

16 August 2021



High grade mineralisation from surface at Boda

- Reverse Circulation (RC) drilling to test for shallow extensions to the high-grade breccia first identified by KSDD007, intersected significant gold and copper grades from surface with substantial assay results of:

KSRC043	31m grading 2.94g/t Au, 0.97% Cu from surface
incl	9m grading 9.43g/t Au, 2.65% Cu from surface

KSRC042	14m grading 0.40g/t Au, 0.11% Cu from 74m
and	226m grading 0.35g/t Au, 0.15% Cu from 108m
incl	10m grading 0.72g/t Au, 0.40% Cu from 157m
also	9m grading 0.73g/t Au, 0.50% Cu from 290m

- Previously advised RC drill hole (KSRC038), which ended in mineralisation, was diamond core tailed (KSRC038D) to also test for up-dip and strike continuation of the high-grade breccia. The hole intersected a sulphide cemented breccia within a broad zone of gold-copper porphyry mineralisation with significant assay results of:

KSRC038D	711m grading 0.36g/t Au, 0.10% Cu from 118m
incl	17m grading 0.92g/t Au, 0.03% Cu from 302m
also	12m grading 1.93g/t Au, 0.20% Cu from 341m
also	17m grading 0.91g/t Au, 0.43% Cu from 501m
also	1m grading 15.2g/t Au, 0.14% Cu from 756m

- A deep diamond core hole (KSDD034) with a wedge hole (KSDD034W2), tested down-dip of the high-grade breccia. KSDD034W2 intersected a possible feeder structure and conduit to the breccia with significant assay results of:

KSDD034W2	604m grading 0.13g/t Au, 0.14% Cu from 1,146m
incl	61m grading 0.10g/t Au, 0.26% Cu from 1,147m
incl	8m grading 0.25g/t Au, 0.61% Cu from 1,157m
also	32m grading 0.25g/t Au, 0.20% Cu from 1,249m

- These recent drilling results indicate the high-grade sulphide cemented breccia at Boda has a vertical extension of at least 800 metres, strikes northwest and dips sub-vertically to steeply to the northeast. Ongoing drilling will continue to define its dimensions.
- Results were also received from diamond core drill hole KSDD033, testing the southern extensions to the mineralisation at Boda Two. The drill hole defined a zone of extensive gold-copper porphyry mineralisation, with significant intercepts of:

KSDD033	995m grading 0.19g/t Au, 0.12% Cu from 322m
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incl	8m grading 1.14g/t Au, 0.30% Cu from 894m
also	14m grading 0.49g/t Au, 0.23% Cu from 968m
also	30m grading 0.39g/t Au, 0.20% Cu from 1052m
also	7m grading 0.55g/t Au, 0.38% Cu from 1243m
and	21m grading 0.36g/t Au, 0.11% Cu from 1517m

- **Drilling continues at Boda, Boda Two, Boda Three and Kaiser-Duke utilising two diamond core rigs and one high-capacity RC rig onsite, testing extensions and adding definition to the identified mineralised systems.**

Alkane Resources Limited (ASX: ALK) is pleased to announce 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, which the Company believes has the potential to be a large, tier one gold-copper project.

Alkane also operates the nearby Tomingley Gold Operations ('TGO') and is working towards its stated ambition of becoming Australia's next multi-mine gold producer.

Alkane Managing Director, Nic Earner, said: *"The high-grade breccia zone at surface not only further emphasises the large vertical depth of the system, but also gives rise to considering open cut as a potential mining method at Boda."*

"We're continuing our exploration program across the Porphyry Project, and we are planning a further 60,000 metres of drilling over the coming financial year. This substantial exploration program is designed to continue defining the internal high-grade zones within the extensive low-grade mineralised envelopes at Boda, Boda Two and Kaiser prospects, as well as testing the corridor between the Boda and Kaiser targets."

"The drilling will also help us to identify further targets to contribute to the geological and structural understanding of the 15km intrusive corridor that extends from Boda South to Finns Crossing."

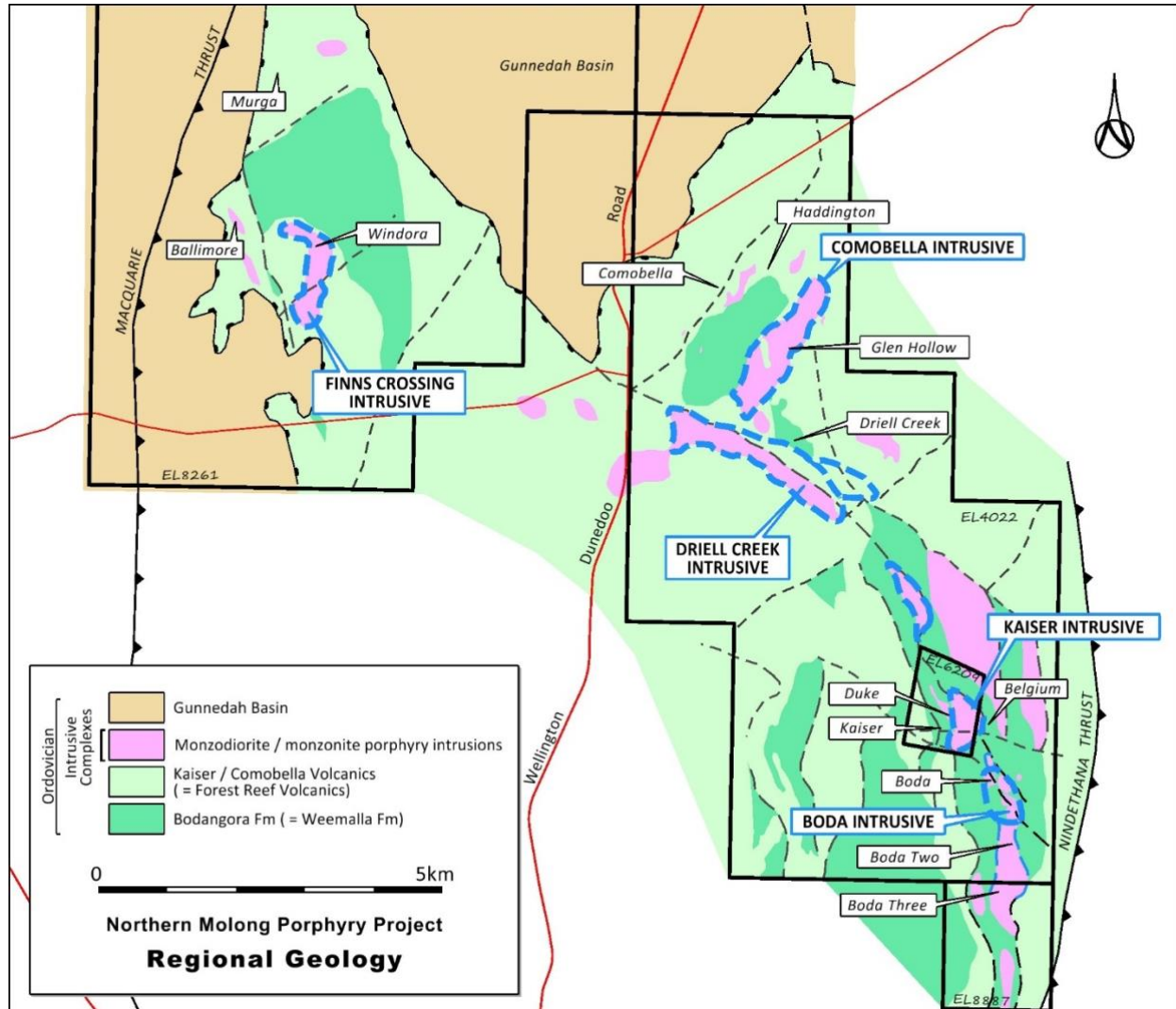


Northern Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

The Project is located at the northern end of the Molong Volcanic Belt within the Macquarie Arc, in central west 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 commenced in July 2020 and 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 comprising seven RC drill holes including two pre-collars and six diamond core holes including two daughter holes for a total of 9,551 metres testing the strike and depth extensions of the gold-copper porphyry mineralisation at the Boda (discovery hole KSDD003 - 502m @ 0.48g/t Au, 0.20% Cu from 211 metres; *ASX Announcement 9 September 2019*) and Boda Two (KSDD022 - 292m @ 0.66g/t Au from 867 metres; *ASX Announcement 11 November 2020*).



Boda Prospect

The Boda gold-copper porphyry system appears to be a series of monzodiorite near vertical intrusive related breccias hosted within a thick sequence of near flat lying intermediate lavas. These magmatic breccias tend to hydrothermal in nature with a matrix comprising of calcite-quartz \pm actinolite \pm magnetite \pm chalcopyrite \pm pyrite zoning to a sulphide dominant cement (chalcopyrite \pm pyrite) towards their centres. Truncating the breccias are late-mineral monzonite intrusives associated with quartz + chalcopyrite veining and post-mineral dolerite and dacitic dykes.

Recent drilling is focused on testing the vertical extensions to the sulphide cemented breccia intersected initially by KSDD007 (96.8m grading 3.97g/t Au, 1.52% Cu from 768 metres - ASX Announcement 23 March 2020). Drill hole assays for four RC holes were received and define a high-grade zone of gold-copper with anomalous silver mineralisation (up to 17g/t Ag), intersected from surface with significant assay results of:

KSRC043	31m grading 2.94g/t Au, 0.97% Cu from surface
incl	9m grading 9.43g/t Au, 2.65% Cu, 8g/t Ag from surface
KSRC042	14m grading 0.40g/t Au, 0.11% Cu from 74m
and	226m grading 0.35g/t Au, 0.15% Cu from 108m
incl	10m grading 0.72g/t Au, 0.40% Cu from 157m
also	26m grading 0.50g/t Au, 0.32% Cu from 273m
incl	9m grading 0.73g/t Au, 0.50% Cu from 290m
and	18m grading 0.16g/t Au, 0.12% Cu from 450m to end of hole

Previously announced RC hole, KSRC038, ended in mineralisation at 498m (404m grading 0.35g/t Au, 0.07% Cu from 94 metres - ASX Announcement 9 November 2020) and was recently extended with a diamond core tail, KSRC038D, to a depth of 945.8 metres. The core intersected an up-dip extension to the sulphide breccia from 501 metres with significant intercepts of:

KSRC038D	711m grading 0.36g/t Au, 0.10% Cu from 118m
incl	17m grading 0.92g/t Au, 0.03% Cu from 302m (announced RC assays)
also	12m grading 1.93g/t Au, 0.20% Cu from 341m (announced RC assays)
also	17m grading 0.91g/t Au, 0.43% Cu from 501m (breccia in core)
also	1m grading 15.2g/t Au, 0.14% Cu from 756m

To test the deeper extensions to the sulphide cemented breccia, diamond hole KSDD034 was completed testing the zone approximately 500 metres below previous drilling intercepts. The hole intersected deep level propylitic porphyry alteration and strong pyrite mineralisation with only small patchy gold-copper grades. A daughter hole, KSDD034W2, was completed after a failed first attempt (KSDD034W1 – not sampled), transecting approximately halfway between the known sulphide cemented breccia zone and the parent drill hole KSDD034. The wedge hole intersected a zone of intense deformation and alteration from 1,147 metres, interpreted as a possible conduit and feeder structure to the sulphide cemented breccia. KSDD034W2 has significant gold-copper intercepts with anomalous silver of:

KSDD034W2	604m grading 0.13g/t Au, 0.14% Cu from 1,146m
incl	61m grading 0.10g/t Au, 0.26% Cu from 1,147m (structure)
incl	8m grading 0.25g/t Au, 0.61% Cu, 10g/t Ag from 1,157m (structure)
also	32m grading 0.25g/t Au, 0.20% Cu from 1,249m
also	106m grading 0.16g/t Au, 0.16% Cu from 1,295m
also	31m grading 0.15g/t Au, 0.17% Cu from 1,477m
also	14m grading 0.25g/t Au, 0.18% Cu, 19ppm Mo from 1,583m
also	21m grading 0.20g/t Au, 0.15% Cu, 10ppm Mo from 1,639m

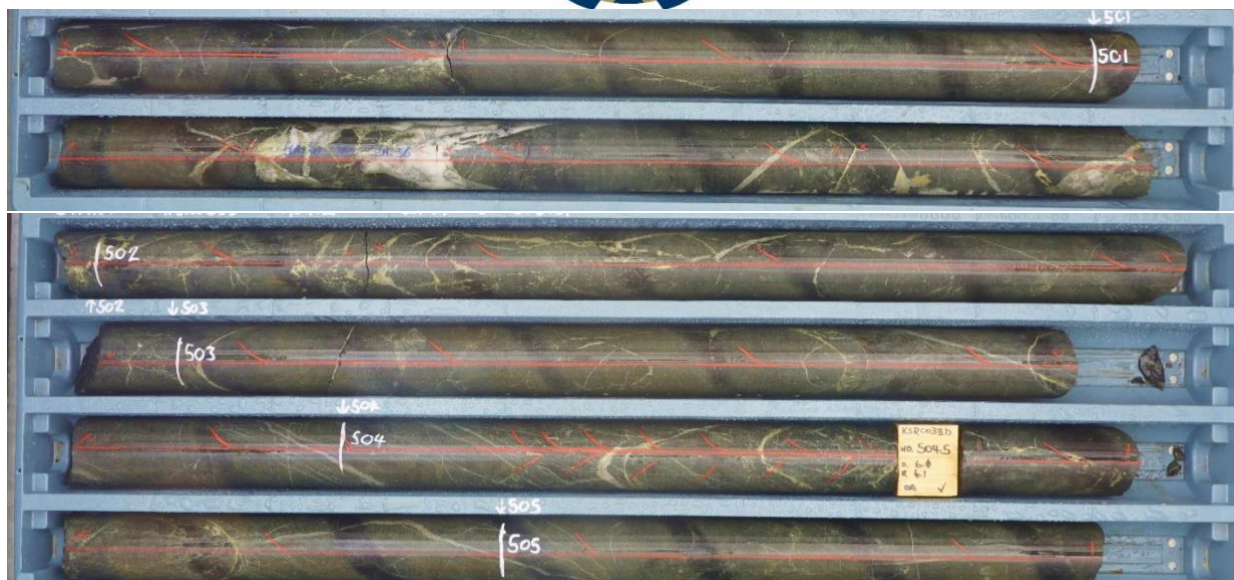


Core photographs of KSDD034W2 depict the significant shear zone of approximately 30 metres true thickness comprising of biotite-silica altered country rock with silica-chalcopryite blebby veins within the fabric. Post to late-mineral dacitic and monzonite dykes have intruded the mineralised structure positioned approximately 200 metres vertically below the sulphide cemented breccia intersected by KSDD031. This structure is interpreted to be a root or feeder structure to the sulphide cemented breccia.



KSDD034W2 – Biotite-silica shear zone with silica-chalcopryite hydrothermal veins and blebs and intruded by late-mineral monzonites – grading 61m at 0.10g/t Au, 0.26% Cu from 1,147m.

The sulphide cemented breccia intersected by KSRC038D is shown below and demonstrates a crackle texture indicative of a lateral or distal position within the breccia itself. The breccia appears to zone from pyrite dominant to a chalcopryite dominant core with increasing gold-copper grades associated with higher fluid flows as observed from breccia textures changing from crackle to more jigsaw in character. Similar higher energy breccia textures have been recently observed in KSDD040 (currently being sampled) including strong chalcopryite mineralisation over approximately 40 metres down hole, see KSDD040 drill trace on the KSDD034W2 drill section.



KSRC038D – Chalcopryite-pyrite-magnetite-calcite cemented crackle breccia of calc-potassic altered volcanics – 17m grading 0.91g/t Au, 0.43% Cu from 501m.

The sulphide cemented breccia mineralisation has been tested over 800 metres vertically from the mineralised conduit zone intersected in KSDD034W2 to the shallowest intercept in KSRC043. The breccia mineralisation is open along strike to the northwest, dipping sub-vertically to steeply to the northeast. RC and diamond core drilling is ongoing, testing both along strike and its shallow extensions up-dip. Downhole electromagnetic surveying is planned for trial in August to test for a conductive response from the sulphide cemented breccia to aid targeting of other sulphide cemented breccias.

Boda Two Prospect

An electrical geophysics survey (3D-IP) previously 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).

Assay results have been received for KSDD033 - a diamond core drill hole testing the southern extensions to the Boda Two prospect and approximately 300 metres below KSDD021 (KSDD021 – 670.8m @ 0.14g/t Au, 0.10% Cu from 311 metres to end of hole; ASX Announcement 9 September 2019) with significant results of:

KSDD033	995m grading 0.19g/t Au, 0.12% Cu from 322m
incl	8m grading 1.14g/t Au, 0.30% Cu from 894m
also	14m grading 0.49g/t Au, 0.23% Cu from 968m
also	30m grading 0.39g/t Au, 0.20% Cu from 1052m
also	7m grading 0.55g/t Au, 0.38% Cu from 1243m
and	21m grading 0.36g/t Au, 0.11% Cu from 1517m

KSDD033 intersected a pervasive zone of calc-potassic altered volcanics with extensive low-grade gold-copper mineralisation associated with disseminated pyrite ± chalcopryite ± bornite. The drill hole has increased both the width and grade of the zone of gold-copper mineralisation intersected by KSDD021 300 metres vertically below and enhanced the potential for higher grade zones.

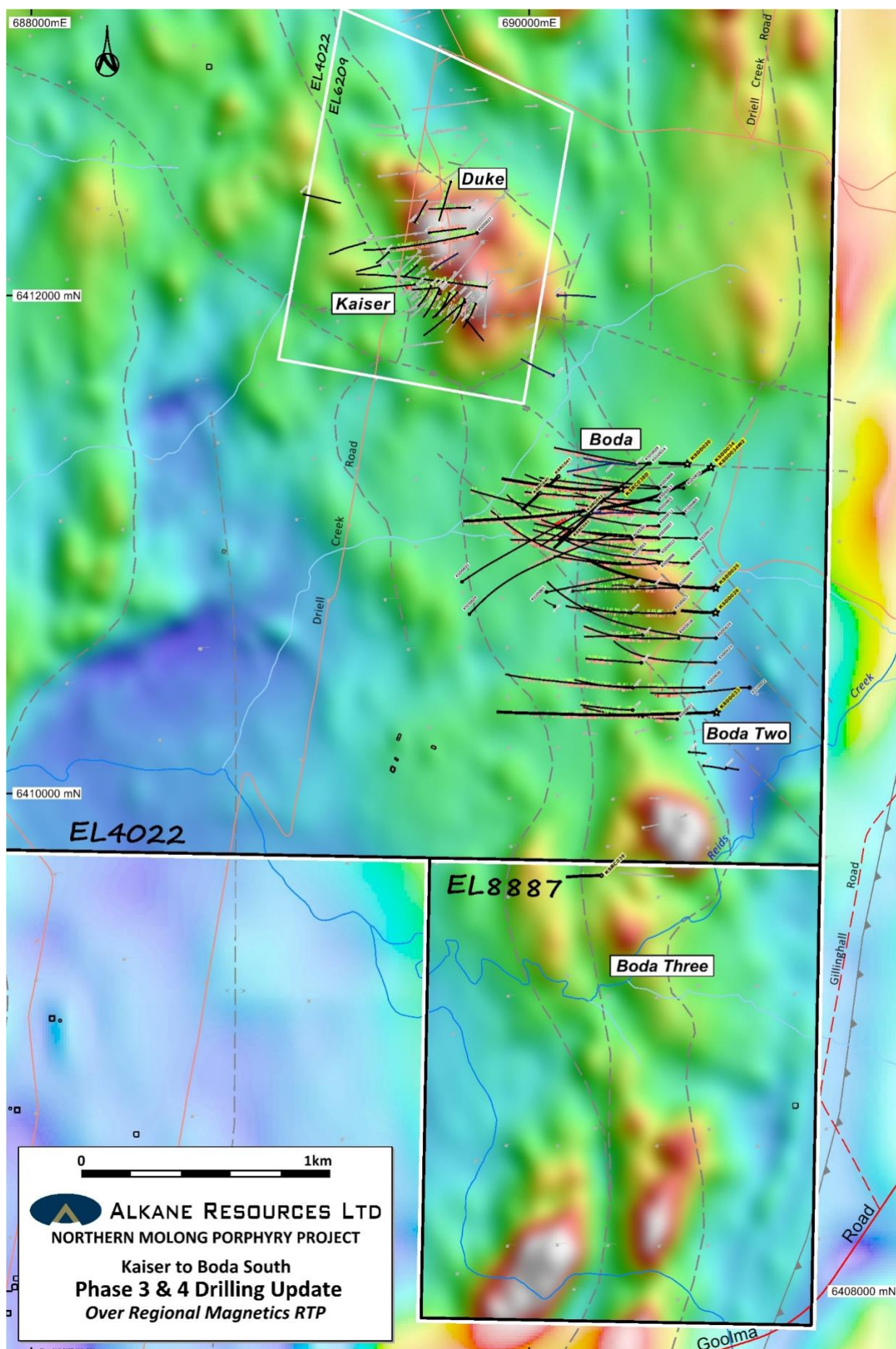
The drilling to date at Boda Two has identified an extensive zone of low-grade gold-copper porphyry mineralisation with a gold enriched pyrite zone positioned along its northeast shoulder. Further drilling

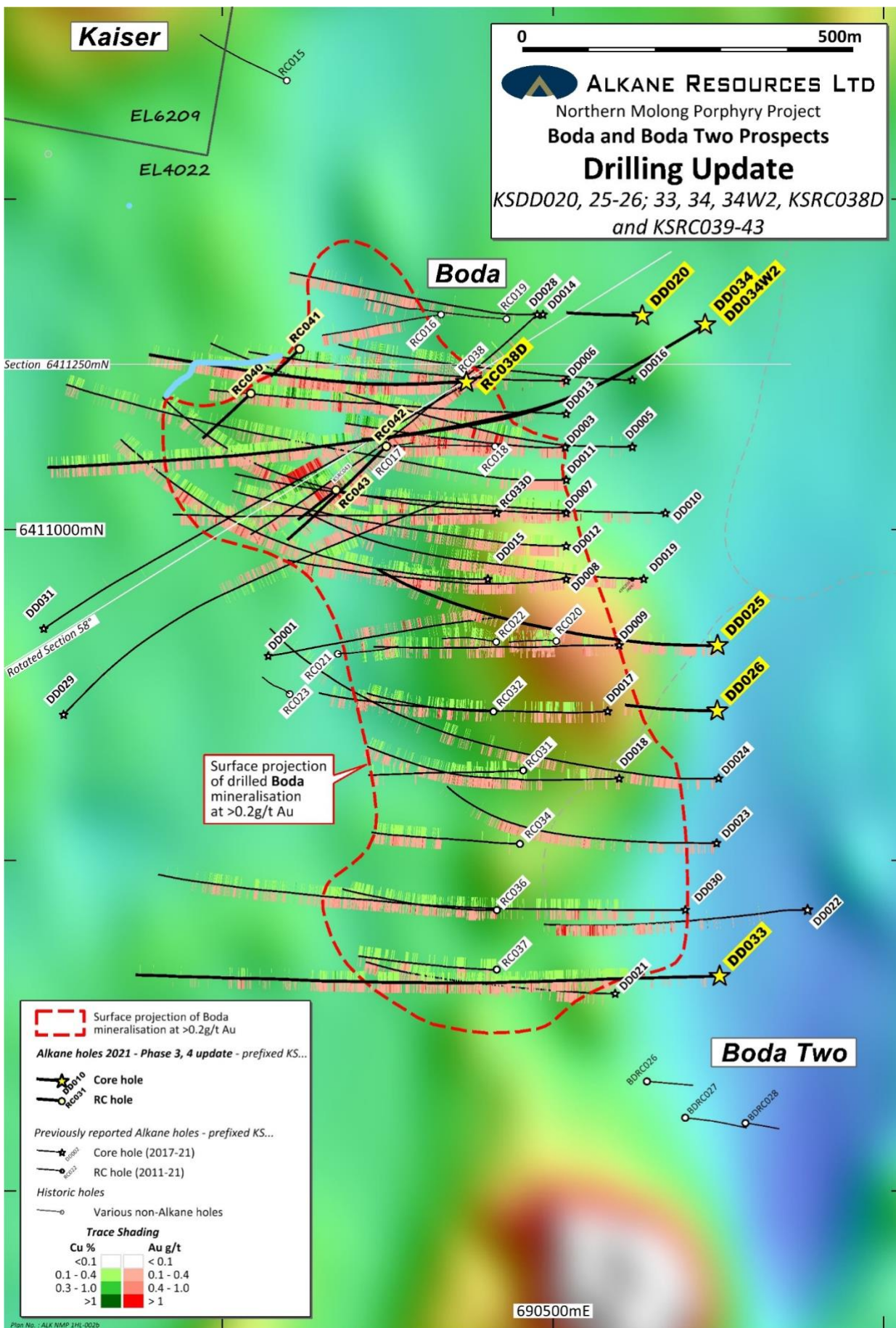


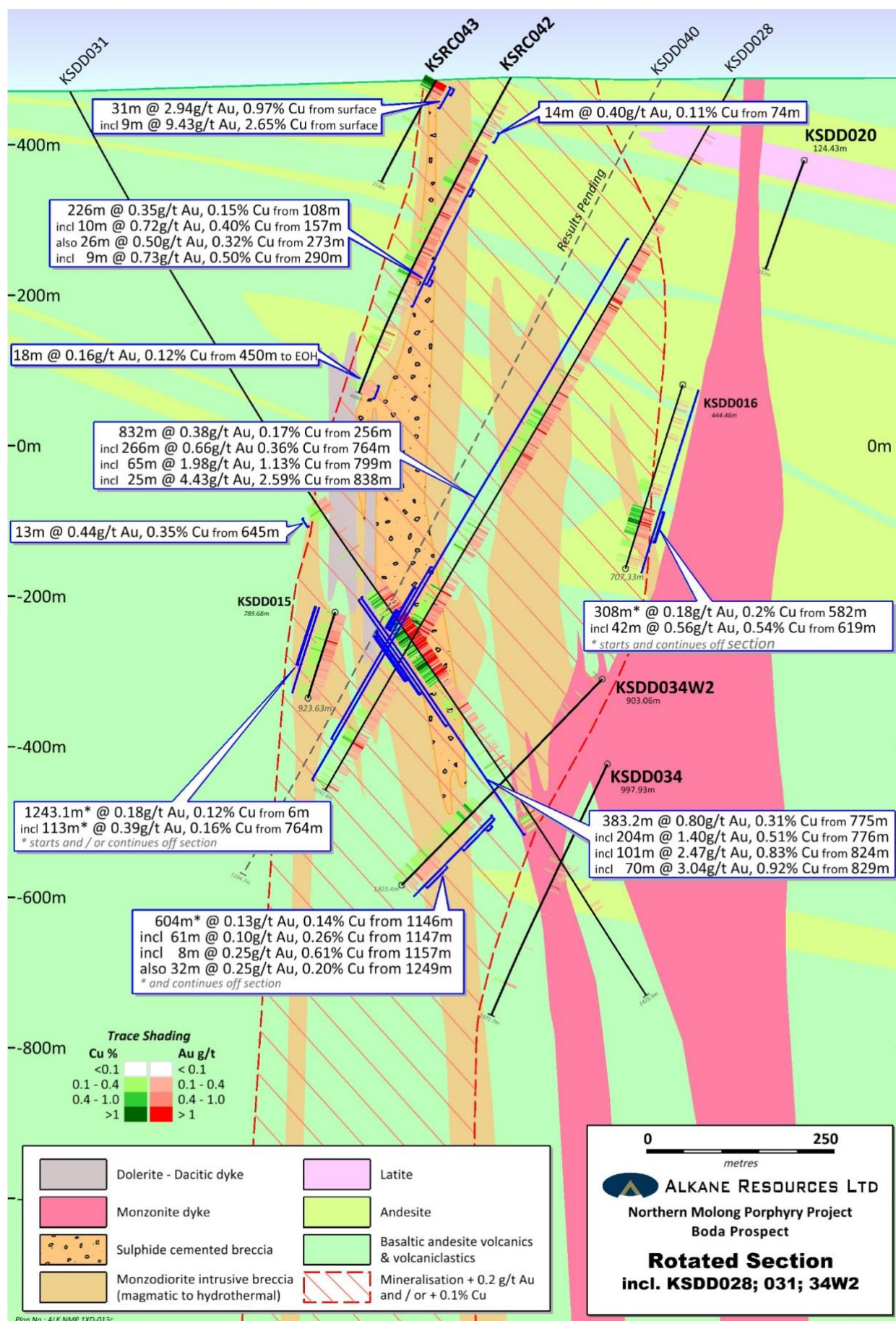
is underway at Boda Two to continue to define the size and scope of gold-copper mineralisation and any internal high-grade zones as being demonstrated at Boda.

Other drill hole results being reported include diamond core drill hole KSDD025 drilled into the propylitic shoulder separating Boda and Boda Two mineralisation zones. Four RC drill holes completed at Boda comprising of two pre-collar drill holes, KSDD020 and KSDD026, that were abandoned due to down hole deviation and two scout RC drill holes, KSRC040 and KSRC041, likely collared west of the Boda mineralisation. One RC drill hole, KSRC039, targeting a magnetic lineament west of Boda Two intersected strong potassic and pyrite alteration that is likely a pyrite shell to the Boda Two gold-copper mineralisation. Results for these five drill holes are reported in Table 1.

Assay results are now all reported from the initial 30,000 metres drilling program and the Company has commenced a program with 60,000 metres of drilling over the next 12 months. This substantial exploration program is designed to continue to define the internal high grade zones within the extensive low-grade mineralised envelopes at Boda, Boda Two and Kaiser prospects, as well as test the corridor between the Boda and Kaiser targets. Additionally, the drilling will continue to work up other targets to contribute to the geological and structural understanding of the 15km intrusive corridor that extends from Boda South to Finns Crossing.







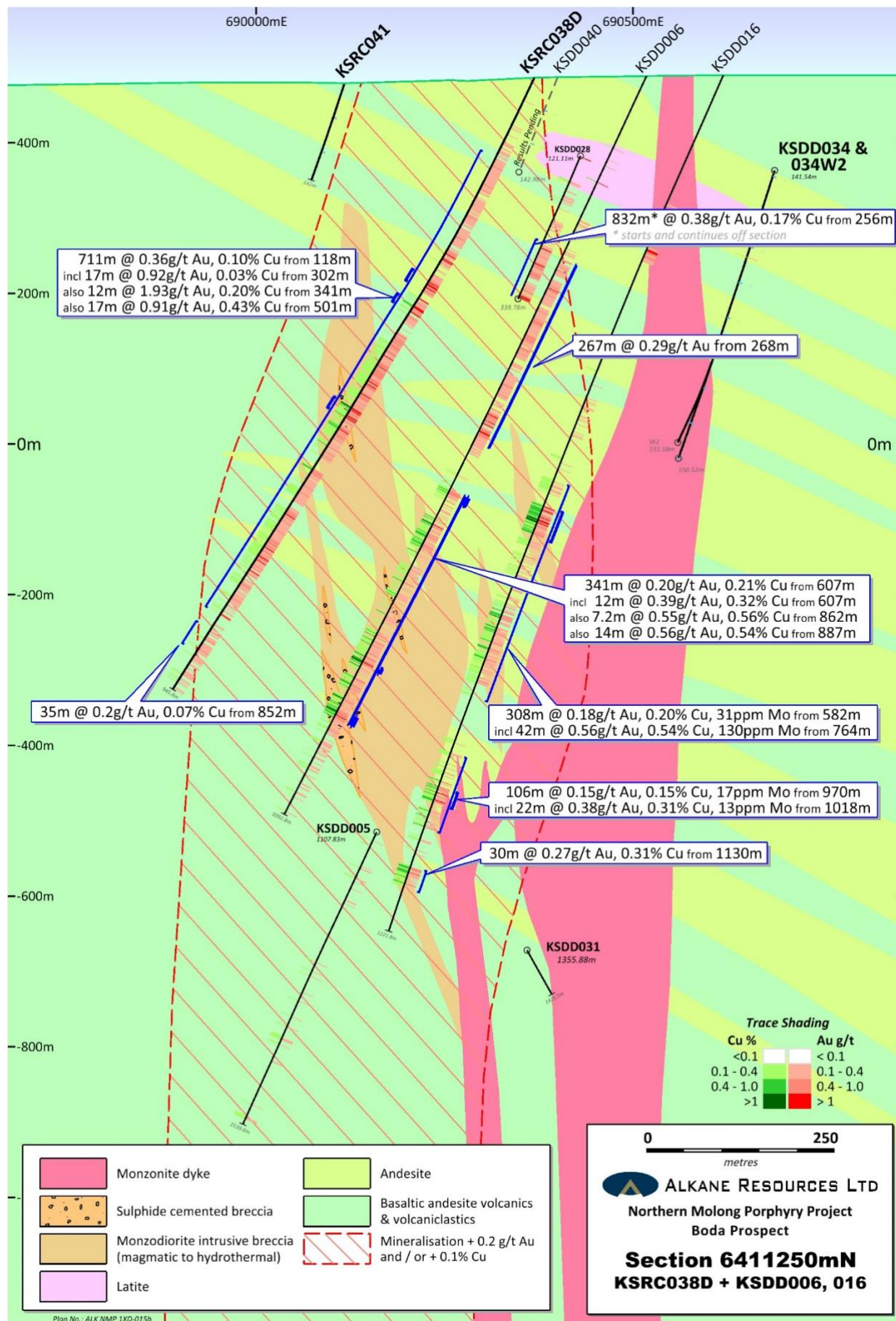




Table 1 – Boda/Boda 2 Significant Drilling Results – August 2021 (>0.2g/t Au and/or >0.1% Cu)

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)
KSRC038D	690369	6411223	486	-65	268	945.8	118	829	711	0.36	0.10	15
incl							302	319	17	0.92	0.03	-
also							341	353	12	1.93	0.20	19
also							501	518	17	0.91	0.43	14
also							756	757	1	15.2	0.14	17
and							852	887	35	0.20	0.07	-
and							891	895	4	0.27	0.22	10
and							915	917	2	0.22	0.09	-
and							920	923	3	0.12	0.11	-
and							927	935	8	0.12	0.10	12
KSRC039	690290	6409670	455	-65	268	382	136	137	1	0.17	0.13	-
and							139	140	1	0.09	0.10	-
and							173	175	2	0.05	0.12	-
and							178	179	1	0.14	0.12	-
and							183	186	3	0.06	0.18	-
and							262	263	1	0.08	0.11	-
and							310	314	4	0.05	0.10	-
and							319	320	1	0.04	0.11	-
KSRC040	690043	6411206	477	-66	225	240	35	36	1	-	0.11	-
KSRC041	690117	6411273	479	-66	225	142*	Hole abandoned due to deviation					
KSRC042	690248	6411126	488	-61	227	468**	46	50	4	0.14	0.10	-
and							54	57	3	0.26	0.11	-
and							74	88	14	0.40	0.11	-
and							96	99	3	0.19	0.12	-
and							108	334	226	0.35	0.15	-
incl							157	167	10	0.72	0.40	-
also							273	299	26	0.50	0.32	-
incl							290	299	9	0.73	0.50	-
and							338	342	4	0.21	0.07	-
and							344	349	5	0.11	0.10	-
and							351	353	2	0.12	0.11	10
and							367	371	4	0.21	0.08	-
and							378	402	24	0.17	0.11	-
and							450	468**	18	0.16	0.12	-
KSRC043	690172	6411060	486	-61	230	154	0	31	31	2.94	0.97	-
incl							0	9	9	9.43	2.65	-
and							62	66	4	0.12	0.19	-
KSDD020	690635	6411323	492	-65	268	282*	Hole abandoned due to deviation					
KSDD025	690750	6410825	483	-60	268	1338.7	12	18	6	0.20	-	-
and							75	84	9	0.20	-	-
and							96	114	18	0.20	-	-
and							171	177	6	0.21	0.08	-
and							218	224	6	0.19	0.11	-
and							348	352	4	0.31	-	-
and							535	544	9	0.34	-	-
and							597	599	2	0.91	-	-
and							616	618	2	0.55	-	-
and							739	742	3	0.26	-	-



Table 1 – Boda/Boda 2 Significant Drilling Results – August 2021 (>0.2g/t Au and/or >0.1% Cu)

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							861	903	42	0.29	-	-
incl							867	877	10	0.62	-	-
and							991	993	2	0.26	0.05	-
and							1032	1047.9	15.9	0.27	0.06	-
and							1220	1222	2	0.11	0.12	-
KSDD026	690748	6410726	486	-60	270	299.5*	282	299.5	17.5	0.24	-	-
KSDD033	690752	6410325	477	-65	268	1848.8	201	203	2	0.23	0.06	-
and							240	250	10	0.13	0.10	22
and							262	265	3	0.08	0.10	21
and							322	1317	995	0.19	0.12	-
incl							894	902	8	1.14	0.30	-
also							968	982	14	0.49	0.23	-
also							1052	1082	30	0.39	0.20	-
also							1243	1250	7	0.55	0.38	-
and							1378	1386	8	0.20	0.07	-
and							1400	1402	2	0.26	0.06	-
and							1502	1504	2	0.25	0.11	-
and							1517	1538	21	0.36	0.11	-
and							1556	1566	10	0.20	0.08	-
KSDD034	690730	6411310	496	-70	237	1399.2	4	9	5	0.24	-	-
and							20	22	2	0.25	-	-
and							424	447	23	-	-	59
and							803	807	4	0.27	-	-
and							1146.4	1153	6.6	0.16	0.10	-
and							1177	1180	3	0.41	0.05	-
and							1322	1325.7	3.7	0.29	0.12	-
KSDD034W2	690730	6411310	122	-67	240	1758.5	424	444	10	-	-	63
and							816	818	2	-	0.48	-
and							883	885	2	0.09	0.29	-
and							901	906	5	-	0.15	76
and							955	975	20	0.04	0.05	124
and							1122	1124	2	0.16	0.12	-
and							1146	1750	604	0.13	0.14	-
incl							1147	1208	61	0.10	0.26	-
incl							1157	1182	25	0.14	0.37	-
incl							1157	1165	8	0.25	0.61	-
also							1249	1281	32	0.25	0.20	-
also							1295	1401	106	0.16	0.16	-
also							1477	1508	31	0.15	0.17	-
also							1566	1572	6	0.23	0.19	12
also							1583	1597	14	0.25	0.18	19
also							1639	1660	21	0.20	0.15	10

* Drill hole abandoned due to inaccuracy. ** Drill hole ended in mineralisation

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 18% of reported intercepts.

True widths are estimated as approximately 50% of intersected width.



Competent Person

Unless otherwise advised above or in the Announcements referenced, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr David Meates, MAIG, (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 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

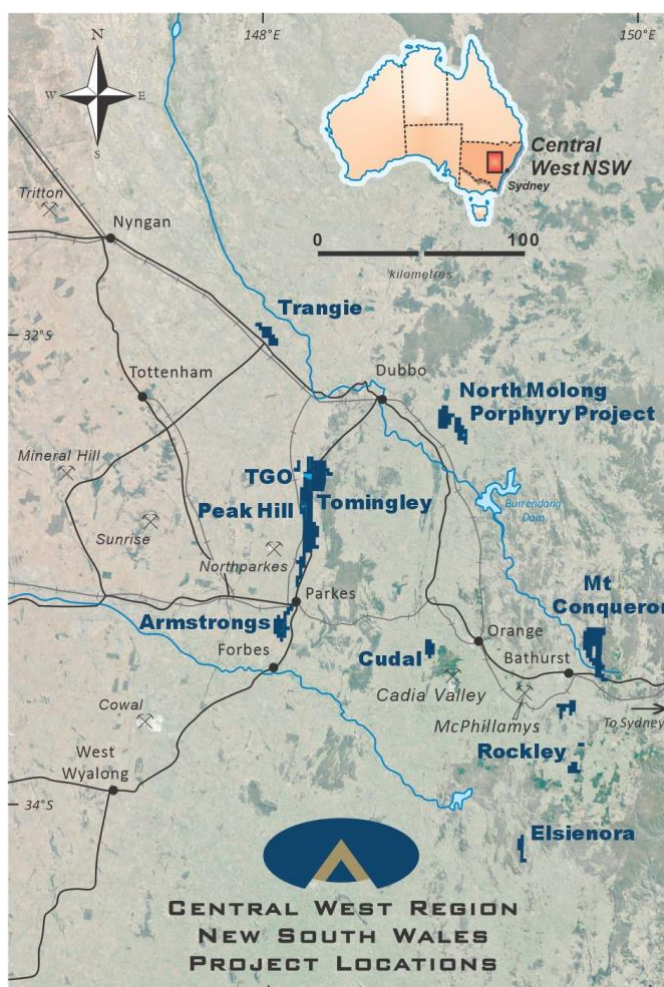
Alkane Resources is poised to become Australia's next multi-mine gold producer.

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 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 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 ~19.8% of Genesis Minerals (ASX: GMD) and ~9.7% of Calidus Resources (ASX: CAL).





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 August 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"> 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. 	<ul style="list-style-type: none"> Diamond core drilling was undertaken by Ophir Drilling Pty Ltd 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 RC drilling was undertaken by Strike Drilling Pty Ltd RC samples are collected at one metre intervals via a cyclone on the rig. The cyclone is cleaned regularly to minimise any contamination
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> Sampling and QAQC procedures are carried out using Alkane protocols as per industry best practice
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. 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 ≥ 0.10 g/t Au or ≥ 0.10 % 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. Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish A multi-element suite was determined using a multi-acid digest with a ICP Atomic Emission Spectrometry or ICP Mass Spectrometry analytical finish.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Reverse circulation (RC) drilling using 110mm rods 144mm face sampling hammer Triple tube diamond drilling with PQ3/HQ3 wireline bit producing 83mm diameter (PQ3) and 61.1mm diameter (HQ3) sized orientated core. The wedge holes were completed using NQ3 wireline bit producing 45mm diameter sized orientated core.



Criteria	JORC Code explanation	Commentary
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> DD - core loss was identified by drillers and calculated by geologists when logging. Generally $\geq 99\%$ 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.
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. 	<ul style="list-style-type: none"> 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.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> There is no known relationship between sample recovery and grade
<i>Logging</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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)
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography 	<ul style="list-style-type: none"> Mostly logging was qualitative with visual estimates of the various characteristics. In addition, magnetic susceptibility data (quantitative) was collected as an aid for logging All drill holes were geologically logged into Geobank Mobile, followed by validation before importing into Alkane's central Geobank database All drill holes were logged by qualified and experienced geologists
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged 	<ul style="list-style-type: none"> All drill holes were logged in full
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. 	<ul style="list-style-type: none"> Core sawn with half core samples submitted for analysis
	<ul style="list-style-type: none"> If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	<ul style="list-style-type: none"> 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.



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The 1m intervals forming composite samples assaying ≥ 0.10 g/t Au or ≥ 0.10 % Cu are resplit using a cone splitter on the rig during the time of drilling and re-submitted to the laboratory for re-assay. Laboratory Preparation – the entire sample (~3kg) is dried and pulverised in an LM5 (or equivalent) to $\geq 85\%$ passing $75\mu\text{m}$. Bulk rejects for all samples are discarded. A pulp sample ($\pm 100\text{g}$) is stored for future reference.
	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<ul style="list-style-type: none"> Samples were delivered by Alkane personnel to ALS Minerals Laboratory, Orange NSW. Crushed with 70% $< 2\text{mm}$ (ALS code CRU-31), split by riffle splitter (ALS code SPL-21), and pulverised 1000g to 85% $< 75\mu\text{m}$ (ALS code PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS codes CRU-QC, PUL-QC).
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples 	<ul style="list-style-type: none"> Internal QAQC system in place to determine accuracy and precision of assays
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Non-biased core cutting using an orientation line marked on the core Duplicate RC samples are collected for both composite intervals and re-split intervals.
	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sample are of appropriate size
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	<ul style="list-style-type: none"> 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. 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
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No geophysical tools were used to determine any element concentrations
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Full QAQC system in place including certified standards and blanks of appropriate matrix and concentration levels
	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> 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



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The use of twinned holes. 	<ul style="list-style-type: none"> No twinned holes have been drilled at this early stage of exploration
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No adjustments made
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drillholes are laid out using hand-held GPS (accuracy $\pm 2\text{m}$) then DGPS surveyed accurately ($\pm 0.1\text{m}$) by licenced surveyors on completion
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> GDA94, MGA (Zone 55)
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Drillhole collars DGPS surveyed accurately ($\pm 0.1\text{m}$) by licenced surveyors on completion
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results.. 	<ul style="list-style-type: none"> At this early exploration stage, data spacing is variable with the focus on identifying new zones of mineralisation
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Early stage, reconnaissance drilling, no resource estimations being undertaken
	<ul style="list-style-type: none"> Whether sample compositing has been applied 	<ul style="list-style-type: none"> No sampling compositing has been applied
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	<ul style="list-style-type: none"> Drilling suggests a broadly sub vertical geometry
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Estimated true intervals at this early stage of drilling are possibly ~50% of downhole lengths



Criteria	JORC Code explanation	Commentary
<i>Sample security</i>	<ul style="list-style-type: none"><i>The measures taken to ensure sample security.</i>	<ul style="list-style-type: none">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 emailSample 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.
<i>Audits or reviews</i>	<ul style="list-style-type: none"><i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none">No audits or reviews have been conducted at this stage



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"> 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. 	<ul style="list-style-type: none"> All four licences (EL4022, EL6209, EL8261 and EL8887) in the Northern Molong Porphyry Project are owned 100% by Alkane.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> 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, 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. Within EL6209 records show 14 AC (170m), 78 RC (7591m) and 45 DD holes (7833m) = 15,594m. 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
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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"> 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. 	<ul style="list-style-type: none"> See body of announcement



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All drill holes have been reported in this announcement.
Data aggregation methods	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> Exploration results reported for uncut gold grades, grades calculated by length weighted average Reported intercepts are calculated using a broad lower cut of 0.1g/t Au and/or 0.05% Cu and/or 10ppm Mo 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 <18% for the purpose of calculation. No top cut has been used. Short intervals of high grades that have a material impact on overall intersection are reported as separate (included) intervals
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> It is apparent on the sections and the report descriptions that the overall geometry of the porphyry mineralisation at Boda prospect is subvertical. True intervals are likely to be ~50% of downhole lengths
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Plans showing geology with drill collars are included in the body of the announcement.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Comprehensive reporting has been undertaken with all holes listed in the included table.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No other exploration data is available to assist in interpretation.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive 	<ul style="list-style-type: none"> 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. See figures included in the announcement.

