial brown loam soils mainly in the NSW Southwestern Slopes Bioregion*—three condition states
- PCT27 *Weeping Myall open woodland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion*—one condition state

Two Threatened Ecological Communities (TEC) are present in the DF:

- *Fuzzy Box Woodland on alluvial Soils of the Southwestern Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions* (Endangered BC Act); and
- *Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW Southwestern Slopes Bioregions* (Endangered EPBC Act and BC Act).

Impact to this native vegetation (including the TECs) would generate an offsetting requirement of 1724 ecosystem credits under the NSW Biodiversity Offset Scheme.

The *TEC Fuzzy Box Woodland on alluvial Soils of the Southwestern Slopes, Darling Riverine Plains and Brigalow Belt South Bioregions* is a candidate for a SAII. Additional information regarding the local population and impact to this candidate SAII is provided in the report. Changes in Project design resulted in the overall avoidance of 10.80 ha of this TEC.

In addition to areas of native vegetation, the DF covers areas of land consistent with Category 1 Land and the BDAR includes evidence to support this determination. It also documents the application of the BAM 'Streamlined assessment module - Scattered trees assessment' in areas where scattered trees are surrounded by Category 1 Land. Impact to scattered trees would generate an offsetting requirement of 43 ecosystem credits under the NSW Biodiversity Offset Scheme.

The predicted impact to threatened flora and fauna species was informed by targeted surveys for threatened species undertaken in accordance with relevant guidance documents.

Threatened species relevant to this assessment are those listed species identified by the NSW Department of Planning and Environment (DPIE) which are predicted to occur in the BAM Credit Calculator (BAMC) as ecosystem credit species or species credit species, based on their known presence in habitat surrogates indicated by the Interim Biogeographic Regionalisation for Australia (IBRA) subregion, the presence of associated PCTs, the size and condition of the vegetation patches on the site. In addition, the EPBC Act Protected Matters Report provided a list of threatened species predicted under this Commonwealth legislation which are also considered by this assessment.

Ecosystem credit species are those that can be reliably predicted based on the habitat surrogates. No survey is required for these as they are assumed to occur. The BAMC identified 20 ecosystem credit species for the Project, and two additional species were added to the BAMC to address a protected matter identified in the EPBC Act Protected Matters Report. Two of these 22 species were excluded as habitat constraints or geographic constraints are not present in the DF.

Seventeen species credit species (candidate species) were identified by the BAMC and another one was added to address a protected matter identified in the EPBC Act Protected Matters Report which could not be excluded based on targeted survey. Candidate species cannot be reliably predicted from the habitat surrogates and their presence is considered through habitat assessment and targeted surveys. These are assumed to occur unless survey effort has been undertaken in accordance with the guidance material proving otherwise. Six candidate species were excluded based on habitat or geographic constraints.

The TGO accepted the burden of proof and survey by appropriately experienced and qualified ecologists for candidate species credit species occurred in 2020 and 2021 following requisite guidelines. This survey was sufficient to exclude the remaining candidate species requiring targeted survey.

No species credits would be required under the NSW Biodiversity Offset Scheme. The TGO would be required to retire ecosystem credits, summarised in Table 20-1 below.

Table 20-1: Ecosystem credit summary

PCT Name	From Standard BAM		From Scattered Trees		Total
	HBT	No HBT	HBT	No HBT	
PCT55—Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains Regions	145	395	7	5	552
PCY82—Western Grey Box—Poplar Box—White Cypress Pine tall woodland on red loams mainly of the eastern Cobar Peneplain Bioregion	608	95	8	22	733
PCT201—Fuzzy Box Woodland on alluvial brown loam soils mainly in the NSW Southwestern Slopes Bioregion	398	27	0	1	426
PCT27—Weeping Myall open woodland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion	0	13	0	0	13
Total	**1151**	**530**	**05**	**28**	**1724**

Note: HBT = Hollow Bearing Trees

The TGO has applied the avoid, minimise, offset hierarchy. Changes in Project design have resulted in proposed impact to fewer hectares of native vegetation, notwithstanding the limitations associated with accessing a geological deposit. Where possible, proposed Project operational areas and waste rock emplacements are in cleared, Category 1 Land.

The NSW DPIE including the Biodiversity, Conservation and Sciences Directorate (BCS) considered the Project's design would avoid, mitigate and manage biodiversity impacts where practicable and recommended conditions requiring TGO to retire the biodiversity credits for the Project in accordance with the Biodiversity Offsets Scheme of the BC Act and implement a Biodiversity Management Plan, prior to commencing construction of the SAR Mine (DPIE, 2023).

In October 2021, TGO released a revised Biodiversity Management Plan that was updated by AREA following the BCS and DPIE review.

20.6 Community Engagement

The central NSW region has many active mining operations within a short distance of the Project. Alkane sources skilled personnel and local industrial services in the region from Tomingley, Narromine, Dubbo and Parkes.

Alkane has committed to supporting the local community through career pathways, funding and sponsorships. The Company has set up the Tomingley Community Fund that they will contribute over A$600,000 until the end of 2032 to notable projects and events. The Company has also set-up a community information phone so that members of the public can call the Company about issues they may have with the Project. The Company also engages and consults with traditional custodians on all heritage issues (Alkane, 2025).

As part of the TGEP EIS, formal consultation in relation to the Project commenced on 20 August 2020 when the CCC met and a TGO Newsletter outlining the Project was distributed to the community. Community consultation undertaken for the Project was undertaken through a variety of means and included but was not limited to:

- Face to face meetings and phone calls with individual landholders and residents.
- Provision of written letters and other Project-related material to key landholders and residents.
- Provision of Project-related information via newsletter and on Alkane’s website.
- Community information evenings were attended by key Project staff and R.W. Corkery consultants.

20.7 Tomingley Mine Closure

A draft rehabilitation strategy for the TGO Mine has been prepared to comply with the SSD approval and is described in the TGP Rehabilitation Strategy (R.W. Corkery & Co, 2024a). Detailed rehabilitation management activities are provided in the TGP Rehabilitation Management Plan (Tomingley RMP; R.W. Corkery & Co, 2024) and have been developed in accordance with the conditions of the MLs and guidance material published by the NSW Resources Regulator.

The final land use for the TGO Mine is a mixture of final voids, agriculture and nature conservation that will support grazing operations. Final landform features will include rehabilitated waste rock emplacements (WRE) and a combined Residue Storage Facility (RSF), final voids, access roads and tracks, service connections, retained water management infrastructure and suitable property boundary fencing. Safety and security features such as fences, gates and bunding, will be retained or installed so that landforms such as the final voids are isolated as far as practicable.

High-value biodiversity areas will be retained and farm-scale corridors have been designed to balance agricultural productivity with protection and promotion of biodiversity. The Biodiversity Offset Sites incorporate over 157 ha of protected remnant and regrowth vegetation and will remain a prominent feature of the local landscape in perpetuity.

The approved rehabilitation objectives under the SSD consent for the TGO Mine are summarised in Table 20-2. The approved rehabilitation objectives in the Tomingley RMP were developed to comply with TGO ML's conditions and are summarised in Table 20-3.

The social and economic closure goals of the TGO Mine are to:

- create a positive social and economic legacy for the local and regional environment
- ensure the final landform is suitable for postmining land uses, such as agriculture, conservation and industry
- Ensure the final landform and land uses do not result in significant negative impacts on the productivity and/or operation of surrounding agricultural, economic or other land uses
- facilitate a social transition to closure though maintaining open communication with key stakeholders throughout the closure process
- maintain a social licence to operate in regional NSW

Planning for closure will include consultation regarding the legacy of Aboriginal heritage sites and values located at the TGO Mine.

Rehabilitation of the WRE2 and WRE3 has been completed with the exception of a small stockpile area on the upper surface of WRE3. The SAR WRE will be progressively rehabilitated during the operational phase.

WRE1 will be reclaimed with the salvaged material used to cap and rehabilitate the RSF along with other areas as required. Any material remaining in WRE1 will be used to backfill open cuts or will be shaped and rehabilitated in accordance with final WRE landform design criteria. Materials used to construct the ROM pad will be used as backfill for the open cuts.

The two RSFs will be combined to create one stable, capped landform at closure using material salvaged from WRE1. Capping material will be selected and placed to achieve an acceptable maximum permeability to meet RSF completion criteria. Waste rock will be used to reshape the upper surface of the RSF prior to capping to achieve the desired grades.

The Wyoming 3 and Caloma 1 and 2 open cuts will be backfilled at closure. The SAR South and Central open cuts will also be backfilled where sufficient quantities of waste rock are available. The open cuts will be overfilled to allow for consolidation and a final landform surface that will shed water. Following the period of consolidation, the surface will be profiled and subsoil and topsoil applied. The final surfaces of the backfilled open cuts will be seeded with a mix of grass, shrub and tree species commensurate with local vegetation communities.

Should there not be sufficient waste rock to fully backfill the SAR South and Central open cuts, the final voids will be subject to a risk assessment process to determine the postmining infrastructure requirements for final voids, including fences, exclusion bunds and surface water management infrastructure.

Table 20-2 SSD Approved Rehabilitation Objectives

Feature	Objective
All areas of the site affected by the development	Safe, stable and non-polluting Fit for the intended postmining land use/s Establish final landform and postmining land use/s as soon as practicable after cessation of mining Minimise postmining environmental impacts
Stopes	Safe and stable Negligible surface subsidence in the long-term
Portals and Vent Shafts	To be decommissioned and made safe and stable
Residue Storage Facilities	Tailings are contained within a structure that adequately mitigates risk of tailings and associated contaminants being released to the environment. Structural integrity and final landform stability meets industry accepted engineering guidelines for tailings facilities closure (ANCOLD and Global Tailings Standard)
SAR South, SAR Central, Caloma 1, Caloma 2, Wyoming 3 pits	Backfilled to ensure areas are free draining
Wyoming 1	Partially backfilled and buttressed to achieve a slope stability Factor of Safety (FoS) of 1.5, unless otherwise agreed by the Resources Regulator. No impact on proximal surface features, including the Newell Highway and RSFs
SAR North Final Void	Optimise the size and depth of final void to ensure the final landform achieves a slope stability FoS of 1.5, unless otherwise agreed by the Resources Regulator Minimise to the greatest extent practicable: the drainage catchment of final voids; and any pit wall geotechnical and erosional instability risks outside of the Relinquishment Bund identified in Figure 2 of Appendix 5 (SSD 9176045) No increase in area beyond the Relinquishment Bund identified in Figure 2 of Appendix 5 (SSD 9176045)
Areas proposed for agricultural land	Establish/restore disturbed areas to support sustainable agriculture, including: a minimum of 209 ha of disturbed land to achieve Class 4 land; and soil capability a minimum of 136 ha of disturbance land to achieve Class 6 land and soil capability
Waste Rock Emplacement	Minimise the potential for acid mine drainage and erosion Incorporate micro-relief and drainage features that mimic natural topography and mitigate erosion, to the greatest extent practicable Minimise visual impacts, where practicable
Water Quality	Water retained on the site is fit for intended postmining land use/s

Feature	Objective
	Water discharged from the site is suitable for receiving waters and fit for aquatic ecology and riparian vegetation
Surface infrastructure	To be decommissioned and removed, unless Resources Regulator agrees otherwise
Water Pipeline	Dappo bore to be decommissioned and removed, unless otherwise agreed by the Secretary Production bore, pumps, power supply and pipeline at the “Woodlands” site to be transferred to Council, in accordance with the general terms of the Planning Agreement as summarised in Appendix 7 (SSD 9176045)
Community	Ensure public safety. Minimise adverse socioeconomic effects associated with mine closure

Table 20-3: Tomingley RMP Approved Rehabilitation Objectives

Rehabilitation Objective Category	Objectives
Removal of Infrastructure	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.
Retention of Infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community. All infrastructure that is to remain as part of the final land use benefits from the relevant approvals (e.g. development consent and/or licence/lease/binding agreement, etc.)
Land contamination	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
Management of waste and process materials	Residual waste materials stored on site (e.g. tailings and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
Landform Stability	The final landform is stable for the long-term and does not present a risk of environmental harm downstream / downslope of the site or a safety risk to the public/stock/native fauna. Landform that is commensurate with surrounding natural landform and where appropriate, incorporates geomorphic design principles.
Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure have been addressed as part of rehabilitation.
Surface Water	Run-off water quality from mine site is similar to, or better than the predisturbance run-off water quality.
Water Approvals	Structures that take or divert water, such as final voids, dams, levees, etc., are appropriately licensed (e.g. under the Water Management Act 2000) and, where required, ensure sufficient licence shares are held in the water source(s) to account for water take.

Rehabilitation Objective Category	Objectives
Groundwater Quality	Groundwater quality is similar to, or better than, the predisturbance water quality.
Groundwater Regime	Impacts to groundwater regime are within range as per the development consents or as predicted by groundwater assessments.
Ecological rehabilitation	The vegetation composition of the rehabilitation of out-of-pit waste rock emplacements contains species that are commensurate with modified native inland grey box / fuzzy box gum woodland communities found in the local area. Levels of ecosystem function have been established that demonstrate the rehabilitation is self- sustainable.
Agricultural Revegetation	Revegetation is sustainable for the long-term and only requires maintenance that is consistent with the intended final land use. Land use capability is capable of supporting the target agricultural land use. Establish/restore disturbed areas to support sustainable agriculture, including: • a minimum of 209 ha of disturbed land to achieve Class 4 land and soil capability • a minimum of 136 ha of disturbance land to achieve Class 6 land and soil capability.

The Wyoming 1 and Roswell (SAR North) open cuts will be retained as final voids in the postclosure landscape. Wyoming 1 is anticipated to act as a groundwater sink with predicted equilibrised water level of approximately 70 m below ground level. Final voids will be segregated with safety bunds and signed, security fences and gates. Road access will be restricted to prevent inadvertent or deliberate unauthorised access. Final voids will be permitted to revegetate naturally.

Final voids will be subject to geotechnical assessments and inform on potential risks related to the instability of pit walls. Options for buttressing final voids have been developed should the risk of instability and the outward migration of the open cut crest pose a threat to surrounding infrastructure or landforms, such as the Newell Highway or rehabilitated RSF.

Oxidised material excavated at TGO is non-acid forming (NAF). Generally, the non-oxidised material has an excess of neutralising capacity relative to the concentrations of sulfidic material present and are considered NAF. Some lithologies from the Caloma Eastern Cutback were identified as potentially acid forming (PAF). Waste from these lithologies is segregated and is not used for construction. PAF waste rock is not placed near the surface of either the out-of-pit or in-pit WREs.

Underground infrastructure will be either decommissioned, salvaged and/or removed. Closure activities for the underground will include:

- Installing temporary and/or permanent safety infrastructure (e.g. fencing and signage).
- Disconnection of services.
- Sealing of all portals and shafts.
- Monitoring and management of the retained infrastructure (e.g. seals, ramps, etc.).

Site infrastructure not required for the final land use will be removed or the footprint reduced in area. Infrastructure anticipated to have value to the postmining land use and expected to be retained includes:

- unsealed roads.
- security infrastructure, including safety fencing and bunding in the vicinity of the final voids.
- hardstand areas and limited shed and buildings providing value for the postmining land use.
- Powerlines and substations where these facilitate proposed or future land uses.
- water supply pipeline to facilitate the ongoing supply of water to Tomingley village and postmining land uses.
- water management infrastructure, including clean water bunds, water storages and selected sediment basins.
- Realigned public roads, including the realigned Newell Highway and Kyalite Road and the intersections with Back Tomingley West Road and McNivens Lane. The Newell Highway underpass and Kyalite Road overpass would be retained subject to consultation with the relevant roads authority.

Following the demolition of infrastructure not being retained, a contaminated land assessment will be undertaken to identify and address contamination from mining activities. Remediation strategies and the disposal of contaminated material will be subject to regulatory verification processes.

A postclosure monitoring program will collect data and information for the purpose of demonstrating rehabilitation completion criteria, and therefore, rehabilitation objectives, have been achieved. Monitoring activities will include one-off reports and validation surveys to confirm works have been completed in accordance with design, along with environmental monitoring of surface waters, groundwater, landform stability and revegetation undertaken in accordance with a TGO Mine closure monitoring schedule.

Data collected from the postclosure monitoring program will be documented in the Rehabilitation Quality Assurance Register and a summary Annual Rehabilitation Report, complying with consent conditions, will be prepared each year until relinquishment has been achieved.

The closure monitoring program is anticipated to occur for a period of at least 5 years. Depending on the data collected and the need for any maintenance and/or repair works, the closure monitoring program could extend to 15 years or more.

The calculated rehabilitation security deposit for TGO, lodged to cover the NSW Government's full costs of undertaking rehabilitation, is A$12,363,622. A summary of the security deposit is provided in Table 20-4.

20.8 Peak Hill Mine Closure

Detailed rehabilitation management activities for the Peak Hill Mine are provided in the Rehabilitation Management Plan for the Peak Hill Gold Mine (Peak Hill RMP; R.W. Corkery & Co, 2022). The Peak Hill RMP has been developed in accordance with the conditions of the MLs and guidance material published by the NSW Resources Regulator.

Table 20-4: TGO Rehabilitation Security Deposit Summary

Domain	Security Deposit (A$'000)
Domain 1: Infrastructure	3,413
Domain 2: Tailings and Rejects	5.498
Domain 3: Overburden and Waste	247
Domain 4: Active Mine and Voids	125
Domain 5: Subsidence and Management	227
Subtotal (Domains and Sundry Items)	**9,510**
Contingency	951
Postclosure Environmental Monitoring	951
Project Management and Surveying	951
Total Security Deposit	**12,364**

The final land use for the Peak Hill Mine is a safe, stable, non-polluting landform that recognises the heritage and biodiversity value and the potential for socially beneficial postmining land uses, including:

- Native Ecosystem Areas—revegetated areas containing ecosystem characteristics consistent with key surrounding communities
- Heritage Areas—areas containing individual or multiple historic heritage items
- Water Management Areas—includes sediment ponds, water diversion drains and other water management infrastructure that may be used to support the future land uses
- Infrastructure Areas—includes tourism related infrastructure such as shelters, lookouts, walkways and parking areas and retained buildings and structures associated with the Mine Exploration Core Yard and Workshop
- Agriculture—areas suitable for sustaining agricultural production
- Final Void Area—the Proprietary, Parkers, Great Eastern, Crown and Bobby Burns Pits

Key final landform features include a rehabilitated WRE and Heap and Dump Leach, four final voids, access roads and tracks, retained water management infrastructure and suitable property boundary fencing. Safety and security features such as fences, gates and bunding, will be retained to isolate final voids as far as practicable.

The postmining land use goals for the Peak Hill Mine are to:

- construct rehabilitated landforms that are structurally stable landforms, will safely contain mining wastes and will support revegetation works
- deliver self-sustaining rehabilitation and revegetation
- retain areas amenable to future mining or tourist activities

The approved rehabilitation objectives in the Peak Hill RMP were developed to comply with ML's conditions and are summarised in Table 20-5.

Table 20-5: Peak Hill RMP Approved Rehabilitation Objectives

Domain	Rehabilitation Objectives
Infrastructure Area	All infrastructure and services not required for the final land use are removed. Areas are free from contaminants and hazardous materials. Final landforms are safe, stable, non-polluting and suitable for final land use.
Water Management Area	All infrastructure and services not required for the final land use are removed. Areas are free from contaminants and hazardous materials. Final landforms are safe, stable, non-polluting and provide for long-term water management. Final landforms are safe, stable, non-polluting and provide for long-term water management.
Rehabilitation Area—Rural Land	All infrastructure and services not required for the final land use are removed. Areas are free from contaminants and hazardous materials. Final landforms are safe, stable, non-polluting and suitable for the final land use. Growth media suitable for the final land use. Vegetation communities suitable for final land use.
Rehabilitation Area—Grassland	All infrastructure and services not required for the final land use are removed. Areas are free from contaminants and hazardous materials. Final landforms are safe, stable and non-polluting and residual waste materials are contained and/or encapsulated and do not pose any hazards or constraints for the final land use. Growth media suitable for the final land use. Vegetation communities suitable for final land use.
Rehabilitation Area—Woodland	All infrastructure and services not required for the final land use are removed. Areas are free from contaminants and hazardous materials. Final landforms are safe, stable, non-polluting and suitable for the final land use. Vegetation communities suitable for final land use.
Infrastructure—Ephemral Wetland Area	All infrastructure and services not required for the final land use are removed. Areas are free from contaminants and hazardous materials. Final landforms are safe, stable, non-polluting and provide for long-term water management. Wetland ecosystem established.

Domain	Rehabilitation Objectives
Heritage Areas	Areas are free from waste materials. Final landforms are safe and suitable for the final land use. Heritage items are appropriately managed and preserved as part of the final landform. Heritage areas are suitable for final land use.
Active Mining Area	Final void landforms are safe and stable. Final void landforms are non-polluting.

Rehabilitation of the key final landforms were completed by December 2005. This rehabilitation includes approximately 4 ha of land that was successfully rehabilitated and relinquished (by subdivision) in May 2017. Rehabilitated areas include the Heap Dump Leach area, WRE, ROM pad and haul roads. An area of approximately 8.5 ha contains walking trails, a viewing platform, mine relics and interpretive signs open to the public.

Rehabilitation of the Heap and Dump Leach was completed in 2005. The landform was reshaped for long-term stability and drainage control following the decommissioning of processing infrastructure (e.g. irrigators, conveyors, shade cloth, etc.). High Density Polyethylene (HDPE) lined collection trenches were buried during reshaping works. A low permeability clay layer was constructed over the spent heap with growth media placed above. Table drains and rock-lined flumes were constructed to manage surface water. The Heap and Dump Leach final landform was seeded with a mixed native and exotic pastoral and grassland species cover.

In 2010, spent material from the Trial Dump Leach was salvaged and relocated to the Parkers Open Cut. This material was covered with growth media and seeded with a mixed pastoral and grassland cover.

The WRE contains both oxidised waste rock and sulfidic waste rock. The WRE was constructed using a paddock dump and flat-topping methodology in 10 m lifts. The sulfidic waste rock has been placed on a compacted oxide base and encapsulated under a cap of inert, low permeability oxide material. Rehabilitation of the WRE was completed in 2005. The WRE surface is graded towards a reinforced concrete spillway and flume structure to convey surface water from the upper levels of the WRE. Topsoil was spread and a mixture of native and exotic pasture and grassland species cover was applied.

Sulfidic waste rock has also been used to partially backfill the Proprietary Pit and increase geotechnical stability.

The ROM pad was constructed from oxidised waste rock material using similar methodologies to that of the WRE. The ROM Pad was capped with clay, topsoiled and seeded with a mixture of native and exotic pastoral species. Rehabilitation of the ROM pad was completed in 2002.

Four final voids, comprising five open cuts, will remain at closure. A combination of safety bunds and security fencing with lockable gates restrict unauthorised access to the voids.

The Gold Recovery Wet Plant (Wet Plant) was decommissioned in 2005. Wet Plant infrastructure was either demolished and disposed of, or salvaged for use off-site, in 2010. The Wet Plant concrete slab remains and will be demolished as part of final rehabilitation task. The Processing and Overflow Ponds and associated pumps and steel walkways were decommissioned once water quality in the processing circuit reached an acceptable quality to permit agricultural use. The HDPE liner remains in situ and will either be retained where it can support the postmining land use or disposed of on site as part of the final rehabilitation process.

Ancillary areas, such as the Magazine, laydown areas and other disturbance were progressive rehabilitated when no longer required.

A number of publicly accessible areas and supporting infrastructure were installed during the site's operation to support regional tourism. This includes a carpark and viewing platform, interpretive signs placed along walking trials providing information on the mining history of the area and an elevated walkway above historic workings.

The WRE, Heap and Dump Leach and final voids are considered suitable for achieving the final land use and no further material works are planned for these landforms.

The remaining areas that still require rehabilitation are limited to areas currently supporting exploration and land management activities, storage of rehabilitation materials (e.g. topsoil stockpiles) and water management infrastructure. Specifically, the existing infrastructure and assets that require decommissioning and demolition are the Mine site House building, Wet Plant concrete slab and the Processing and Overflow Ponds (if not retained to support the postmining land use). Following demolition of these structures, a contamination assessment will be commissioned to identify and address any residual contamination from mining activities. Remediated areas will have topsoil applied and will be seeded with a seed mix suitable for the postmining land use. Current topsoil inventories are comfortably more than the volume required to rehabilitate the areas in accordance with existing rehabilitation practices and methodologies.

These areas will be rehabilitated when they are no longer required as a base for mineral exploration activities. No heritage areas or items are located within, or in the vicinity of, the areas still to be rehabilitated.

Infrastructure that can supports the postmining land use will be retained and is anticipated to include:

- a buried water pipeline and other water management infrastructure such as sediment dams and the permanent drop-structures on the final landforms
- the access road and other internal access roads (with a reduced footprint)
- safety and security fencing
- the Mine Exploration Core Yard and Workshop
- publicly accessible infrastructure such as the viewing platform, walking tracks and historic artefacts

Existing safety bunds, security fencing and signage restricting unauthorised access to the voids will be structurally assessed and repaired or replaced where necessary.

Evidence of Acid and Metalliferous Drainage (AMD) from the WRE and Heap and Dump Leach has been observed following completion of the rehabilitation works. Agricultural lime was applied to impacted areas in 2021. Ongoing visual inspections and monitoring of the northeast sediment dam, to which any AMD from these landforms would report, will continue during the closure monitoring phase. Water quality monitoring of the northeast sediment dam has been undertaken since 1996. The pH of water within this dam has remained above neutral (pH 7) over this period.

Monitoring of rehabilitated areas is currently undertaken and will continue during the postclosure phase when all remaining areas have been rehabilitated. Monitoring includes regular visual inspections incorporating various infrastructure such as security and stock fencing, annual pest and weed monitoring, visual monitoring for erosion after rainfall events, water quality during discharge events, soil analysis for chemical properties and a visual record of revegetation progress for the remaining areas.

Data collected from the post-closure monitoring program will be documented in the Rehabilitation Quality Assurance Register and a summary Annual Rehabilitation Report, complying with the conditions of the MLs and guidance material published by the NSW Resources Regulator, will be prepared each year until relinquishment has been achieved.

The duration of the closure monitoring program will be dependent upon the cessation of exploration activities and the subsequent rehabilitation of the remaining disturbance areas onsite. The Peak Hill RMP currently anticipates closure monitoring will be required until 2031.

The calculated rehabilitation security deposit for Peak Hill Mine, lodged to cover the NSW Government’s full costs of undertaking the remaining rehabilitation, is A$200,000.

21. CAPITAL AND OPERATING COSTS

21.1 Capital Costs

The Tomingley budget capital costs for development and drilling (UG capitalised development) are included in the financial figures. Other capitalised item, such as equipment and infrastructure construction are also included in the FY2025, within the total amount of A$125.7 million, as shown in Table 21-1.

Table 21-1: Tomingley Capital Costs for FY2025

Capex and Mine Development Summary	FY2025 Budget (A$'000)
UG Equipment Purchases Growth	16,138
TOG Underground Capital Development	2,173
TOG Mine Development	560
TOG Underground Sustaining Capital	8,884
Roswell Underground Capital Development	13,026
Roswell Mine Development	3,479
Roswell Underground Sustaining Capital	10,384
TGEP Project Development	63,595
Pre-production Capital	6,481
SAR Drive and drilling	1,000

The major capital expenditures conducted in the FY24-25 has been the Stage 1 refractory upgrade. An initial cost for the project of A$35.984 million was expected with the final cost of A$36.414 million (a variance of +A$1.342 million or approximately 3.7%) (MACA Interquip 2025)

Some additional costs for the upgrade/replacement of the kiln appear to have been captured in the FY25 budget.

21.2 Operating Costs

The Tomingley operating costs were based on the FY24 costs as shown in Table 21-2. The costs are an estimated operating cost for producing gold and silver, as a by-product, combined is A$76.5 million, which equates to a cost of A$1,568/oz Au

Table 21-2: Tomingley Operating Costs FY2024

Item	A$('000)	AUD/oz Au
Production	26,154	536
Development	19,030	390
UG Services and Maintenance	14,547	298
Technical Services	16,742	343
Total	76,473	1,568

21.2.1 Processing Operating Costs (Refractory Upgrade)

With the refractory upgrade there has been an increase in operating costs against budget which are being corrected (Figure 21-1). These are likely to stay higher until relevant upgrades are completed.

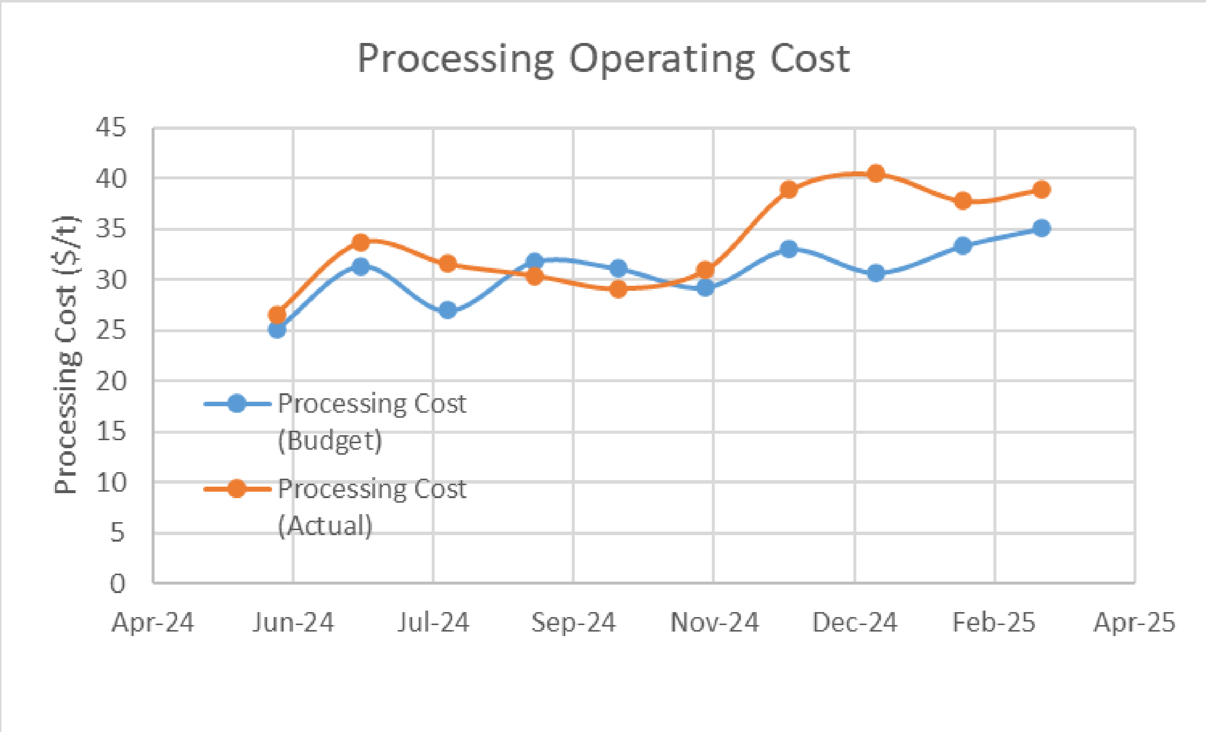


Figure 21-1: Operating cost before the refractory upgrade

Source: Tomingley (2023-2025)

21.3 Royalty

The royalty of 4% is calculated based on the cash outflows only and of the combined gold & silver sales. No allowance made for depreciation allowance deduction or movements in opening & closing stocks. Submitted royalty calculation is completed by Perth office.

Royalties payable to the NSW government of A$53.8 million are estimated in the TGO life of mine (2023-2032) plan.

22. ECONOMIC ANALYSIS

22.1 Economic Analysis Summary

A financial LOM cashflow model for the TGO has been completed by suitably qualified and experienced accounting and financial staff employed by Alkane and verified by the QP authors. The financial model is based on Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The financial model for the financial period 2025 to 2031 demonstrates a cumulative net (notional pre-tax) cashflow of A$318.4 million for the period and is presented in Table 22 1. As the cash flows from the TGO consolidate at the Company level, it is not possible to ascertain the post-tax cash flows at the asset level.

The TGO cashflows roll up into the Company level corporate model and the NPV and IRR are not assessed at the operational level.

The Tomingley Gold Project life of mine financial model (2024-2032), however, estimates a pre-tax NPV estimate of A$130.5 million at a discount rate of 8% which is considered appropriate for an operating gold mine in Australia by the QP author.

The confidence in the inputs is consistent with the assigned classification of a Mineral Reserve. Confidence in the economic inputs is appropriate to the level of study given that the mining cost inputs are current costs from the TGO. Table 22 2 details the unit operating costs and revenue for the TGO for financial years 2024 to 2031.

22.2 Production

Financial analysis for the mine is based on extraction and treatment of underground ore at a total of 7.9 Mt and 564,054 oz of gold, which is then sold to third parties (Figure 22-1). Table 22 3 reflects the annual and cumulative production for the financial period 2024—2031.

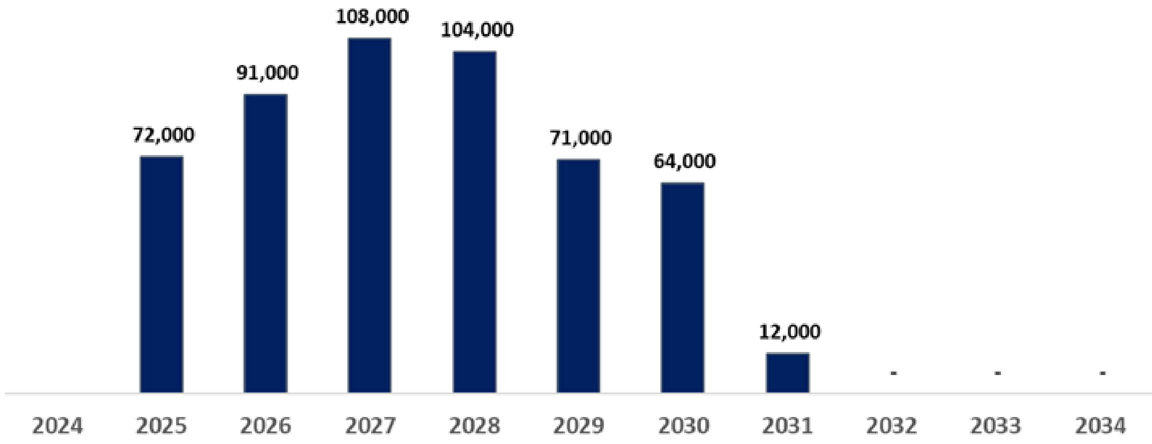


Figure 22-1: Gold Produced

ROM gold production (2023-2034) has an estimated gross value of A$1.655 million and an ex-mine value of A$1.347 million. Royalties payable to the NSW government of A$53.8 million are estimated over the life of the mine.

Sensitivity studies have not been completed as part of the project's economic evaluation. Previous operational experience at the site has enabled Alkane to develop a practical assessment of operational risks to which the project could be subject and their management.

22.3 Assumptions

In calculating the costs and financial returns, the following principal assumptions were made:

- metal prices of A$2,900/oz gold will be maintained throughout until FY2031
- the mine forecasts a total production of ~564,0000 ounces of gold
- the mine forecasts total shipped gold of ~522,000 ounces of gold
- fuel (A$c/litre), Site Electricity and Network Electricity (A$c/kWh) appear reasonable
- underground operating costs appear reasonable over the period of the mine until FY2031
- other operating and miscellaneous costs appear reasonable over the period of the mine until FY2031
- Mineral Resources not included in Mineral Reserves have been excluded from the economic analysis of the project.

Table 22-1: Tomingley Cash Flow (Pre-tax)

CASHFLOWS

A$ millions		Totals	2025	2026	2027	2028	2029	2030	2031
Tomingley Gold Operation									
Gold Sales Revenue	$2,900.00/oz	1,513.62	208.35	264.17	314.19	301.55	205.57	185.98	33.82
Surface Activities		(22.4)	(4.6)	(4.3)	(3.4)	(3.3)	(3.4)	(3.0)	(0.4)
ECB Open Cut Mining		-	-	-	-	-	-	-	-
San Antonio Open Cut Mining		(267.9)	-	(21.7)	(51.8)	(64.6)	(69.2)	(53.0)	(7.5)
TGO Underground Mining		(19.9)	(16.8)	(3.0)	-	-	-	-	-
Roswell Underground Mining		(276.7)	(66.5)	(78.4)	(71.8)	(60.0)	-	-	-
Processing		(253.5)	(34.7)	(38.3)	(43.5)	(44.7)	(45.8)	(39.2)	(7.1)
Finance & Admin		(57.6)	(9.3)	(9.4)	(9.5)	(9.6)	(9.3)	(9.3)	(1.1)
HR / Recruitment		(2.9)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.4)	(0.0)
Enviro & Community		(11.0)	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)	(1.7)	(0.2)
Safety & Training		(19.4)	(3.5)	(3.4)	(3.5)	(3.4)	(2.7)	(2.6)	(0.2)
Mine Operations Plan Rehab		-	-	-	-	-	-	-	-
Royalties		(49.3)	(6.8)	(8.9)	(10.6)	(10.1)	(6.2)	(5.7)	(1.1)
sub-total Operating cashflows		**533.1**	**63.8**	**94.5**	**117.7**	**103.4**	**66.7**	**70.9**	**16.2**
Wyoming Caloma Underground sustaining capital		(1.7)	(0.5)	(1.2)	-	(0.1)	-	-	-
Roswell Underground sustaining capital		(27.1)	(8.1)	(7.9)	(5.5)	(3.8)	(1.8)	-	-
Wyoming Caloma Other sustaining capital		(14.1)	(8.4)	(1.4)	(1.7)	(0.2)	(1.5)	(0.1)	(0.8)
Roswell Other sustaining capital		(6.1)	(2.3)	(1.5)	(2.0)	(0.1)	(0.2)	-	-
Wyoming Caloma Underground Mine Development		(2.7)	(2.7)	-	-	-	-	-	-
Roswell Underground Mine Development		(30.5)	(16.5)	(8.0)	-	-	(3.0)	(1.0)	(2.0)
Other Operating costs (pre-commercial production)		(11.3)	(6.5)	(4.8)	-	-	-	-	-
Expansion & Growth		(121.3)	(64.6)	(60.5)	4.8	(1.0)	(0.1)	-	-
TGO Net cash inflows(outflows)		**318.4**	**(45.8)**	**9.3**	**113.4**	**98.2**	**60.1**	**69.8**	**13.4**
Cumulative Cashflows			(45.8)	(36.5)	76.9	175.1	235.2	305.0	318.4

Table 22-2: Tomingley Unit Operating Costs

UNIT COSTS

		Totals	2025	2026	2027	2028	2029	2030	2031
All-in Sustaining costs (Ex- corp & rehab accretion)	A$/oz	2,096	2,548	2,082	1,897	1,946	2,051	1,811	1,751
All-in Costs	A$/oz	2,491	3,537	2,798	1,853	1,956	2,052	1,811	1,751
ECB Open Cut Mining (Opex only)	$/bcm	-	-	-	-	-	-	-	-
San Antonio Open Cut Mining	$/bcm	13.45	-	9.0	10.9	14.1	16.0	13.6	41.1
TGO UG Mining costs (Capex&Opex)	A$/t mined	58.32	64.1	27.5	-	-	-	-	-
Roswell UG Mining costs (Capex&Opex)	A$/t mined	77.83	115.2	83.3	60.7	49.5	-	-	-
Processing costs	A$/t milled	31.3	31.5	31.0	28.9	29.8	30.5	37.0	39.1

Table 22-3: Tomingley Annual and Cumulative Production for the Financial Period 2024—2031

TOTALS FROM ALL MINING SOURCES

		Totals	2025	2026	2027	2028	2029	2030	2031
Total Ore mined	tonnes	**7,905,370**	**1,103,683**	**1,285,990**	**1,588,989**	**2,124,804**	**822,671**	**816,071**	**163,162**
Grade	g/t	2.2	2.28	2.46	2.32	2.04	1.82	2.51	1.83
Gold mined	**ozs**	**564,054**	**80,783**	**101,574**	**118,726**	**139,331**	**48,096**	**65,939**	**9,605**

PROCESSING

		Totals	2025	2026	2027	2028	2029	2030	2031
Ore milled	**tonnes**	**8,091,564**	**1,104,480**	**1,236,600**	**1,503,600**	**1,501,632**	**1,501,632**	**1,060,800**	**182,820**
Head Grade	g/t	2.19	2.27	2.50	2.44	2.34	1.61	2.06	1.83
Contained gold in feed	ozs	569,565	80,641	99,329	117,974	113,023	77,603	70,230	10,764
Recovery	%	91.6%	89.3%	91.6%	91.5%	92.0%	91.5%	91.1%	111.5%
Plant utilisation	%	97.21%	97%	97%	98%	97%	97%	97%	15%
Gold Poured/Shipped*	**ozs**	**522,000**	**72,000**	**91,000**	**108,000**	**104,000**	**71,000**	**64,000**	**12,000**

22.4 Currency, Exchange Rates and Escalation

- The analysis has been conducted in A$since it is the standard currency of Australia in which the operations are based
- The analysis has been conducted without escalating capital, operating costs or metal prices

22.5 Taxation and Royalties

- The TGO cashflows roll up into the Company level corporate model and the taxation is not assessed at the operational level
- The royalty calculation for NSW over the periods FY2024—FY2031 appear reasonable

22.6 Sensitivity and Other Analysis

Sensitivity financial analysis using variants in commodity price, grade, capital and operating costs, or other significant parameters, are developed at the Company level and are not assessed at the operational level.

23. ADJACENT PROPERTIES

Properties adjacent to the Tomingley Project include Alkane's Northern Molong Porphyry Project (including the Boda-Kaiser Project), and the currently producing Northparkes Mine, operated by Evolution Mining (Figure 23 1).

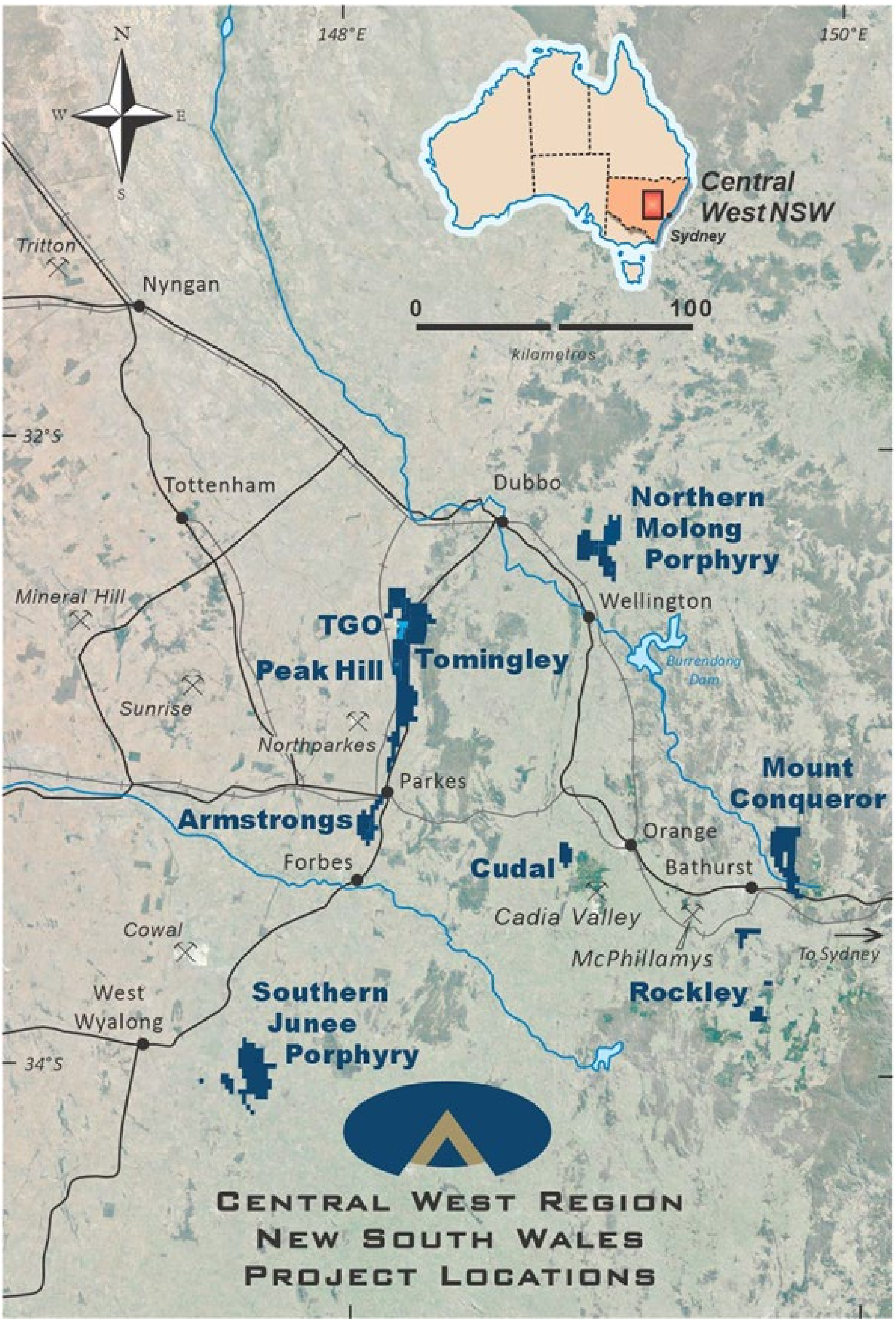


Figure 23-1: Adjacent Properties

Source: Alkane

23.1 Alkane's Boda-Kaiser Project

Alkane's Boda-Kaiser Project represents a gold-copper porphyry system in central west NSW, conceptually able to support a potentially profitable bulk-tonnage mining and processing operation. Alkane has conducted a preliminary, conceptual-level evaluation of three potential development scenarios, each based on varying production rates to assess the project's economic viability and maximise economies of scale.

The Boda deposit is located within a northwest trending structural corridor on the northwestern margin of a significant magnetic complex with dimensions of approximately 2km x 0.7km. The mineralisation is hosted within a package of submarine basaltic to andesitic lavas. The volcanic sequence is intruded by monzogabbroic and monzodiorite volcanic feeder dykes and later monzodiorite-monzonite units and related magmatic-hydrothermal breccias.

Copper mineralisation is observed throughout the prospect, primarily as chalcopyrite with subordinate bornite, chalcocite and rare covellite. Within the magmatic-hydrothermal breccias, chalcopyrite and, to a lesser extent, bornite occur predominantly as a cementing mineral between the calc-potassic altered clasts. Outside of the breccias, copper mineralisation is observed within calcite ± quartz ± epidote dominant veins and as disseminations and patches, often intergrown with epidote.

Gold is observed within the mineralised breccias, often without magnification and it is associated with chalcopyrite and bornite in hydrothermal cement.

The Kaiser deposit is located within a northwest trending structural corridor on a significant magnetic high with dimensions of approximately 800m x 700m, named the Kaiser Intrusive Complex (KIC). The mineralisation is hosted within a package of submarine basaltic to andesitic lavas. The volcanic sequence is intruded by monzodiorite-monzonite units and related magmatic-hydrothermal breccias. The deposit is crosscut by several postmineralisation dykes and sills of varying composition.

Copper mineralisation is observed throughout the deposit, primarily as chalcopyrite with lesser bornite and subordinate chalcocite and covellite. Within the intrusive hydrothermal breccias, chalcopyrite and, to a lesser extent, bornite occur predominantly as a cement mineral between the calc-potassic altered clasts. Outside of the breccias, copper mineralisation is observed within calcite ± quartz ± epidote dominant veins and as disseminations and patches, often intergrown with epidote.

Gold is observed within the sulfide cemented breccias, often without magnification and is associated with pyrite, chalcopyrite and/or bornite in hydrothermal cement.

23.2 Evolution Mining's Northparkes Mine

The following brief description of Evolution Mining's Northparkes Mine is based on information sourced from Evolution Mining's Northparkes Mine website (https://evolutionmining.com.au/northparkes/).

The QP authors of this report have been unable to verify the information on Northparkes. The information on Northparkes is not necessarily indicative of the mineralisation on the property that is the subject of this Technical Report.

Northparkes is an owner operated copper, gold and silver mine owned by Evolution Mining (80%) and Sumitomo Group (20%). It is an established, long-life underground and open pit mine, and was the first mine in Australia to use the block caving mining method.

It produced 20,284 ounces of gold and 15,805 tonnes of copper in FY24.

Operations commenced in 1994, with Northparkes being the first mine to use the block cave mining method in Australia. Mining production from the E48 block cave finished in December 2023 and Northparkes is currently sourcing ore from E26 Lift 1 North block cave. The onsite processing plant produces a copper-gold-silver concentrate that is trucked and railed to the Port of Newcastle before being shipped to international customers.

Resources at Northparkes are associated with alkalic porphyry copper-gold deposits. Copper and gold mineralisation occurs as quartz-sulfide veins, breccia-fill and disseminations developed in and around clusters of pencil-shaped magmatic intrusions of quartz monzonite composition. Copper occurs as bornite (Cu_5FeS_4) and chalcopyrite ($CuFeS_2$), while gold occurs as microscopic native gold grains within and around the copper sulfides.

24. OTHER RELEVANT DATA AND INFORMATION

The QP authors believe that there is no additional information or explanation necessary to make the Report understandable and not misleading.

25. INTERPRETATION AND CONCLUSIONS

Despite some missing information on the drilling, sampling, security and QAQC procedures for some of the historical drill holes, especially at Peak Hill, the QP author is of the opinion the sample preparation, security and analytical procedures are adequate for the purposes of generating MRE for the project

In the opinion of the QP authors, all processes and procedures around processing of drill core and chips, core logging procedures and data capture into a dedicated database, sampling and QAQC and sample handling and transport security of samples are consistent, systematic and carried out in accordance with industry best practice.

Cut-off grade criteria applied to Mineral Resources included an assessment of RPEEE, which included estimates of open-pit and underground cut-off grades, geological continuity of mineralisation at the selected cut-off grades, commodity prices, mining and mineral processing methods, mining, processing and general administrative costs, predicted metallurgical recovery and smelter and refinery costs and payment terms. These factors were applied rigorously in converting Mineral Resources to Mineral Reserves to ensure that the latter provided an effective basis for economic analysis.

After a thorough review of the drill hole databases, the QP authors are of the opinion that the data is adequate for the purposes of generating MRE for the project.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The TGO operated a standard gravity and CIL operation. When investigating the Wyoming deposit, via testwork at ALS, it was identified that there was large component of the gold that is sulfide associated (pyrite/arsenopyrite).

The metallurgical testing in respect to identifying the refractory component of the Wyoming, Roswell, Caloma2 and San Antonio deposits and the subsequent flowsheet changes/upgrades to improve recovery has been done methodically and in line with industry standard.

The engineering interpretation of the testwork is sound. The implantation was on time and within budget estimates. The reduced leach performance, likely a result of not maintaining DO levels when the testing indicated maintaining 20ppm, is being addressed by TGO.

Additionally, the carbon fouling via PAX was not identified prior to implementation but has been identified by TGO and actioned. The ongoing change out of fouled carbon with fresh carbon and the improved absorption efficiency supports this theory. While these two are likely to incur some minor increased capital and operating costs in the short term, the full impact of the refractory upgrade maybe realised.

No major concerns/red flags were identified in the approach, nor execution of the metallurgical testwork program.

The throughput is relatively in line with the budget/forecast figures.

The majority of the planned feed to the plant from 2025 to 2028 is expected to be sourced from Roswell. The expected feed grade is relatively consistent and within the expected bounds for the plant design.

Independent review was completed by the QP author which verified the technical inputs, methodology, parameters and results of the MRE. The QP author is satisfied that the quantity and quality of data inputs informing the resource estimate are of a sufficient confidence to support the reported Mineral Resources.

The QP author is of the opinion that there are RPEEE for the Mineral Resources reported herein.

TGO is currently compliant with environmental regulatory agreements under the NSW Environmental Planning and Assessment Act 1979 and Protection of the Environment Operations Act 1997.

TGO was subject to numerous environmental studies as part of the EA for the TGP during the approvals phase and all required approvals were granted prior to the commencement of mining. The EA included documentation regarding the underground mine which is still relevant today.

At Tomingley, open pit mining ceased in 2023, and the operation transitioned to fully underground mining at Wyoming 1, Caloma 1 and Caloma 2. The underground drilling at the Roswell deposit resulted in a change to the resource envelope and expanded reserves.

The Tomingley Gold Extension Project (TGEP) encompasses new developments to the immediate south of the TGO site. The primary deposits are Roswell and San Antonio, which have been connected by an underground drive that extends from the Wyoming 1 pit to the north end of the defined Roswell resource.

A financial LOM cashflow model for the TGO has been completed by suitably qualified and experienced accounting and financial staff employed by Alkane and verified by the QP authors. The financial model for the financial period 2025 to 2031 demonstrates a cumulative net (notional pre-tax) cashflow of A$318.4 million for the period.

The TGO cashflows roll up into the Company level corporate model and the NPV and IRR are not assessed at the operational level.

The confidence in the inputs is consistent with the assigned classification of a Mineral Reserve. Confidence in the economic inputs is appropriate to the level of study given that the mining cost inputs are current costs from the TGO.

26. RECOMMENDATIONS

The QP author notes that:

- the TGO is currently in operation,
- the TGEP is currently in operation underground and under development on surface, and
- the PHGM is a past operation currently on care and maintenance.

As such, these properties represent projects where material exploration activities and engineering studies have largely concluded, and the QP is not in a position to make meaningful recommendations for further work.

Nevertheless, the QP author notes the following recommendations with regards to MRE.

26.1 TGO

26.1.1 Wyoming 1

Extensive underground grade control DD has occurred since the start up (Jan 2019). This ongoing drilling will continue to infill the known mineralisation and also look towards along strike and down dip extensions of the ore lodes. The upper portions of the Wyoming 1 UG deposit are well constrained by drilling, however, the high grade porphyry internal structures remain open at depth.

The QP author recommends that step out and infill drilling be undertaken to continue to expand the resource base and replenish depleted mineral resources as mining progresses.

26.1.2 Caloma 1

Mining within the Caloma open pit commenced in February 2014. Additional surface drilling has been completed to compliment an assessment of mining resources below the open pit by underground methods and also underground diamond infill drilling following up on the mineralisation intersected by the surface drilling.

The QP author recommends that step-out and infill drilling continue to be undertaken to continue to expand the current resource base and replenish depleted mineral resources when mining commences.

26.1.3 Caloma 2

Alkane have continued to test the continuation of mineralised structures at depth for underground resource definition.

The QP recommends that step out and infill drilling be undertaken to continue to expand the current resource base and replenish depleted mineral resources when mining commences.

26.2 TGEP

26.2.1 Roswell

Substantial upside is considered to exist 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. A substantial grade control drill program continues.

The QP author recommends that step out and infill drilling be undertaken to continue to expand the resource base and replenish depleted mineral resources as mining progresses.

26.2.2 San Antonio

The Mineral Resource estimate was prepared down to 20m RL on average and there is upside to test further depth extensions to the main zones of mineralisation. In particular in the south of San Antonio targeting the dacitic host that appears to correlate well with strong mineralisation. Other exploration targets at San Antonio that remain poorly understood are due to the restricted access of the position of the Newell Highway and include: the western monzodiorite, which is a significant host rock for mineralisation at the Tomingley gold deposits; and the northern zone proximal to the Rosewood Fault. The western monzodiorite is currently defined by deep drilling to a 500m strike length. The unit commonly hosts visible gold bearing structures. The monzodiorite host is open along strike and is poorly constrained by the current drilling due to the position of the Newell Highway.

The area between the northern contact of the andesite and the Rosewood Fault is approximately 100m in strike length and remains poorly tested due to the restricted access of the Newell Highway. Drilling has defined the northern contact to the andesite as steeply north plunging. This area within the andesite host has a similar structural setting as the Roswell mineralisation immediately north of the Rosewood Fault and further drilling is planned to test this.

Alkane plan additional drilling into the deeper parts of the deposit to infill the drilling to 20m x 20m spacing to convert Inferred Resources to Indicated and Indicated to Measured. Deep DD drilling is also being planned to test the continuation high grade mineralised structures at depth. The lateral extensions north, south and west of San Antonio remain open due to the restricted access of the Newell Highway. Future drilling is planned from the western side of the highway to better test these extensions.

The Mineral Resource is currently having further infill drilling at surface, with deeper extensional drilling planned with a view to both define the continuity of the mineralisation and high grade zones at depth.

The QP author notes that the planned approach to drill test at depth, along strike, as well as other potential targets is appropriate. The QP author recommends that step out and infill drilling continue to be undertaken to continue to expand the current resource base and upgrade resources in confidence.

26.2.3 McLeans

The Mineral Resource remains open at depth and the distribution of grade and the modelled shape of the host andesite indicates the bulk of the gold is contained in a 'keel' where the andesite host thins at the top and down its northern margin. The high grade mineralisation in the keel remains open at depth along the northern edge and there is potential for improved grade elsewhere in the defined lodes, particularly along the contact of the andesite.

Additional drilling is planned from surface and from the underground drive to infill the drilling to a nominal 40m x 40m spacing to convert the Inferred Resources to Indicated. This drilling will also test the continuation high grade mineralised structures forming along the keel of the andesite at depth.

The QP author recommends that step out and infill drilling be undertaken to continue to expand the current resource base and increase confidence in the current Inferred to Indicated.

26.3 PHGM

The current Peak Hill operation is on care and maintenance and Alkane have no plans for restarting mining operations. An Honours thesis was completed in 2024 to determine if hydrothermal fluid outflow zones could be identified as a precursor to targeting a potential porphyry source to the mineralisation

The QP author recommends that the current deposit is assessed for the potential for near mine brownfields and further afield greenfields opportunities to define exploration targets and potential resources, given the potential for revised economic viability with recent increases in commodity prices.

26.4 Recommended Work Program Costs

The QP author with consultation from Alkane has recommended a single-phase work program to support the ongoing development of the Tomingley and Peak Hill Project. Table 26-1 details the planned activities and estimated cost.

Table 26-1: Recommended Work Program and Estimated Cost

Task	Estimated Cost (A$'000)
Diamond Grade Control, Infill and Extensional Drilling Underground: Infill drilling at Roswell, Caloma 1 and Caloma 2. Extensional drilling at Roswell, Caloma 1, Caloma 2 and Macleans	7,000
Diamond & Reverse Circulation Drilling from Surface: Testing targets at El Paso, Tomingley 1, Wyoming 3 and Caloma North.	1,200
Contingency (10%)	820
Total Estimated Cost	**9,020**

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28. CERTIFICATES OF QUALIFIED PERSONS

I, **Andrew Ernest Waltho**, Geologist BAppSc (Hons), FAusIMM, FAIG, RPGeo, FGS, PMSME, GAICD certify that:

- I am a Professional Geologist, currently employed as Consulting Director, Corporate Transactions and Mining Advisory with ERM, with an office at Level 9/260 Queen Street, Brisbane, Queensland, Australia 4000.
- This certificate applies to the technical report titled, "Tomingley and Peak Hill Gold Projects, NSW, Australia—Technical Report for NI 43-101," (the "Technical Report") that has an effective date of 6 June 2025, (the "Effective Date").
- I am a graduate of the University of Technology, Sydney with an Honours Degree in Applied Geology (B.App.Sc Hons).
- I am a Professional Geologist and a Fellow of the Australian Institute of Mining and Metallurgy (FAUSIMM), Fellow of the Australian Institute of Geoscientists (FAIG), a Registered Professional Geoscientists (RPGeo), Fellow of the Geological Society, London (FGS), Professional Member of the Society for Metallurgy, Mining and Exploration (PMSME) and a Graduate Member of the Australian Institute of Company Directors (GAICD).
- I have practiced my profession for 43 years since graduation including 12 years as a consultant and have experience working with a number of gold and copper deposits in NSW, Australia, Mongolia, Republic of Guinea, United Kingdom, Canada and USA.
- I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for those sections of the technical report that I am responsible for preparing.
- I am responsible for all sections 1-3, 11, 13, 18—27 of this Technical Report.
- I have not completed a personal inspection of the Tomingley and Peak Hill Projects.
- I have no prior involvement with the Tomingley and Peak Hill Projects which are the subjects of this Technical Report.
- I am independent of Alkane Resources Limited (the "Issuer") as described in Section 1.5 of NI 43–101.
- I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.
- As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Report Date: 6 June 2025

(signed) "Andrew Waltho"

Andrew Waltho B.App.Sc (Hons), FAIG, RPGeo, FAusIMM, FGS, PMMSME, GAICD
FAUSIMM # 101595
FAIG # 2608
RPGeo #1002

I, **Anthony (Tony)Donaghy**, Geologist BSc, PGeo (Ontario) certify that:

- I am a Professional Geologist, currently employed as Geosciences Director, with ERM, with an office at Level 3, 1-5 Havelock St., West Perth WA 6005, Australia.
- This certificate applies to the technical report titled, "Tomingley - Peak Hill Gold Projects, NSW, Australia—Technical Report for NI 43-101," (the "Technical Report") that has an effective date of 6 June 2025, (the "Effective Date").
- I am a graduate of the University of Tasmania with a Bachelor of Science (Honours) degree in Geology and Geophysics.
- I am a Professional Geoscientist and Member of the Association of Professional Geoscientists of Ontario (PGeo).
- I have practiced my profession for 40 years since graduation including roles in both industry and as a consultant in Australia and overseas.
- I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for those sections of the technical report that I am responsible for preparing.
- I am responsible for sections 4-11 of this Technical Report.
- I completed a personal inspection of the Tomingley and Peak Hill Projects from 14-15 April, 2025.
- I have no prior involvement with the Tomingley-and Peak Hill Projects which are the subjects of this Technical Report.
- I am independent of Alkane Resources Limited (the "Issuer") as described in Section 1.5 of NI 43–101.
- I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.
- As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Report Date: 6 June 2025

(signed) "Anthony Donaghy"

Anthony Donaghy BSc (Hons) PGeo (Ontario)
Association of Professional Geoscientists of Ontario #0971

I, **Sonia Konopa**, Geologist, MSc (Economic Geology), BSc (Hons), FAusIMM, MAIG certify that:

- I am a Professional Geologist, currently employed as Consulting Director and Resource Manager with ERM, with an office at Level 9/260 Queen Street, Brisbane, Queensland, Australia 4000.
- This certificate applies to the technical report titled, "Tomingley and Peak Hill Gold Projects, NSW, Australia—Technical Report for NI 43-101," (the "Technical Report") that has an effective date of 6 June 2025, (the "Effective Date").
- I am a graduate of the University of Technology, Sydney (1986) with a Bachelor of Science Degree (Hons 2.1) in Applied Geology, and James Cook University, Townsville (2001) with a Master of Science Degree in Economic Geology.
- I am a Professional Geologist and a Fellow of the Australasian Institute of Mining and Metallurgy (Member 101561), and a Member of the Australian Institute of Geoscientists (Member 5865).
- I have practiced my profession for 40 years since graduation including 15 years as a consultant and have experience working with a number of gold mining operations around the world.
- I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for those sections of the technical report that I am responsible for preparing.
- I am responsible for sections 4, 12, and 14 of this Technical Report.
- I have not completed a personal inspection of the Tomingley and Peak Hill Projects.
- I have no prior involvement with the Tomingley and Peak Hill Projects which are the subject of this Technical Report.
- I am independent of Alkane Resources Limited (the "Issuer") as described in Section 1.5 of NI 43–101.
- I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.
- As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Report Date: 6 June 2025

(signed) "Sonia Konopa"

Sonia Konopa MSc (Economic Geology), BSc (Hons), FAusIMM, MAIG
FAUSIMM # 101561
MAIG # 5865

I, **Nicholas (Nick) More Hugo Conway MacNulty**, Mining Engineer, BSc Engineering (Mining), FAusIMM, MSAIMM, certify that:

- I am a Professional Mining Engineer, currently employed as Principal Mining Engineer, Technical Mining Services with ERM, with an office at Level 3/3 Havelock Street, West Perth, Western Australia, Australia 6005.
- This certificate applies to the technical report titled, "Tomingley and Peak Hill Gold Projects, NSW, Australia—Technical Report for NI 43-101," (the "Technical Report") that has an effective date of 6 June 2025, (the "Effective Date").
- I am a graduate of the University of Witwatersrand, Johannesburg, South Africa with an Honours Degree in Engineering (Mining) (BSC Eng. (Mining)).
- I am a Professional Mining Engineer and a Fellow of the Australian Institute of Mining and Metallurgy (FAUSIMM), and a Member of the Southern African Institute of Mining and Metallurgy (MSAIMM).
- I have practiced my profession for 42 years since graduation including 20 years as a consultant and have experience working with a number of gold and copper deposits in South Africa, Western Australia, Zambia, Mali and Eritrea. NSW, Australia, Mongolia, Republic of Guinea, United Kingdom, Canada and USA.
- I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for those sections of the technical report that I am responsible for preparing.
- I am responsible for all Sections 15-18, 21 of this Technical Report.
- I completed a personal inspection of the Tomingley and Peak Hill Projects from 14-15 April, 2025.
- I have no prior involvement with the Tomingley and Peak Hill Gold Projects, which is subject of this Technical Report.
- I am independent of Alkane Resources Limited (the "Issuer") as described in Section 1.5 of NI 43–101.
- I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.
- As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

(signed) "Nicholas More Hugo Conway MacNulty"

Report Date: 6 June 2025

Nicholas More Hugo Conway MacNulty, Mining Engineer, BSc Engineering (Mining), FAusIMM, MSAIMM

FAUSIMM # 3127396. MSAIMM: 70313333

ERM and Sustainable Mining Services

ERM is one of the world's leading environmental, health, safety and social consulting services providers.

ERM's Sustainable Mining Services Team is a leading group of geological and mining professionals that includes geologists, mining engineers, hydrologists, hydrogeologists, data and resource estimation specialists with experience in all types and stages of mineral projects worldwide.

We have a high level of technical expertise across mineral commodities gained from 35 years of experience within the global exploration and mining industry. Our team possess experience in all stages of the mining cycle, from project generation to production and the challenge of finding, developing and mining orebodies.

ERM has multiple points of entry throughout the mining lifecycle, and our global network of expertise, together with ERM, enables us to provide innovative solutions to improve operational performance and support efficient mine operations.

Our team has specific experience working in the mining sector with junior, mid-tier and major exploration and mining companies, as well as advising pension funds, private equity firms and international development finance institutions on investment risks and opportunities.

We offer an integrated and comprehensive set of services covering the entire mineral asset lifecycle. Our services include corporate advisory, operational support, mining and feasibility studies, resource estimation, geometallurgical modelling, exploration, data and water management and technology expertise.

Our highly experienced teams provide insight and innovative solutions to produce optimal outcomes for our clients. Our team can take your project from a concept through discovery and resource definition to a profitable and sustainable operating mine, with a robust closure plan and positive stakeholder engagement.

ERM's capabilities align seamlessly with this mission and vision, from the new country entry risk assessment, global operational strategy, geoscience and advanced technological solutions, data capture and management, hydrogeology, nature and beyond, through all stages of exploration, acquisition, mine planning and development, operations and closure. ERM plays a pivotal role in addressing the strategic, operational and tactical challenges encountered by major, mid-tier and junior mining companies worldwide.

Our specialists are supported by a huge team of scientists, engineers, social, environmental, health, safety and sustainability consultants from our parent company ERM. ERM's Sustainable Mining Services Team offers substantial depth of expertise and breadth of service to the mining community.

Snapshot of Our Services

Exploration & Geoscience

- Mineral systems targeting & project generation
- Remote sensing, geophysics, & geochemistry
- Mapping & drill program planning & supervision
- Exploration strategy & project management
- Project review & due diligence
- Geometallurgical optimisation & orebody characterisation

Resource Estimation & Mine Geology

- Mineral Resource estimation, validation, classification, & reporting
- Resource audits & risk analysis
- Geological & geometallurgical modelling
- Geostatistical analysis & variography
- Grade control & reconciliation
- Drill hole spacing analysis
- In situ recovery/in situ leaching
    - Resources & reserves
    - Suitability & optimisation
    - operations

Data & Mapping

- Data management (capture, data validation, & quality assurance/quality control)
- Geological Database administration
- Data visualisation, analytics, & cartography
- Geographic Information systems (GIS), plans, sections, & 3D plots
- Machine learning

Mining Engineering

- Mining & engineering studies (concept to feasibility)
- Mine optimisation, scheduling, design, & Ore Reserve estimation
- Productivity improvement & project management

Hydrogeology & Hydrology

- Water management & groundwater supply
- Project approvals
- Dewatering & depressurisation
- Ground/Surface water modelling
- Formulating water stewardship strategies & advanced technical solutions.

Mining Transactions & Corporate Advice

- Project reviews & independent reports
- Due diligence & mineral asset valuations
- Geo-corporate advice
- Conducting independent evaluations to guide decisions on mergers, acquisitions, due diligence, & compliance assessments
- Advice on reporting to public codes such as the JORC, VALMIN, SAMREC, NI 43-101, CIM codes, S-K 1300
- Expert witness

Environmental, Social, & Governance

- Efficiently bringing new mines to fruition in adherence to ESG best practices
- Advancing strategic & practical decarbonisation throughout the value chain, from mining equipment to processing & transportation
- Expert knowledge of 'licence to operate' issues, their prevention, & solutions.

Planning & Approvals

- Environmental risk identification, management, & compliance
- Climate change, biodiversity, natural resources
- Indigenous & historical heritage management
- Social strategy & policy development
- Community consultation programs
- Environmental & social impact assessments (ESIAs)
- Operational management & compliance.

Health & Safety

- Enhancing health & safety strategies & practical incident prevention through managing operational risks & controls, certifications, & compliance with safety regulations, policies, standards, & procedures
- Risk assessment & management systems
- Risk management & incident investigation
- Hazard identification, inspections, risk assessments & prevention control
- Occupational health & safety systems & compliance auditing

Rehabilitation & Mine Closure

- Planning for repurposing or transitioning sites
- Rehabilitation appraisals, planning, & progress monitoring, closure plans
- Community development & economic transition
- Earthworks, cover, landform designs, & modelling, erosion & sediment management
- Waste characterisation & final void assessment
- Water management & reduction strategies
- Land use capability assessment
- Estimated rehabilitation costs
- Site closure costs/financial provisioning

ERM

ERM has over 160 offices across the following countries and territories worldwide

Argentina
Australia
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Taiwan
Tanzania
Thailand
United Arab Emirates
United Kingdom
United States
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