ASX and MEDIA RELEASE

14 December 2023

ALKANE RESOURCES LTD
ABN 35 000 689 216

Boda Resource Update Increases Gold and Copper Grades
Resource Base Now 10.9 Moz AuEq (6.4 Moz Au & 1Mt Cu)*

- **The revised Mineral Resource Estimate (Indicated + Inferred) for the Boda Deposit including Boda 2-3 now stands at:**

  583Mt at 0.58g/t AuEq for 10.9Moz (0.34g/t Au, 0.18% Cu 6.38Moz Au, 1.03Mt Cu).

- **The revised estimate lifts the Boda deposit's gold grade by 30%, copper grade by 28% and increases metal endowment by 22% comprising 1.17 Moz of gold and 14% or 0.10 Mt of copper.**

- **The Boda/Kaiser District includes the Kaiser Deposit located 500 metres northwest of Boda. The District now has global resources classified as Indicated and Inferred for a total of:**

  Indicated: 343Mt at 0.35g/t Au, 0.18% Cu (3.9Moz Au, 0.6Mt Cu)

  Inferred: 510Mt at 0.28g/t Au, 0.18% Cu (4.6Moz Au, 0.9Mt Cu)

  Total: 853Mt at 0.57g/t AuEq for 15.7Moz AuEq (0.31g/t Au, 0.18% Cu 8.43Moz Au, 1.52Mt Cu)

- **The Kaiser Inferred Resource, containing 2.1Moz Au and 0.5Mt Cu, is being infilled to a nominal 50m x 50m drill grid spacing. A revised Kaiser MRE to include an Indicated category is anticipated for release in Q1 2024.**

- **Drilling continues to define the overall system with extensions being tested south and at depth at Boda 2-3, and northwest of Boda towards Kaiser, in addition to infill drilling of the Kaiser Resource. The Boda deposit remains open at depth and along strike to the south.**

- **Substantial metallurgical testwork** established a viable and simple flowsheet with overall recoveries at Boda of 87.4% for copper and 80.9% for gold with a saleable concentrate.**

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The equivalent calculation formula is AuEq(g/t) = Au(g/t) + Cu%/100*31.1035*copper price ($/t)/gold price($/oz). 12-month average metal prices were used of US$1,950/oz gold and US$8,600/t copper, and A$:US$0.67. Recoveries are estimated at 87% for Cu and 81% for Au from metallurgical studies. Alkane believes all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

***** See ASX announcement dated 14 November 2023.***

Alkane Resources Limited (ASX: ALK) is pleased to announce an updated Boda mineral resource estimate following its extensive drilling program at the Company's Boda Prospect in Central New South Wales. Boda is a landmark porphyry gold-copper system, within the Northern Molong Porphyry Project, which the Company believes has the potential to be a large, tier one gold-copper project.

Alkane also operates the nearby Tomingley Gold Operations ('Tomingley').

Alkane Managing Director, Nic Earner, said:

"This updated resource shows the significant potential of both Boda and the larger Northern Molong Porphyry Project.

"Not only has the definition increased from Inferred to Indicated but the entire resource has increased in both grade and metal endowment. We will be adding to the Indicated resource when Kaiser is updated in Q1 next year.

***"**We're working on a scoping study that starts to outline the economics of the Boda & Kaiser system that we will be finalising after the Kaiser resource is updated**.** We're looking forward to this time and further demonstrating the potential of the system."*

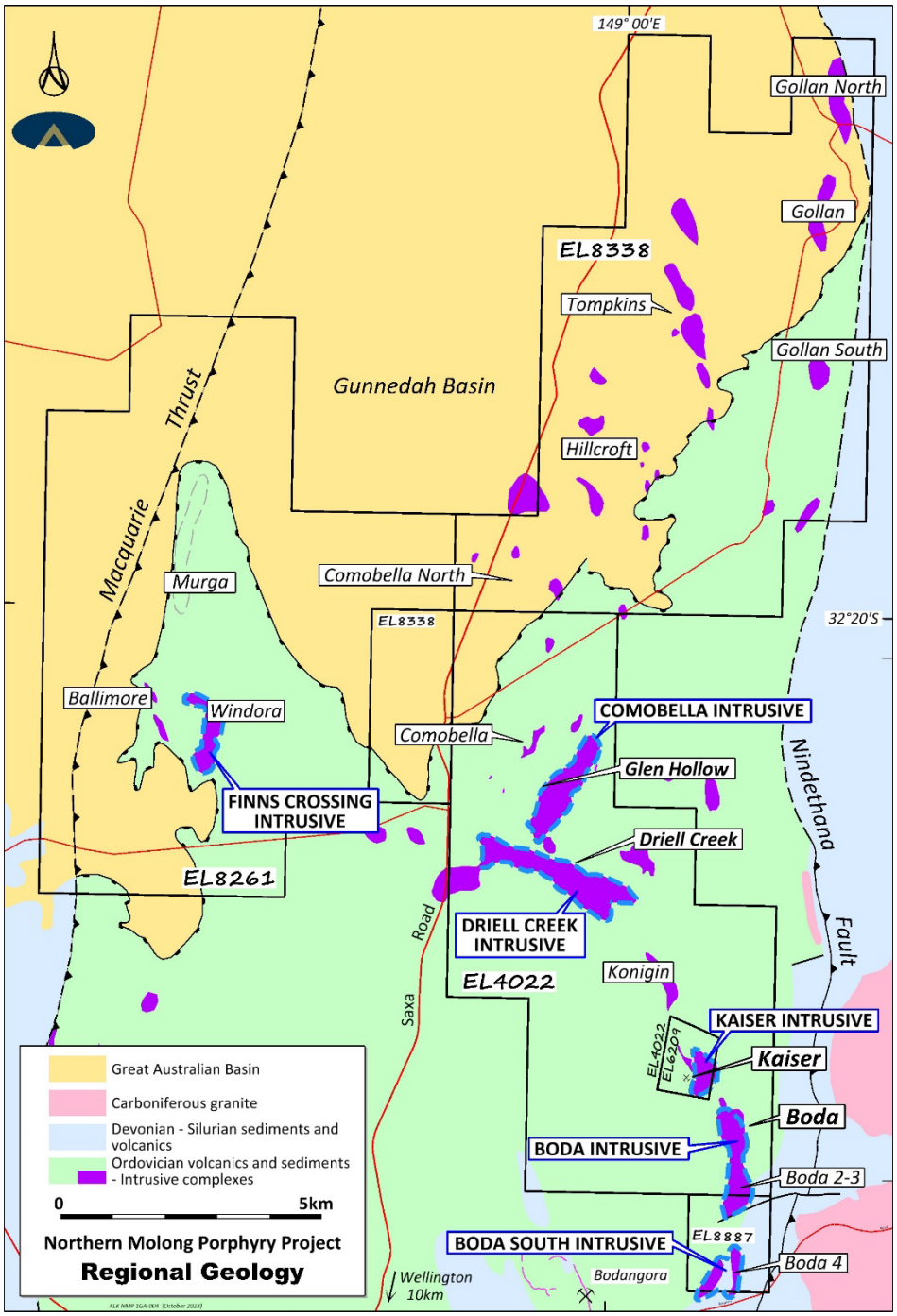
Resource drilling at Boda

Northern Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

The Project is located in the Central West of NSW at the northern end of the Molong Volcanic Belt of the Macquarie Arc and is considered highly prospective for large scale porphyry and epithermal gold-copper deposits.

Exploration in the NMPP has identified six discrete magnetic/intrusive complexes – Kaiser, Boda, Boda South, Comobella, Driell Creek and Finns Crossing – within a 15km northwest trending corridor. The corridor is defined by intermediate intrusives, lavas and breccias, extensive alteration and widespread, low-grade, gold-copper mineralisation. Two significant gold-copper resources have been defined within the corridor at Boda and Kaiser (ASX Announcement 27 February 2023). Drilling continues to improve the confidence of the Boda and Kaiser deposits and to test mineralised zones outside their resource envelopes.



Boda Mineral Resource Estimate

The revised Mineral Resource estimation for the Boda deposit was confined to a surface area of 1,750m strike length and 500m width (Figure 1) and is summarised in Table 1. The estimation uses nominal drill hole grid of 50m by 50m around the Boda deposit broadening to approaching a nominal 100m by 100m at Boda 2-3 and drilling to depths averaging approximately 1,000m. It utilises assay results captured from 186 drill holes for a total of 145,458 metres comprising of 102,282 metres of diamond core and 43,176 metres of RC drilling. This equates to an extra 103 drill holes for a total of 74,027 metres being used to estimate the revised Boda resource and to include previously unclassified mineralisation at Boda 2-3. The resource was calculated to an average -500mRL. A review of feasibility and existing operating data for similar deposits in Australia (*see data sources below) was considered in determining cut-off grades of 0.3g/t AuEq and 0.4g/t AuEq as reasonable for the prospect of eventual extraction with the use of bulk tonnage mining methods of open cut or underground respectively. A notional pit shell was used to determine what resources were considered open pittable.

Table 1 Mineral Resource Estimate for Boda

Resource Category	AuEq Cutoff	Tonnes (Mt)	Grade			Contained Metal		
			AuEq* (g/t)	Au (g/t)	Cu (%)	AuEq* (Moz)	Au (Moz)	Cu (Mt)
Open Pittable Resource (cut-off 0.3g/t AuEq*)								
Indicated	0.3g/t	191	0.59	0.36	0.17	3.63	2.22	0.32
Inferred	0.3g/t	42	0.51	0.29	0.16	0.68	0.38	0.07
Sub Total	**0.3g/t**	**233**	**0.58**	**0.35**	**0.17**	**4.31**	**2.60**	**0.39**
Underground Resource (cut-off 0.4g/t AuEq*)								
Indicated	0.4g/t	151	0.61	0.34	0.20	2.96	1.64	0.30
Inferred	0.4g/t	198	0.58	0.34	0.18	3.67	2.14	0.35
Sub Total	**0.4g/t**	**350**	**0.59**	**0.34**	**0.18**	**6.63**	**3.78**	**0.65**
TOTAL		**583**	**0.58**	**0.34**	**0.18**	**10.9**	**6.38**	**1.03**

The numbers used to calculate Mineral Resources are more precise than the rounded numbers shown in the tables, hence small differences may result if the calculations are repeated using the tabulated figures.

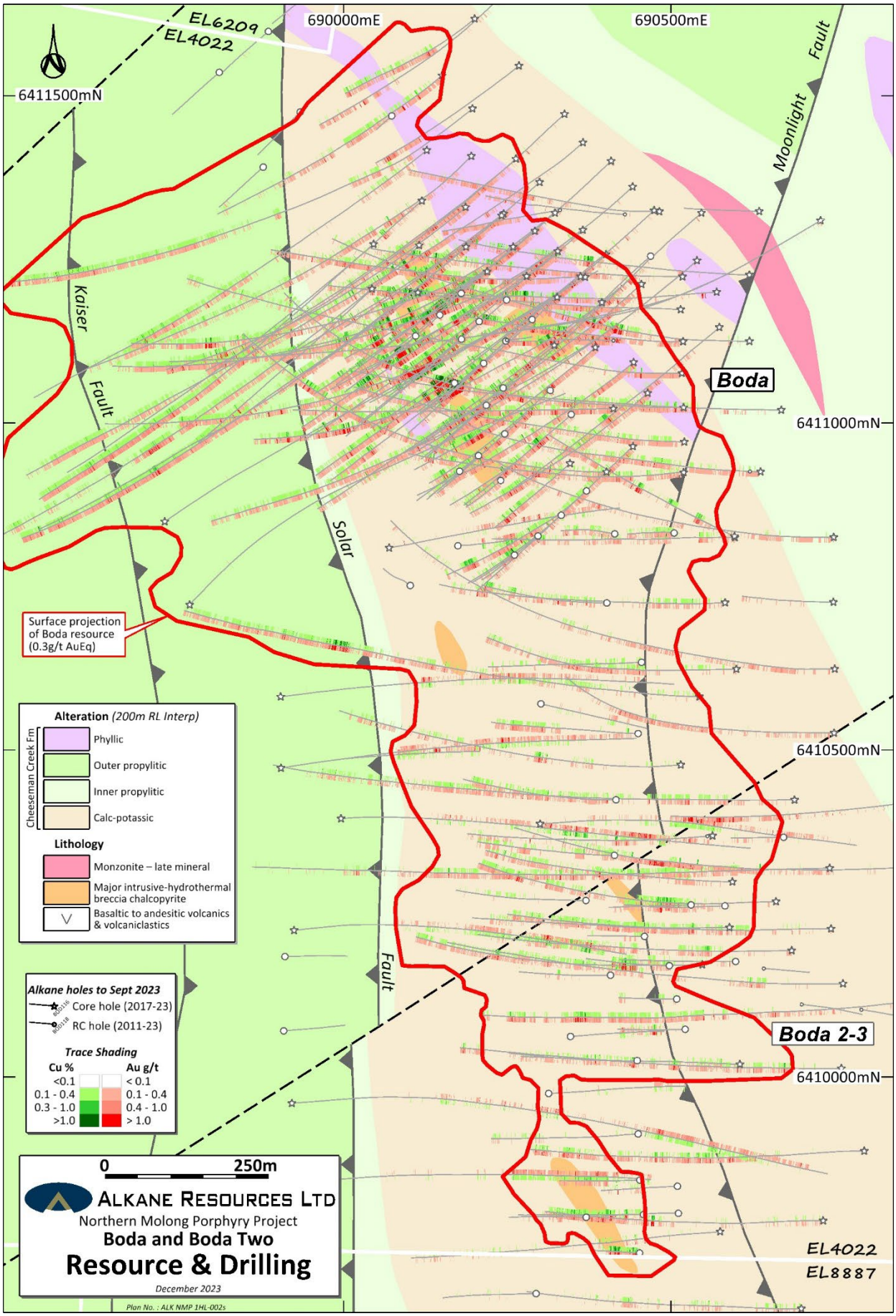
****The equivalent calculation formula is AuEq(g/t) = Au(g/t) + Cu%/100*31.1035*copper price ($/t)/gold price($/oz). 12-month average metal prices were used of US$1,950/oz gold and US$8,600/t copper, and A$:US$0.67. Recoveries are estimated at 87% for Cu and 81% for Au from metallurgical studies. Alkane believes all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.***

Full details are provided in the appended JORC Table 1 and text summary below. Gold equivalent is determined using 12-month average pricing and estimated metallurgical recoveries.

*Data Sources

ASX.NCM, 7 December 2021, Newcrest Annual Information Form.
ASX.OZL, 7 November 2016, Carrapateena Sub-Level Cave Pre-feasibility Study.
16 November 2020, Carrapateena 2020 Mineral Resources and Ore Reserves Statement and Explanatory Notes as at 30 June 2020.
ASX.AZY, 23 February 2022, Rio Tinto reports first Indicated Mineral Resource estimate at Winu Project.
ASX.CVV, 4 November 2021, Updates 2021 Scoping Study – Caravel Copper Project.
1 April 2022, Caravel Copper Project Maiden Ore Reserve.

Figure 1 Boda-Drill hole location plan



The Mineral Resource will be subject to further resource infill and extension drilling with a view to define the continuity of the mineralisation at depth and to improve the confidence in the Mineral Resource. 3D models of the Boda mineralisation are displayed below.

Figure 2 3D Wireframe of Boda Deposit by mineralisation type

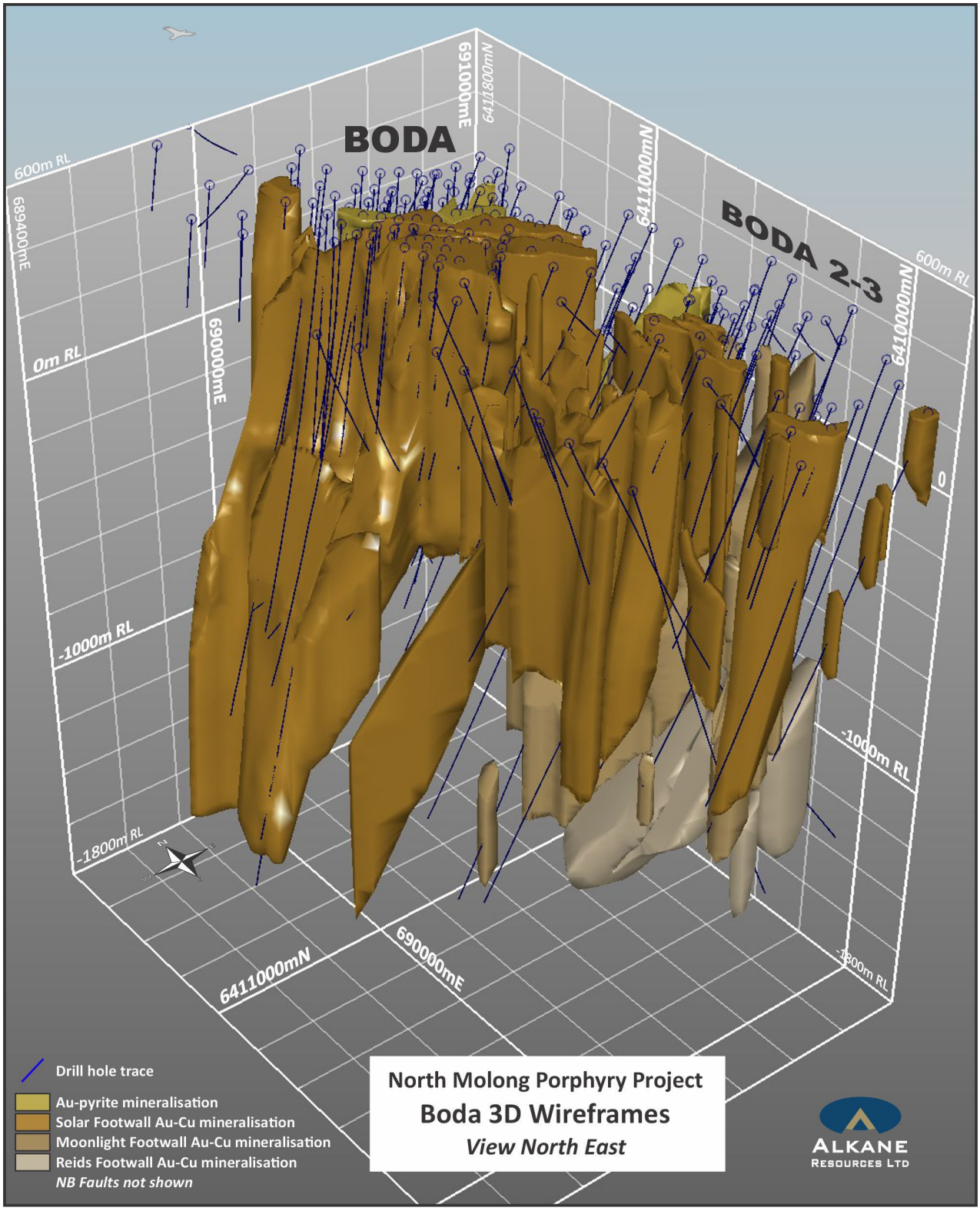


Figure 3 3D Block Model of Boda Deposit by resource classification

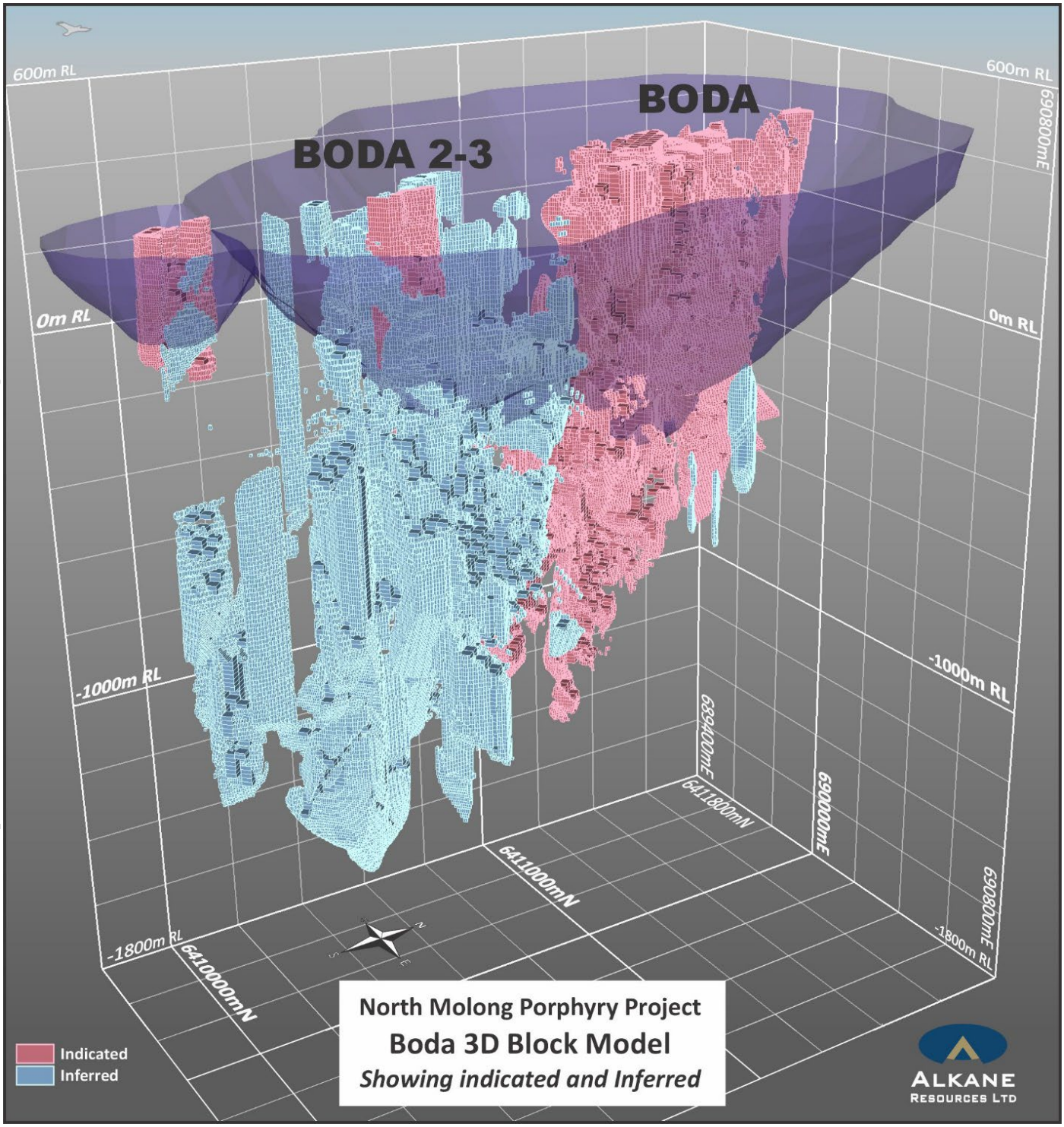
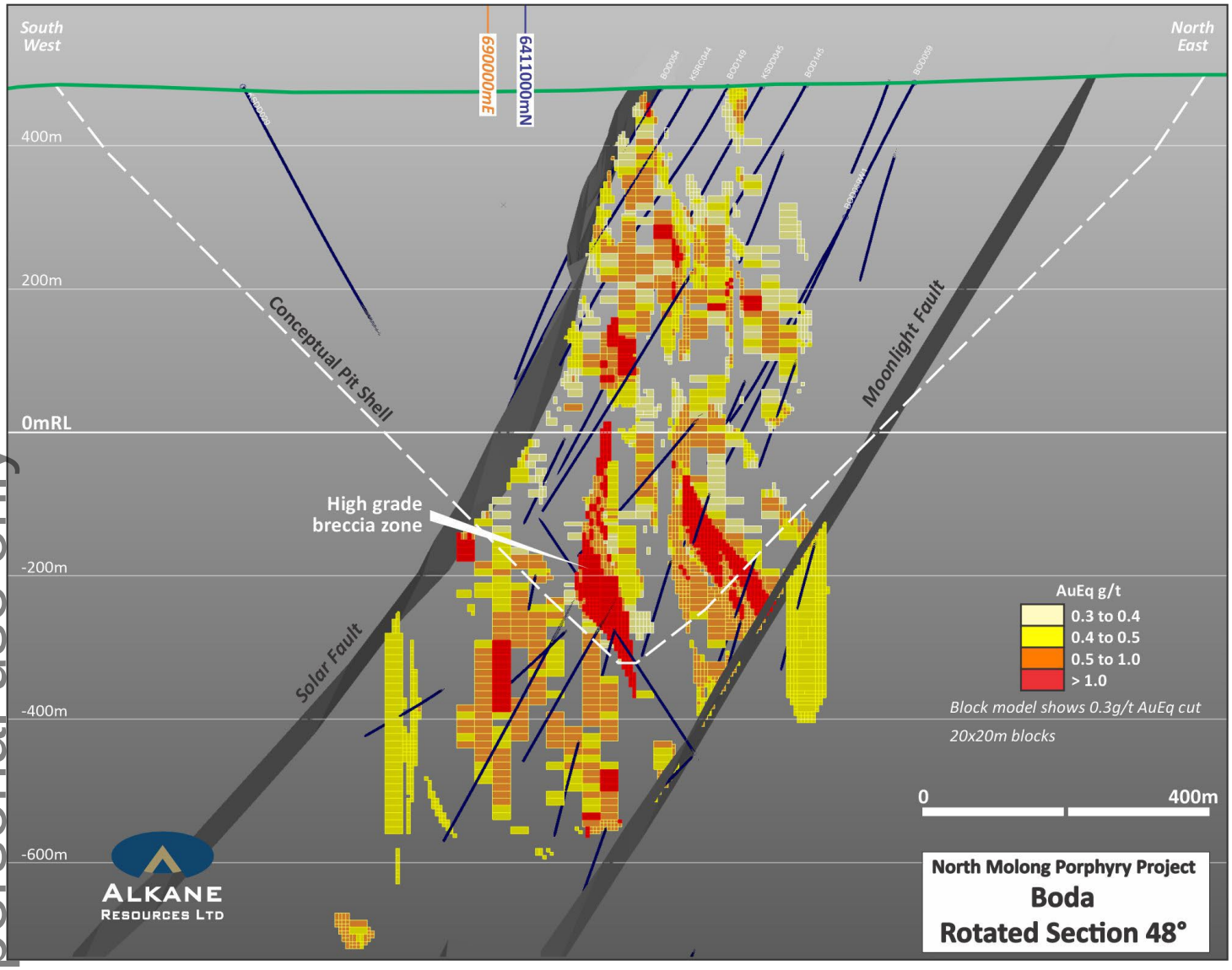


Figure 4 Typical cross section of block model with grades and conceptual pit shell



At the nearby Kaiser Deposit, an initial Inferred Resource was estimated at 270 Mt at 0.24 g/t Au, 0.18% Cu for 2.05 Moz gold and 0.48 Mt copper (ASX Announcement 27 February 2023), giving the Boda/Kaiser District combined Mineral Resources of 853 Mt at 0.31g/t Au, 0.18% Cu for 8.43 Moz gold and 1.52 Mt copper or 15.7 Moz AuEq as summarised in Table 2.

Figure 5 Boda-Kaiser Drill hole location plan with resource outlines

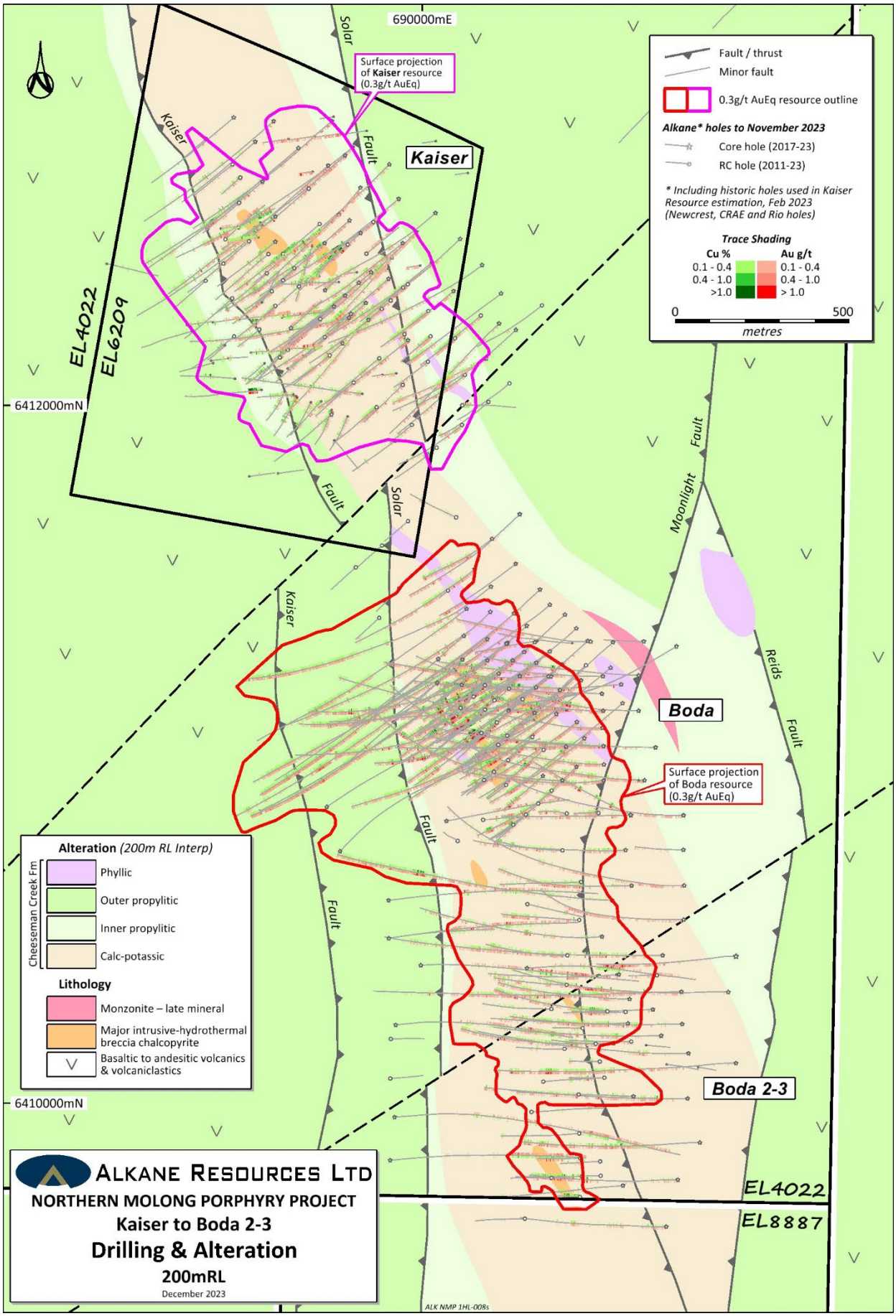


Table 2 Total Mineral Resources for the Boda/Kaiser District

DEPOSIT	INDICATED			INFERRED			TOTAL				METAL		
	Tonnes (Mt)	Au (g/t)	Cu (%)	Tonnes (Mt)	Au (g/t)	Cu (%)	Tonnes (Mt)	AuEq* (g/t)	Au (g/t)	Cu (%)	AuEq* (Moz)	Au (Moz)	Cu (Mt)
Open Pittable Resource (cut-off 0.3g/t AuEq)													
Boda	191	0.36	0.17	42	0.29	0.16	233	0.58	0.35	0.17	4.31	2.60	0.39
Kaiser	-	-	-	270	0.24	0.18	270	0.54**	0.24	0.18	4.72**	2.05	0.48
Subtotal	**191**	**0.36**	**0.17**	**311**	**0.24**	**0.18**	**503**	**0.56**	**0.29**	**0.17**	**9.03**	**4.65**	**0.87**
Underground Resource (cut-off 0.4g/t AuEq)													
Boda	151	0.34	0.20	198	0.34	0.18	350	0.59	0.34	0.18	6.63	3.78	0.65
TOTAL	**343**	**0.35**	**0.18**	**510**	**0.28**	**0.18**	**853**	**0.57**	**0.31**	**0.18**	**15.7**	**8.43**	**1.52**

The figures used to calculate Mineral Resources are more precise than the rounded numbers shown in the tables, hence small differences may result if the calculations are repeated using the tabulated figures.

**The equivalent calculation formula is AuEq(g/t) = Au(g/t) + Cu%/100*31.1035*copper price ($/t)/gold price($/oz). 12-month average metal prices were used of US$1,950/oz gold and US$8,600/t copper, and A$:US$0.67. Recoveries are estimated at 87% for Cu and 81% for Au from metallurgical studies.*

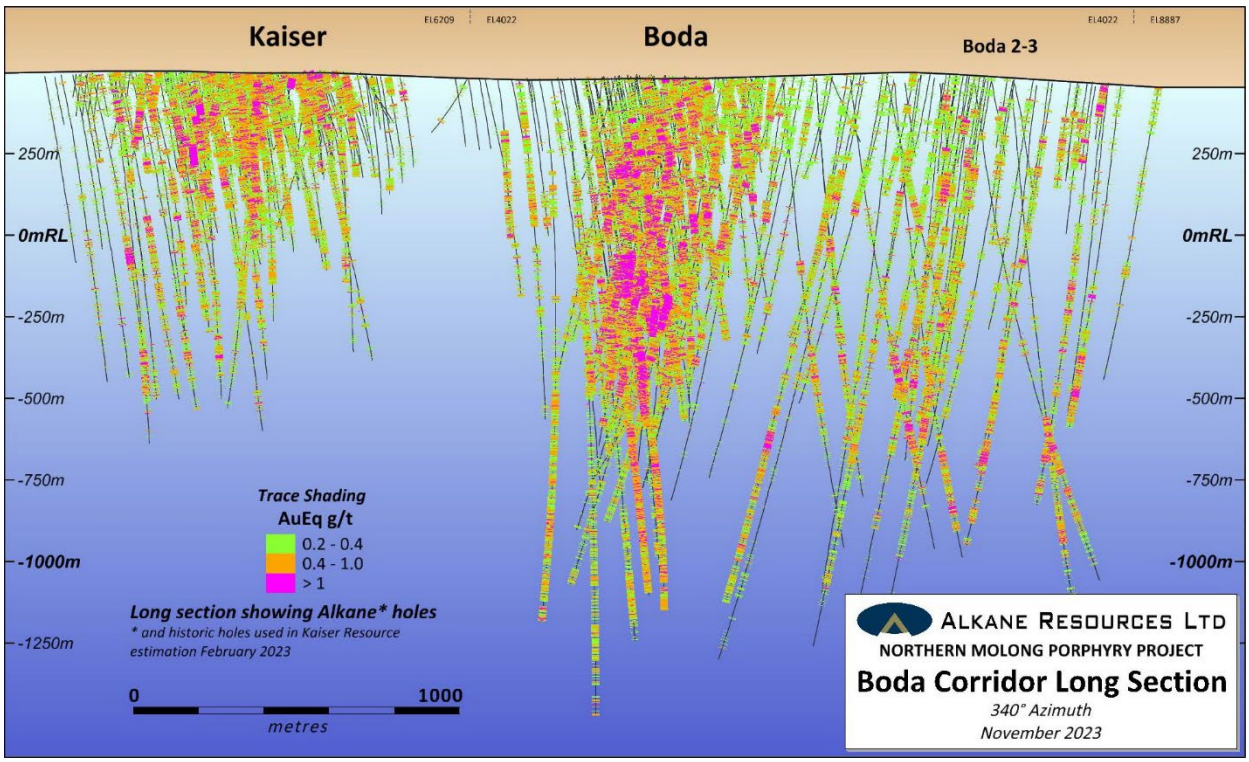
***AuEq calculated using rates from Kaiser resource ASX announcement dated 27 February 2023.*

Exploration Upside at Boda

The Mineral Resource estimation was calculated to the -1000mRL in its deepest drilled sections, with the bulk of the resource modelled on average to the -500mRL. There remains potential for further extensions to the main zones of mineralisation. A zone of high grade mineralisation at Boda 2-3 intersected by drillhole BOD094 – 591.2m grading 0.35g/t Au, 0.19% Cu from 1,215m including 58m grading 1.28g/t Au, 0.74% Cu from 1,223m. The high-grade portion of this mineralisation remains open north along strike by several hundreds of metres.

Boda and in particular Boda 2-3 is dislocated by a series of imbricated thrust faults resulting in deep distal propylitic altered volcanics with minor gold-copper mineralisation in the west being thrust over a central block of broadly calc-potassic altered volcanics with extensive gold-copper mineralisation. These blocks are further thrusted over the preserved upper level of the Boda 2-3 porphyry system in the east. Exploration potential remains to target high grade mineralisation within these blocks that can be dislocated by up to 500 metres by these structures.

Exploration around the Boda District has defined a 3.5km corridor of extensive calc-potassic alteration associated with Au-Cu porphyry mineralisation. The corridor trends north from Boda 2-3 to Boda for approximately 1km, where it rotates northwest to Kaiser for a further 2.5km. All the drilling completed within the corridor is illustrated by the long section below. Drilling for the purpose of infilling the initial Mineral Resource Estimate (MRE) at Kaiser is nearing completion and the updated MRE is expected in late in Q1 2024. More regional exploration will occur in the coming months targeting the Driell Creek, Konigin and Finns Crossing prospects that are all positioned within the 15km northwest trending intrusive corridor.



Geology and Geological Interpretation

Alkane's Northern Molong Porphyry Project (NMPP) is a group of exploration licences located within the Molong Volcanic Belt (MVB) of the Macquarie Arc approximately 20 km northeast of Wellington and approximately 250 km north-west of Sydney. The MVB is considered highly prospective for large scale porphyry gold-copper deposits, as demonstrated by the Cadia Valley porphyry district located 120 km to the south. Cadia is one of the world's largest alkalic porphyry deposit with a total endowment of 50 million ounces of gold and 9.5 million tonnes of copper.

The Boda Deposit is located within a northwest trending structural corridor on the north-western margin of a significant magnetic complex with dimensions of approximately 2 km x 0.7 km. 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. The deposit is crosscut by numerous post-mineralisation dykes and sills of varying composition.

Intrusive- to magmatic-hydrothermal breccias appear to be the focus for the calc-potassic alteration and gold-copper mineralisation at Boda. The mineralisation is related to a series of northwest-trending monzodiorite intrusions that manifest as a series of vertically extensive intrusive breccias forming a stock central to Boda and Boda 2-3. These intrusive breccias transition to hydrothermal breccias to which the highest gold-copper grades are related. The majority of brecciation is in the form of a 'crackle breccia' that can either have a hydrothermal matrix usually comprising of calcite ± actinolite ± pyrite ± magnetite ± chalcopyrite or an igneous matrix dominantly of monzodiorite.

The magmatic-hydrothermal brecciation event was likely to have occurred syn- and post-emplacement of monzodiorites and pre-emplacement of the weakly altered and mineralised monzonites. The intrusive breccia is a likely 'causative' to the main Boda mineralisation and is observed as monzodioritic in composition.

The Boda volcanic package has undergone intense and extensive calc-potassic to potassic alteration often replacing both phenocrysts and the groundmass. This alteration is apparent over a strike length of approximately 3.5km from Kaiser, southeast to Boda, then rotating and continuing south to Boda 2-3, with more significant mineralising centres occurring at each of the deposits. The calc-potassic alteration comprises fine-grained biotite-actinolite-epidote-magnetite with lesser internal zones of potassic alteration comprising only hydrothermal biotite.

Veining within the calc-potassic zone is dominated by calcite-quartz vein assemblages that are typically sulphide poor. Fine grained calcite occurs both as veinlets, usually along brittle fractures and as a widespread disseminated phase within the calc-potassic altered rocks.

Copper mineralisation is observed throughout the prospect primarily as chalcopyrite with subordinate bornite and chalcocite, and rare covellite. Within the magmatic 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 mineralised breccias often without magnification, associated with chalcopyrite and bornite in the hydrothermal cement.

Calc-potassic alteration grades into propylitic alteration away from the breccia complex and has a typical assemblage of actinolite-hematite-epidote-pyrite (± trace chalcopyrite) proximal to the calc-potassic alteration zone. Moving further away from the mineralised centre the typically assemblage becomes more chlorite-calcite-albite-pyrite dominant.

Boda is overprinted in the north-east by phyllic alteration comprising sericite-quartz-calcite ± albite with up to 10% pyrite by volume. The pyrite occurs as disseminated spots, aggregates, and short veinlets. The phyllic alteration is copper poor however gold grades over hundreds of metres can average from 0.2g/t – 0.6g/t Au with occasional thin intervals of >10g/t Au.

Three significant west dipping reverse faults (Solar, Moonlight and Reids) bound and dislocate the mineralisation at Boda and Boda 2-3. The Solar Fault bounds the western margin of mineralisation at Boda and Boda 2-3. Moonlight Fault dislocates the calc-potassic Au-Cu mineralisation at Boda and Boda 2-3. The Reids Fault is the easternmost fault and bounds the shallow level Au-pyrite mineralisation from calc-potassic Au-Cu mineralisation to the west at Boda 2-3. All three thrusts have an inferred movement of over 400m along the moderately west dipping structures.

There is negligible post-mineral cover on the Boda deposit. Weathering and oxidation of the mineralised bedrock extends on average approximately 15m from surface.

The monzonites, dolerites, faults, surface and base of oxidation were modelled in 3D and formed the basis of wireframing the mineralisation in the estimation. All wireframes were built by Alkane geologists. This informed the estimates and along with grade guided the interpretation of the ore envelope wireframes at a nominal 0.2g/t AuEq lower cutoff and three high-grade breccia domains informed using a 1.2g/t AuEq lower cutoff. Where the intercept gold value was below the nominal cut-off and the mineralisation continuity was supported by veining and alteration, the intercept was included within the domain due to the commodity and the style of deposit.

BODA MINERAL RESOURCE – *Supporting information*

The Mineral Resource Statement for the Boda Mineral Resource Estimate (MRE) is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

In the opinion of Alkane, the resource estimation reported is a reasonable representation of the global gold and copper mineral resource within the Boda deposit, based on reverse circulation and diamond drilling sampling data available as of December 2023, and is detailed below:

Drilling Techniques

The Boda deposit has been evaluated using all of Alkane's reverse circulation (RC) and diamond drilling (DD) holes within the prospect area. No previous companies' exploration drilling in the region (shallow RC, air-core and RAB holes) was used in the assessment.

Drilling at the Boda deposit and Boda 2-3 prospect was conducted as an extended campaign since the maiden Boda Mineral Resource Estimate announced 30 May 2022. The revised estimation at Boda and Boda 2-3 uses a total of 186 drill holes comprising of 42,455 metres of RC and 103,002 metres of diamond core for a total of 145,457 metres. Drilling statistics are summarised in Table 2.

Table 3 Summary Drilling Statistics for Boda Resource Estimation

Boda and Boda 2-3 Drilling Statistics						
Hole Type	**Reverse Circulation (pre-collars)**	**Reverse Circulation**	**PQ3 Diamond (pre-collars)**	**HQ3 Diamond**	**NQ3 Diamond**	**Total**
No. Holes	78	79	22	100	7	**186** (minus pre-collars)
Metres	19,111	23,344	721	95,504	6,777	**145,457**

Drilling was conducted using high-capacity RC drill rigs and high-powered diamond core drill rigs for the purpose of retrieving large sized sample and for drilling to significant depths. The initial exploration drilling was conducted on east-west traverses at Boda and Boda 2-3, with subsequent resource definition drilling at Boda conducted on more optimal southwest striking traverses for that part of the deposit. Resource drill sections at Boda are spaced 50m apart with drill holes at nominal 50m intervals along these sections. Drilling at Boda 2-3 is more irregularly spaced along east-west traverses approaching a nominal 100m spaced drilling grid.

Sampling and Sub-Sampling Techniques

Sampling on all types of drilling was conducted from the surface to the bottom of hole. Sampling via the different drilling techniques used is described as follows:

RC Drilling:

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

All composites assaying ≥0.1g/t Au or ≥0.1% Cu together with their upper and lower bounding composite samples were re-split as 1 metre samples collected at the time of drilling into a calico bag via a splitter below the cyclone.

Diamond Core 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 and sampled in a range of 0.3 metre to 1.3 metre intervals as determined by the geologist based on lithological contacts, alteration zones and mineralisation zones. Geotechnical, magnetic susceptibility and bulk density measurements were collected as well as lithology logging and structural data. The remaining half core is stored at the Orange exploration facility. NQ3 size core was sampled as whole core respecting the intervals determined as above.

Sample Analysis Method

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

For all samples used in the resource estimate, gold was determined using a 50g charge fused at approximately 1100°C with alkaline fluxes, including lead oxide. The resultant prill was dissolved in aqua regia and gold determined by flame AAS.

In addition to gold assay, samples were assayed for a full multi-element suite using a multi-acid complete digest, with an AES and MS finish.

Commercially prepared Certified Reference Materials (CRM) and blanks were inserted at approximately 1 in 30 samples. CRM's were not identifiable to the laboratory. Standards were deemed to be within tolerance if the result was within 3 standard deviations and 10% of the expected value. When a standard fell outside this tolerance, the standard along with a selection of samples from the batch were resubmitted. These "failed" samples are not included in the resource estimation.

Field duplicate samples were inserted at 1 in 40 samples (alternate to CRM's). Field duplicate samples were collected by riffle splitting the RC sample. The coefficient of determination for gold when the 4 highest grade samples are removed has a correlation coefficient value of 0.87 indicating good repeatability for grades forming the bulk of the resource. Copper shows excellent repeatability with a correlation coefficient of 0.98. The copper result indicates that the lower correlation coefficient in gold is due to a gold nugget effect rather than improper sampling procedures.

Laboratory QAQC sampling includes insertion of CRM samples, internal duplicates and screen tests. This data was reported for each sample submission. Umpire laboratory check samples were forwarded to SGS Laboratory in West Wyalong for Au and Cu analyses over the course of the resource drilling campaign as a 1.3% proportion of total assays. In general, the results were repeatable between the laboratories with no statistically significant bias detected.

In the competent persons opinion, the laboratory has performed satisfactorily for the drilling used in the estimation and any noted discrepancies are acceptable for the resource classification applied.

Estimation Methodology

Grade estimation was completed using Ordinary Kriging (OK) with a hard boundary interpolation on the high-grade domains, the gold-rich domains, the late dyke domains and into the broad low-grade Au-Cu envelope domains. All wireframing and estimation was completed with Datamine Studio RM software.

Exploratory data analysis of the capped and de-clustered composited gold and copper variables within each domain was undertaken by Cube Consulting (Cube) with separate variograms for each metal and for each domain being produced using Datamine/Snowden Supervisor software. Sample data was composited into one metre downhole lengths using a best fit methodology.

Cube conducted an estimation search neighbourhood analysis to determine optimal search parameters for Ordinary Kriging (OK) estimation of gold and copper grade. This analysis was carried out on only the well-informed domains. This determined an optimum block size to be 25mX x 25mY x 10mZ and sub-blocking down to 5mX x 5mY x 5mZ. These blocks were informed by a minimum of 10 and a maximum of 22 composited samples, with an initial search ellipse using a major axis of 70m to 130m, with various semi and minor axis ratios depending on the metal and domain being estimated. To inform any remaining blocks a second pass search radius was made at double the first pass and five times for a third pass. The model was rotated to best align the block dimensions with interpreted mineralisation.

A top cut analysis was carried out by a visual inspection of the data using histograms, log-transformed probability plots, mean and variance plots, and sensitivity analysis for individual domains to identify population outliers. The spatial location of the outliers was also taken into consideration for the application of the grade caps. The sensitivity analysis involved analysing varying cap values, to estimate the contribution of each sample to the overall metal content. Capping was deemed necessary for some of the domains.

Distance limiting of high grades via an aggressive top cut was used during the estimation process on domains that had evidence for higher grade samples having a greater spatial influence than warranted. This results in the higher grades being more locally representative and having less of an influence over distance.

Validation and verification of the modelling parameters and processes of estimation included visual inspections in section, plan and in 3D, volumetric comparison of resource wireframes to the block model, and a comparison of other iterations vs the final OK model. In the competent persons opinion, all methods of validation produced acceptable results.

Classification Criteria

Mineral Resources were classified as Inferred or Indicated to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, as well as metal distribution. There is no material classified as Measured.

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 below 60m, or where drilling was within 60m of the block estimate;

- Estimation quality is of high confidence in respect to low kriging variance; and

- Blocks are informed by a first pass search.

Remaining estimated blocks within the defined mineralisation domains were classified as Inferred Resources (this included most blocks in the less well-informed domains and all blocks in the poorly-informed domains). The dimensions of the search ellipse were based on the recommended search neighbourhood parameters.

Cut-Off Grade

The Mineral Resource cut-off grade for reporting of the Boda deposit was selected as 0.3g/t AuEq for open cut mining and 0.4g/t AuEq for bulk underground mining methods. This was based upon a review of existing and feasibility operating data for similar deposits in Australia as reasonable for the prospect of eventual extraction. Gold equivalents have been calculated using the formula AuEq(g/t) = Au(g/t) +

Cu%/100*31.1035*copper price($/t)/gold price($/oz). The prices used were based on a 12-month average of US$1,950/oz gold and US$8,600/t copper, and an exchange rate of A$:US$0.67. Metal recoveries are estimated at 87% for copper and at 81% for gold from metallurgical testwork. Alkane believes all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

Mining and Metallurgy

It is assumed that based on the orientations, thickness and depths of the dispersive gold-copper mineralisation modelled that bulk tonnage mining methods such as open cut or sub-level / block caving would be considered, as per comparison with similar Australian deposits referenced earlier. No dilution or cost factors were applied to the estimate. The open pittable resources have been constrained with a notional pit shell using forward looking price assumptions, processing costs and recoveries. Resources below the notional pit shell are reported as potential underground mineable resources applying a higher cut-off grade.

A substantial metallurgical study on Boda and Boda 2-3 shows that a simple flowsheet of conventional crushing, grinding and flotation circuits can produce a saleable concentrate with leaching of the cleaner tail to produce gold dore (see ASX announcement 14 November 2023). Overall recoveries for this process are estimated at 87.4% for copper and 80.9% for gold, and are used for the purposes of cut-off grade estimation.

No metallurgical recovery factors were applied to the Mineral Resources or Resource Tabulations.

Competent Person

Unless otherwise advised above, the information in this report that relates to exploration results and mineral resources being reported for the first time is based on information compiled by Mr David Meates MAIG, (Alkane Exploration Manager NSW) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Meates has provided his prior written consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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

Disclaimer

This report contains certain forward looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Alkane Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Alkane Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geoscientists.

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

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

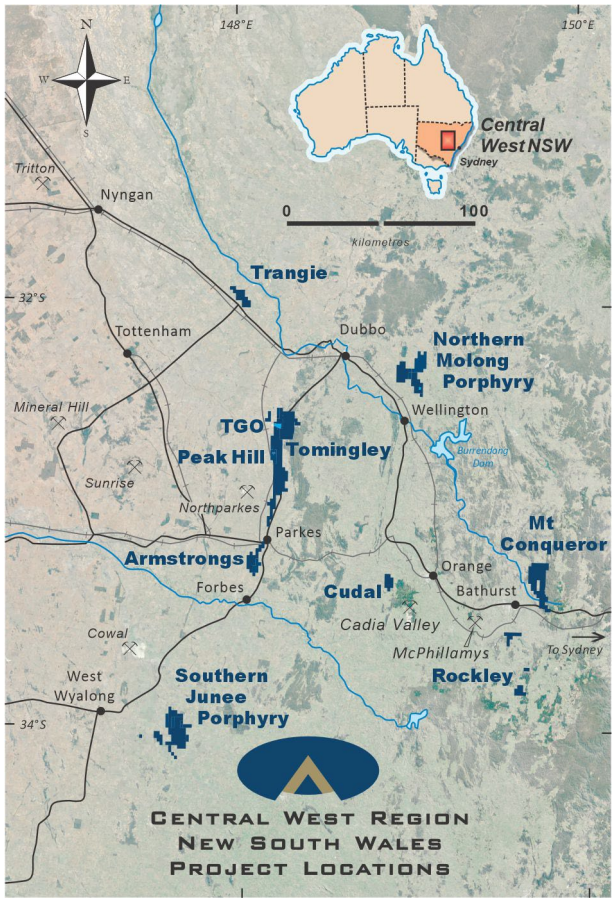
Alkane Resources intends to grow to become one of Australia's multi-mine gold and copper producers. Alkane Resources intends to grow to become one of Australia's multi-mine gold and copper producers.

The Company's current gold production is from the Tomingley Gold Operations in Central West New South Wales, where it has been operating since 2014 and is currently expediting a development pathway to extend the mine's life beyond 2030.

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

Alkane's exploration success includes the landmark porphyry gold-copper mineralisation discovery at Boda in 2019. With drilling ongoing adjacent to the initial resource identified at Boda, Alkane is confident of further consolidating Central West New South Wales' reputation as a significant gold and copper production region.

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies, including ~9.0% of Calidus Resources (ASX: CAI).



The following tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of exploration results.

APPENDIX 1

JORC Code, 2012 Edition – Table 1 report – Boda December 2023

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	The deposit has been evaluated using reverse circulation and diamond drilling techniques. Reverse Circulation (RC) samples are collected at one metre intervals via a cyclone and riffle or cone splitter. Intervals outside of visual ore zones are composited to 3 metres. Diamond Drilling (DD) sample intervals are defined by geologist during logging to honour geological boundaries.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	RC drilling completed to industry standards. Core is laid out in suitably labelled core trays. A core marker (core block) is placed at the end of each drilled run (nominally 3m or 6m) and labelled with the hole number, down hole depth, length of drill run. Core is aligned and measured by tape, comparing back to this down hole depth consistent with industry standards.
	• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	RC Drilling – the total sample (~35kg) is delivered via cyclone into a large plastic bag which is retained for future use if required. A sub-sample of approximately 1kg is spear sampled from each plastic bag and composited to make a 3 metres sample interval. If mineralisation is observed by the site geologist this is sampled as a final 1m interval instead. The 1m intervals forming composite samples assaying ≥0.10 g/t Au or ≥0.10 % Cu are re-split using a cone splitter on the rig into a separate calico at the time of drilling and re-submitted to the laboratory for re-assay. DD Drilling – Core was laid out in suitably labelled core trays. A core marker (core block) was placed at the end of each drilled run (nominally 6m) and labelled with the hole number, down hole depth, length of drill run. Core was aligned and measured by tape, comparing back to this down hole depth consistent with industry standards. Half core is sampled with a Corewise automatic core saw. All samples sent to laboratory are crushed and pulverised to produce a ~100g pulp for assay process. All samples are fire assayed using 50g charge. Visible gold is rarely observed in core.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of*	The resource is based on 186 drill holes comprising of 42,455 metres of RC and 103,002 metres of diamond core for a total of 145,457 metres.

Criteria	JORC Code explanation	Commentary
	diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Conventional RC drilling using 100mm rods and 144mm face sampling hammer. Diamond drill holes were pre-collared using either PQ3 (83mm diameter) diamond core or RC drilling through to competent material in fresh rock and cased down to triple tube HQ3 (64mm diameter) core tails. Diamond core is oriented using the "Reflex" core orientation tool.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	DD - core loss was identified by drillers and calculated by geologists when logging. Generally ≥99% was recovered with any loss usually in portions of the oxide zone. Triple tube coring was used at all times to maximise core recovery with larger diameter (PQ3) core or RC precollars used in the oxide zones. RC sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	Sample quality is qualitatively logged Core drilling completed using HQ triple tube where possible to maximise core recovery. A high capacity RC rig was used to enable dry samples collected. Drill cyclone is cleaned between rod changes and after each hole to minimise cross-hole contamination.
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	There is no known relationship between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	RC - each one metre interval is measured for magnetic susceptibility 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). DD - all core is laid out in core trays and geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity), magnetic susceptibility and mineralisation (type, character and volume percentage). A detailed geotechnical log is also undertaken collecting parameters such as core recovery, RQD, fracture count, and fracture type and orientation.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	All logging is qualitative with visual estimates of the various characteristics. RC - A representative sample of each one metre interval is retained in chip trays for future reference. DD - Core is photographed and all unsampled core is retained for reference purposes.
	• *The total length and percentage of the relevant intersections logged.*	All DD core and RC chip samples have been geologically and geotechnically logged by qualified geologists.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	Zones of visual mineralisation and/or alteration are marked up by the geologist and cut in half if HQ3 or PQ3 sized using a Corewise automatic core cutting saw. The right half is sampled to sampling intervals that are generally based on geology but do not exceed 1.3 metres in length. The left half is archived. NQ3 sized core is whole core sampled and not sawn in half.

Criteria	JORC Code explanation	Commentary
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	RC - for each one metre interval with visual mineralisation and/or alteration the calico sample bag is numbered and submitted to the laboratory for analysis. Intervals without visual mineralisation and/or alteration are spear sampled and composited over three metres. Damp or wet samples are recorded by the sampler. For composited intervals returning grades >0.1g/t Au or 0.1% Cu, the 1m calico bags are retrieved for assay. Laboratory Preparation – the entire RC sample (3kg) is dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples are discarded. A pulp packet (±100g) is stored for future reference.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	Samples were delivered by Alkane personnel to ALS Minerals Laboratory, Orange NSW. Crushed with 70% <2mm (ALS code CRU-31), split by riffle splitter (ALS code SPL-21), and pulverised 1000grm to 85% <75um (ALS code PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS codes CRU-QC, PUL-QC).
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	Internal QAQC system in place to determine accuracy and precision of assays
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	Non-biased core cutting using an orientation line marked on the core. Whole core sampling of NQ3. Duplicate RC samples are collected for both composite intervals and re-split intervals.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Sample sizes are assumed to be within industry standard and considered appropriate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	All samples were analysed by ALS Minerals Gold is determined using a 50g charge fused at approximately 1100°C with alkaline fluxes, including lead oxide. The resultant prill is dissolved in aqua regia with gold determined by flame AAS. For other geochemical elements, most samples are digested by near-total mixed acid digest for each element determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. For selected drill holes that are nearby (less than 100m spaced drilling) previous drilling with near-total mixed acid digest assay results or that are re-split RC samples, these samples are digested by aqua regia with a ICP Atomic Emission Spectrometry for Ag, As, Cu, Mo and S only.
	• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	Not applicable to this report or deposit.
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Commercially prepared Certified Reference Materials (CRM) are inserted at 1 in 30 samples. CRM's are not identifiable to the laboratory. Field duplicate samples are inserted at 1 in 40 samples. Laboratory QAQC sampling includes insertion of CRM samples, internal duplicates and screen tests. This data is reported for each sample submission. Failed standards result in re-assaying of portions of the affected sample batches.

Criteria	JORC Code explanation	Commentary
		1.3% of gold and copper assay results from ALS Orange were checked using SGS West Wyalong as an external umpire laboratory.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	Drill data is compiled, collated and reviewed by senior Alkane staff. Cube Consulting was used to verify exploration data, domaining and to recommend estimation parameters.
	• *The use of twinned holes.*	Twinned holes have not been used.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	All drill hole logging and sampling data is entered directly into Geobank Mobile in the field for validation, transfer, and storage into Geobank database with verification protocols in place All primary assay data is received from the laboratory as electronic data files which are imported into sampling database with verification procedures in place. QAQC analysis is undertaken for each laboratory report
	• *Discuss any adjustment to assay data.*	No assay data was adjusted.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drill holes are laid out using handheld GPS (accuracy ± 2m) then surveyed accurately with DGPS_RTK (± 0.1m) by licenced surveyors on completion. RC drill holes are surveyed using a single shot north seeking tool at a nominal 30m down hole interval. DD are surveyed at nominal 30m down hole during drilling to maintain drilling direction and then at 6m intervals on retrieval of rod string using a multi shot north seeking instrument.
	• *Specification of the grid system used.*	GDA94, MGA (Zone 55)
	• *Quality and adequacy of topographic control.*	A site digital terrain model was derived from an airborne drone LiDAR survey and checked from accurate (± 0.1m) surveyed hole collar positions by licenced surveyors.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	Nominal drill hole spacing is 50m x 50m along south-west trending transverses at Boda. At Boda 2-3 drilling is more variably spaced along east-west traverses spaced up to 150m apart. The data spacing is deemed to be sufficient in reporting a Mineral Resource.
	• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	The drill hole spacing has been shown to be appropriate by variography.
	• *Whether sample compositing has been applied.*	RC – samples with no visible mineralisation or alteration are composited to 3m with 1m resamples assayed if the composite returned a gold value of >0.1g/t gold or >0.1% copper. One metre samples override 3m composites in the database. DD – core is sampled to geology with sample sizes ranging from 0.3m to 1.3m.
Orientation of data in relation	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The orientation of drilling and sampling was originally east-west and oblique to the strike of the Boda mineralised system. The drilling direction was later changed to south-west and perpendicular to the strike of mineralisation. Drilling at Boda 2-3 is east-west and

Criteria	JORC Code explanation	Commentary
to geological structure		perpendicular to the mineralisation. The drilling directions are not considered to have any significant biasing effects. Drill intersections are approximately 50% of true widths.
	• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Estimated true intervals are ~50% of downhole lengths.
Sample security	• *The measures taken to ensure sample security.*	All RC samples are bagged in tied numbered calico bags, grouped into larger tied polyweave bags and transported to the Orange exploration facility. All diamond core is transported to the Orange exploration facility, where it is logged and sampled into tied numbered calico bags. All RC and diamond core samples are placed in bulker bags with a sample submission sheet and couriered to ALS in Orange. All sample submissions are documented via ALS tracking system and all assays are reported via email. Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years). The Company has in place protocols to ensure data security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The Company does not routinely have external consultants verify exploration sampling techniques. The Company has provided accurate resource estimations at Tomingley Gold Operations using these described sampling techniques. Cube Consulting is used to verify exploration data and to determine the resource estimation parameters.

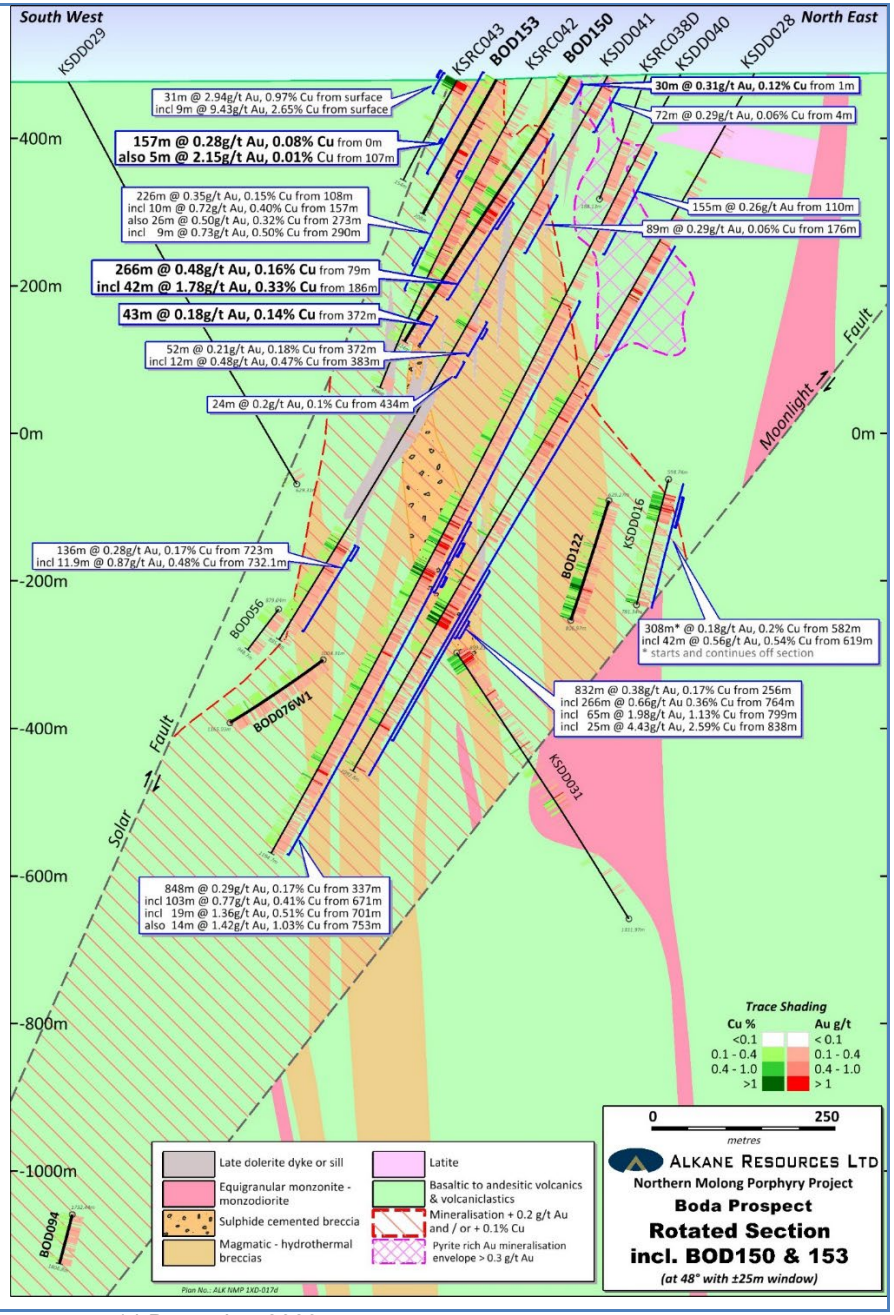
Section 2 Reporting of Exploration Results

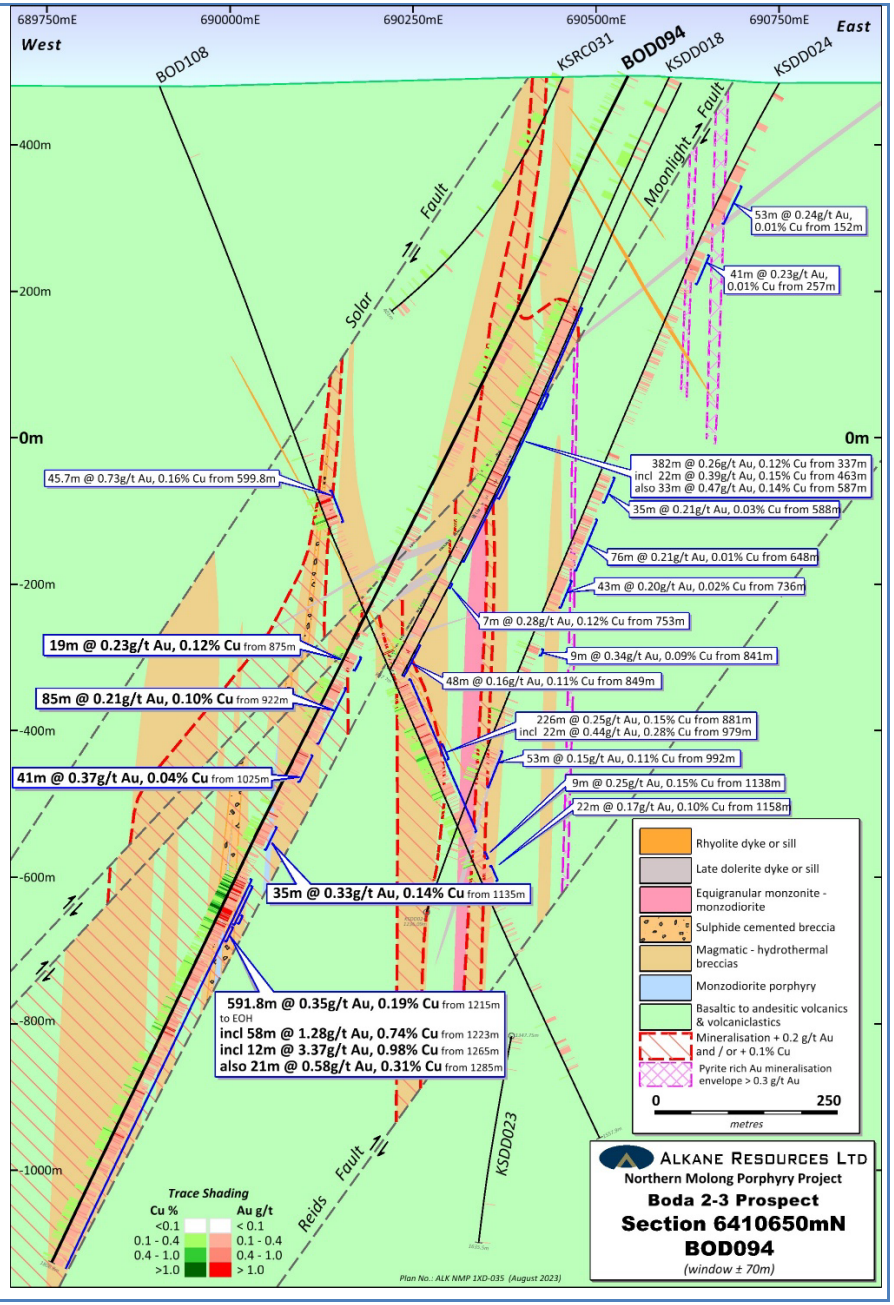
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	All five licences (EL4022, EL6209, EL8261, EL8338 and EL8887) in the Northern Molong Porphyry Project are owned 100% by Alkane. Ajax Joinery retain a 2% net smelter return on any products produced from within EL6209.
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	All exploration licences are in good standing. EL4022 expires on 13 August 2026. EL6209 expires on 11 March 2029. EL8338 expires on 27 January 2024. EL8887 expires on 6 February 2026. EL8261 expires on 30 April 2029.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Significant historical drilling activity has been conducted within the bounds of EL4022. BODA PROSPECT: CRA Exploration/Rio Tinto completed a small IP survey and several reconnaissance RC holes in the Boda Prospect area in 1995. The results identified sporadic, shallow low-grade intervals of gold mineralisation hosted within a sequence of monzonites,

Criteria	JORC Code explanation	Commentary
		diorites and intermediate volcanics. Sampling was performed by collecting spear composites from 3m drill runs, assayed by aqua regia digest and fire assay-AAS and ICP finishes. Amax Mining Inc/Woodsreef Mines grid sampled the residual soil profile and analysed for Cu, Pb and Zn. A coherent +250 ppm Cu soil anomaly was outlined with a strike length of over 1000m and a maximum of 1.25% Cu, in the -80-mesh sieve fraction. Grid based rock chip sampling produced up to 5.4% Cu and 42ppm Au.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The area is located at the northern extent of the Molong Volcanic Belt, a geological region considered highly prospective for and host to several economically important examples of porphyry Au-Cu mineralisation e.g. Cadia Valley alkalic porphyry cluster. See main section of the announcement for detailed description of the Boda geology.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.*	All material information has been previously reported in the following announcements: 9 September 2019, ASX Announcement; 13 February 2020, ASX Announcement; 23 March 2020, ASX Announcement; 22 April 2020, ASX Announcement; 19 May 2020, ASX Announcement; 11 November 2020, ASX Announcement; 18 December 2020, ASX Announcement; 8 March 2021, ASX Announcement; 3 May 2021, ASX Announcement; 16 August 2021, ASX Announcement. 22 October 2021, ASX Announcement; 17 December 2021, ASX Announcement; 25 February 2022, ASX Announcement; 30 March 2022, ASX Announcement; 19 July 2022 ASX Announcement; 7 September 2022 ASX Announcement; 25 October 2022 ASX Announcement; 28 March 2023 ASX Announcement; 20 June 2023 ASX Announcement; 4 August 2023 ASX Announcement; 25 August 2023 ASX Announcement; 3 October 2023 ASX Announcement.
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	All drill data has been previously reported.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	Exploration results reported for uncut gold grades, grades calculated by length weighted average.
	• *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	Reported intercepts are calculated using a broad lower cut of 0.2g/t AuEq, although grades lower than this may be present internally (internal dilution). No top cut has been used.

Criteria	JORC Code explanation	Commentary
		Short intervals of high grades that have a material impact on overall intersection are reported as separate (included) intervals.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Gold equivalent values were calculated and used in modelling the mineralisation shells. Metal prices used for the gold equivalent are based on a historical 12-month average and were US$1950/oz for gold and US$8600/t for copper, and A$:US$0.67. Recoveries are estimated at 87% for Cu and 81% for Cu from metallurgical studies at Boda and Boda 2-3.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* ○ *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* ○ *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	It is apparent on the sections and the report descriptions that the overall geometry of the porphyry mineralisation at Boda and Boda 2-3 is subvertical to steep west dipping. Skarn mineralisation has been intersected at Boda 2-3 is stratigraphically controlled, dipping moderately west. True intervals are likely to be ~50% of downhole lengths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Recent cross sections and a plan showing geology with drill collars were included with previously reported exploration results detailing the unfolding significant discovery. Various representative drill hole sections illustrating the mineralisation and geology are attached below.





Criteria	JORC Code explanation	Commentary
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Data relating to all exploration drill holes has been reported in previous documentation of exploration results.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	No additional or new drilling results are being reported at this time.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Additional drilling is planned targeting the higher grading mineralisation in the Boda 2-3 portion of the deposit to improve confidence and convert Inferred resources to Indicated/ Measured. Other drilling will target Kaiser and the southern extensions to Boda 2-3 with the purpose of extending or adding mineral resources to the Boda District.
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	See body of announcement.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	All raw data is captured directly through Geobank Mobile and validated before uploading into the Geobank database.
	• *Data validation procedures used.*	There are validation checks to avoid duplications of data. The data are further validated for consistency when loaded into Geobank and desurveyed.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *(If no site visits have been undertaken indicate why this is the case.)*	The Competent Person regularly visits drill sites and is based in the Orange exploration office where they are involved in geological discussions, drilling updates, viewing of the data and of the core.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The geological model is built on structural data from core, lithological logging, lithogeochemistry and petrological studies. The mineralised system is subvertical and strikes north-west at Boda and north-south at Boda 2-3. The domain wireframes were built by Alkane geologists.
	• *Nature of the data used and of any assumptions made.*	Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips.

Criteria	JORC Code explanation	Commentary
		Lithogeochemistry was used to aid defining different lithologies and alteration types. Most of the data comes from drill core as opposed to RC chips.
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	Early geological interpretations suggested a steeply east dipping mineralisation and geology. Recent interpretation that formed the basis of the maiden Mineral Resource at Boda has defined a subvertical to steep west dipping mineralising system striking north-west at Boda and north-south at Boda 2-3 within a significant north-west trending structural corridor towards the Kaiser prospect. This slightly different orientation interpretation will have a negligible effect on the Mineral Resource Estimation.
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	Geological logging together with lithogeochemistry was used to develop a geological model. Alteration and breccia textures along with grade guided the interpretation of the ore envelope wireframes. Interpreted faults truncate and dislocate the mineralisation domains. Most of the mineralisation is hosted by hydrothermal and intrusive-hydrothermal breccias with mineralised stockwork calcite veining. Three high-grade breccias with sulphide cement represent high-grade domains (informed using a 1.2g/t AuEq cut-off) central to Boda. Potassic gold-rich pyrite alteration occurs east of Boda and Boda 2-3 is modelled as gold-rich and copper-poor domains. Phyllic alteration (sericite-quartz-pyrite) overprints the earlier mineralisation and is gold-rich and copper-poor. A late-mineral monzonite dyke stopes out the early breccia mineralisation and is low-grade in copper with negligible gold grade. Dolerite and dacitic dykes post-date the mineralisation and stope and truncate out the modelled mineralised domains.
	• *The factors affecting continuity both of grade and geology.*	The alteration at Boda is typically zoned similarly to other gold-copper alkalic porphyry deposits. The strongest gold-copper grades are usually associated with the central calc-potassic alteration that zones to lower grading inner propylitic alteration to largely barren outer propylitic alteration. Within the calc-potassic alteration is a stock of hydrothermal breccias, that are zoned from pyrite dominant to chalcopyrite dominant where the highest Au-Cu grades are found. An overprinting phyllic alteration zone on the north-east shoulder of Boda is stripping copper grade but appears not to affect gold grade. Cross-cutting this mineralisation are numerous late- to post- mineral dykes ranging from monzonitic to basaltic compositions.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	Boda NW strike length ~ 750m Boda 2-3 N strike length ~ 1,000m Total Boda MRE strike length ~ 1,750m Width of Boda and Boda 2-3 ~ 500m Depth ~ surface to an average of ~ 1,000m below surface with the deepest intercept is ~1,500m below surface.
	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer*	The resource model has used all of Alkane's exploration drill data. Nine main mineralisation domain wireframes with each split into discrete zones by faulting, four late-mineral monzonite wireframes, and 45 dolerite wireframes were interpreted and

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	*assisted estimation method was chosen include a description of computer software and parameters used.*	used as constraints for the resource modelling. Three significant fault surfaces were used to guide wireframing. Two surfaces were also used to separate material types - topography and base of oxidation surfaces. The material type classification was used to allocate density values. The drillhole data was flagged by the domain wireframes in priority order, to prevent double use of the data in any intersecting and overprinting zones. The drill hole data was flagged by dolerite, monzonite, gold mineralised and gold-copper mineralised domain wireframes in priority order, to prevent double use the data in the intersecting zones. The low-grade mineralised zones of greater than 0.2g/t AuEq and high-grade zones of greater than 1.2g/t AuEq were wireframed and the samples within their respective zones were flagged to prevent any overestimation that could be caused by use of assays outside these boundaries. Top-cuts were selected for each domain based on a visual inspection of the data using histograms, log-transformed probability plots, percentile analysis and sensitivity analysis for individual domains. Spatial location of the outliers was also taken into consideration for the application of the grade caps. The sensitivity analysis involved analysing varying cap values, to estimate the contribution of each sample to the overall metal content. Capping was deemed necessary for most of the domains. Distance limiting (50 or 100 metres) of high grades via an aggressive top cut was used during the estimation process on domains that had evidence for higher grade samples having a greater spatial influence than warranted. This resulted in higher grades being more locally representative and having less of an influence over distance. An estimation search neighbourhood analysis was used to determine optimal search parameters for Ordinary Kriging (OK) estimation of Au and Cu grade. The correlation between Au and Cu was considered moderate for most domains and the variables were estimated separately. Density was averaged for each domain and assigned individually. The determined optimum block size is 25mX x 25mY x 10mZ with a sub-blocking size of 5mX x 5mY x 5mZ. Grade estimation was completed using Ordinary Kriging (OK). All wireframing and estimation was completed with Datamine Studio RM.
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	The Maiden Boda resource estimation completed 30 May 2022 is 624Mt grading 0.26g/t Au, 0.14% Cu using a 0.3g/t AuEq. This updated MRE is similar in grade when using a global 0.3g/t AuEq cut-off.
	• *The assumptions made regarding recovery of by-products.*	The Inferred Resource is presented using a gold equivalent (AuEq) cut-off. The AuEq is calculated using a 12-month average of gold, copper prices and AUD exchange rate. Recoveries of gold and copper have been estimated from a substantial metallurgical study.
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	A substantial metallurgical study showed a good copper concentrate low in penalty elements with only fluorine that may require negotiation with potential customers. No deleterious elements resulted from the study.

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	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	The resource was estimated on a nominal 50m x 50m drilled area over Boda and approaching a nominal 100m x 100m grid at Boda 2-3. An estimation search neighbourhood analysis was used to determine optimal search parameters for Ordinary Kriging (OK) estimation of Au and Cu grade. The correlation between Au and Cu was considered low for most domains and the variables were estimated separately. Density was averaged for the different domains. The determined optimum block size is 25mX x 25mY x 10mZ with a sub-blocking size of 5mX x 5mY x 5mZ
	• *Any assumptions behind modelling of selective mining units.*	No assumptions made.
	• *Any assumptions about correlation between variables.*	The correlation between Au and Cu was considered moderate for most domains and the variables were estimated separately.
	• *Description of how the geological interpretation was used to control the resource estimates.*	Most of the mineralisation domains are hosted by early hydrothermal breccias with mineralised stockwork calcite veining. Three high-grade hydrothermal breccias with sulphide cement represents the central high-grade domains at Boda. Gold-rich mineralisation associated with potassic alteration occurs along the eastern flank and has been domained separately to the gold-copper calc-potassic mineralisation. Phyllic alteration (sericite-quartz-pyrite) domains overprint the earlier breccia mineralisation, they are gold rich but copper poor. Late-mineral monzonite dykes stope out the early breccia mineralisation domains and are weakly copper mineralised with negligible gold grade. Dolerite and dacitic dykes post-date the mineralisation and truncate and stope out mineralisation. Three post-mineral faults truncate and dislocate the Boda and Boda 2-3 mineralisation. Only data form the same domain was used to make estimates.
	• *Discussion of basis for using or not using grade cutting or capping.*	Top-cuts were selected for each domain based on a visual inspection of the data using histograms, log-transformed probability plots, percentile analysis and sensitivity analysis for individual domains. Spatial location of the outliers was also taken into consideration for the application of the grade caps. The sensitivity analysis involved analysing varying cap values, to estimate the contribution of each sample to the overall metal content. Capping was deemed necessary for majority of the domains. Distance limiting of high grades via an aggressive top cut was used during the estimation process on domains that had evidence for higher grade samples having a greater spatial influence than warranted. This results in the higher grades being more locally representative and having less of an influence over distance.
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Validation of the modelling parameters and processes of estimation included visual inspections in section, plan and in 3D; and comparisons of previous iterations vs the final OK model were made.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages were estimated on a dry tonnage basis.

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Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	A notional pit shell design (using forward looking metal prices and mining costs) was used to determine potential open cut mining resource with a cut-off grade as 0.3g/t AuEq and a resource below the pit shell with a 0.4g/t AuEq cut-off for a potential bulk underground mining method. Gold equivalents have been calculated using the formula AuEq(g/t) = Au(g/t) + Cu%/100*31.1035*copper price($/t)/gold price($/oz). The prices used were based on a 12-month average of US$1,950/oz gold and US$8,600/t copper, and an exchange rate of A$:US$0.67. Recoveries are estimated as 87% for Cu and 81% for Au from metallurgical studies.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The cut-off grades used for the Mineral Resource were based upon a review of existing and feasibility operating data for similar deposits in Australia and Canada as reasonable for the prospect of eventual extraction. A notional pit shell design (using forward looking metal prices and mining costs) was used to determine potential open cut mining resource with a cut-off grade as 0.3g/t AuEq and a resource below the pit shell with a 0.4g/t AuEq cut-off for a potential bulk underground mining method.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	A substantial metallurgical study on Boda and Boda 2-3 shows that a simple flowsheet of conventional crushing, grinding and flotation circuits can produce a saleable concentrate with leaching of the cleaner tail to produce gold dore (see ASX announcement 14 November 2023). Overall recoveries for this process are estimated at 87.4% for copper and 80.9% for gold, and are used for the purposes of cut-off grade estimation.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Boda is a greenfield discovery. Previous mining occurred at the nearby Kaiser mine in the 1870s. Boda is located on agriculturally modified freehold land with recently constructed wind turbines positioned nearby on surrounding hills.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Density has been determined using the Archimedes Principle on diamond core and measured every 20 metres for determination of a bulk dry density.
	• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*	SG measurements completed on all domain types.
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	SG was averaged for each domain and applied individually.

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Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	*Resource Model* Mineral Resources were classified as Inferred or Indicated to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, as well as metal distribution. There is no material classified as Measured. 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 60m, or where drilling was within 60m of the block estimate; - Estimation quality is considered to be of high confidence in respect to low kriging variance; and - Blocks are informed by a first pass search. Remaining estimated blocks made within the defined mineralisation domains were classified as Inferred Resources where geological continuity could be defined.
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	The geological model includes additional mineralisation that has very low drilling density that is unclassified and therefore not included in the Mineral Resource Estimation.
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The classification reflects the Competent Persons view of the deposit and its supporting data.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	Cube Consulting reviewed the estimation data and domains wireframed by Alkane geologists and provided estimation parameters.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	No statistical or geostatistical method (non-linear or simulation) was used to quantify the relative accuracy of the estimate within confidence limits. Confidence of the estimate is dependent on: accuracy of the interpretation and geological domaining; accuracy of the drill hole data (location and values); orientation of search ellipses used; and estimation parameters which are reflected in the variogram model used.
	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	The resources are Indicated and Inferred, being based on drill hole spacing and geological continuity. To ensure the resources have 'reasonable prospects of eventual economic extraction' the resources have used cut-off grades based upon a review of existing and feasibility operating data for similar deposits in Australia and Canada.
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Boda is a greenfield discovery.