

10 July 2023



Drilling Demonstrates Tomingley's Regional Future ***Includes High Grade Gold Mineralisation at McLeans Prospect***

- Significant gold mineralisation was identified at several prospects located within seven kilometres of the Tomingley Gold Operations (Tomingley) processing facility, including targets within the approved Tomingley project area.

- Drilling at the McLeans Prospect, located between the Roswell Deposit and the Tomingley site, tested the strike of the andesite host and infilled previously intersected mineralisation. Significant gold intercepts include:

MCLUG004D	5.1 metres grading 1.45g/t Au from 126.4 metres;
incl	2.5 metres grading 2.62g/t Au from 129 metres;
and	11.3 metres grading 3.72g/t Au from 310 metres;
incl	1 metres grading 10.5g/t Au from 316 metres;
also	0.7 metres grading 14.8g/t Au from 319.3 metres.

- Drilling at McLeans has defined mineralisation over 200 metres strike and 500 metres down dip that remains open. A maiden underground Inferred Mineral Resource estimation for McLeans is expected this calendar year.

- Drilling at El Paso, located 1km south of the San Antonio deposit, focused on a mineralised Roswell-type andesite of approximate dimensions of 250 metres in length and 50 metres in width. Significant gold intercepts include:

EPP046	42 metres grading 1.68g/t Au from 42 metres;
incl	6 metres grading 2.98g/t Au from 51 metres;
also	3 metres grading 4.66g/t Au from 69 metres;
incl	3 metres grading 3.21g/t Au from 81 metres.
EPP047	30 metres grading 0.56g/t Au from 267 metres;
incl	6 metres grading 2.00g/t Au from 285 metres.
EPP049	9 metres grading 2.30g/t Au from 108 metres.

- Plains Prospect is located 1km southeast of the Roswell Deposit and within the approved Tomingley project area, is a 500 metres by 200 metres zone of gold mineralisation beneath a shallow cover of 15 metres. Recent air-core and RC drilling continues to define this mineralisation with significant gold results of:

RWRC477	8 metres grading 0.97g/t Au from 134 metres;
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incl	2 metres grading 2.02g/t Au from 136 metres.
RWRC478	4 metres grading 1.54g/t Au from 183 metres;
incl	1 metre grading 5.54g/t Au from 183 metres.
RWAC477	3 metres grading 2.08g/t Au from 90 metres.
RWAC481	6 metres grading 0.83g/t Au from 78 metres.

- **Allendale Prospect is a gold-copper porphyry target within the buried Narromine Igneous Complex west of the Parkes Thrust located approximately 5km northwest of Tomingley. Historical drilling comprised limited air-core drilling with three diamond core tails. Assay results were recently received from 95 air-core holes along seven traverses, spaced nominally 1km apart. Significant gold and/or copper results include:**

ALAC090	33 metres grading 0.08% Cu, 0.05g/t Au from 33 metres;
incl	3 metres grading 0.45g/t Au, 0.06% Cu from 54 metres.
ALAC092	12 metres grading 0.52g/t Au, 0.02% Cu from 57 metres.
ALAC147	21 metres grading 0.11% Cu from 93 metres.
ALAC176	13 metres grading 0.99g/t Au, 0.03% Cu from 127 metres to EOH;
incl	3 metres grading 3.03g/t Au, 0.02% Cu from 133 metres.

- **High-resolution airborne magnetic and gravity surveys for the greater Tomingley Gold Project area are planned later in 2023. Targets resulting from these geophysical surveys will be tested, in addition to follow up drilling of announced mineralisation, is planned for early 2024.**

Alkane Resources Limited (ASX: ALK) ('Alkane' or 'the Company') is pleased to announce the latest exploration results for drilling in the region around the Company's Tomingley Gold Operations (Tomingley) in Central New South Wales.

Alkane Managing Director, Nic Earner, said: *"We continue to explore at Tomingley both within our approved mining areas and regionally. With current plans already extending to 2032 we are seeking to add further mine life, scale, and grade to Tomingley. It is pleasing to see the various exploration targets around Tomingley yielding results and we look forward to adding the McLeans deposit to our resource base before the end of the calendar year."*



Tomingley Gold Project (TGP)

Alkane Resources Ltd 100%

The Tomingley Gold Project (TGP) covers an area of approximately 440 km² stretching 60 km north-south along the Newell Highway from Tomingley in the north, through Peak Hill and almost to Parkes in the south. The TGP contains Alkane's currently operating Tomingley Gold Operations (TGO), an open pit mine and underground operation with a 1 Mtpa processing facility.

Over the past four years Alkane has conducted an extensive regional exploration program that led to the definition of Mineral Resources at the Roswell and San Antonio deposits (ASX Announcement 2 May 2022 and ASX Announcement 16 February 2021), separate to the established resources and reserves at Tomingley. Roswell and San Antonio form part of the Tomingley Gold Extension Project (TGEP).

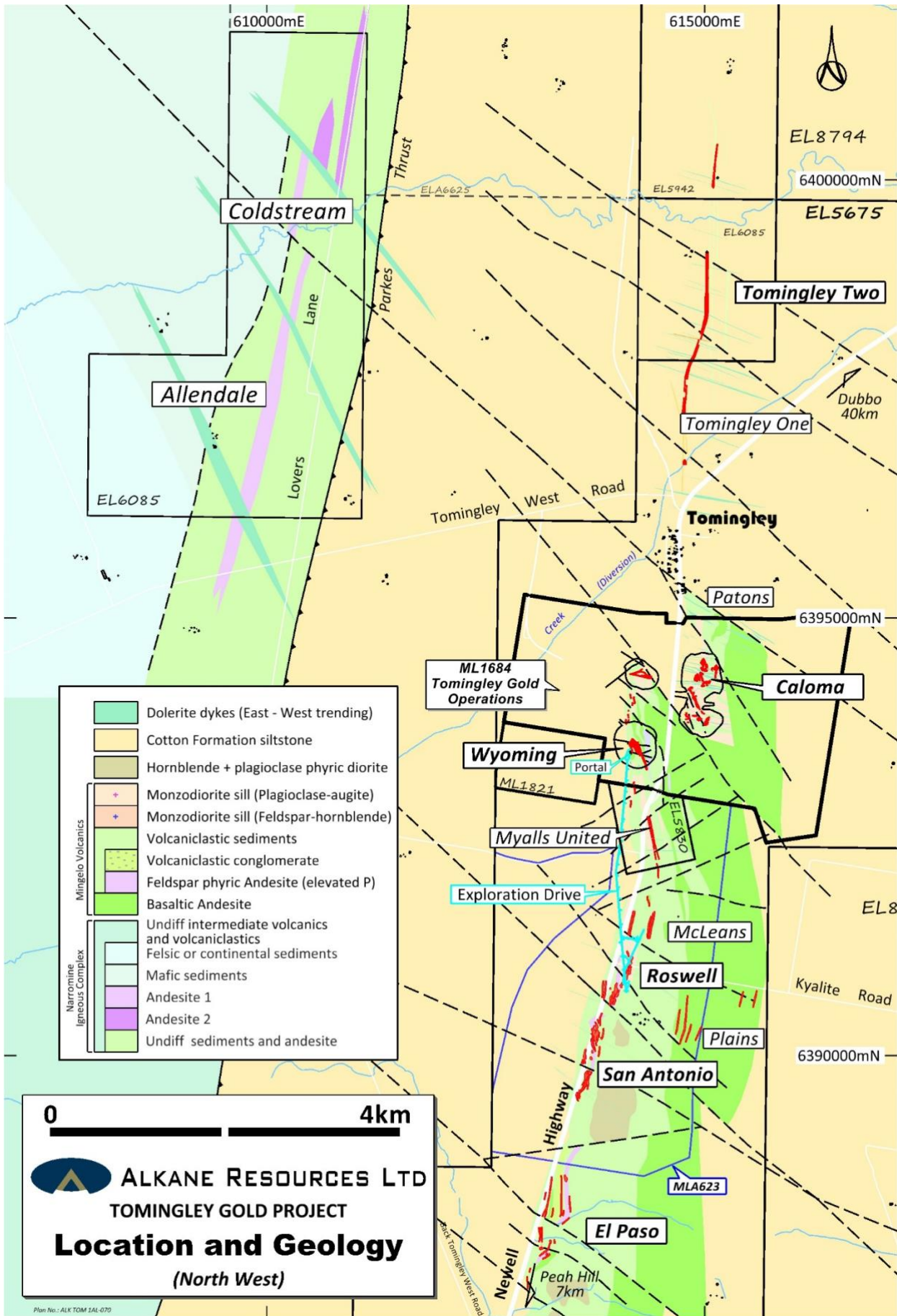
Alkane has completed an exploration drive from the Wyoming One open cut to Roswell, a distance of about 3km. The TGEP was approved by the New South Wales Minister for Planning (ASX Announcement 22 February 2023) and the Company is progressing its Environmental Protection Licence and Mining Lease applications.

Regional exploration drilling recommenced in the region in early 2023 focusing on McLeans, Roswell North, Plains, El Paso and Allendale prospects that are all located within 7 km of the TGO processing facility. Drilling was also conducted from the underground exploration drive on the McLeans prospect for the purposes of estimating an initial Inferred Mineral Resource.

As part of the recent exploration drilling, assay results were received from 142 air-core (AC) drill holes for a total of 15,321 metres; 18 reverse circulation (RC) drill holes for a total of 5,212 metres; and 4 diamond core (DD) for a total of 1,481 metres of core.

The exploration undertaken:

- Targeted the strike of the andesite hosting the mineralisation at the McLeans Prospect and infilling previously intersected mineralisation with 5 RC holes and 4 underground DD holes;
- Targeted a northern extension to the Roswell Deposit with 1 RC hole;
- Tested the strike extensions, the width and depth of mineralisation at the Plains Prospect located 1 km southeast of the Roswell Deposit with 47 AC holes and 6 RC holes;
- Tested around the mineralised Roswell-type andesite in the southern section of the El Paso prospect with 6 RC holes; and
- Tested the covered Narromine Igneous Complex west of the Parkes Thrust for copper-gold mineralisation with 95 AC holes at Ellendale.





McLeans Prospect

McLeans Prospect is located 500 metres northeast of the Roswell Deposit and adjacent to the exploration drive from Wyoming One. In 2021, a deep RC drill hole (MCP092) discovered the McLeans andesite (correlates with the andesites that host the gold resources at the Roswell and San Antonio deposits) approximately 100 metres below surface, intersecting 34m @ 1.80g/t Au from 178m and 19m @ 1.25g/t Au from 242m (ASX Announcement 16 September 2021). The gold mineralisation is associated with either sheeted quartz veins or as pyrite-silica cemented breccias, hosted within and along the contacts of the andesite host.

The McLeans host andesite strike length was recently tested by five step-out RC drill holes for a total of 1,886 metres. The drilling intersected weakly mineralised volcanoclastic sediments, defining the host rock has a maximum strike length of 300 metres. Four underground diamond core drill holes for a total of 1,481 metres, were designed to infill the previous drilling of the mineralised andesite. Significant gold intercepts from the underground drilling include:

MCLUG004D	5.1 metres grading 1.45g/t Au from 126.4 metres;
incl	2.5 metres grading 2.62g/t Au from 129 metres;
and	11.3 metres grading 3.72g/t Au from 310 metres;
incl	1 metre grading 10.5g/t Au from 316 metres;
also	0.7 metres grading 14.8g/t Au from 319.3 metres.
MCLUG003D	5.8 metres grading 0.88g/t Au from 275.9 metres;
and	6.1 metres grading 0.87g/t Au from 303.4 metres;
incl	1.2 metres grading 2.88g/t Au from 308.3 metres.
MCLUG001D	7.2 metres grading 0.91g/t Au from 305.1 metres;
incl	1.3 metres grading 2.66g/t Au from 305.1 metres.

Diamond core drill hole MCLUG004D intersected the northern end of the andesite where it thins from 70 metres to 20 metres in width. The andesite also thins at its upper contact. Stockwork high grade gold mineralisation appears to favour the thinned northern and upper contact of the andesite forming as carapace-focused mineralisation. This zone is open at depth along the northern contact. A new, ~20-metre-thick andesite unit with minor Au mineralisation was intersected from around 100 metres downhole (east) of the underground drilling platform. This mineralised andesite is open to the north, south and at depth. A maiden underground Inferred Mineral Resource estimation for McLeans is underway and is expected to be completed in the current calendar year.

El Paso Prospect

Exploration drilling focused on the southern and less covered (under 30 metres) section of the El Paso Prospect, where significant gold mineralisation has been intersected previously (EPP012 – 12m @ 4.99g/t Au from 108 m, 21m @ 2.38g/t Au from 141m, and 6m @ 10.65g/t Au from 168m – ASX Announcement 17 May 2019). This mineralisation is hosted in an andesite similar in nature to the San Antonio volcanics that host the gold resource 1 km to the north.

Six RC drill holes for a total of 1,146 metres were completed at El Paso with the sandy alluvial overburden continuing to make the drilling conditions difficult and only four were completed to target depth. Significant gold mineralisation intersected by three of the RC drill holes include intercepts of:

EPP046	42 metres grading 1.68g/t Au from 42 metres;
incl	6 metres grading 2.98g/t Au from 51 metres;



also	3 metres grading 4.66g/t Au from 69 metres;
incl	3 metres grading 3.21g/t Au from 81 metres.
EPP047	30 metres grading 0.56g/t Au from 267 metres;
incl	6 metres grading 2.00g/t Au from 285 metres.
EPP049	9 metres grading 2.30g/t Au from 108 metres.

The strong gold mineralisation is hosted in andesite that strikes northeast, dips southeast and is controlled within southeast plunging shoots. High-resolution airborne magnetics is planned to improve definition of the andesite hosts and significant structures at the prospect. Drilling targets generated by the survey in addition to follow up drilling of targets generated by these recent results are proposed for Q1 2024.

Plains Prospect

Further air-core drilling was conducted to test the strike extents of the previously defined zone of anomalous gold mineralisation with approximate dimensions of 500 metres x 200 metres, that strikes northeast associated with a magnetic low along the western margin of a basaltic-andesite body. Two 150 metre-spaced air-core drill hole traverses were completed to extend previous traverses east across the northeast-trending zone of mineralisation. Two 100 metre-spaced traverses south of the gold zone were also completed transecting across the 500 metre-thick basaltic-andesite. A total of 47 drill holes for 3,886 metres were completed intersecting significant gold results of:

RWAC477	3 metres grading 2.08g/t Au from 90 metres.
RWAC481	6 metres grading 0.83g/t Au from 78 metres.

Six RC drill holes totalling 1,732 metres further tested the northeast striking mineralisation and its depth potential. The mineralisation forms as sheeted quartz-arsenopyrite-pyrite veins hosted in predominantly phyllic-altered basaltic andesite. Significant gold mineralisation from the drilling includes:

RWRC477	8 metres grading 0.97g/t Au from 134 metres;
incl	2 metres grading 2.02g/t Au from 136 metres.
RWRC478	4 metres grading 1.54g/t Au from 183 metres;
incl	1 metre grading 5.54g/t Au from 183 metres.
RWRC479	6 metres grading 0.84g/t Au from 164 metres;
incl	3 metres grading 1.48g/t Au from 167 metres.

The Plains Prospect is located approximately 1 km southeast of the Roswell Deposit in a structurally favourable corridor, sharing the same northwest trending structural zone that hosts the Roswell gold deposit. Further drilling is planned for early 2024.

Allendale (Gold-Copper) Prospect

The Allendale prospect area lies approximately 5 km north-west of Tomingley on the western side of the Parkes Thrust. The Parkes Thrust is a principal regional structure that separates the largely undeformed andesitic volcanics (Narromine Igneous Complex) similar to those that host the Northparkes copper-gold porphyry deposits to the west from the highly deformed and faulted volcanics and volcanoclastics to the east that are host to the orogenic gold mineralisation at Tomingley. The entire prospect area is covered by 30 - 80 metres of alluvial quartz-rich sands and clays of the Gunnedah Basin and any previous exploration is limited to air-core drilling with three holes diamond core tailed.

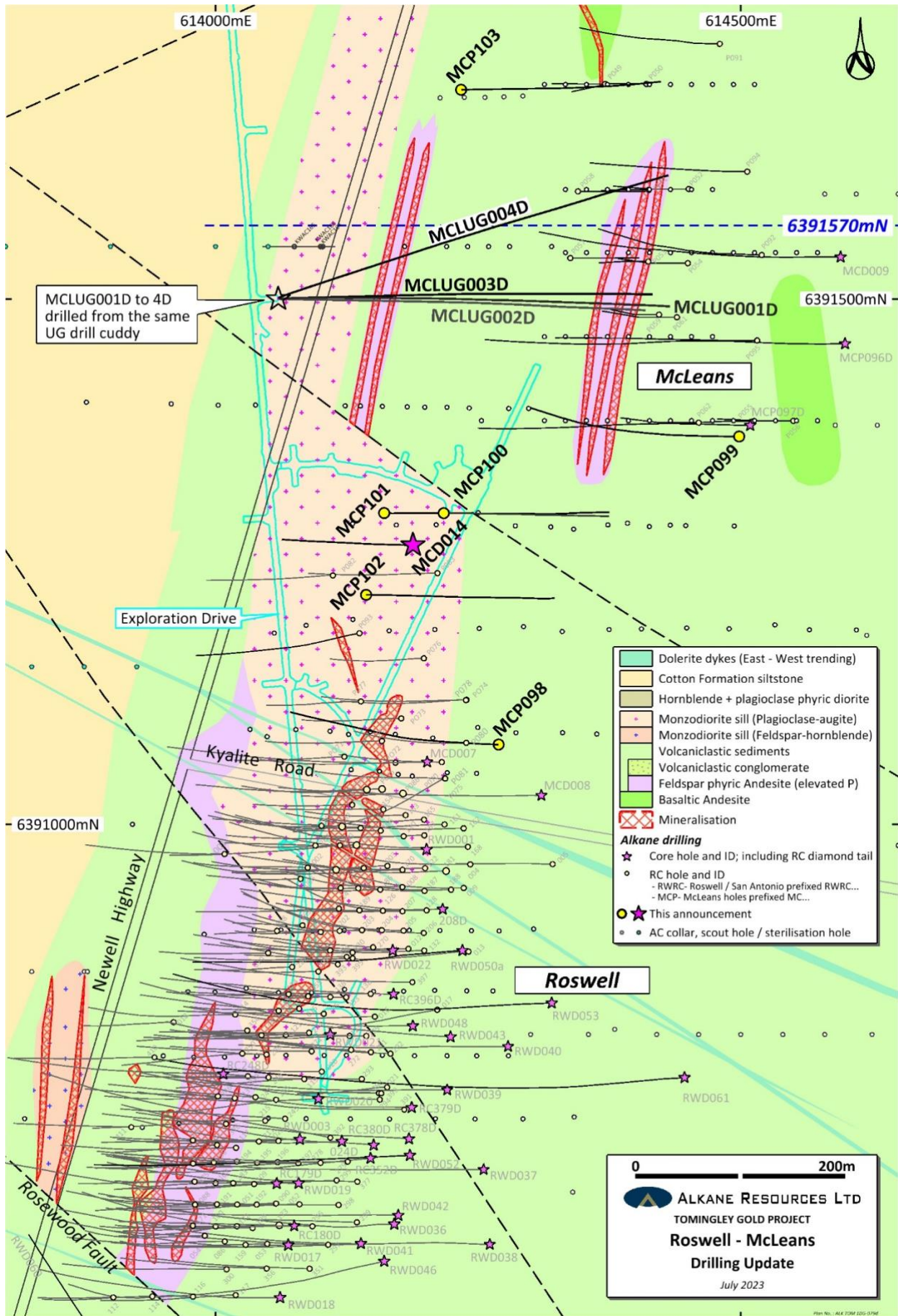


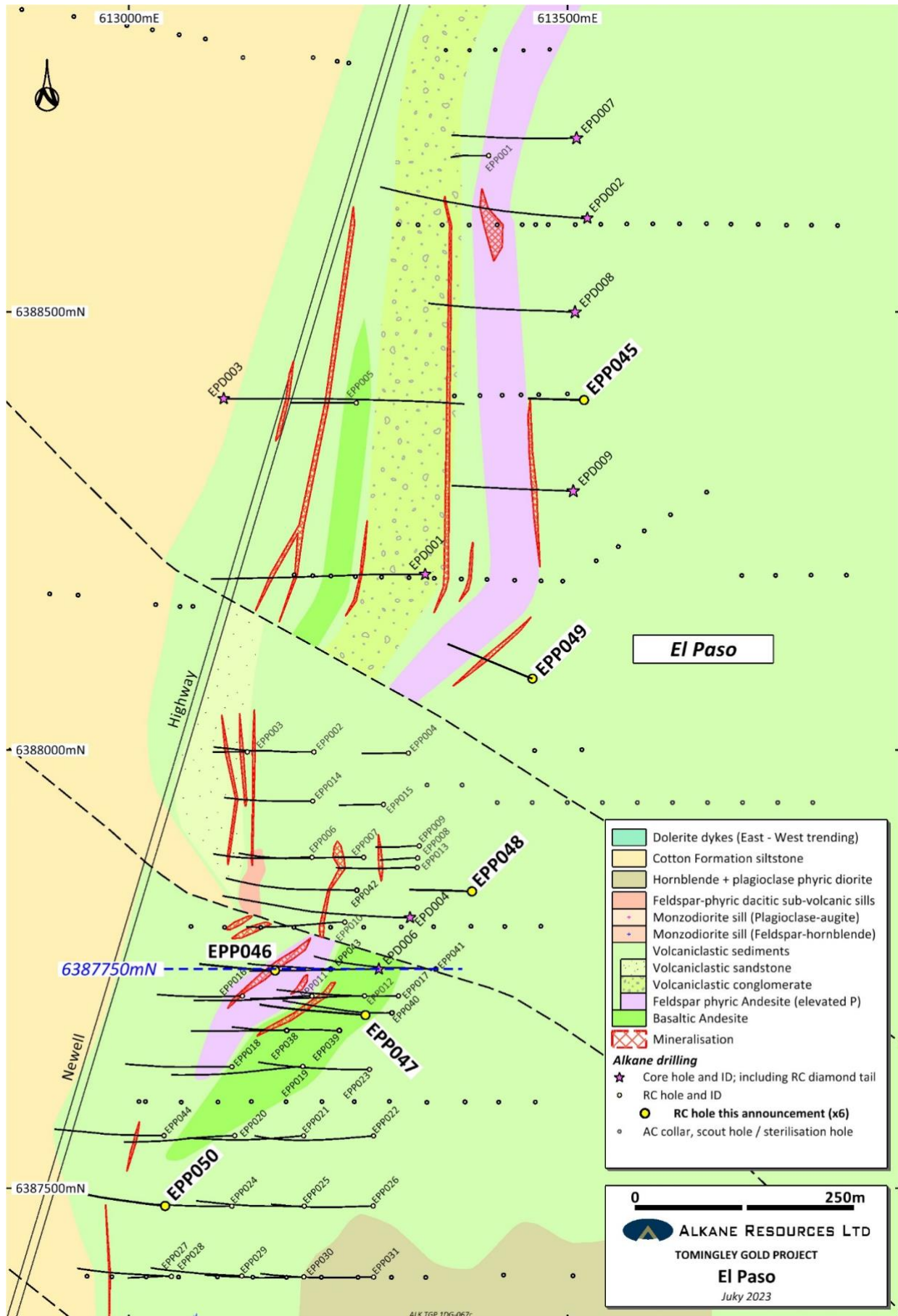
Ninety-five air-core drill holes for a total of 11,435 metres were drilled at 100 metre collar spacing along seven traverses spaced nominally 1 kilometre apart. The drilling was generally angled west along the traverses and drilled to refusal at fresh bedrock. Bottom of hole litho-geochemistry sampling was conducted to map the Ordovician basement and the weathered bedrock beneath the cover was sampled as 3-metre composites for copper and gold. Numerous zones of anomalous gold and copper intersected by the drilling were mostly hosted in volcanics shown on the following plan. Significant gold and/or copper results include:

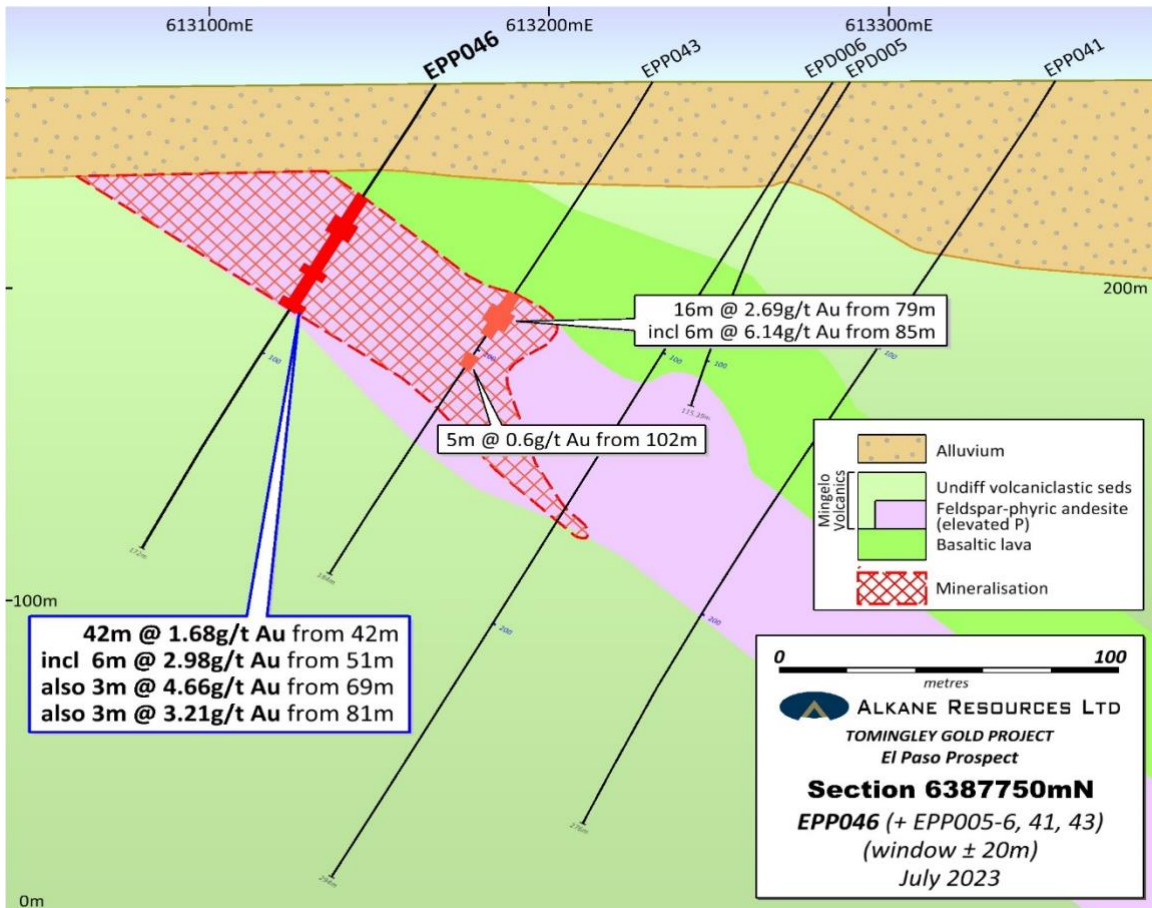
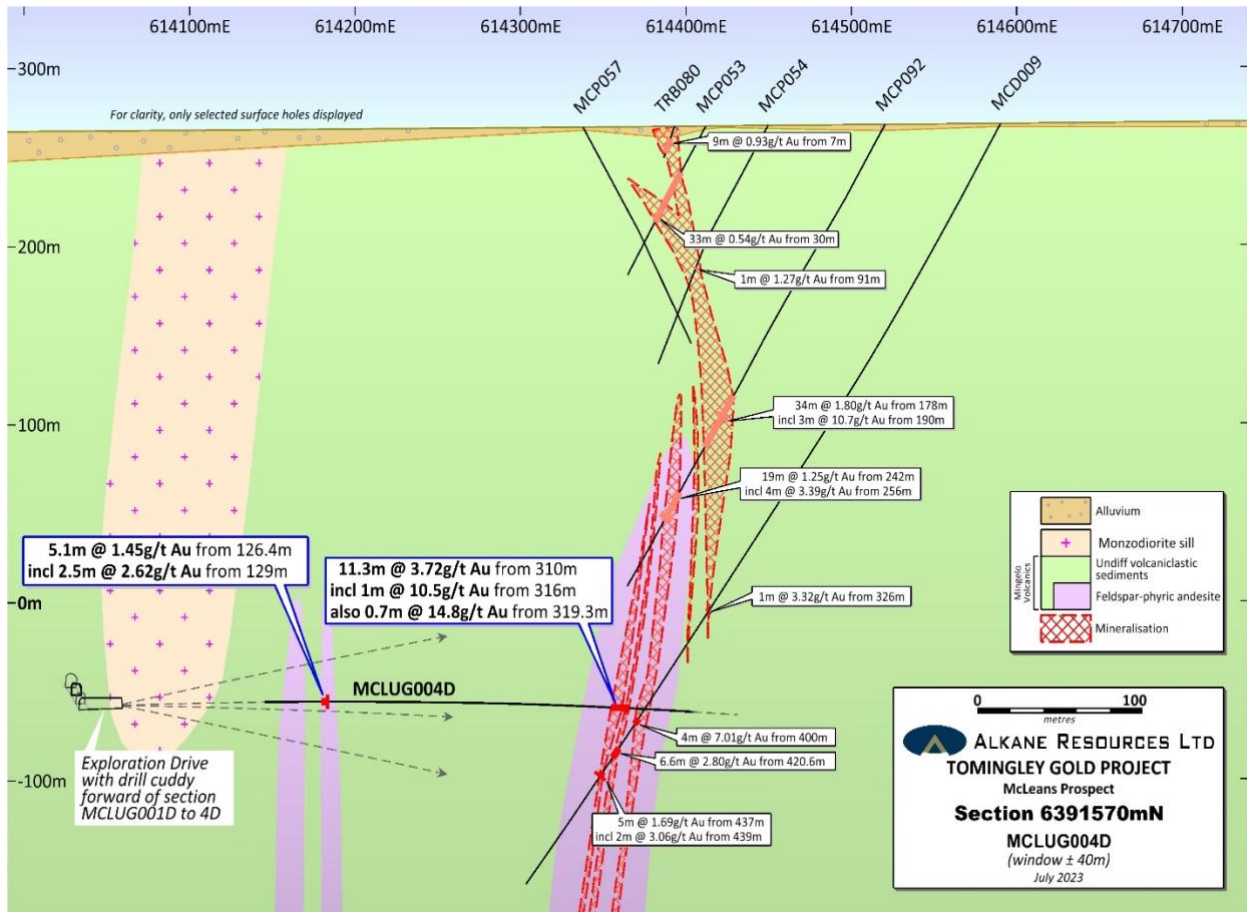
ALAC090 incl	33 metres grading 0.08% Cu, 0.05g/t Au from 33 metres; 3 metres grading 0.45g/t Au, 0.06% Cu from 54 metres.
ALAC092	12 metres grading 0.52g/t Au, 0.02% Cu from 57 metres.
ALAC093	3 metres grading 0.60g/t Au from 57 metres.
ALAC132	1 metre grading 0.15% Cu from 131 metres to end of hole.
ALAC147	21 metres grading 0.11% Cu from 93 metres.
ALAC176 incl	13 metres grading 0.99g/t Au, 0.03% Cu from 127 metres to end of hole; 3 metres grading 3.03g/t Au, 0.02% Cu from 133 metres.

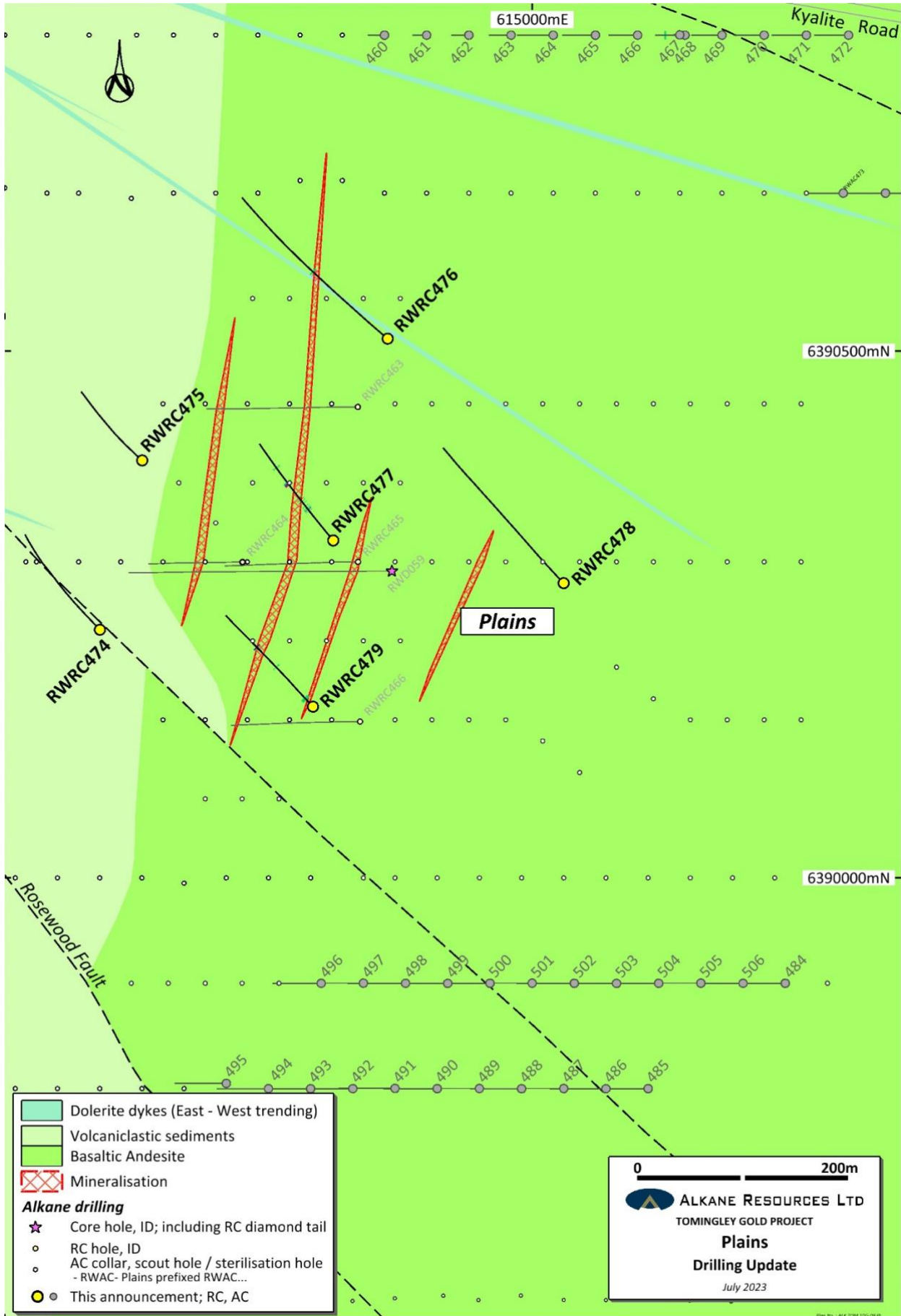
Drilling of the northernmost traverse and 300 metres south of the Exploration Licence 6085 boundary intersected significant gold mineralisation with drill hole ALAC176 (13 metres grading 0.99g/t Au, 0.03% Cu from 127 metres to end of hole, including 3 metres grading 3.03g/t Au, 0.02% Cu from 133 metres). The mineralisation is associated with goethite-stained quartz veining hosted in a weathered andesite and the drill hole terminated in 0.19g/t Au.

The ground immediately north of EL6085 was recently pegged by Alkane Resources (ELA6625) and covers an additional 3 km strike length of these host volcanics, that has previously undergone only limited drilling. An airborne gravity survey is planned for November 2023 over Allendale and the Narromine Igneous Complex. Infill air-core drilling is planned for 2024.









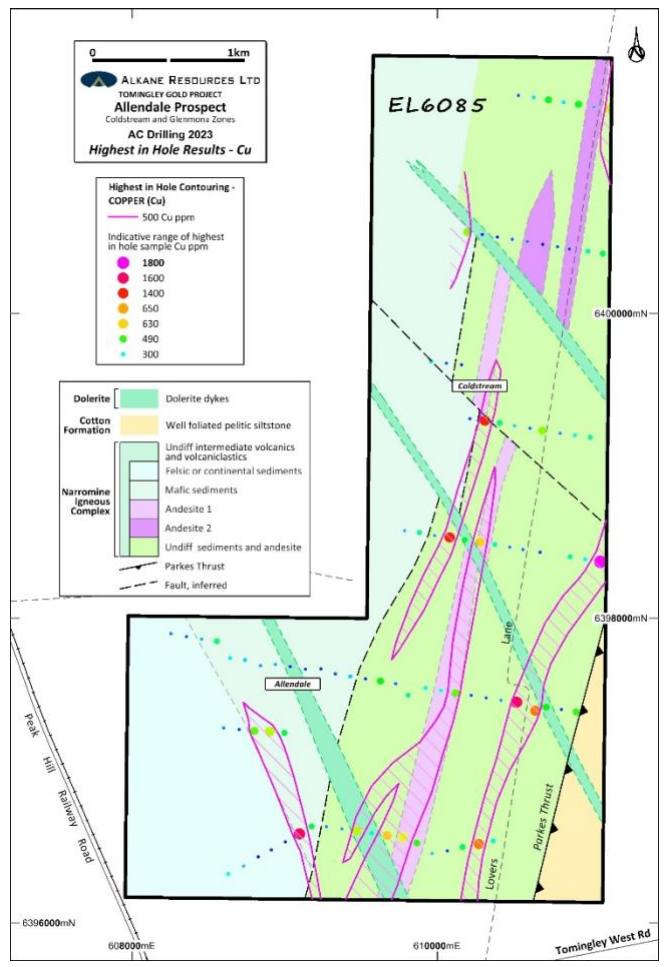
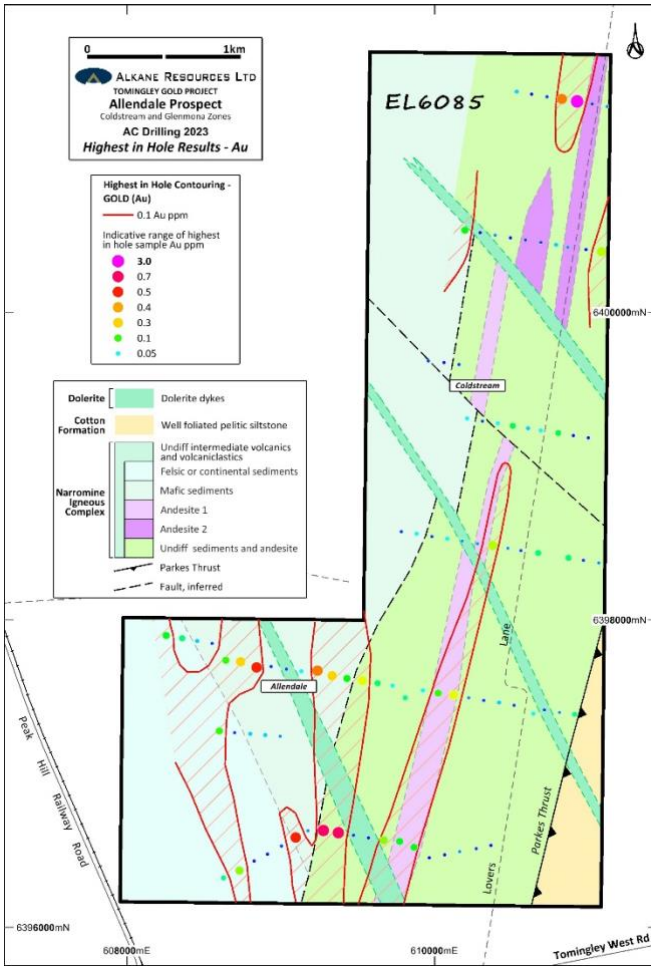




Table 1 - Tomingley Gold Project Significant Gold Results – July 2023 (>0.2g/t Au)

Hole ID	Easting (MGA)	Northing (MGA)	RL (m)	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Prospect
MCLUG001	614060	6391500	-57	11	86	377.8	97.7	100.8	3.1	0.51	McLeans
<i>and</i>							113	113.8	0.8	0.88	
<i>and</i>							305.1	312.3	7.2	0.91	
<i>incl</i>							305.1	306.4	1.3	2.66	
<i>and</i>							317.2	319.3	2.1	0.34	
MCLUG002	614060	6391500	-58	-1	88	356.9	320	322.2	2.2	0.60	
MCLUG003	614060	6391500	-58	-10	91	357	102.2	104	1.8	1.14	
<i>and</i>							121.5	122.5	1	0.89	
<i>and</i>							275.9	281.7	5.8	0.88	
<i>and</i>							303.4	309.5	6.1	0.87	
<i>incl</i>							308.3	309.5	1.2	2.88	
<i>and</i>							315	316	1	0.58	
MCLUG004	614060	6391501	-57	1	68	389.7	126.4	131.5	5.1	1.45	
<i>incl</i>							129	131.5	2.5	2.62	
<i>and</i>							310	321.3	11.3	3.72	
<i>incl</i>							316	317	1	10.5	
<i>also</i>							319.3	320	0.7	14.8	
<i>and</i>							330.9	334.2	3.3	1.00	
MCP099	614499	6391369	269	-60	282	334	204	207	3	0.29	
MCP100	614217	6391296	268	-60	89	298	<i>No andesite or significant results</i>				
MCP101	614160	6391296	268	-60	92	400	356	357	1	0.34	
MCP102	614143	6391219	268	-60	90	400	<i>No andesite or significant results</i>				
MCP103	614234	6391699	267	-60	89	454	124	129	5	0.56	
MCP098	614270	6391076	269	-60	271	448	380	382	2	3.66	Roswell North
<i>and</i>							393	395	2	0.32	
<i>and</i>							409	411	2	0.58	
<i>and</i>							416	417	1	0.54	
<i>and</i>							433	434	1	0.54	
RWRC474	614590	6390236	270	-60	316	280	<i>No significant results</i>				
RWRC475	614630	6390396	271	-60	312	202	<i>No significant results</i>				
RWRC476	614863	6390512	272	-60	310	382	34	41	7	0.29	Plains
<i>and</i>							77	85	8	0.47	
RWRC477	614811	6390320	272	-59	320	228	75	81	6	0.31	
<i>and</i>							90	92	2	0.31	
<i>and</i>							99	100	1	1.47	
<i>and</i>							134	142	8	0.97	
<i>incl</i>							136	138	2	2.02	
RWRC478	615030	6390280	273	-60	315	366	183	187	4	1.54	
<i>incl</i>							183	184	1	5.54	
RWRC479	614792	6390163	272	-60	316	274	18	24	6	0.34	
<i>and</i>							106	109	3	0.31	
<i>and</i>							164	170	6	0.84	
<i>incl</i>							167	170	3	1.48	
RWAC468	615145	6390800	270	-60	270	57	36	39	3	0.35	
RWAC477	615466	6390650	270	-60	270	95	90	93	3	2.08	



Table 1 - Tomingley Gold Project Significant Gold Results – July 2023 (>0.2g/t Au)

Hole ID	Easting (MGA)	Northing (MGA)	RL (m)	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Prospect	
RWAC481	615615	6390650	270	-60	270	88	78	84	6	0.83		
EPP045	613519	6388399	266	-60	271	118**	<i>Hole abandoned - no significant results</i>					El Paso
EPP046	613167	6387748	265	-60	271	172	42	84	42	1.68		
<i>incl</i>							51	57	6	2.98		
<i>also</i>							69	72	3	4.66		
<i>also</i>							81	84	3	3.21		
EPP047	613270	6387698	266	-66	275	316*	267	297	30	0.56		
<i>incl</i>							285	291	6	2.00		
<i>and</i>							315	316*	1	1.09		
EPP048	613391	6387839	266	-60	272	136**	<i>Hole abandoned - no significant results</i>					
EPP049	613460	6388081	266	-60	290	202	69	72	3	0.73		
<i>and</i>							108	117	9	2.30		
<i>incl</i>							108	114	6	3.14		
<i>and</i>							177	180	3	0.29		
EPP050	613041	6387480	265	-60	270	202	51	57	6	0.30		
<i>and</i>							147	150	3	0.34		
<i>and</i>							156	159	3	0.25		

* hole finished in mineralisation. ** hole abandoned early. True widths are approximately 60% of intercept width.



Table 2 - Allendale (TGP) Significant Gold Copper Results – July 2023 (>0.1g/t Au and/or >0.05% Cu)

Hole ID	Easting (MGA)	Northing (MGA)	RL (m)	Dip	Azi (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)	Prospect
ALAC090	609097	6396580	265	-60	241	96	33	66	33	0.05	0.08	Allendale
<i>incl</i>							54	57	3	0.45	0.06	
ALAC092	609277	6396628	265	-60	280	123	57	69	12	0.52	0.02	
ALAC093	609376	6396613	265	-60	280	118	57	60	3	0.60	0.01	
ALAC096	609672	6396566	265	-60	280	131	69	78	9	0.05	0.05	
ALAC097	609776	6396557	265	-60	280	108	63	72	9	0.01	0.05	
ALAC102	610273	6396512	265	-60	261	131	108	114	6	-	0.06	
ALAC105	608901	6397249	265	-60	276	74	51	66	15	0.02	0.05	
ALAC106	608803	6397257	265	-60	276	108	66	93	27	0.01	0.05	
ALAC114	608741	6397722	265	-60	280	90	66	69	3	0.28	0.02	
ALAC115	608844	6397686	265	-60	280	103	63	69	6	0.40	0.02	
ALAC119	609240	6397665	265	-60	280	128	93	96	3	0.40	0.01	
ALAC120	609335	6397632	265	-60	280	134	84	90	6	0.25	0.01	
ALAC128	610125	6397507	265	-60	280	107	78	87	9	0.09	0.05	
ALAC132	610510	6397444	265	-60	280	132*	126	132*	6	0.01	0.08	
<i>incl</i>							131	132*	1	0.01	0.15	
ALAC133	610645	6397388	265	-60	280	146	69	87	18	0.01	0.05	
ALAC140	610084	6398526	265	-60	280	110	75	93	18	0.03	0.07	
ALAC142	610281	6398494	265	-60	280	96	75	84	9	0.02	0.06	
ALAC147	610314	6399292	265	-60	280	135	93	114	21	0.01	0.11	
ALAC151	610692	6399230	265	-60	280	135	114	120	6	0.03	0.05	
ALAC155	611071	6398369	265	-60	280	134	111	120	9	0.02	0.11	
ALAC163	610199	6400532	265	-60	280	160	134	137	3	0.11	0.05	
ALAC171	611127	6401338	265	-60	280	143	85	88	3	0.01	0.06	Allendale
ALAC175	610831	6401385	265	-60	280	156	120	123	3	0.35	0.02	
ALAC176	610930	6401372	265	-60	280	140*	115	118	3	0.32	0.03	
<i>and</i>							127	140*	13	0.99	0.03	
<i>incl</i>							133	136	3	3.03	0.02	

* hole finished in mineralisation.



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

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

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

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

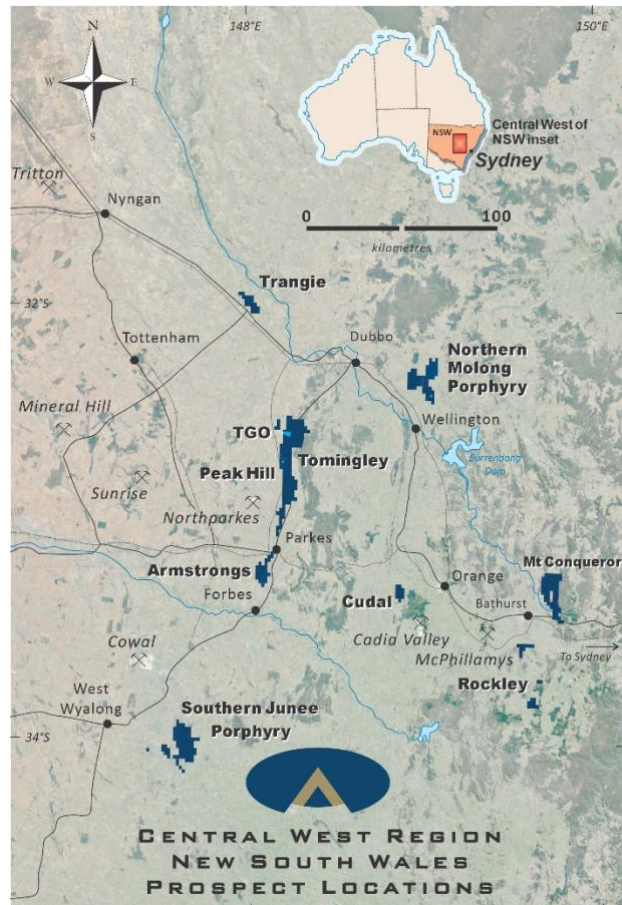
Alkane Resources intends to grow to become one of Australia's multi-mine gold and copper producers.

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 resources identified at Boda and Kaiser, 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 ~9.0% of Calidus Resources (ASX: CAI).





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

JORC Code, 2012 Edition – Table 1 TOMINGLEY GOLD PROJECT – Regional Exploration July 2023

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 (DD) was undertaken by HMR Drilling Services 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 Air-core (AC) drilling was undertaken by Drillit Pty Ltd RC and AC 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 and AC 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 ≥ 0.20 g/t Au are resplit using a cone splitter on the RC rig or a riffle splitter for AC sample 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 either aqua regia or a multi-acid digest with a ICP Atomic Emission Spectrometry or ICP Mass Spectrometry analytical finish.



Criteria	JORC Code explanation	Commentary
<i>Drilling techniques</i>	<ul style="list-style-type: none"> • <i>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 orientated and if so, by what method, etc).</i> 	<ul style="list-style-type: none"> • Reverse circulation (RC) drilling using 110mm rods 144mm face sampling hammer • Diamond drilling was HQ wireline bit producing 63.5mm diameter sized orientated core. • Air-core (AC) drilling using 89mm rods and bit to refusal.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> 	<ul style="list-style-type: none"> • DD - core loss was identified by drillers and calculated by geologists when logging. Generally ≥99% was recovered. • RC and AC 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"> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<ul style="list-style-type: none"> • Sample quality is qualitatively logged • 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. • A high capacity AC rig was used to maximise penetration through the clays to refusal on fresh bedrock. Drill cyclone was cleaned after each hole to minimise cross-hole contamination.
	<ul style="list-style-type: none"> • <i>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.</i> 	<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"> • <i>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.</i> 	<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"> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography</i> 	<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"> • <i>The total length and percentage of the relevant intersections logged</i> 	<ul style="list-style-type: none"> • All drill holes were logged in full
<i>Sub-sampling techniques</i>	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> 	<ul style="list-style-type: none"> • Core sawn with half core samples submitted for analysis



Criteria	JORC Code explanation	Commentary
<p><i>and sample preparation</i></p>	<ul style="list-style-type: none"> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> 	<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. The 1m intervals forming composite samples assaying ≥ 0.20 g/t Au are re-split using a cone splitter on the RC rig during the time of drilling or re-split using a riffle splitter for AC composites 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"> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> 	<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"> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples</i> 	<ul style="list-style-type: none"> Internal QAQC system in place to determine accuracy and precision of assays
	<ul style="list-style-type: none"> <i>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</i> 	<ul style="list-style-type: none"> Non-biased core cutting using an orientation line marked on the core Duplicate RC and AC samples are collected for both composite intervals and re-split intervals.
	<ul style="list-style-type: none"> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> Sample are of appropriate size
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> 	<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, DD samples are digested by near-total mixed acid digest with each element determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. RC and AC samples are digested by aqua regia with a ICP Atomic Emission Spectrometry for As, Cu, Fe, Ni, P, Pb only
	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> No geophysical tools were used to determine any element concentrations



Criteria	JORC Code explanation	Commentary
	<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
Verification of sampling and assaying	<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 reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are deemed necessary
	<ul style="list-style-type: none"> The use of twinned holes. 	<ul style="list-style-type: none"> No twinned holes have been drilled
	<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 all RC and DD collars are DGPS surveyed accurately ($\pm 0.1\text{m}$) by trained 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"> DD and RC drillhole collars DGPS surveyed accurately ($\pm 0.1\text{m}$) by trained 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 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"> Majority of results are early stage, reconnaissance drilling. Drilling at McLeans is approaching 60m centres and is considered appropriate to establish grade continuity for the purposes of calculating an Inferred Mineral Resource.



Criteria	JORC Code explanation	Commentary
	<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. 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"> Drilling suggests a broadly sub vertical geometry at most prospects and moderately SE at Plains. Estimated true intervals at this early stage of drilling are possibly ~60% of downhole lengths, and close to true widths from the underground diamond core drilling at McLeans.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All samples are bagged into tied calico bags, before being grouped into polyweave bags and transported ~2hr to ALS Minerals Laboratory in Orange by Alkane personnel. All sample submissions are documented via ALS tracking system with results reported via email Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years). The Company has in place protocols to ensure data security.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<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 six licences (EL5675, EL5830, EL5942, EL6085, EL8676 and EL8794) in the Tomingley Gold 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. EL5675 expires on 17 January 2029. EL5830 expires on 4 April 2028. EL5942 expires on 3 May 2024. EL6085 expires on 19 May 2024. EL8676 expires on 27 November 2023. EL8794 expires on 20 September 2024.
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 exploration has been completed in the area by Alkane since 2001 and the Tomingley Gold Mine was commissioned in 2014. Minor work was completed by previous companies in EL5675 area covered by this announcement but many holes did not penetrate the cover sequence. Work completed within EL6085 at the Allendale Prospect can be summarised as: Climax (in JV with Newcrest, Transit, MPI Gold) (1989-2003) – Tenement-wide heli-magnetics, MMI soils (no anomalism as deep cover was prohibitive); 70x air-core drill holes for 7,458m over magnetic targets intersecting broad zones of Au-Cu anomalism. Follow up 3x diamond core tails off air-core pre-collars for 764m with a petrology study.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Mineralisation at Tomingley is associated with quartz veining and alteration focused within porphyritic sub-volcanic andesite sills and adjacent volcanoclastic sediments. The deposits appear to have formed as the result of a competency contrast between the porphyritic sub-volcanic sills and the surrounding volcanoclastic sediments, with the sills showing brittle fracture and the sediments ductile deformation and have many similarities to well documented orogenic - lode-style gold deposits. Geological nature of the Tomingley Deposits is well documented elsewhere. Geological nature of Peak Hill is well documented elsewhere. Geological nature of Glen Isla is fine grained low-sulfidation epithermal Au mineralisation that was discovered in Middle Devonian continental felsic volcanic sequences (Dulladerry Volcanics) in the Young Zone. The gold prospective Dulladerry Volcanics host a number of low sulfidation epithermal occurrences including the Mt Aubrey gold deposit (120,000 t @ 3.3 g/t Au) and are broadly similar in age (~370Ma) to dates published (~350 - 360 Ma) for volcanic units that host well known Drummond Basin epithermal Au deposits in north Queensland. Dulladerry Volcanics include flow banded rhyolites and quartz



Criteria	JORC Code explanation	Commentary
		feldspar porphyries and are locally bimodal, with amygdaloidal basalts identified at Glen Isla and Mt Aubrey.
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
	<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 RC and DD drill holes have been reported in this announcement. Only AC drill holes with significant assays of $\geq 0.2\text{g/t Au}$ have been reported for Tomingley and assays of $>0.1\text{g/t Au}$ and/or $>0.05\% \text{ Cu}$ for Allendale. Impractical to list all holes completed.
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. 	<ul style="list-style-type: none"> Exploration results reported for uncut gold grades, grades calculated by length weighted average
	<ul style="list-style-type: none"> 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"> Reported intercepts ($>0.2\text{g/t Au}$) are calculated using a broad lower cut of 0.2g/t Au although grades lower than this may be present internally (internal dilution). 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"> The mineralisation is structurally complex and the majority of drilling is reconnaissance in nature. Down hole lengths reported – true widths estimated to be 60% of the down hole lengths at El Paso, Roswell North and Allendale. At Plains Prospect it is early stage exploration but true width is estimated at 80%. Underground diamond drilling at McLeans intercepts are estimates as 90% - 100% true width.
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 DD and RC holes listed in the included table.



Criteria	JORC Code explanation	Commentary
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> No other exploration data is considered meaningful for reporting.
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> 	<ul style="list-style-type: none"> It is recommended that further drilling is undertaken at these prospects to continue to define targets. McLeans has an appropriate drilling density for the purpose of a maiden resource estimation.
	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> See figures included in the announcement.