

7 September 2022



## *Copper Enriched Zone Near Surface at Kaiser*

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- Resource drilling at the Kaiser prospect, centred 1km northwest of the Boda resource, has intersected significant copper-gold porphyry mineralisation including:

KAI082	134m grading 0.85% Cu, 0.71g/t Au from 211m
incl	68m grading 1.50% Cu, 1.17g/t Au from 249m
KAI075	104m grading 0.39% Cu, 0.18g/t Au from 150m
incl	6m grading 0.70% Cu, 0.28g/t Au from 207m
and	54m grading 0.36% Cu, 0.23g/t Au from 265m
incl	4m grading 0.63% Cu, 0.38g/t Au from 291m
KAI081	38m grading 0.48% Cu, 0.20g/t Au from 45m
incl	13m grading 1.05% Cu, 0.35g/t Au from 49m
and	70m grading 0.26% Cu, 0.14g/t Au from 175m
incl	11m grading 0.45% Cu, 0.29g/t Au from 196m

- The porphyry mineralisation intersected in the northwest area of Kaiser appears more copper enriched with bornite and chalcocite commonly observed. The KAI082 Cu-Au intercept is the best recorded at Kaiser to date.
- At the Korridor (Boda Northwest Extension) prospect, approximately 500m southeast of Kaiser, results were received from deep diamond core drilling that is targeting the apparent northwest plunge to the Boda resource. This drilling intersected broad gold-copper mineralisation, with significant intercepts including:

KSRC041D	566m grading 0.26g/t Au, 0.14% Cu from 631m
incl	113m grading 0.60g/t Au, 0.21% Cu from 1,059m
BOD089	427m grading 0.26g/t Au, 0.15% Cu from 684m
incl	6m grading 1.07g/t Au, 0.25% Cu from 960m

- Results were received from four deep diamond core drill holes for the Boda Two/Three prospects. These holes were designed to test the north-south continuation of broad gold-copper mineralisation intersected in previously announced drillholes.

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➤ **Significant intercepts include:**

<b>BOD064</b>	<b>445m grading 0.25g/t Au, 0.13% Cu from 451m</b>
<b>and</b>	<b>57m grading 0.26g/t Au, 0.10% Cu from 967m</b>
<b>and</b>	<b>120m grading 0.33g/t Au, 0.15% Cu from 1,119m</b>
<b>and</b>	<b>50m grading 0.41/t Au, 0.18% Cu from 1,298m</b>
<b>KSDD039</b>	<b>12m grading 1.47g/t Au, 0.73% Cu from 688m</b>
<b>and</b>	<b>308m grading 0.35g/t Au, 0.17% Cu from 803m</b>

- **The 100m x 100m grid drilling at Kaiser to identify mineralisation amenable to open cut mining is nearing completion with two diamond core rigs mobilised to diamond tail selected RC holes to greater depths where necessary. Drilling operations are expected to be completed by the end of the month. The resource estimation is now expected in Q1 2023 due to an extension of the drilling program to the northwest and delays associated with persistent heavy rainfall.**
- **Recently acquired Induced Polarisation (IP) with Magnetotelluric (MT) survey completed over the northwest structural corridor area extending 5km north-west of Kaiser, identified two high-priority targets. The first target has been RC drill tested with observations of pyrite and trace chalcopyrite mineralisation associated with inner propylitic alteration. Further drilling is planned in October 2022.**
- **A major RC and diamond core infill drilling program designed at the Boda Two and Boda Three prospects will commence immediately after the Kaiser drilling is completed.**

Alkane Resources Limited (ASX: ALK) is pleased to announce further results from its initial resource drilling program at the Company's Kaiser Prospect in Central New South Wales. Kaiser is approximately one kilometre northwest of Boda, a landmark porphyry gold-copper system within the Northern Molong Porphyry Project, which the Company believes has the potential to be a large, tier one gold-copper project.

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

Alkane Managing Director, Nic Earner, said: *"The initial shallow resource drilling program at Kaiser is revealing a copper enriched near-surface zone that appears to be increasing in grade to the northwest. We're greatly encouraged by these recent results, both by their grade and their proximity to surface."*

*"With mineralisation over three kilometres from Boda Three to Kaiser, open along strike and at depth and further targets identified along trend to the northwest of Kaiser we clearly have a significant system. Drilling continues both at Kaiser, with Boda Two and Three to follow."*

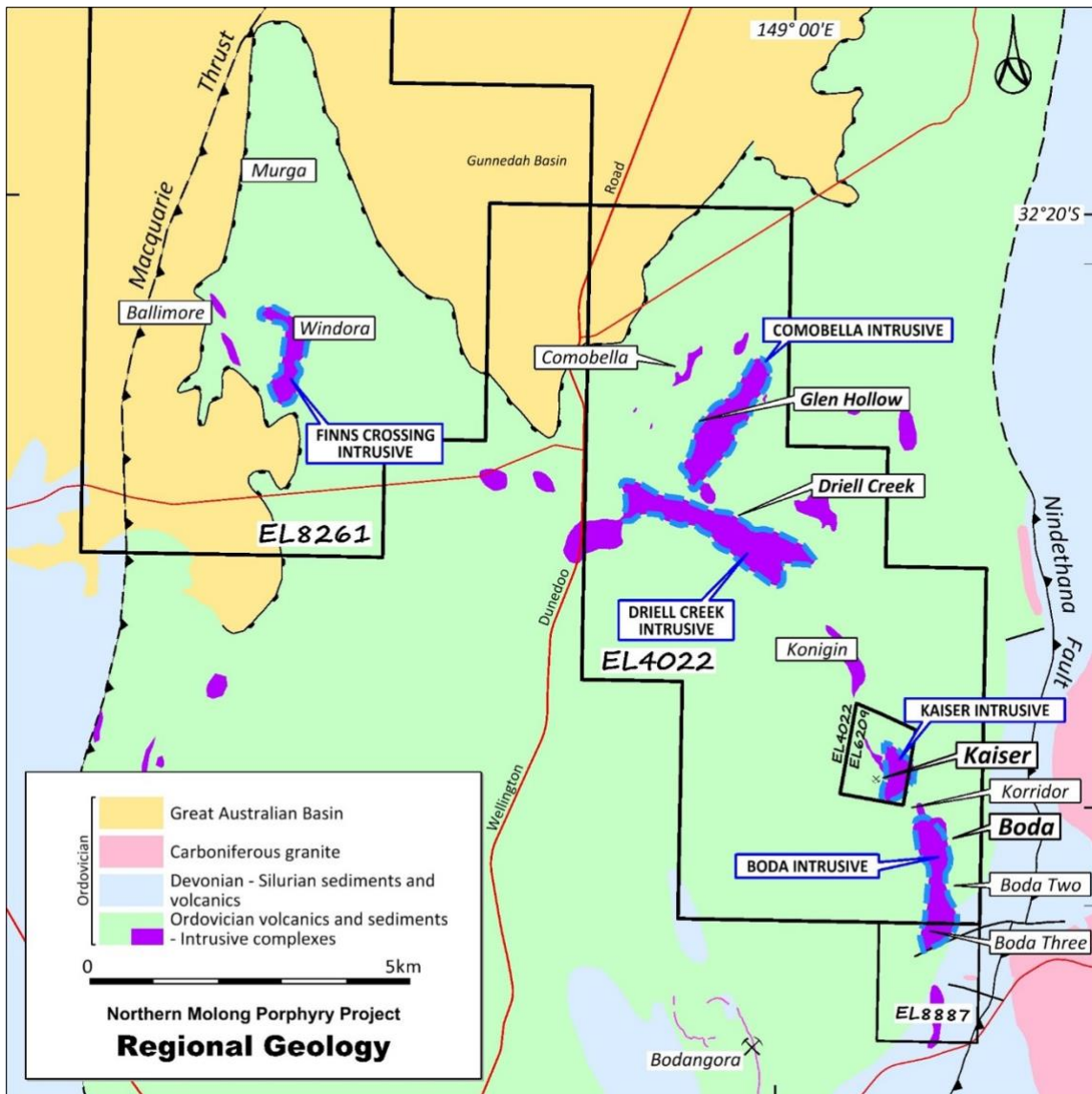


## Northern Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

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

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



Significant exploration on the NMPP commenced in 2019, defining several gold-copper occurrences and co-incident IP anomalies within the 15 km monzonite intrusive corridor that extends from Boda Three to Finns Crossing. This exploration comprised of concentrated drilling of the Boda prospect resulting in the reporting of an initial Inferred Resource for the Boda deposit (ASX Announcement 30 March 2022). Drilling continues to test mineralised zones outside of the Boda resource envelope at Kaiser, Korridor and Boda Two/Three.

### Kaiser Prospect

The Kaiser prospect, centred about 1km northwest of Boda, comprises a thick sequence of basaltic to



andesitic volcanics and volcanoclastics that have been intruded by a series of dykes and stocks that range in composition from diorite and monzodiorite to monzonite. Porphyry copper-gold mineralisation at the Kaiser prospect is associated with two northwest trending zones of potassic to calc-potassic alteration, the Kaiser and Duke Zones, that host zones of chalcopyrite-bornite  $\pm$  pyrite in veins and as disseminations. Minor hydrothermal breccias are responsible for some narrow intervals of high-grade mineralisation, and other high-grade intervals occur as disseminations, forming blebs of bornite - chalcopyrite  $\pm$  chalcocite replacement mineralisation. In difference to Boda, the Kaiser alteration appears more siliceous and commonly with a higher component of copper mineralisation, possibly indicating it was formed at a deeper level to the porphyry system at Boda.

A drilling program composed of RC with diamond tails, commenced in February 2022, was designed on a 100m x 100m grid to a 300m vertical depth for the purpose of estimating a shallow resource. Results have been returned for a further 15 holes (5,337 metres) intersecting significant Cu-Au mineralisation including:

KAI040	279m grading 0.14% Cu, 0.14g/t Au from 297m
KAI069 incl	52m grading 0.32% Cu, 0.32g/t Au from 294m to end of hole 11m grading 0.76% Cu, 1.19g/t Au from 307m
KAI074 and	134m grading 0.16% Cu, 0.14g/t Au from 49m 81m grading 0.13% Cu, 0.26g/t Au from 244m
KAI075 incl and incl	104m grading 0.39% Cu, 0.18g/t Au from 150m 6m grading 0.70% Cu, 0.28g/t Au from 207m 54m grading 0.36% Cu, 0.23g/t Au from 265m 4m grading 0.63% Cu, 0.38g/t Au from 291m
KAI077	264m grading 0.15% Cu, 0.22g/t Au from 8m
KAI081 incl and incl	38m grading 0.48% Cu, 0.20g/t Au from 45m 13m grading 1.05% Cu, 0.35g/t Au from 49m 70m grading 0.26% Cu, 0.14g/t Au from 175m 11m grading 0.45% Cu, 0.29g/t Au from 196m
KAI082 incl	134m grading 0.85% Cu, 0.71g/t Au from 211m 68m grading 1.50% Cu, 1.17g/t Au from 249m

Encouragingly the recent drilling has intersected the best Cu-Au intercept recorded at Kaiser with KAI082 of 134m @ 0.85% Cu, 0.71g/t Au from 211m, including 68m @ 1.50% Cu, 1.17g/t Au from 249m. The announced drill hole section shows subvertical pipe-like mineralisation cross cutting gently east dipping volcanic stratigraphy. The mineralisation, only observed in RC chips at this stage, appears dominantly disseminated to blebby in nature, with bornite over chalcopyrite in abundance. Diamond tail drills of KAI086 beneath the significant mineralisation of KAI082 is currently underway, with results expected in Q4 2022.

Drilling northwest of the initial proposed resource area at Kaiser supports the thesis that the system is still open in that direction with KAI069 returning a mineralised intercept of 52m @ 0.32% Cu, 0.32g/t Au from 294m to the end of hole, including 11m @ 0.76% Cu, 1.19g/t Au from 307m. Observations in diamond core drilled a further 100m northwest of KAI069, has intersected a bornite-chalcopyrite-magnetite-actinolite-calcite cemented crackle breccia as photographed below. Additional holes are now





programmed to test this copper-gold porphyry mineralisation at depth, as well as test extensions of shallow mineralisation along strike to the northwest.



*KAI090 – 651.5m – 657.0m interval of bornite-chalcopyrite-magnetite-actinolite-calcite breccia of potassic altered volcanics at Kaiser*

### **Korridor Prospect/Boda NW Extension**

The Korridor prospect is located within the northwest trending structural corridor between the Boda deposit and the Kaiser prospect. Porphyry gold-copper mineralisation was intersected from near surface in RC holes BOD066 - 226m grading 0.25g/t Au, 0.10% Cu from 12m to end of hole, and deeper in BOD065 - 64m grading 0.43g/t Au, 0.12% Cu from 174m to end of hole (ASX Announcement 17 December 2021). Further drilling linking and infilling the Korridor mineralisation to the northwest margin of the Boda resource has been completed with assay results received from an additional four drill holes. Significant results include:

KSRC041D	566m grading 0.26g/t Au, 0.14% Cu from 631m
incl	113m grading 0.60g/t Au, 0.21% Cu from 1,059m
BOD089	427m grading 0.26g/t Au, 0.15% Cu from 684m
incl	6m grading 1.07g/t Au, 0.25% Cu from 960m

Drilling has established that the Korridor prospect is located over a significant NNW trending, steep WSW dipping reverse structure over which significant post-mineral displacement has occurred. This structure also abuts the apparent northwest plunge to the Boda deposit as indicated by drill holes BOD090 and BOD092 intersecting only minor mineralisation southwest of this structure. Northeast directed drilling across the fault will be required to test the footwall zone at depth.



## Boda Two/Three Prospects

The Boda Two prospect is defined by coincident magnetic high and gold-copper soil anomaly with an estimated north-south 1,100m x 500m footprint. An electrical geophysics survey (3D-IP) identified a strongly conductive target (*ASX Announcement 19 May 2020*) that was drill tested with KSDD022 intersecting substantial pyrite mineralisation with significant gold grades of 292m @ 0.66g/t Au from 867m (*ASX Announcement 11 November 2020*).

Drilling has been conducted on west-orientated drilling traverses, spaced 100 metres apart with broad drill hole spacing ranging between 150 – 300m down dip. The drilling continues to identify extensive and continuous zones of low-grade gold-copper porphyry mineralisation, with internal high-grade zones associated with weakly developed hydrothermal breccias of magnetite ± pyrite ± chalcopyrite. Assay results were received for four RC precollared diamond core drill holes for 4,303.6 metres, including significant results of:

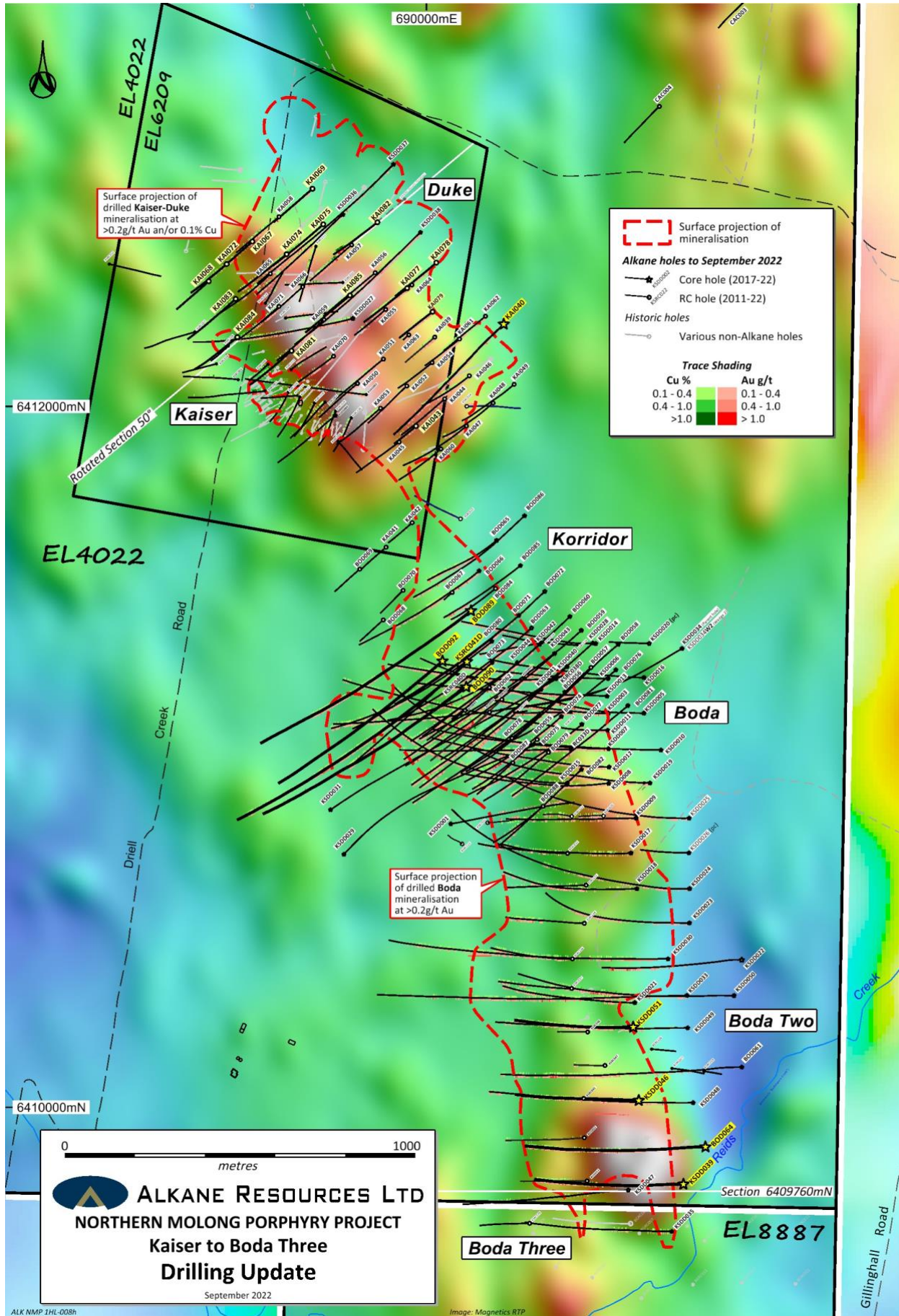
BOD064	445m grading 0.25g/t Au, 0.13% Cu from 451m
and	57m grading 0.26g/t Au, 0.10% Cu from 967m
and	120m grading 0.33g/t Au, 0.15% Cu from 1,119m
and	50m grading 0.41/t Au, 0.18% Cu from 1,298m
KSDD039	12m grading 1.47g/t Au, 0.73% Cu from 688m
and	308m grading 0.35g/t Au, 0.17% Cu from 803m

A major RC and diamond core drilling program has been designed at Boda Two and Boda Three with drill holes targeting extensions to gold-copper mineralised breccias and to infill the drilling in the low-grade disseminated mineralisation. An initial hole will be drilled from west to east targeting the gold-rich pyrite mineralisation, with a secondary purpose of identifying repetition in alteration and mineralisation assemblages potentially caused by steep west dipping shear zones. Drilling is expected to begin October 2022.

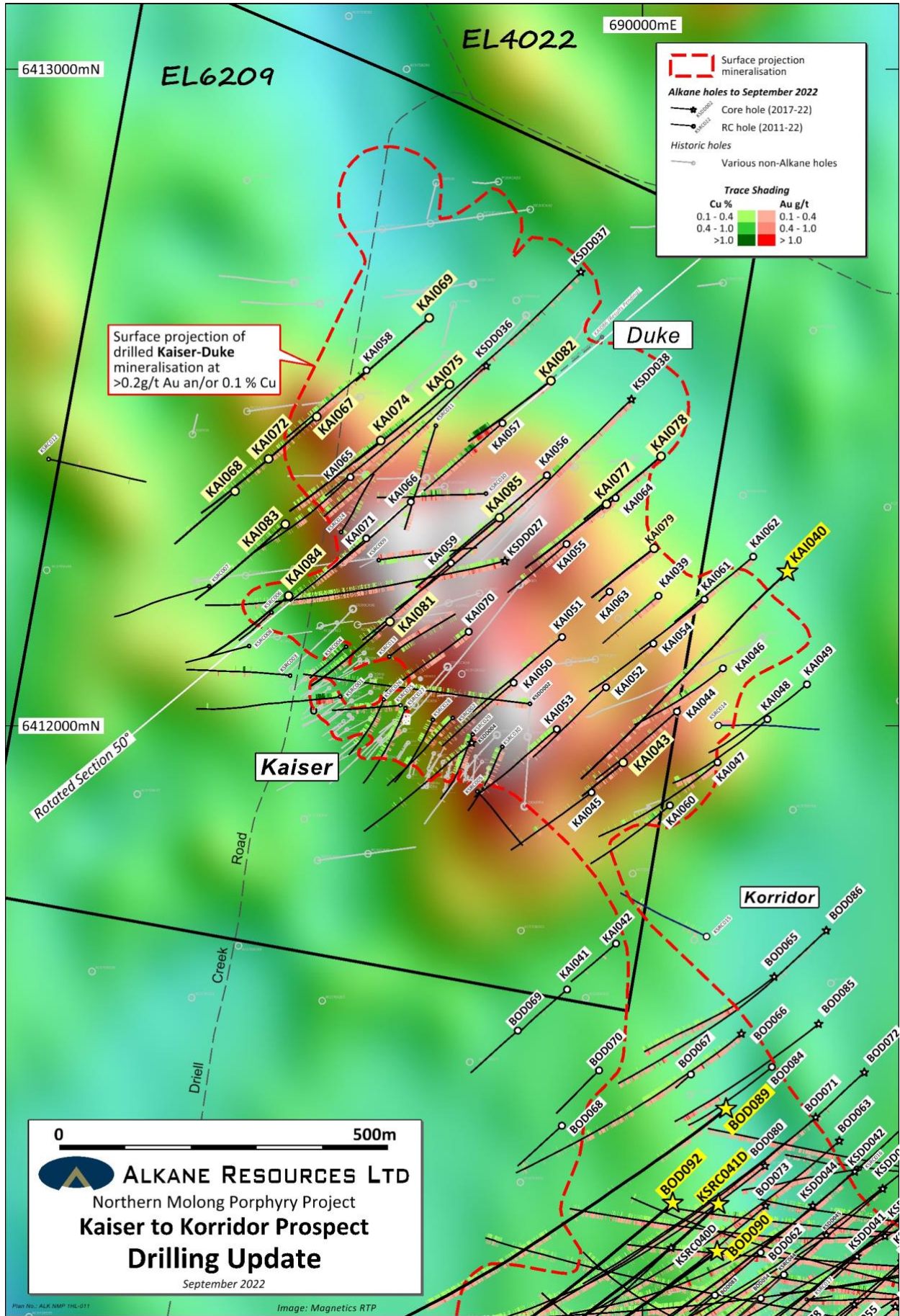
## Electrical Geophysics

An Induced Polarisation (IP) and Magnetotelluric (MT) electrical geophysical survey was completed in March 2022. The survey was conducted over the area to the northwest of Kaiser within a 5km section of the northwest corridor that includes Driell Creek Magnetic Complex for the purpose of delineating further intrusive centres. Three coincident IP chargeability and conductivity anomalies were identified. The strongest anomaly was recently RC drill tested, intersecting propylitic to inner propylitic alteration associated with disseminated pyrite mineralisation. Minor zones (1-5 metres thick) of potassic alteration were also observed and were usually associated with trace chalcopyrite mineralisation. A deeper diamond core drill hole has been RC pre-collared and is planned for completion in Q4 2022 to better understand and characterise the IP anomaly.

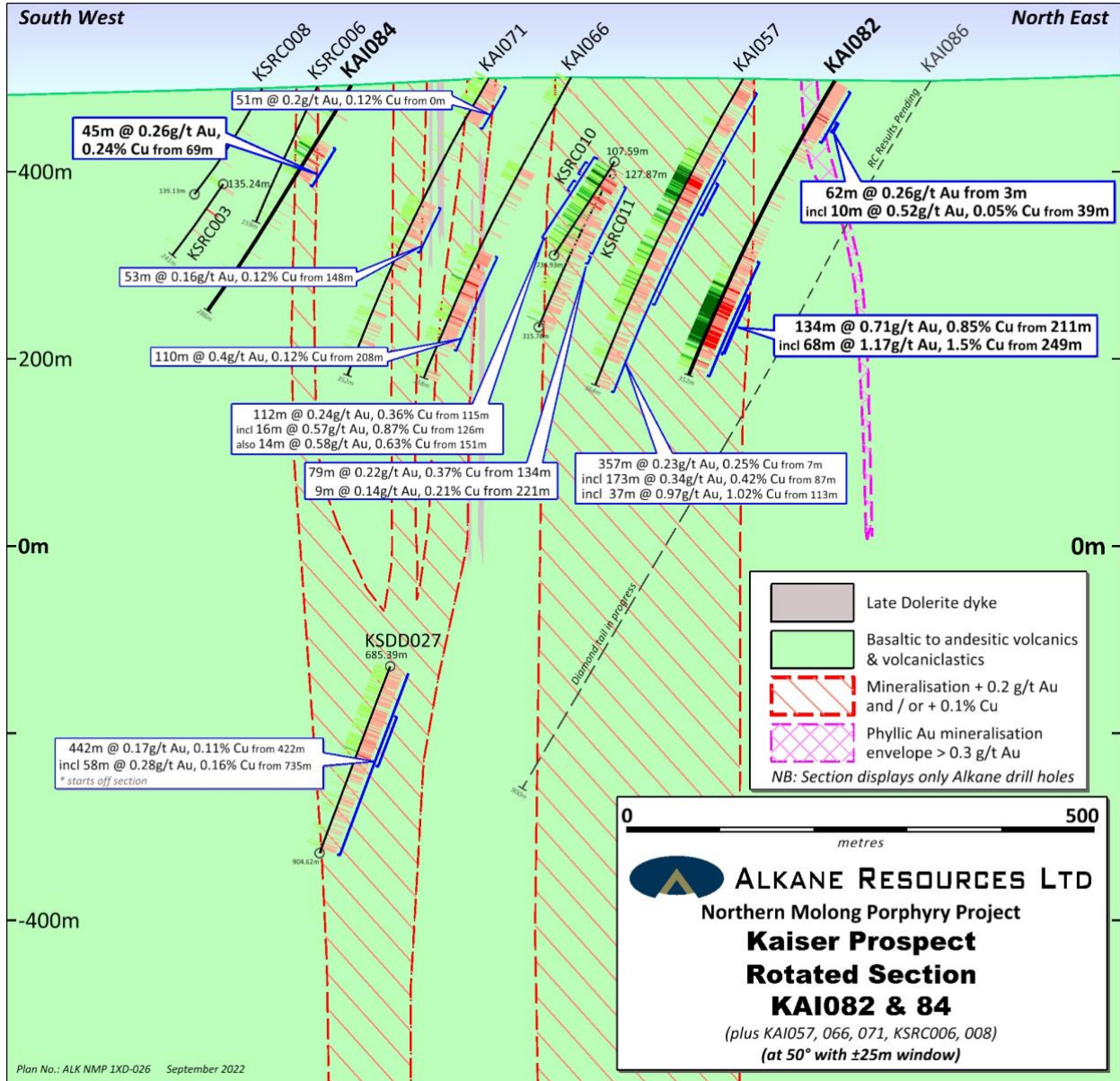


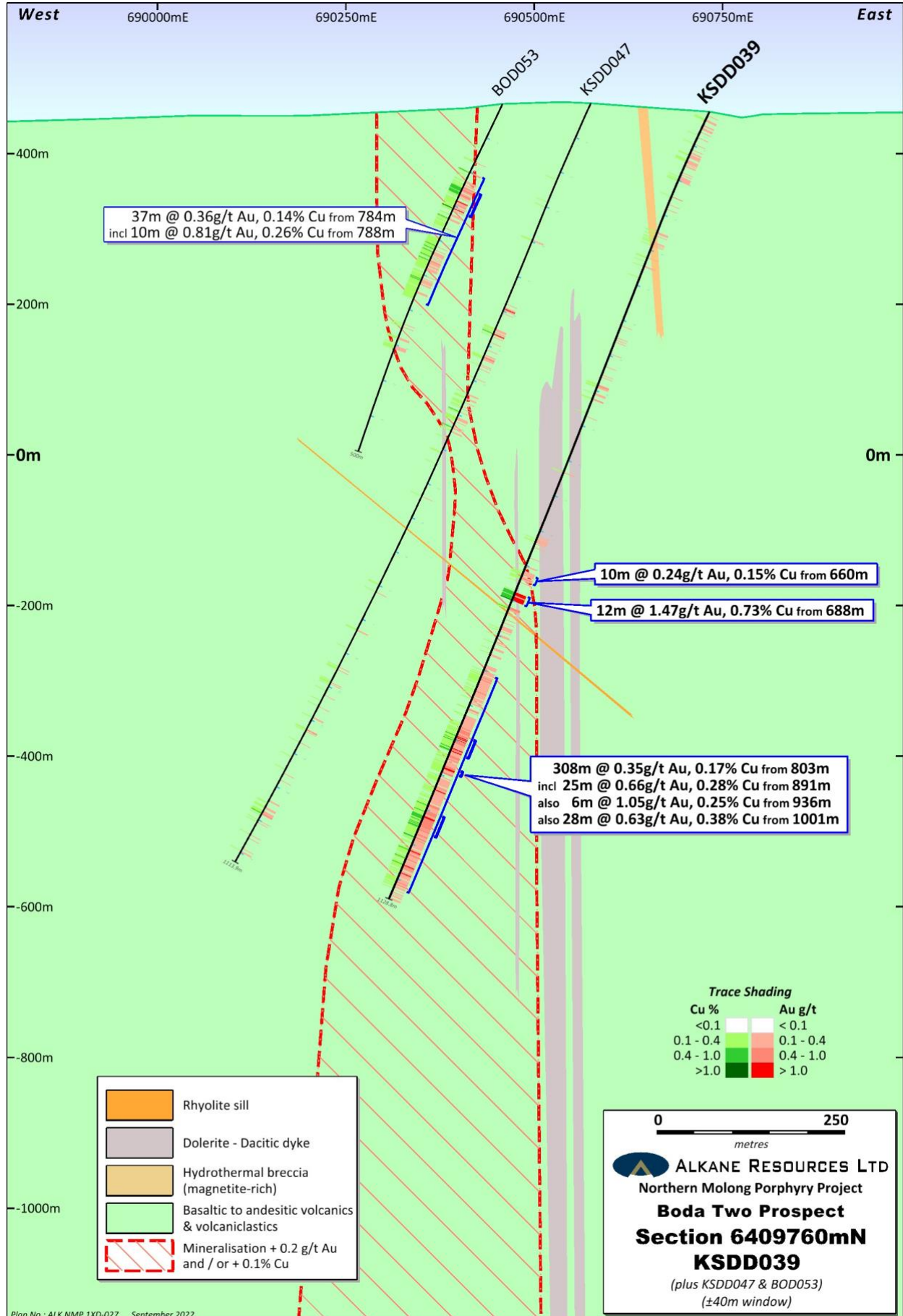














**Table 1 – Kaiser Drilling Significant Results – September 2022 (>0.2g/t Au and/or >0.1% Cu)**

Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)
<b>KAI040</b>	690220	6412235	493	-65	225	984.5	26	32	6	0.24	-
and							62	66	4	0.41	-
and							159	177	18	0.41	-
and							297	576	279	0.14	0.14
and							640	646	6	0.36	0.14
and							765	787	22	0.25	0.08
and							838	840	2	0.51	0.13
and							857	865	8	0.32	0.08
<b>KAI043</b>	689970	6411944	489	-61	228	185	56	63	7	0.20	0.08
and							87	93	6	0.24	0.12
and							118	123	5	0.10	0.11
and							154	159	5	0.05	0.11
<b>KAI067</b>	689504	6412471	498	-60	228	346	0	50	50	0.11	0.19
and							101	105	4	0.23	0.09
and							129	183	54	0.23	0.11
and							192	199	7	0.13	0.16
<b>KAI068</b>	689379	6412357	494	-59	228	244	142	145	3	0.11	0.15
and							164	167	3	0.07	0.19
and							174	183	9	0.08	0.16
<b>KAI069</b>	689675	6412621	501	-59	228	346*	29	47	18	0.25	0.05
and							294	346*	52	0.32	0.32
incl							307	318	11	1.19	0.76
<b>KAI072</b>	689431	6412407	495	-60	229	286	85	92	7	0.17	0.13
and							154	172	18	0.08	0.15
<b>KAI074</b>	689601	6412434	502	-58	229	352	49	183	134	0.14	0.16
incl							108	111	3	1.30	0.35
and							244	325	81	0.26	0.13
incl							263	270	7	1.32	0.18
<b>KAI075</b>	689706	6412520	503	-58	228	352	150	254	104	0.18	0.39
incl							166	169	3	0.42	0.80
also							207	213	6	0.28	0.70
also							223	227	4	0.27	0.83
and							265	319	54	0.23	0.36
incl							291	295	4	0.38	0.63
<b>KAI077</b>	689945	6412338	495	-59	230	352	8	272	264	0.22	0.15
incl							65	74	9	0.49	0.16
also							137	142	5	0.62	0.26
also							157	162	5	0.47	0.34
<b>KAI078</b>	690028	6412411	496	-60	228	316	9	30	21	0.44	0.08
and							69	75	6	0.42	0.08
and							88	103	15	0.31	0.06
and							118	132	14	0.20	0.08
and							163	307	144	0.20	0.11
incl							214	220	6	0.41	0.16
<b>KAI079</b>	690018	6412270	493	-59	232	244	24	138	114	0.23	0.10
incl							72	82	10	0.44	0.15
and							165	183	18	0.21	0.13
<b>KAI081</b>	689615	6412159	499	-58	230	346	1	5	4	0.09	0.16





**Table 1 – Kaiser Drilling Significant Results – September 2022 (>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 (%)
and							45	83	38	0.20	0.48
incl							49	62	13	0.35	1.05
and							175	245	70	0.14	0.26
incl							196	207	11	0.29	0.45
<b>KAI082</b>	689860	6412526	497	-59	231	352	3	65	62	0.26	-
incl							39	49	10	0.52	0.05
and							211	345	134	0.71	0.85
incl							249	317	68	1.17	1.50
incl							266	273	7	2.15	1.81
also							298	315	17	1.81	2.02
<b>KAI083</b>	689456	6412307	501	-59	228	346	0	40	40	0.05	0.10
and							50	64	14	0.12	0.10
and							92	102	10	0.17	0.10
and							137	142	5	0.13	0.27
and							170	176	6	0.05	0.10
and							193	200	7	0.07	0.20
and							254	258	4	0.10	0.11
and							277	307	30	0.04	0.10
<b>KAI084</b>	689461	6412198	498	-60	229	286	33	36	3	0.12	0.45
and							69	114	45	0.26	0.24
incl							79	82	3	0.83	0.72
also							89	92	3	0.89	0.69

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

\* hole ended in mineralisation

**Table 2 – Korridor Drilling Significant Results – September 2022 (>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 (%)
<b>BOD089</b>	690127	6411417	477	-61	231	1434.7	115	134	19	0.12	0.13
and							152	190	38	0.17	0.13
and							239	249	10	0.18	0.13
and							684	1111	427	0.26	0.15
incl							960	966	6	1.07	0.25
also							1026	1070	44	0.37	0.26

Gold and copper intercepts are calculated using a lower cut of 0.1g/t Au and 0.05% Cu respectively. Internal dilution (< cut off) is less than 6% of reported intercepts. True widths are estimated as approximately 50% of intersected width.

**Table 3 – Boda Drilling Significant Results – September 2022 (>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 (%)
<b>BOD090</b>	690114	6411202	477	-61	228	1236	186	186.7	0.7	0.61	1.78
<b>BOD092</b>	690046	6411273	475	-61	228	1086.8	502	507	5	0.05	0.12
<b>KSRC041D</b>	690115	6411271	478	-66	225	1716.7	631	1202	566	0.26	0.14
incl							1059	1172	113	0.60	0.21
incl							1113	1149	36	0.97	0.27
and							1477	1515	38	0.08	0.12
and							1558	1565	7	0.13	0.13
and							1601	1645	44	0.14	0.20



Gold and copper intercepts are calculated using a lower cut of 0.1g/t Au and 0.05% Cu respectively. Internal dilution (< cut off) is less than 11% of reported intercepts. True widths are estimated as approximately 50% of intersected width.

<b>Table 4 – Boda Two Drilling Significant Results – September 2022 (&gt;0.2g/t Au and/or &gt;0.1% Cu)</b>											
Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)
<b>BOD064</b>	690795	6409887	455	-65	268	1380.9	355	374	19	0.17	0.10
and							451	878	445	0.25	0.13
incl							459	460	1	7.54	0.11
also							550	572	22	0.52	0.10
also							648	668	20	0.43	0.37
also							734	745	11	0.59	0.34
and							931	932	1	0.54	0.72
and							937	940	3	0.27	0.14
and							967	1024	57	0.26	0.10
and							1119	1241	120	0.33	0.15
incl							1218	1239	21	0.73	0.28
and							1298	1348	50	0.41	0.18
<b>KSDD039</b>	690733	6409780	455	-65	270	1128.8	11	14	3	0.15	0.16
and							63	74	11	0.19	0.11
and							98	101	3	0.22	0.12
and							188	192	4	0.23	0.13
and							391	396	5	0.28	0.19
and							411	413	2	0.34	0.21
and							612	617	5	0.25	0.13
and							660	670	10	0.24	0.15
and							688	700	12	1.47	0.73
and							709	713	4	0.53	0.37
and							737	744	7	0.20	0.09
and							803	1111	308	0.35	0.17
incl							891	916	25	0.66	0.28
also							936	942	6	1.05	0.25
also							1001	1029	28	0.63	0.38
<b>KSDD046</b>	690605	6410019	476	-65	272	841.9	66	146	80	0.12	0.10
incl							66	70	4	0.36	0.29
and							168	174	6	0.14	0.11
and							528	562	34	0.28	0.14
incl							534	545	1	2.68	0.93
and							686	713	27	0.19	0.12
<b>KSDD051</b>	690590	6410229	492	-65	269	952	138	197	59	0.21	0.13
incl							139	150	11	0.62	0.34
and							300	303	3	0.42	0.21
and							358	410	52	0.20	0.15
and							500	929	429	0.19	0.13
incl							503	516	13	0.50	0.30

Gold and copper intercepts are calculated using a lower cut of 0.1g/t Au and 0.05% Cu respectively. Internal dilution (< cut off) is less than 10% 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) 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

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

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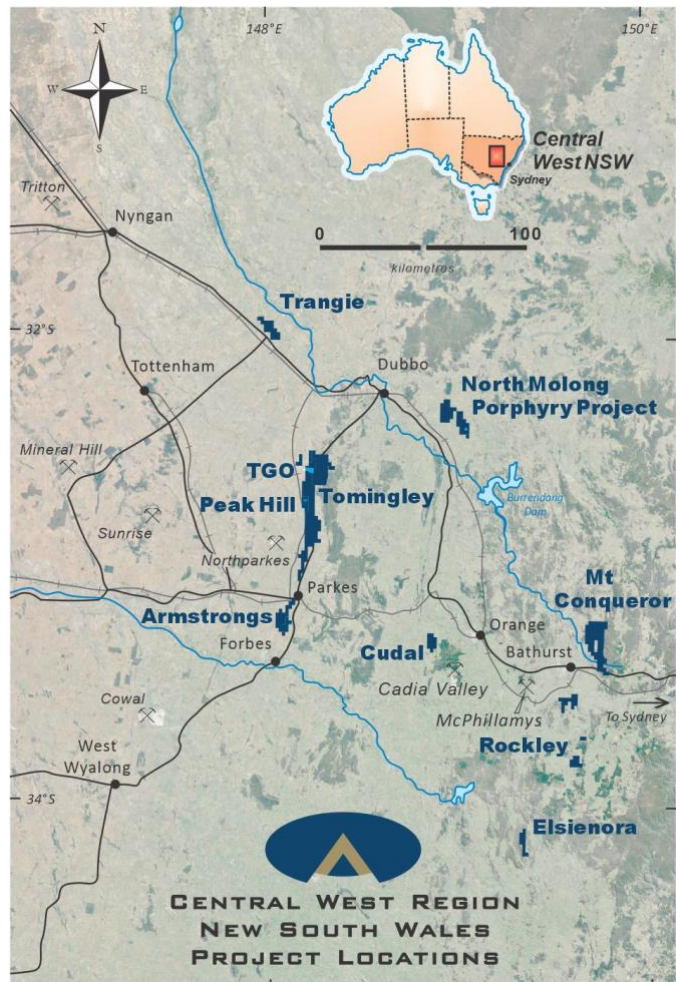
Alkane Resources is poised to become Australia's next multi-mine gold producer.

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 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 production region.

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies, including ~9.8% 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 – September 2022

### 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 6m) and labelled with the hole number, down hole depth, length of drill run. Core was aligned and measured by tape, comparing back to this down hole depth consistent with industry standards. Half core is sampled with a Corewise automatic core saw.</li> <li>RC Drilling – the total sample (~35kg) is delivered via cyclone into a large plastic bag which is retained for future use if required. A sub-sample of approximately 1kg is spear sampled from each plastic bag and composited to make a 3 metres sample interval. If mineralisation is observed by the site geologist this is sampled as a final 1m interval instead. The 1m intervals forming composite samples assaying <math>\geq 0.10</math> g/t Au or <math>\geq 0.10</math> % Cu are re-split using a cone splitter on the rig into a separate calico at the time of drilling and re-submitted to the laboratory for re-assay.</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 orientated core. Wedge holes are completed using NQ3 wireline bit producing 45mm diameter sized orientated core.</li> </ul>



Criteria	JORC Code explanation	Commentary
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> <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>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>Sample quality is qualitatively logged</li> <li>Core drilling completed using HQ triple tube where possible 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>
	<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>There is no known relationship between sample recovery and grade</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 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</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>laboratory for re-assay.</p> <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 1000grm 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	<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, collated, and reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are deemed necessary</li> </ul>





Criteria	JORC Code explanation	Commentary
<i>and assaying</i>	<ul style="list-style-type: none"> <li><i>The use of twinned holes.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>No twinned holes have been drilled at this early stage of exploration</i></li> </ul>
	<ul style="list-style-type: none"> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>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</i></li> <li><i>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</i></li> </ul>
	<ul style="list-style-type: none"> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>No adjustments made</i></li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Drillholes are laid out using hand-held GPS (accuracy <math>\pm 2m</math>) then DGPS surveyed accurately (<math>\pm 0.1m</math>) by licenced surveyors on completion</i></li> </ul>
	<ul style="list-style-type: none"> <li><i>Specification of the grid system used.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>GDA94, MGA (Zone 55)</i></li> </ul>
	<ul style="list-style-type: none"> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Drillhole collars DGPS surveyed accurately (<math>\pm 0.1m</math>) by licenced surveyors on completion</i></li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results..</i></li> </ul>	<ul style="list-style-type: none"> <li><i>At Kaiser drill spacing is on nominal 100m x 100m grid. For all other prospects too early an exploration stage, and the data spacing is variable with focus on identifying new zones of mineralisation.</i></li> </ul>
	<ul style="list-style-type: none"> <li><i>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</i></li> </ul>	<ul style="list-style-type: none"> <li><i>No Mineral Resource estimation procedure and classifications apply to the exploration data being reported.</i></li> </ul>
	<ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied</i></li> </ul>	<ul style="list-style-type: none"> <li><i>RC – each one metre interval is spear sampled with 3m composite samples collected in a calico sample bag and forwarded to the laboratory. Where 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.</i></li> <li><i>The 1m intervals forming composite samples assaying <math>\geq 0.10</math> g/t Au or <math>\geq 0.10</math> % Cu are re-split using a cone splitter on the rig during the time of drilling and re-submitted to the laboratory for re-assay. Composite samples may be reported if re-split assays were not received in time for announcement.</i></li> <li><i>DD – Sample intervals are based on alteration and lithology but in general are 1m. No</i></li> </ul>



Criteria	JORC Code explanation	Commentary
		<i>interval was less than 0.3m or greater than 1.3m.</i>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Drilling suggests a broadly sub vertical geometry</i></li> </ul>
	<ul style="list-style-type: none"> <li><i>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</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Estimated true intervals are ~50% of downhole lengths</i></li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>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</i></li> <li><i>Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years).</i></li> <li><i>The Company has in place protocols to ensure data security.</i></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><i>No audits or reviews have been conducted at this stage</i></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.  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.  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.  EL6209 (Kaiser) historical records show 14 AC (170m), 78 RC (7591m) and 45 DD holes (7833m) = 15,594m.</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>
<b>Data aggregation methods</b>	<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> <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>Exploration results reported for uncut gold grades, grades calculated by length weighted average</li> <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; 16% 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</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<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  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 Kaiser, Boda Two and Korridor prospects are subvertical.  True intervals are likely to be ~50% of downhole lengths</li> </ul>
<b>Diagrams</b>	<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>
<b>Balanced reporting</b>	<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>
<b>Other substantive exploration data</b>	<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>Recently acquired drone magnetic data is not considered meaningful enough to be reported.</li> </ul>
<b>Further work</b>	<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 is undertaken at the Kaiser prospect to define resource potential at depths greater than the 100mx 100m RC drilling has identified. Other drilling targeting Boda Two and Three and the Korridor prospects will be undertaken within the Project. Regional exploration comprising of IP, MT and soil geochemistry surveys are also planned.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"><li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive</i></li></ul>	<ul style="list-style-type: none"><li><i>See figures included in the announcement.</i></li></ul>