ASX and MEDIA RELEASE

14 November 2023

Boda and Kaiser Metallurgical Testwork Delivers Strong Recoveries Based on a Simple Flowsheet

- **A substantial metallurgical testwork program has been completed on the Boda and Kaiser gold-copper prospects, culminating in full locked cycle tests on appropriately representative composites of each deposit and resultant recovery estimates.**
- **The overall recovery for Boda is estimated at 87.4% of copper and 80.9% of gold in the plant feed to saleable products.**
- **The overall recovery for Kaiser is estimated at 79.6% of copper and 70.7% of gold in the plant feed to saleable products.**
- **The program has established a viable flowsheet for the processing of Boda and Kaiser ore, comprising of conventional crushing, grinding and flotation circuits to produce a saleable concentrate and leaching of the cleaner tail to produce gold dore.**
- **Testwork results and the process design criteria will be incorporated into a scoping level assessment of potential project economics, expected to be completed in Q2 CY2024.**

Alkane Resources Limited (**ASX: ALK**) is pleased to announce the results of the next stage of its metallurgical testwork program at the Company's Northern Molong Porphyry Project in Central New South Wales. The NMPP deposits extend over three kilometres from Kaiser, through Boda to Boda 2-3. Alkane continues to successfully operate the nearby Tomingley Gold Operations ('Tomingley'), and believes the Boda-Kaiser system has the potential to become a large, tier one gold-copper project.

Alkane Managing Director, Nic Earner, said:

"The metallurgical testwork program has been underway for many months with the overall goal of identifying the optimal means of processing ore from the Boda and Kaiser prospects and subsequent establishment of the most viable flowsheet. The results announced today clearly meet this goal, with our initial recovery expectations exceeded.

"The high recoveries from the Boda ore are particularly pleasing as the concentrates produced were of a saleable quality with very low impurities, which is another box ticked. Indeed, we consider that the concentrate from this project would be in high demand, consistent with other producers in the district.

"The results of this testwork campaign and the process design criteria generated have been supplied to an engineering firm for a scoping level estimate of plant design and associated cost. Processing scenarios are expected to include 10 and 20 million tonne per annum feed rates. We look forward to communicating these results next year."

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Northern Molong Porphyry Project (NMPP) Metallurgy

Metallurgical testwork has been completed on the Boda and Kaiser gold-copper prospects located within the North Molong Porphyry Project (NMPP). While testwork was performed in 2022 and used to estimate recoveries for the initial Boda and Kaiser mineral resource estimates, the most recent 2023 campaign is more substantial and provides a good basis for recovery estimation and preliminary engineering design.

The objectives of the 2023 campaign included understanding and establishing the following:

- Ore hardness and comminution characteristics.
- Ore mineralogy and geochemical relationships.
- Optimal grind size.
- Amenability to gold and copper recovery by froth flotation.
- Amenability to gold cyanidation – ore, rougher tailing and cleaner tailings streams.

The overall goal of the program is the development of the optimal means of processing ore from the Boda and Kaiser prospects and the establishment of the most viable flowsheet.

The testwork program was developed and supervised by consultants Scott Dalley Franks (SDF) and performed on a selection of 21 representative ½ HQ drill core samples from the two deposits. The work was principally performed at Auralia Metallurgy, Midvale, Western Australia with some specialist work performed by others.

Sample Selection

Metallurgical testing was conducted on mineralised composites prepared from ½ HQ diamond drill core that had been recently drilled. Sample selection was agreed between Alkane and SDF to provide a good representation of each deposit. The table below provides the details of the drill holes and intercepts used to prepare all metallurgical composites. All samples were diluted with hanging and footwall waste or internal dilution.

11 drill holes (373 m and 1,479 kg) were sampled from Boda, and 10 drill holes (342 m and 1,370 kg) were sampled from Kaiser. Overall, a total of 714 m (2,849 kg) of drill core intercepts from the 21 holes along strike were sampled. From this sampling, 21 variability samples and 2 master composites were prepared.

Most of the development work for the flotation flowsheet was performed on the two master composites with subsequent confirmatory testwork using the established flowsheet from the master composite testwork performed on all 21 variability samples.

The following figure provides the locations of the samples from the project site. All samples except two Boda drill hole intercepts were from within the mineral resource.

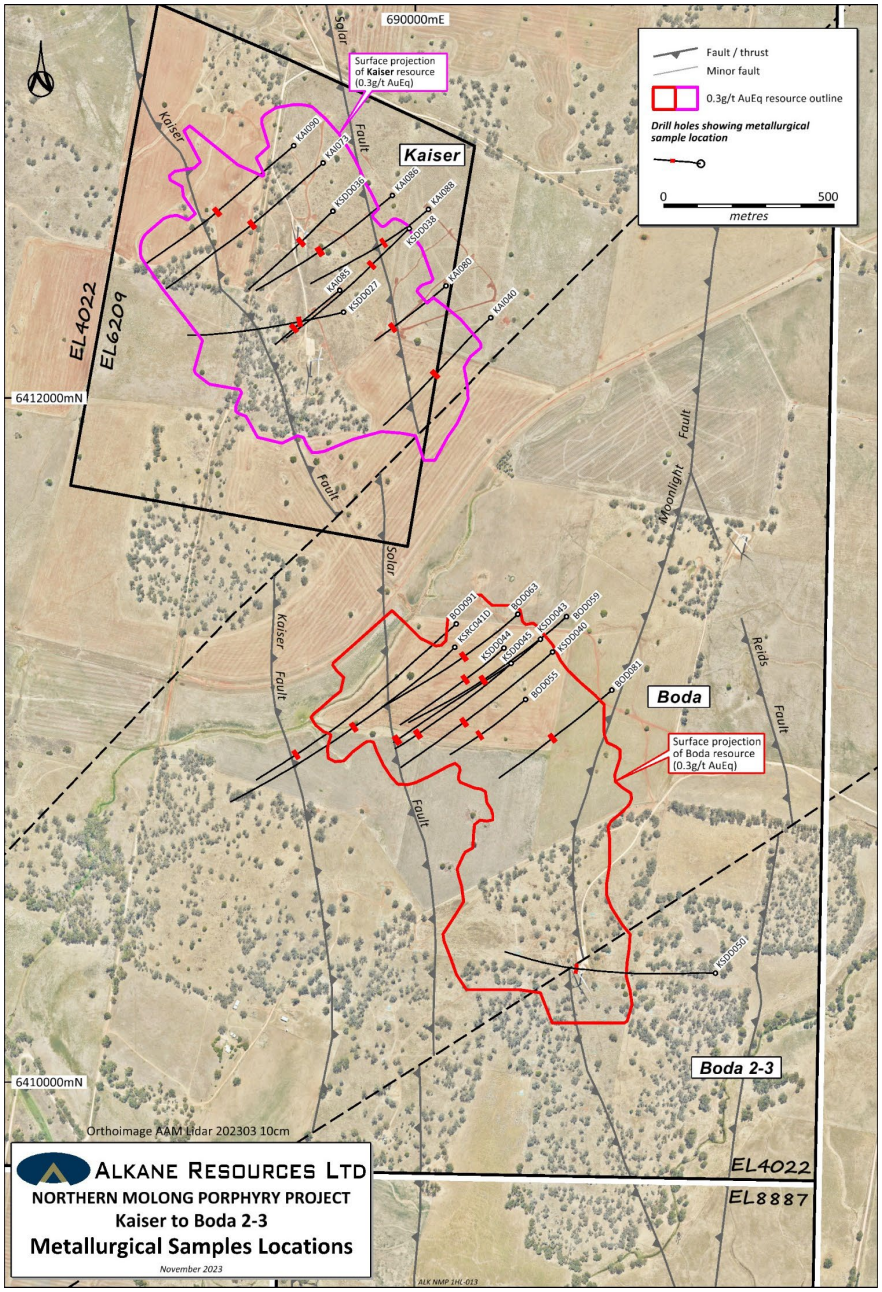
The drill holes below have all been previously announced. See ASX Announcements on 8 March 2021, 22 October 2021, 17 December 2021, 25 February 2022, 30 March 2022, 18 July 2022, 7 September 2022, 25 October 2022 and 9 December 2022.

Drill holes and intercepts used to prepare metallurgical composites

Prospect	Sample Type	DH ID	From	To	Weight kg	Interval m	Zone	Au ppm	Cu ppm	Lith-Type
Boda	½ HQ	BOD081	467	502	132	35	107	0.49	3575	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	BOD055	365	398	134	33.5	101	0.16	1114	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	BOD059	669	703	136	34	107	0.41	2938	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	KSDD045	707	741	135	34	101	0.18	1056	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	KSDD044	298	332	136	34	107	0.87	3072	Hydrothermal Breccia
Boda	½ HQ	KSDD043	1045	1079	133	34	101	0.16	1171	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	BOD063	438	474	134	36	107	0.79	2712	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	KSRC041D	830	863	135	33	102	0.16	1376	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	KSDD040	700	733	135	33	108	1.03	4289	Sulphide-cemented hydrothermal breccia
Boda	½ HQ	BOD091	1417	1450	139	33	Outside MR	0.35	2035	Volcanic-hosted (veins & disseminations)
Boda	½ HQ	KSDD050	1140	1173	131	33	Outside MR	0.74	239	Volcanic-hosted (veins & disseminations)
Kaiser	½ HQ	KAI040	495	529	134	34	201	0.20	1708	Volcanic-hosted (veins & disseminations)
Kaiser	½ HQ	KAI085	346	379	132	32.7	302	0.26	1548	Volcanic-hosted (veins & disseminations)
Kaiser	½ HQ	KAI086	521	555	147	33.92	305	0.43	3551	Hydrothermal Breccia
Kaiser	½ HQ	KAI073	542	575	133	33	302	0.33	3747	Volcanic-hosted (veins & disseminations)
Kaiser	½ HQ	KSDD036	294	330	136	36	305	0.27	3436	Hydrothermal Breccia
Kaiser	½ HQ	KSDD027	308	344	132	36	302	0.60	1381	Volcanic-hosted (veins & disseminations)
Kaiser	½ HQ	KAI088	392	425	140	33	203	0.19	1607	Volcanic-hosted (veins & disseminations)
Kaiser	½ HQ	KAI090	576	610	134	34	404	0.11	1913	Hydrothermal Breccia
Kaiser	½ HQ	KAI080	428	463	149	35	201	0.17	2455	Volcanic-hosted (veins & disseminations)
Kaiser	½ HQ	KSDD038	352	386	134	34	308	0.49	3878	Hydrothermal Breccia

Boda	1479	373	0.49	2143
Kaiser	1370	342	0.31	2522
Total	**2849**	**714**	**0.40**	**2324**

Location of drill holes and intercepts used to prepare metallurgical composites



Geochemistry

The head assays of the Boda and Kaiser master composites are given below. The master composites from both prospects provide a similar 'bulk' geochemical signal; 50% silica, 7% iron, 6.5% magnesia, 6% CaO, 14% alumina, 2.7% Na with very similar concentrations of trace and penalty elements e.g., Bi (0.4 ppm), F (800 ppm), Cl (< 10 ppm), Hg (< 0.1 ppm), Zn (< 50 ppm). The Au:Cu ratios in both deposits are similar on average (~1.5:1.0) with Boda being higher than Kaiser. Kaiser is more deeply eroded than Boda and hence more sulphide deficient (deep-early) mineralisation exists. The S:Cu ratio of Kaiser being on average a closer to 1:1 with Boda more like 3:1, although there are variations in both deposits.

Head assays of the Boda and Kaiser master composites

Element	Units	Boda Master Composite	Kaiser Master Composite
Cu	%	0.19	0.26
Au	ppm	0.67/0.39	0.227
Ag	ppm	<1	<1
Fe	%	6.39	7.11
S	%	0.70	0.33
SiO2	%	49.8	49.6
MgO	%	5.88	6.54
Al2O3	%	14.4	13.3
CaO	%	6.16	6.34
Penalty Elements			
As	ppm	2	27
Bi	ppm	0.4	0.3
Cd	ppm	<0.5	<0.5
Cl	ppm	<10	<10
Co	ppm	30	30
F	ppm	800	800
Hg	ppm	0.06	0.03
Ni	ppm	115	100
Pb	ppm	<1	<1
Sb	ppm	<5	<5
Th	ppm	1.5	2
U	ppm	1	1
Zn	ppm	50	40

The only element in the samples to reach a potential copper concentrate penalty level was fluorine.

An EDTA leach dissolved metals minimally, and when subject to copper speciation leaches, both prospects gave similar signals with low acid (<9%) and moderate cyanide solubility (<35%).

Mineralogy

XRD analysis on samples from both prospects are similar, both being ~80% Annite-biotite (annite is the iron rich member of the biotite mica group), calcic amphibole, plagioclase with minor quartz and calcite. The main copper mineral is chalcopyrite with minor bornite-chalcocite with the main sulphide gangue mineral being pyrite. The chalcopyrite was relatively fine (46 µm) in comparison to pyrite and gangue minerals (91 µm). Gold appears to be very fine and strongly associated with the chalcopyrite with minor pyrite association but has a greater gravity recoverable content when the grade increases.

Comminution Testwork

The results from the comminution testwork on the various samples show that Kaiser appears to be more competent and as hard as Boda. All 21 samples tested were hard to very hard with high competence for both deposits and able to form suitable media in an autogenous mill. The combined deposit Axb values ranged from 19.0 to 31.4, with a P_{15} of 20.4.

The ball mill work index for both deposits is considered very hard averaging 20.3 kWh/t (P_{80} 106 µm) and is only slightly to medium abrasive, averaging 0.12 (Ai). The rod mill work indices for both deposits

measured between 22 to 28.6 kW/tonne which shows that all samples are also very hard.

Gravity and Whole Ore Cyanidation Testwork

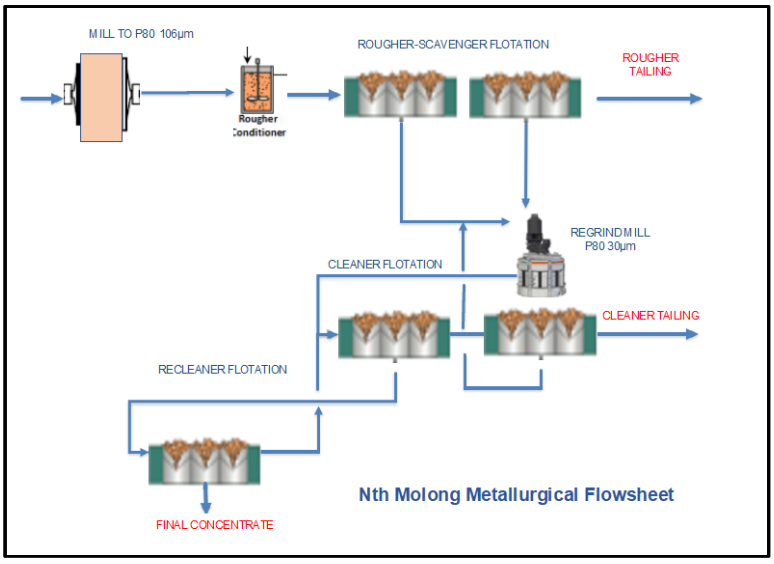
In the 2022 testwork program the gravity recoverable gold was measured at 0% to 3% of the total gold content. Whole ore leaching in the 2022 testwork was performed at a P_{80} of 75 µm and achieved >80% extraction with lower (0.45 kg/t) cyanide consumptions. In this latest 2023 program, the whole ore leaches extracted ~ 75% of the feed gold from each prospects master composite at a P_{80} of 106 µm. 20 to 25% of the copper leached with ~ 1.5 kg/t cyanide consumption. The ore is naturally alkaline (pH ~ 9.3) and so little lime was consumed. Leaching was relatively quick, being complete after 12 hours.

Flotation Testwork

To date, a total of 80 flotation tests have been performed in the 2022 and 2023 programs. Most of the 2023 testwork was performed on the Boda master composite as it was prepared in advance of the Kaiser sample. The work performed systematically developed the circuit arrangement and flotation conditions. The optimum primary grind was determined for both ores to be a P_{80} of 106 µm with an optimal rougher concentrate regrind P_{80} of ~30 µm.

The work culminated in a 60 kg (10 kg x 6 cycle) Locked Cycle Tests (LCT's) on each master composite. The flotation flowsheet that provided a good overall performance with low reagent dose is illustrated below.

Flotation flowsheet used for Locked Cycle Tests (LCT's)



Both LCT's were very stable with stability achieved after the third cycle. The LCT for Boda achieved 87.4% of the copper recovery at 24.7% Cu grade and 77.9% of the gold being recovered at gold grade of 48.9 g/t. The LCT for Kaiser achieved 79.6% of the copper recovery at 24.3 % Cu grade with 67.7% of the gold being recovered at gold grade of 23.7 g/t. The copper and gold described above is being recovered into a concentrate.

Concentrate collection during flotation testwork

Boda has shown to consistently produce higher recoveries of copper and could be treated at a coarser grind. Kaiser requires a slightly finer grind to match the performance of Boda.

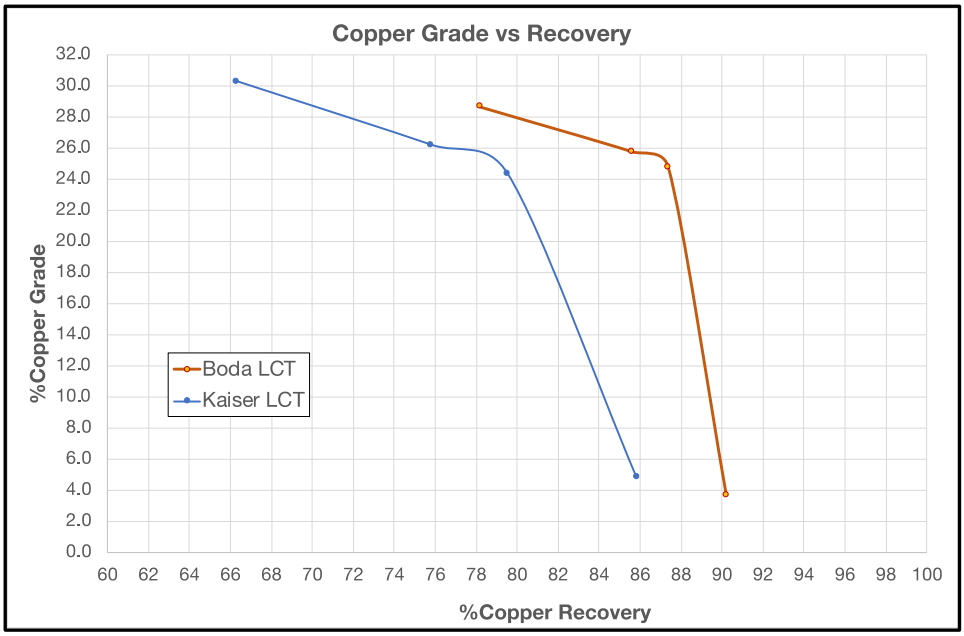
Boda Master Composite LCT Results

Stream	Mass %	Copper Grade %	Gold Grade Au g/t	Sulphur Grade %	Copper Rec %	Gold Rec %	Sulphur Rec %
Final Concentrate	0.71	24.7	48.9	22.3	87.4	77.9	19.0
Rougher Concentrate	5.01	3.65	7.85	16.6	90.2	83.9	95.8
Cleaner Tail	4.12	0.13	0.71	15.6	2.6	6.5	76.7
Rougher Tail	95.0	0.02	0.07	0.04	9.8	16.1	4.2
Rougher Feed	100	**0.20**	**0.45**	**0.84**	100	100	100

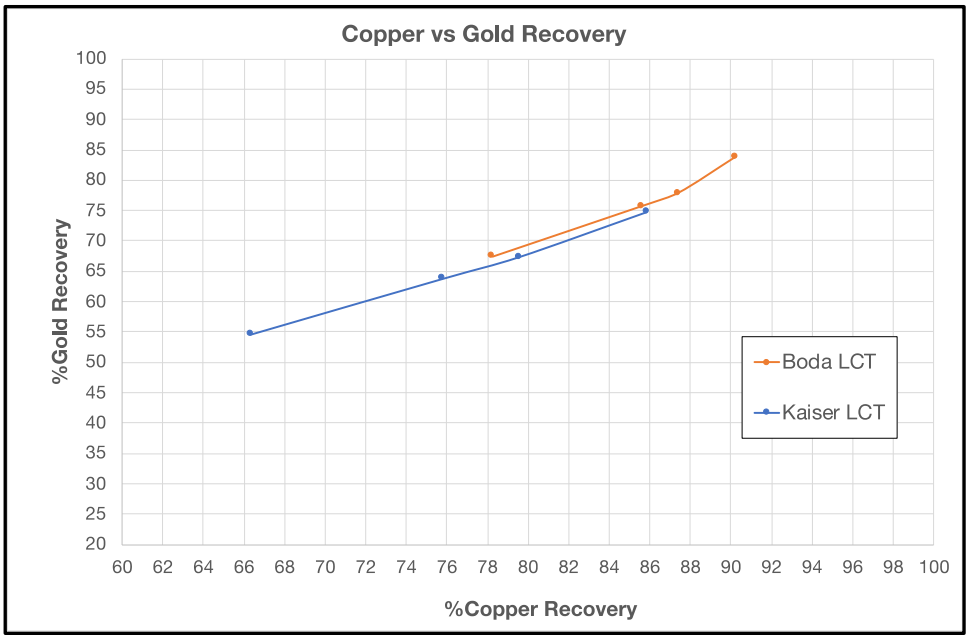
Kaiser Master Composite LCT Results

Stream	Mass %	Copper Grade %	Gold Grade Au g/t	Sulphur Grade %	Copper Rec %	Gold Rec %	Sulphur Rec %
Final Concentrate	0.81	24.3	23.7	21.4	79.6	67.4	54.0
Rougher Concentrate	4.96	4.76	4.74	6.79	85.9	74.8	90.6
Cleaner Tail	3.56	0.31	0.45	3.19	4.4	5.6	35.2
Rougher Tail	95.0	0.04	0.08	0.04	14.1	25.2	9.4
Rougher Feed	100	**0.25**	**0.29**	**0.32**	100	100	100

Copper Grade-Recovery Curves – Boda and Kaiser Master Composite



Copper–Gold Recovery Curves – Boda and Kaiser Master Composite



General observations of the testwork so far suggest that:

- As sulphur head grade reduces the gold head grade reduces (0.84%S, 0.45g/t Au vs 0.32%S, 0.29g/t Au).
- The lower the concentration of sulphur in the feed the more the S and Au is locked in the host rock and recoveries are lower.
- The higher the concentration of sulphur in the feed the larger the LCT recovery offset with batch tests.

LCT's are performing much better than the batch tests. This is likely due to the larger, deeper flotation cells along with recycling and regrinding of the cleaner scavenger concentrate and recleaner tailing streams.

Copper Concentrate Analysis

The results show that the copper concentrate is of good quality having a gold credit (typical terms >96.5% payable for contained gold >1 g/t), a modest silver credit (typical terms >90% payable for contained silver > 30 g/t) and is low in penalty elements. Only fluorine was measured to be in the range that may require negotiation with potential customers, being in the typically negotiable range of 150 – 300 ppm. Silicates and aluminosilicates are the main non-sulphide diluent in the concentrate. The ratio of copper to iron and sulphur suggests the recovery of secondary copper minerals.

Boda and Kaiser Master Composite Cleaner Concentrate Analysis

Element	Unit	Boda Final Concentrate	Kaiser Final Concentrate
Cu	%	24.8	28.5
Ag	ppm	58	54
Au	ppm	48.7	25.7
Fe	%	23.1	21.4
S	%	26.1	24.6
SiO2	%	12.8	13.1
Penalty Elements			
As	%	< 0.01	< 0.01
Bi	%	< 0.002	0.005
Cd	ppm	< 5	< 5
Cl	%	< 0.01	< 0.01
Co	%	0.010	0.004
F	ppm	200	250
Hg	ppm	1.3	0.8
Ni	%	0.03	< 0.01
Pb	%	0.01	0.03
Sb	ppm	12.7	30.3
Se	ppm	215	190
Te	ppm	8.4	10
Zn	%	0.01	< 0.01

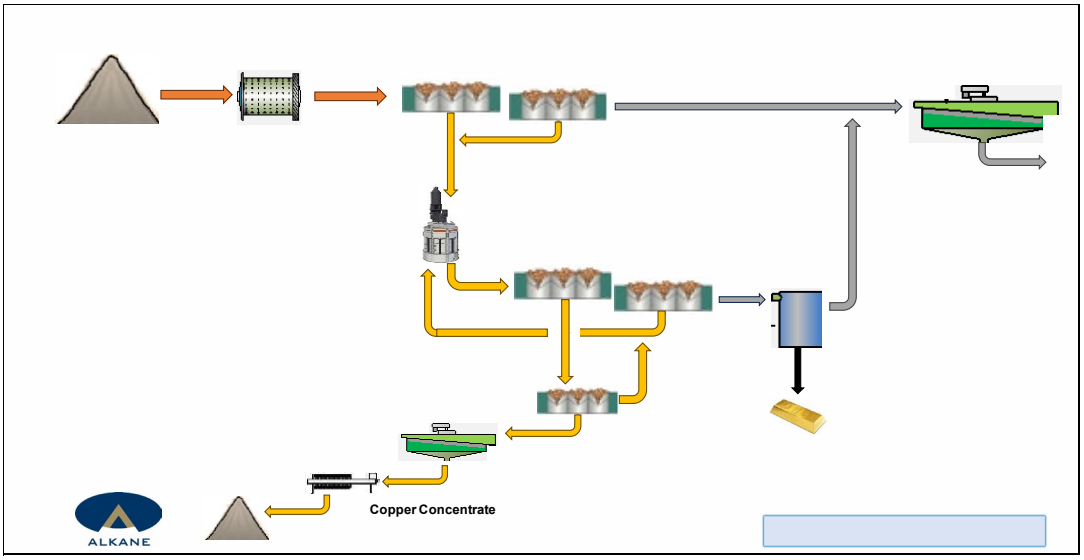
Cleaner Tailings Leach Testwork

The cleaner tail in both LCT's contained about ~6 % of the gold in feed in a resulting small portion (~4 %) of the feed mass. The cleaner tail also contained ~3.5% (~1,700 ppm) of the copper. This stream was leached using cyanide and on average yielded ~75 % gold and 56 % copper extraction between the two bottle rolls. The cleaner tailings leach results suggest that an extra 4.5% gold recovery to dore is economically possible (note that 3% was conservatively used for overall gold recovery estimation described below).

Conceptual Process Flowsheet

The conceptual process flowsheet for the treatment of the Boda and Kaiser deposits is shown below. This flowsheet is being used for preliminary plant construction cost estimates that will be used by Alkane for initial financial evaluation.

Northern Molong Porphyry Project Conceptual Flowsheet



Overall Recoveries

The overall recovery is estimated by combining the LCT copper and gold recoveries to concentrate and assuming a further 3% recovery to dore.

This results in an overall recovery for Boda of 87.4% of copper and 80.9% of gold in the plant feed to saleable products, and similarly an overall recovery for Kaiser of 79.6% of copper and 70.7% of gold.

Further Work Metallurgical Testwork

This most recent testwork campaign has met its objectives, established a conventional flowsheet for the recovery of metal and supplied a considerable amount of data for process design. While this is sufficient at this time, more testwork will be required to advance to a more detailed plant design and ensure that the testwork is representative of any updated resource estimate.

Future testwork will focus on providing further variability data, particularly in comminution and flotation, to assist with providing a more accurate geo-metallurgical model. The variability testwork will confirm the criteria used for plant design and provide metallurgical algorithms for further open pit optimisation studies.

In addition, future testwork will consider the operation of a small flotation pilot plant to confirm the flotation results and provide sufficient mass of cleaner tailings for subsequent detailed leach testwork.

Scoping Study

The results of this testwork campaign and the process design criteria generated have been supplied to an engineering firm for a scoping level estimate of plant design and associated cost. Processing scenarios under consideration include 10 and 20 million tonne per annum feed rates.

The results of this work will be combined with scoping level mining studies that will be conducted by Alkane after the upgrading of the Boda and Kaiser resource estimates and incorporated into a scoping level assessment of potential project economics.

The scoping study is expected to be completed in Q2 CY2024.

Competent Person

Unless otherwise advised above or in the Announcements referenced, the information in this report that relates to geological and metallurgical test work results is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, (director of the Company) who has sufficient experience which is relevant to the style of mineralisation, type of deposit under consideration, the oversight of metallurgical test programs and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Chalmers consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Previous Information

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

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

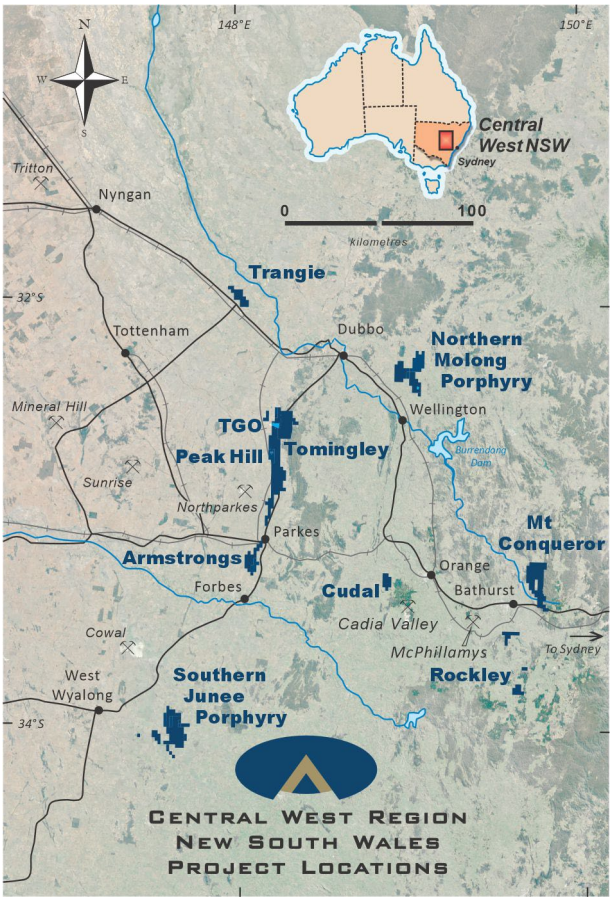
Alkane Resources intends to grow to become one of Australia's multi-mine gold and copper producers. Alkane Resources intends to grow to become one of Australia's multi-mine gold and copper producers.

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.

JORC Code, 2012 Edition – Table 1 NORTHERN MOLONG PORPHYRY PROJECT – November 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.*	• *Diamond core drilling was cut in half by diamond saw with samples taken over the selective intervals detailed and the composited to create a sample for metallurgical test work.*
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• *Sampling and QAQC procedures are carried out using Alkane protocols as per industry best practice.*
	• *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.*	• *Sample intervals for metallurgical testwork were selected on the basis of assay grades to produce a composite sample with an average grade appropriate for a given test.*
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 diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• *Samples were taken from 61.1mm diameter (HQ3) sized core.*
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• *As reported in original Exploration Results announcements.*
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• *As reported in original Exploration Results announcements.*
	• *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.*	• *As reported in original Exploration Results announcements.*
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography*	• *As reported in original Exploration Results announcements.*

Criteria	JORC Code explanation	Commentary
	• *The total length and percentage of the relevant intersections logged*	• *As reported in original Exploration Results announcements.*
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• *Core sawn with half core samples collected for metallurgical testwork.*
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• *As reported in original Exploration Results announcements.*
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• *Samples preparation is the industry standard for the relevant metallurgical test conducted.*
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples*	• *Samples intervals for metallurgical test work were selected on the basis of the weighted average assay grade for a given interval from samples which had already had QAQC procedures in place. No additional QAQC was completed on the metallurgical samples.*
	• *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*	• *Metallurgical sample intervals were selected to provide an average grade appropriate for the test work. Intervals were selected taking into account weathering, lithology, sulphide content, overall metal content and geographical location and hence are considered representative for Scoping Study level testwork.*
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• *Metallurgical composite sample sizes were based on the requirement to provide sufficient sample for the testwork.*
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 and Nagrom.* • *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 the flotation testing 30g samples were standard. For some flotation samples, having smaller masses, the full weight of sample was assayed. All flotation tailing stream assays were determined in triplicate.* • *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.*	• *No geophysical tools were used to determine any element concentrations.*

Criteria	JORC Code explanation	Commentary
	• *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.*	• *Samples intervals for metallurgical test work were selected on the basis of the weighted average assay grade for a given interval from samples which had already had QAQC procedures in place. No additional QAQC was completed on the metallurgical samples.*
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• *As reported in original Exploration Results announcements.*
	• *The use of twinned holes.*	• *As reported in original Exploration Results announcements.*
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• *As reported in original Exploration Results announcements.*
	• *Discuss any adjustment to assay data.*	• *No adjustments made.*
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.*	• *As reported in original Exploration Results announcements.*
	• *Specification of the grid system used.*	• *As reported in original Exploration Results announcements.*
	• *Quality and adequacy of topographic control.*	• *As reported in original Exploration Results announcements.*
Data spacing and distribution	• *Data spacing for reporting of Exploration Results..*	• *As reported in original Exploration Results announcements.*
	• *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*	• *Samples for metallurgical testwork have been selected from holes throughout the deposit.*
	• *Whether sample compositing has been applied*	• *Metallurgical composite sample were selected to provide an average grade appropriate for a given metallurgical test. Intervals were selected taking into account weathering, lithology, sulphide content, overall metal content and geographical location.*

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• *As reported in original Exploration Results announcements.*
	• *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*	• *As reported in original Exploration Results announcements.*
Sample security	• *The measures taken to ensure sample security.*	• *All samples are bagged into tied calico bags, before being grouped into polyweave bags and transported to Auralia Metallurgy via a transport provider with tracked cargo.* • *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.*	• *Not applicable as sample intervals were selected based on appropriate average grade for the metallurgical test work based on assay data which had previously been reviewed.*

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.*	• *No known prior metallurgical test work conducted by other parties.*
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.*

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.*
		• *As reported in original Exploration Results announcements.*

	• *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.*	• *As reported in original Exploration Results announcements.*
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.*	• *As reported in original Exploration Results announcements.*
	• *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.*	• *As reported in original Exploration Results announcements.*
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• *As reported in original Exploration Results announcements.*

Criteria	JORC Code explanation	Commentary
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').*	• *As reported in original Exploration Results announcements.*
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.*	• *As reported in original Exploration Results announcements.*
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.*	• *As reported in original Exploration Results announcements.*
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.*	• *Milling and flotation of material similar to the Boda and Kaiser deposits is commonly practiced in other operations using similar approaches to those proposed in this announcement where produced concentrate is either sold commercially or treated in smelter-refinery complexes.* • *Only fluorine was measured to be in the range that may require negotiation with potential customers, being in the typically negotiable range of 150 – 300 ppm.*
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• *Future testwork will focus on providing further variability data, particularly in comminution and flotation, to assist with providing a more accurate geo-metallurgical model. The variability testwork will confirm the criteria used for plant design and provide metallurgical algorithms for further open pit optimisation studies.* • *In addition future testwork will consider the operation of a small flotation pilot plant to confirm the flotation results and provide sufficient mass of cleaner tailings for subsequent detailed leach testwork.*
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive*	• *As reported in original Exploration Results announcements.*