

3 May 2021



## ***Continuity of High-Grade Gold-Copper Breccia Intersected at Boda***

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- Two diamond core holes at Boda, KSDD029 and KSDD031, were designed to intersect the northwest structural trend and test down plunge of the high-grade breccia identified by KSDD007 and KSDD028. KSDD031 successfully intersected the sulphide cemented breccia down dip with significant assay results of:

KSDD031	383.2m grading 0.80g/t Au, 0.31% Cu from 775m
incl	204m grading 1.40g/t Au, 0.51% Cu from 776m
incl	101m grading 2.47g/t Au, 0.83% Cu from 824m
incl	70m grading 3.04g/t Au, 0.92% Cu from 829m

- The drilling has extended the high-grade sulphide cemented breccia below previous drilling by a further 100m. The breccia remains open vertically with drilling planned to continue to define its dimensions.
- In addition, assay results were received for three other diamond core drill holes from the current Boda program. The drilling continues to intersect extensive zones of Au-Cu mineralisation with increasing molybdenum (Mo) grades flanking the potassic alteration. Significant intercepts include:

KSDD015	1,249.1m grading 0.18g/t Au, 0.12% Cu from 6m
incl	113m grading 0.39g/t Au, 0.16% Cu from 764m
also	81m grading 0.40g/t Au, 0.32% Cu from 967m
KSDD016	308m grading 0.18g/t Au, 0.20% Cu, 31ppm Mo from 582m
incl	42m grading 0.56g/t Au, 0.54% Cu, 130ppm Mo from 764m
and	106m grading 0.15g/t Au, 0.15% Cu, 17ppm Mo from 970m
incl	22m grading 0.38g/t Au, 0.31% Cu, 13ppm Mo from 1018m
and	30m grading 0.27g/t Au, 0.31% Cu from 1130m
KSDD019	87m grading 0.18g/t Au, 0.11% Cu from 189m
and	445m grading 0.23g/t Au, 0.10% Cu from 312m
incl	44m grading 0.36g/t Au, 0.20% Cu from 377m

- At Boda Two, assay results were received from two diamond core drill holes defining a gold rich pyrite zone (KSDD023) on the eastern margin of a new zone of extensive copper-gold porphyry mineralisation (KSDD030). Significant intercepts include:

KSDD023	520m grading 0.24g/t Au, 0.03% Cu from 645m
KSDD030	1,483m grading 0.15g/t Au, 0.10% Cu from 241m
incl	16m grading 0.64g/t Au, 0.24% Cu, 15ppm Mo from 382m
also	41m grading 0.32g/t Au, 0.21% Cu from 377m

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- **Drilling continues at Boda and Boda Two, testing extensions and adding definition to the identified mineralised systems. An air-core drilling rig and one high-capacity RC drilling rig will be mobilised onsite next month supporting the ongoing diamond core drilling at Boda, Boda Two, as well as regional targets within the NMPP. Further assay results are expected to be released when available.**

Alkane Resources Limited (ASX: ALK) ('Alkane' or 'the Company') announces the intersection of further high-grade mineralisation 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 ('NMPP'), which Alkane believes has the potential to be a large, tier one gold-copper project.

Alkane Managing Director, Nic Earner, said: *"These latest results give further insight into both the high-grade brecciated zone and the sheer size of the Boda complex and adjacent complexes within the Northern Molong Porphyry Project.*

*"Our drilling program continues with the aim of both in-filling and expanding the mineralised system. We expect that the ongoing drilling program will validate the Company's growing confidence in the scale of the high-grade zone at Boda.*

*"Along with the Company's nearby Tomingley Gold Operations ('TGO'), Alkane is actively working towards its stated ambition of becoming Australia's next multi-mine gold producer."*

Alkane's Technical Director, Ian Chalmers, is providing a detailed update on Boda, and Alkane's ongoing exploration program, at the NSW Mining Exploration and Tenures Forum on 3 May 2021. The presentation, while technical in nature, will be lodged on the ASX platform. The Company looks forward to providing further insight and drilling results from Boda in the coming weeks and months.

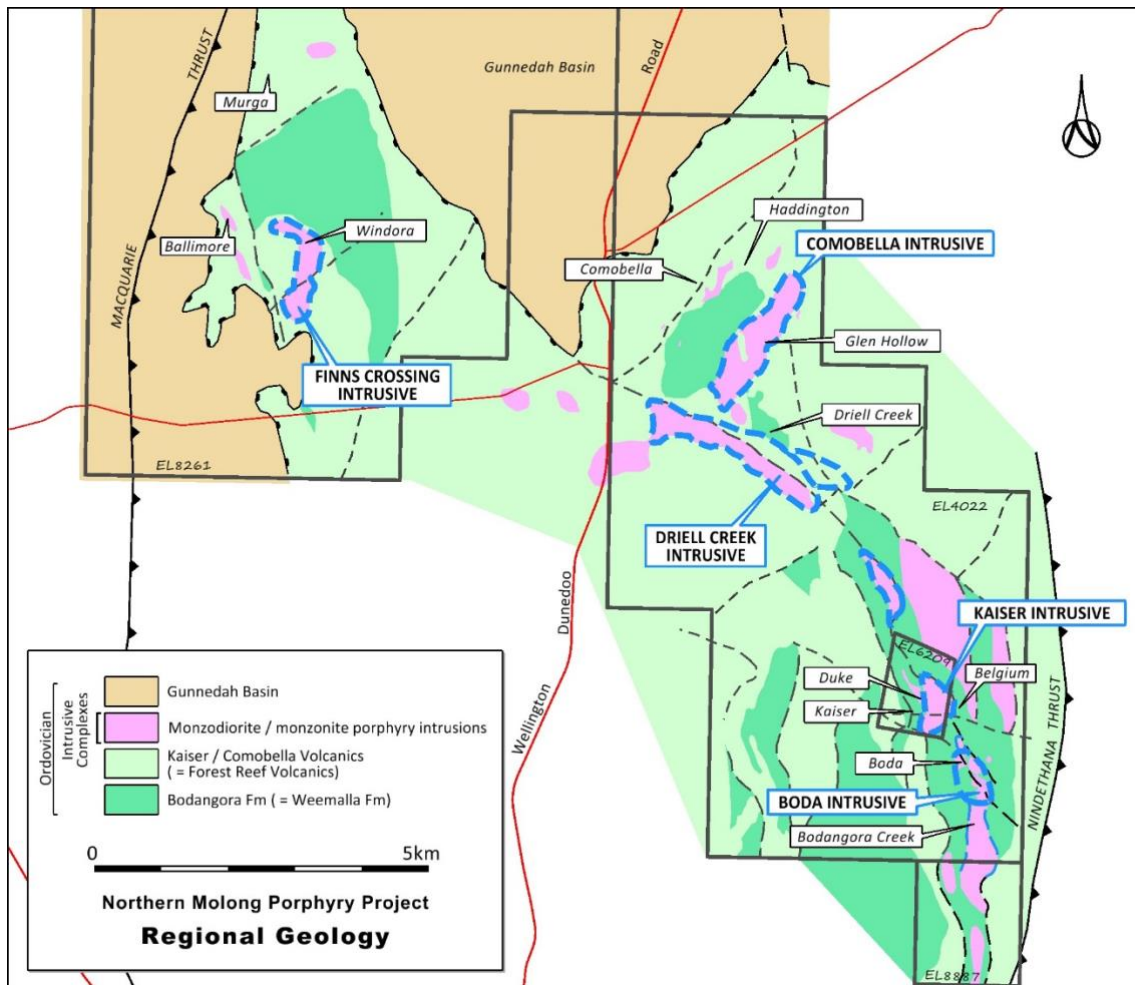


## Northern Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

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

Exploration in the NMPP has identified five discrete magnetic/intrusive complexes – Kaiser, Boda, Comobella, Driell Creek and Finns Crossing – within a 15km northwest trending corridor. The corridor is defined by monzonite intrusives, extensive alteration and widespread, low-grade, gold-copper mineralisation.



A major RC and diamond core drilling program for approximately 30,000 metres commenced in July 2020. The program was designed to test the dimensions and extensions to the large low-grade mineralised envelope as well as any internal high-grade zones at Boda. In addition, the drilling is testing other known gold-copper mineralisation occurrences and co-incident IP anomalies within the 15km monzonite intrusive corridor that extends from Boda to Finns Crossing.

Assays received from the current drilling program at Boda and Boda Two comprised of seven diamond core holes for a total of 10,091 metres testing the strike and depth extensions of the gold-copper porphyry mineralisation at the Boda prospect (discovery hole KSDD003 - 502m @ 0.48g/t Au, 0.20% Cu from 211 metres; *ASX Announcement 9 September 2019* and Boda Two conductive anomaly KSDD022 - 292m @ 0.66g/t Au from 867 metres; *ASX Announcement 11 November 2020*).



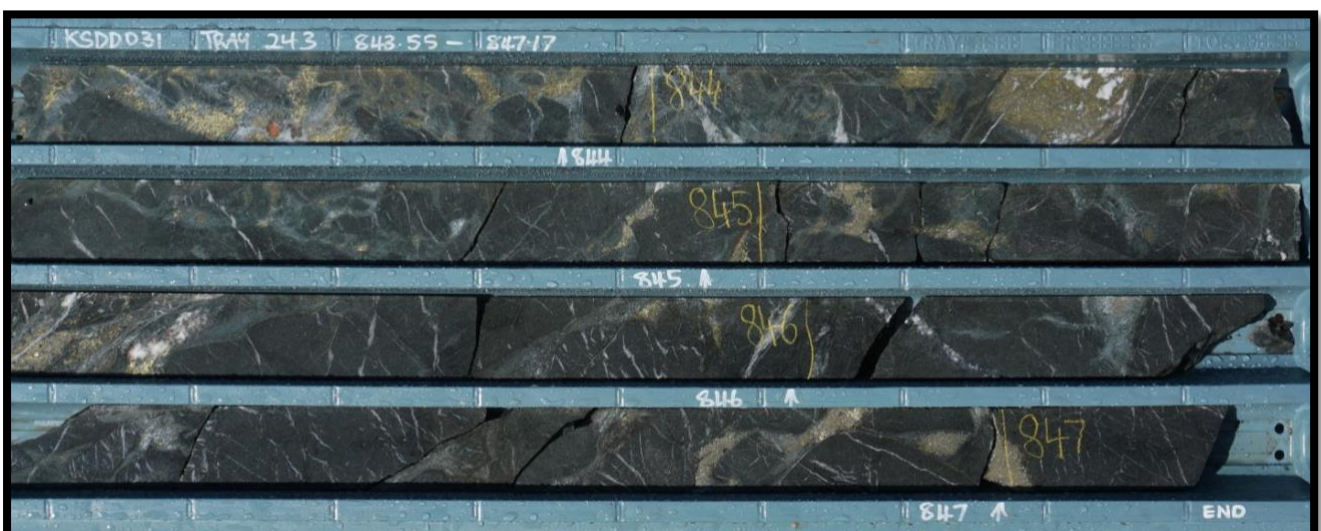
## Boda Prospect

Two diamond core holes (KSDD029 and KSDD031) spaced 150m part and collared northeast, were planned to test the strike and down plunge extension to the sulphide cemented breccia zone intersected initially by KSDD007 (96.8m grading 3.97g/t Au, 1.52% Cu from 768 metres - ASX Announcement 23 March 2020). KSDD029 swung acutely to the south finishing approximately 200m off target and missing the breccia. KSDD031 intersected the down dip extension of the sulphide cemented breccia zone with significant intercepts of:

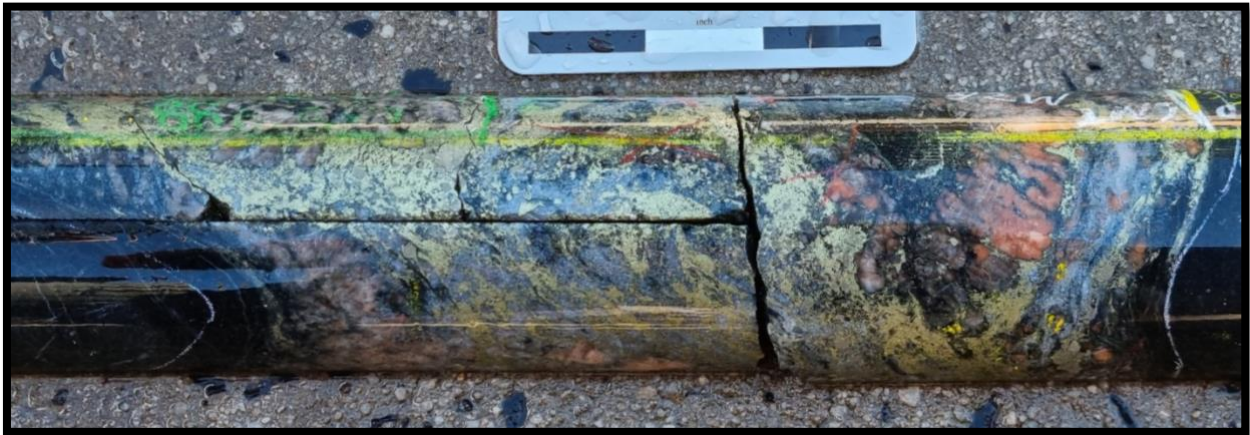
KSDD031	13m grading 0.44g/t Au, 0.35% Cu from 645m
and	383.2m grading 0.80g/t Au, 0.31% Cu from 775m
incl	204m grading 1.40g/t Au, 0.51% Cu from 776m
incl	101m grading 2.47g/t Au, 0.83% Cu from 824m
incl	70m grading 3.04g/t Au, 0.92% Cu from 829m

KSDD031 has determined an approximate 100m down dip extension below previous drilling to the steeply northeast plunging sulphide cemented breccia. The breccia is hosted within shallow dipping stratigraphy comprising of mafic to intermediate lavas, sills and volcanoclastics with intense calc-potassic alteration. Approximately 100m down hole from the breccia is an equigranular feldspar-hornblende monzonite intrusive (1,100m – 1,220m down hole) that is variable mineralised hosting sheeted quartz veins with chalcopyrite – pyrite ± molybdenum. The timing of the monzonite with the breccia mineralisation is uncertain and is being resolved.

The breccia shows apparent sulphide zonation with the upper intercepts more pyrite rich, zoning towards the centre to more chalcopyrite rich with increasing Au-Cu grades. The breccia has now been intersected by drill holes KSDD007, KSDD011, KSDD012, KSDD028, KSDD031 and KSRC033D and at this early stage indicates that the breccia is approximately 50m in true width, thickening up plunge. The breccia is open along strike to the northwest, and down dip. Diamond core drilling is underway testing down plunge and RC drilling planned to commence in June 2021 to test its shallow expression up plunge.



*KSDD031 – Chalcopyrite-pyrite-magnetite-calcite-actinolite cemented crackle breccia in calc-potassic altered volcanic from 843.5m*



*KSDD031 – 0.3m grading 43.4g/t Au, 7.8% Cu from 886.4m – Chalcopyrite-calcite-kspar altered monzonite finger within the breccia.*

Assay results were also received for three other diamond core holes testing the Boda prospect using west drilled RC pre-collars with significant results of:

KSDD015	1249.1m grading 0.18g/t Au, 0.12% Cu from 6m
incl	113m grading 0.39g/t Au, 0.16% Cu from 764m
also	81m grading 0.40g/t Au, 0.32% Cu from 967m
KSDD016	308m grading 0.18g/t Au, 0.20% Cu, 31ppm Mo from 582m
incl	42m grading 0.56g/t Au, 0.54% Cu, 130ppm Mo from 764m
and	106m grading 0.15g/t Au, 0.15% Cu, 17ppm Mo from 970m
incl	22m grading 0.38g/t Au, 0.31% Cu, 13ppm Mo from 1018m
and	30m grading 0.27g/t Au, 0.31% Cu from 1130m
KSDD019	87m grading 0.18g/t Au, 0.11% Cu from 189m
and	445m grading 0.23g/t Au, 0.10% Cu from 312m
incl	44m grading 0.36g/t Au, 0.20% Cu from 377m

All three drill holes intersected extensive gold-copper porphyry mineralisation hosted in strongly calc-potassic altered mafic to andesitic volcanics. KSDD015 intersected a similar pyrite-magnetite-calcite-actinolite breccia with an intercept of 113m grading 0.39g/t Au, 0.16% Cu from 764m. The breccia is observed as texturally and mineralogically very similar to the high-grade breccia intersected by KSDD031 and is either a lateral displacement of the same breccia or a separate breccia zone within Boda. Significant molybdenum (Mo), copper and gold mineralisation were intersected by KSDD016 including 42m grading 0.56g/t Au, 0.54% Cu, 130ppm Mo from 764m in northern margin of Boda. This zonation of metals suggests a possible proximal magmatic source to the Boda system.

### **Boda Two Prospect**

An electrical geophysics survey (3D-IP) previous completed over a 6km long north-south target corridor of Boda volcanic stratigraphy identified a strongly conductive target at the Boda Two prospect (ASX Announcement 19 May 2020). The anomaly was drill tested with KSDD022 intersecting strong pyrite mineralisation with impressive gold grades of 292m @ 0.66g/t Au from 867 metres (ASX Announcement 11 November 2020). Two follow up diamond core holes (KSDD023 and KSDD030) were completed at Boda Two.

KSDD023 collared 100m north of KSDD022 and above the conductive IP feature, intersected strong



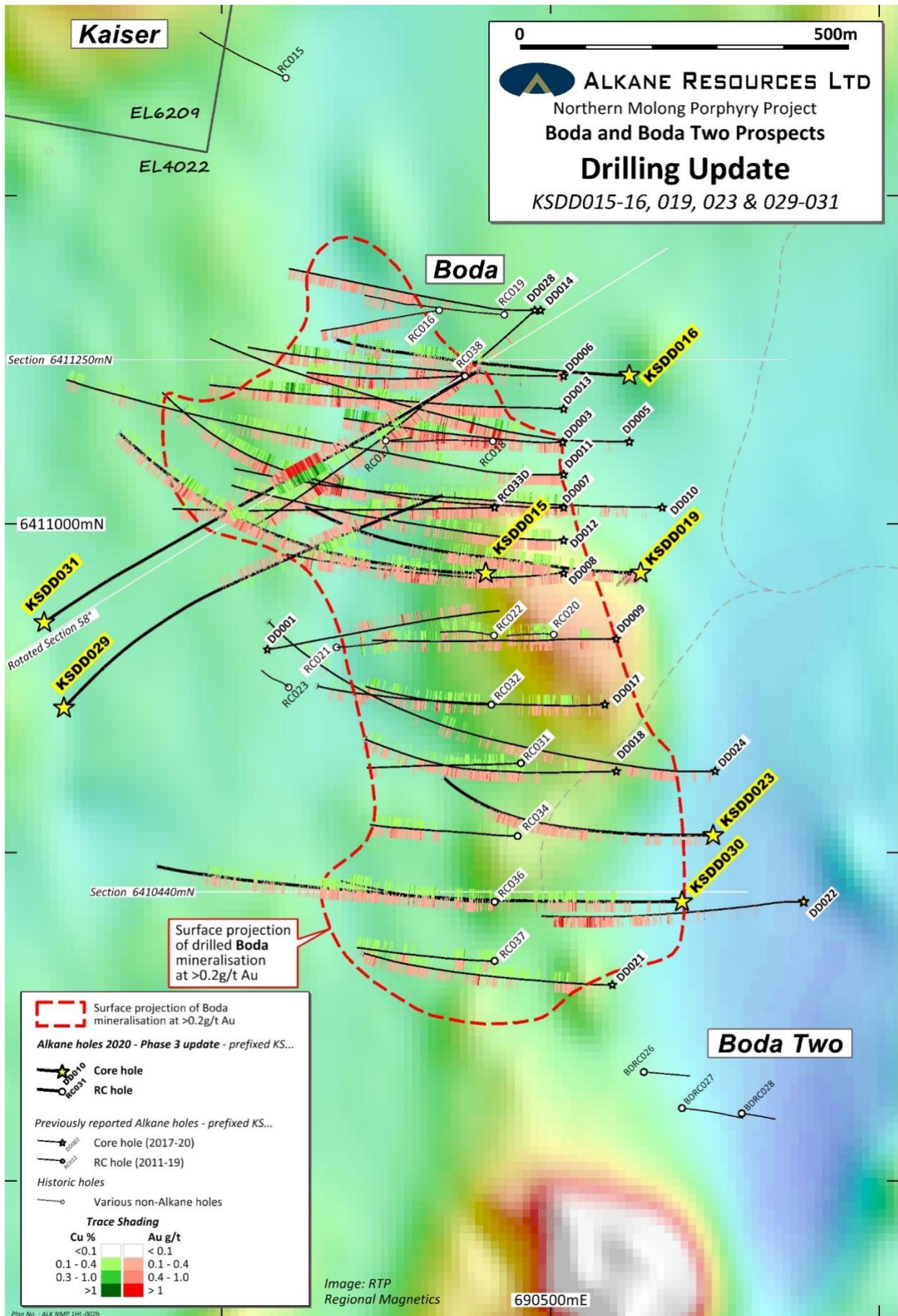
disseminated pyrite mineralisation with gold enrichment similar to the pyrite rich zone positioned on the eastern shoulder of the Boda mineralisation with significant results of:

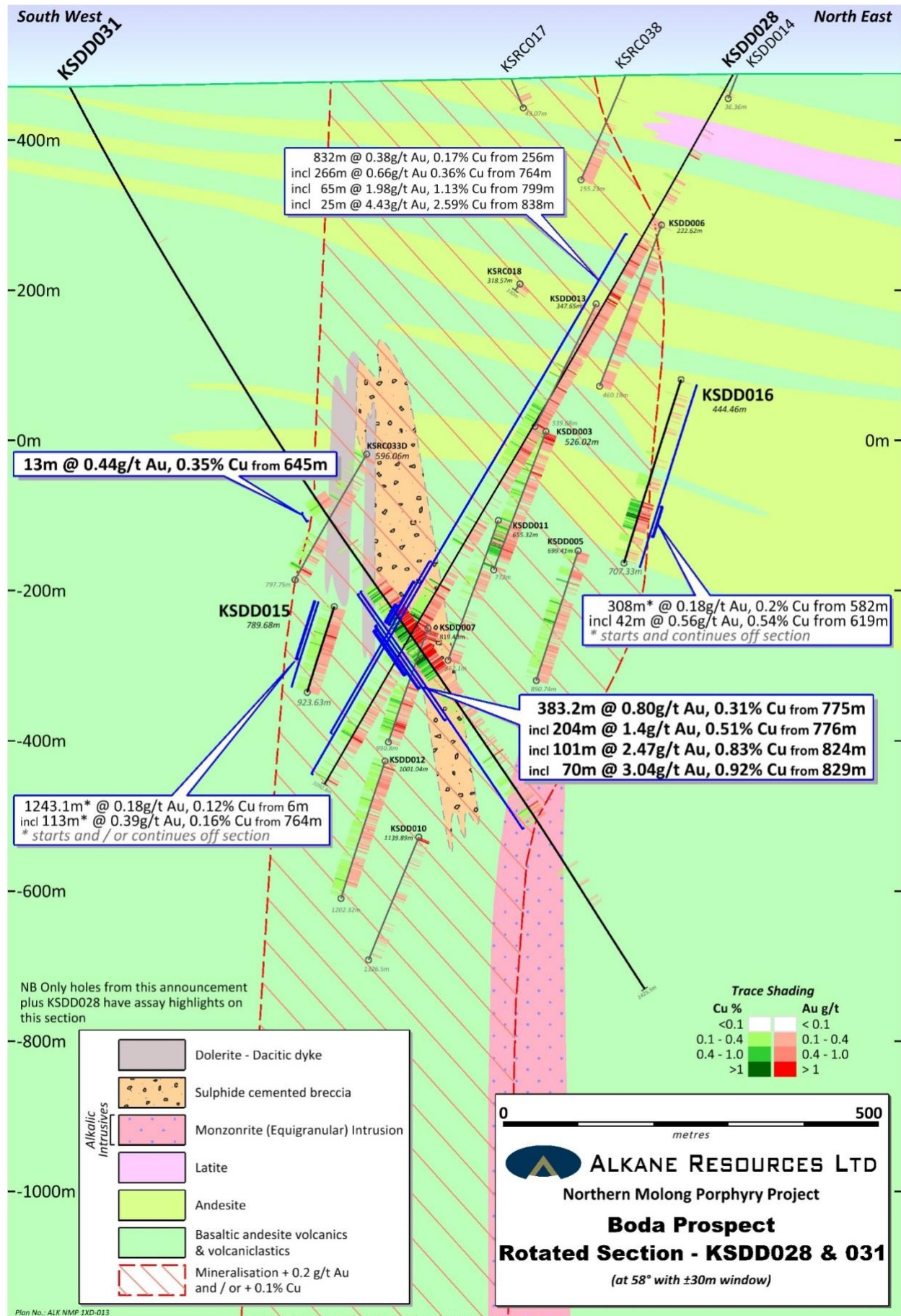
KSDD023	520m grading 0.24g/t Au, 0.03% Cu from 645m
Incl	24m grading 0.43g/t Au, 0.12% Cu from 935m

KSDD030 collared 200m west of KSDD022 and drilled immediately west of the IP conductive anomaly, intersected a large package of volcanic stratigraphy comprising of intermediate-mafic composition lavas and sills with extensive alteration. The substantial gold-copper mineralised intercept shows intense calc-potassic alteration with zones of magnetite-calcite brecciation and calcite - chalcopyrite ± bornite veining, with significant results of:

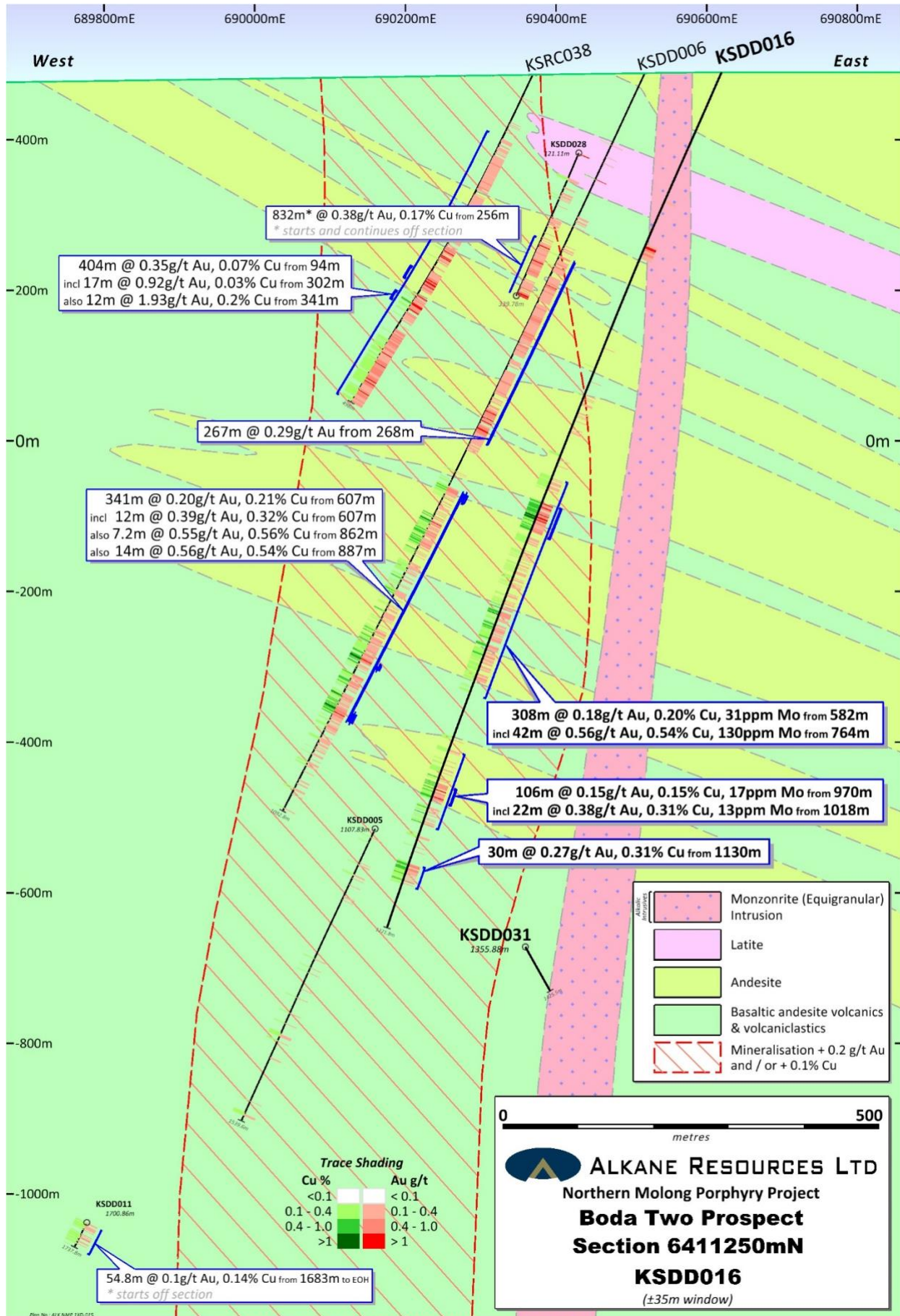
KSDD030	1,483m grading 0.15g/t Au, 0.10% Cu from 241m
incl	16m grading 0.64g/t Au, 0.24% Cu, 15ppm Mo from 382m
also	41m grading 0.32g/t Au, 0.21% Cu from 377m

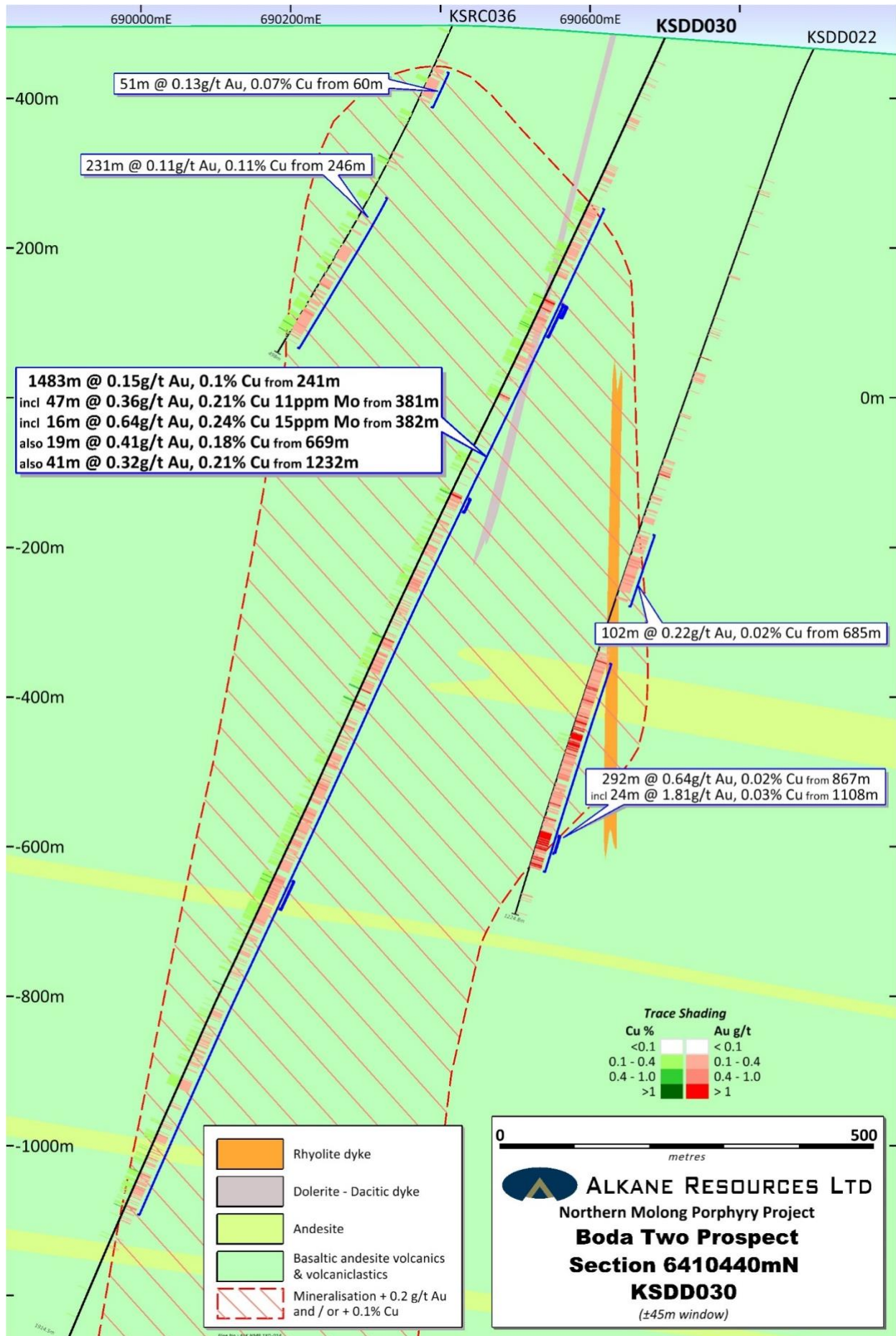
The drilling at Boda Two has identified a broad zone of low-grade gold-copper porphyry mineralisation with a gold enriched pyrite zone of mineralisation positioned on its eastern margin. Further drilling is planned to continue to define the extensions to the mineralisation and to identify high-grade zones focused within breccias and intrusions.













**Table 1 - Boda Drilling Significant Results – March 2021 (>0.2g/t Au and/or >0.1% Cu and/or >50ppm Mo)**

Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)	Mo (ppm)
<b>KSDD015</b>	690402	6410925	483	-65	268	1249.1	6	1249.1	1243.1	0.18	0.12	-
incl							185	193	8	0.44	0.37	-
also							295	328	33	0.30	0.17	-
also							416	438	22	0.33	0.16	-
also							460	489	29	0.32	0.16	-
also							557	586	29	0.30	0.17	-
also							692	700	8	0.46	0.24	-
also							764	877	113	0.39	0.16	-
also							967	1048	81	0.40	0.32	-
<b>KSDD016</b>	690620	6411226	490	-65	268	1221.8	30	60	30	-	-	50
and							249	270	21	0.61	0.02	-
incl							252	255	3	2.41	0.05	-
and							582	890	308	0.18	0.20	31
incl							619	661	42	0.56	0.54	130
also							775	780	5	0.51	0.71	24
also							821	825	4	0.39	0.48	-
and							970	1076	106	0.15	0.15	17
incl							970	975	5	0.15	0.21	69
also							1018	1040	22	0.38	0.31	13
and							1089	1095	6	0.10	0.12	-
and							1130	1160	30	0.27	0.31	-
incl							1131	1143	12	0.44	0.58	-
<b>KSDD019</b>	690637	6410925	485	-65	268	1399.2	12	51	39	0.20	0.07	16
and							63	69	6	0.24	0.08	18
and							189	276	87	0.18	0.11	-
and							312	757	445	0.23	0.10	-
incl							377	421	44	0.36	0.20	-
also							452	472	20	0.45	0.15	-
also							527	539	12	0.45	0.12	-
and							832	846	14	0.10	0.10	12
and							905.3	911	5.7	0.29	0.07	-
and							1083	1091.3	8.3	0.21	0.03	-
and							1099	1105	6	0.21	0.03	-
<b>KSDD023</b>	690750	6410525	477	-65	268	1635.5	15	24	9	0.35	-	-
and							48	51	3	0.22	-	-
and							75	78	3	0.23	-	-
and							96	114	18	0.20	-	-
and							167	173	6	0.22	-	-
and							178	180	2	0.22	-	-
and							248	250	2	0.27	-	-
and							260	267	7	0.23	-	-
and							275	281	6	0.21	-	-
and							312	328	16	0.20	-	-
and							429	434	5	0.28	0.07	-
and							532	534	2	0.34	-	-
and							580	584	4	0.22	-	-
and							631	633	2	0.18	0.10	-



**Table 1 - Boda Drilling Significant Results – March 2021 (>0.2g/t Au and/or >0.1% Cu and/or >50ppm Mo)**

Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)	Mo (ppm)
and							645	1165	520	0.24	0.03	-
incl							935	959	24	0.43	0.12	35
and							1177	1183.9	6.9	0.36	0.05	-
and							1203	1207	4	0.28	-	-
and							1216	1222	6	0.20	-	-
and							1301	1306	5	0.21	-	-
and							1319	1323	4	0.26	0.06	-
<b>KSDD029</b>	690760	6410720	479	-60	42	1245.7	620	625	5	0.14	0.12	-
and							647	651	4	0.09	0.10	-
and							666	669	3	0.10	0.10	-
and							673	684	11	0.18	0.10	-
and							690.2	705	14.8	0.17	0.10	-
and							739	750	11	0.25	0.10	-
and							758	764	6	0.21	0.09	-
and							784.9	799.4	14.5	0.22	0.10	-
and							837	839	2	0.18	0.19	-
and							851	854	3	0.16	0.10	-
and							885	1023	138	0.24	0.16	-
incl							925	939	14	0.38	0.38	-
also							1011	1020	9	0.71	0.09	-
and							1077	1081	4	0.05	0.08	146
and							1103	1107	4	0.05	0.22	408
<b>KSDD030</b>	690700	6410425	481	-65	268	1914.5	116	118	2	0.22	0.13	-
and							202.9	207	4.1	0.20	0.09	14
and							241	1724	1483	0.15	0.10	-
incl							381	428	47	0.36	0.21	11
incl							382	398	16	0.64	0.24	15
also							669	688	19	0.41	0.18	-
also							884	897	13	0.43	0.23	-
also							916	930	14	0.36	0.14	-
also							949	962	13	0.34	0.21	-
also							978	986	8	0.42	0.21	-
also							1232	1273	41	0.32	0.21	-
also							1718	1724	6	0.41	0.28	-
<b>KSDD031</b>	690730	6410850	471	-62	54	1425.5	645	658	13	0.44	0.35	-
and							687	689	2	0.29	0.12	-
and							715	717	2	0.54	0.22	-
and							746	748	2	0.30	0.21	-
and							775	1158.2	383.2	0.80	0.31	-
incl							776	980	204	1.40	0.51	-
incl							824	925	101	2.47	0.83	-
incl							829	899	70	3.04	0.92	-
and							1233	1238	5	0.14	0.18	-

Gold, copper, and molybdenum intercepts are calculated using a lower cut of 0.1g/t Au, 0.05% Cu and 10ppm Mo respectively. Internal dilution (< cut off) is less than 24% of reported intercepts. True widths are estimated as approximately 50% of intersected width.



### Competent Person

Unless otherwise advised above, the information in this report that relates to exploration results is based on, and fairly reflects, 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.

### 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](http://www.alkane.com.au) - ASX: ALK

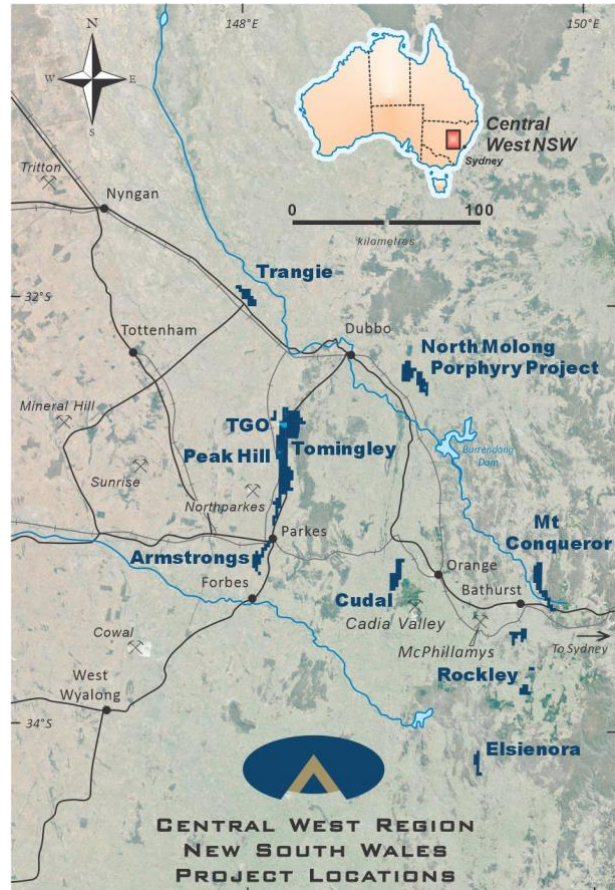
Alkane Resources is poised to become Australia's next multi-mine gold producer.

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

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

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

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies, including ~19.9% of Genesis Minerals (ASX: GMD) and ~9.9% 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 – Boda, Boda Two May 2021

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core drilling was undertaken by Ophir Drilling Pty Ltd</li> <li>DD sample intervals were defined by geologist during logging to honour geological boundaries, cut in half by diamond saw, with half core sent to ALS Laboratories</li> <li>RC drilling was undertaken by Strike Drilling Pty Ltd</li> <li>RC samples are collected at one metre intervals via a cyclone on the rig. The cyclone is cleaned regularly to minimise any contamination</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling and QAQC procedures are carried out using Alkane protocols as per industry best practice</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Core was laid out in suitably labelled core trays. A core marker (core block) was placed at the end of each drilled run (nominally 3m) 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.</li> <li>RC Drilling – the total sample (~20-30kg) 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 strong mineralisation is observed by the site geologist this is sampled as a final 1m interval instead. The 1m intervals forming composite samples assaying <math>\geq 0.10</math> g/t Au or <math>\geq 0.10</math> % Cu are resplit 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.</li> <li>Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish</li> <li>A multi-element suite was determined using a multi-acid digest with a ICP Atomic Emission Spectrometry or ICP Mass Spectrometry analytical finish.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation (RC) drilling using 110mm rods 144mm face sampling hammer</li> <li>Triple tube diamond drilling with PQ3/HQ3 wireline bit producing 83mm diameter (PQ3) and 61.1mm diameter (HQ3) sized oriented core.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul style="list-style-type: none"> <li>DD - core loss was identified by drillers and calculated by geologists when logging. Generally <math>\geq 99\%</math> was recovered with any loss usually in portions of the oxide zone</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>RC sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sample quality is qualitatively logged</li> <li>Core drilling completed using HQ triple tube to maximise core recovery</li> <li>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.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Each one metre interval is 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)</li> </ul>
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography</li> </ul>	<ul style="list-style-type: none"> <li>Mostly logging was qualitative with visual estimates of the various characteristics. In addition, magnetic susceptibility data (quantitative) was collected as an aid for logging</li> <li>All drill holes were geologically logged into Geobank Mobile, followed by validation before importing into Alkane's central Geobank database</li> <li>All drill holes were logged by qualified and experienced geologists</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes were logged in full</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Core sawn with half core samples submitted for analysis</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>Each one metre interval is spear sampled with 3m composite samples collected in a calico sample bag and forwarded to the laboratory. Where strong mineralisation is observed by the site geologist, instead of compositing, this is individually sampled from the cone splitter on the RC rig as a 1 metre interval into a calico bag and forwarded to the laboratory.</li> <li>The 1m intervals forming composite samples assaying <math>\geq 0.10</math> g/t Au or <math>\geq 0.10</math> % Cu are resplit using a cone splitter on the rig during the time of drilling and re-submitted to the laboratory for re-assay.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Laboratory Preparation – the entire sample (~3kg) is dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples are discarded. A pulp sample (±100g) is stored for future reference.</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were delivered by Alkane personnel to ALS Minerals Laboratory, Orange NSW. Crushed with 70% &lt;2mm (ALS code CRU-31), split by riffle splitter (ALS code SPL-21), and pulverised 1000g to 85% &lt;75µm (ALS code PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS codes CRU-QC, PUL-QC).</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples</li> </ul>	<ul style="list-style-type: none"> <li>Internal QAQC system in place to determine accuracy and precision of assays</li> </ul>
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Non-biased core cutting using an orientation line marked on the core</li> <li>Duplicate RC samples are collected for both composite intervals and re-split intervals.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sample are of appropriate size</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul style="list-style-type: none"> <li>All samples were analysed by ALS Minerals</li> <li>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</li> <li>Other geochemical elements, samples are digested by near-total mixed acid digest with each element determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. RC samples that are re-split are digested by aqua regia with a ICP Atomic Emission Spectrometry for Cu only</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No geophysical tools were used to determine any element concentrations</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Full QAQC system in place including certified standards and blanks of appropriate matrix and concentration levels</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>Drill data is compiled and collated, and reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are deemed necessary</li> </ul>
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>No twinned holes have been drilled at this early stage of exploration</li> </ul>





Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>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</li> </ul>
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No adjustments made</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drillholes are laid out using hand-held GPS (accuracy <math>\pm 2\text{m}</math>) then DGPS surveyed accurately (<math>\pm 0.1\text{m}</math>) by licenced surveyors on completion</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>GDA94, MGA (Zone 55)</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Drillhole collars DGPS surveyed accurately (<math>\pm 0.1\text{m}</math>) by licenced surveyors on completion</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results..</li> </ul>	<ul style="list-style-type: none"> <li>At this early exploration stage, data spacing is variable with the focus on identifying new zones of mineralisation</li> </ul>
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Early stage, reconnaissance drilling, no resource estimations being undertaken</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied</li> </ul>	<ul style="list-style-type: none"> <li>No sampling compositing has been applied</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling suggests a broadly sub vertical geometry</li> </ul>
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Estimated true intervals at this early stage of drilling are possibly ~50% of downhole lengths</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All samples are bagged into tied calico bags, before being grouped into polyweave bags and transported ~1hr to ALS Minerals Laboratory in Orange by Alkane personnel. All sample submissions are documented via ALS tracking system with results reported via email</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"><li>• Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years).</li><li>• The Company has in place protocols to ensure data security.</li></ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"><li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li></ul>	<ul style="list-style-type: none"><li>• No audits or reviews have been conducted at this stage</li></ul>



## 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	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All four licences (EL4022, EL6209, EL8261 and EL8887) in the Northern Molong Porphyry Project are owned 100% by Alkane.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All exploration licences are in good standing. EL4022 expires on 13 August 2026. EL6209 expires on 11 March 2023. EL8887 expires on 6 February 2026. EL8261 expires on 30 April 2023.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Significant historical drilling activity has been conducted within the bounds of EL4022.</li> <li>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, 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.</li> <li>Within EL6209 records show 14 AC (170m), 78 RC (7591m) and 45 DD holes (7833m) = 15,594m.</li> <li>KAISER PROSPECT: Under-reporting of historical exploration drill results from the Kaiser Prospect is suggested by preliminary metallurgical test work by previous explorers and is supported by a drill hole (KSRC001) completed by Alkane. This can be partly explained by the partial digests and analogue equipment commonly used in the 1970s</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>See body of announcement</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes have been reported in this announcement.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration results reported for uncut gold grades, grades calculated by length weighted average</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Reported intercepts are calculated using a broad lower cut of 0.1g/t Au and/or 0.05% Cu although grades lower than this may be present internally (internal dilution). Internal dilution can be significant because of the type of bulk mining techniques used to extract this style of mineralisation but are limited to &lt;24% for the purpose of calculation.</li> <li>No top cut has been used.</li> <li>Short intervals of high grades that have a material impact on overall intersection are reported as separate (included) intervals</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>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</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>It is apparent on the sections and the report descriptions that the overall geometry of the porphyry mineralisation at Boda prospect is subvertical.</li> <li>True intervals are likely to be ~50% of downhole lengths</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Plans showing geology with drill collars are included in the body of the announcement.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive reporting has been undertaken with all holes listed in the included table.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No other exploration data is available to assist in interpretation.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul style="list-style-type: none"> <li>It is recommended that further drilling at Boda prospect to define its resource potential. Other drilling work targeting the IP anomalies will be undertaken within the licence.</li> </ul>
	<ul style="list-style-type: none"> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive</li> </ul>	<ul style="list-style-type: none"> <li>See figures included in the announcement.</li> </ul>