# ASX and MEDIA RELEASE

**8 August 2024**

ALKANE RESOURCES LTD
ABN 35 000 689 216

## *Large Cu-Zn-Pb-Ag Targets Confirmed at the Rockley Project*

- **The Rockley Project is located 35 kilometres south of Bathurst in the Central West of NSW. Its three exploration licences cover a portion of the Late Silurian Mumbil Group, a sequence considered highly prospective for base metal and gold mineralisation forming as volcanogenic massive sulphide (VMS) or skarn* type deposits.**
- **Greenfield exploration over several years has identified several prospects within EL8527 ("Apsley"). Exploration has included an airborne electromagnetic survey (AEM), followed up with ground fixed loop EM over two of these targets. Soil geochemistry and rock chip sampling over an irregularly shaped >1km$^2$ magnetic feature has confirmed widespread calc-silicate alteration and Cu-Zn-Pb-Ag skarn mineralisation.**
- **Seven scout slimline RC drill holes were recently completed targeting multi-element and multi-point soil and rock chip geochemical anomalies and/or historical workings. Cu-Zn-Pb-Ag skarn mineralisation was intersected by six of the seven drill holes including significant assay results of:**

| | |
|---|---|
| **ASRC005** | **62m grading 0.12% Cu, 0.39% Zn, 4.0g/t Ag from 6m** |
| **incl** | **3m grading 0.44% Cu, 0.64% Zn, 0.34% Pb, 0.14g/t Au, 29.8g/t Ag from 20m** |
| **also** | **3m grading 0.11% Cu, 1.33% Zn, 5.4g/t Ag from 65m** |
| **ASRC004** | **14m grading 0.14% Cu, 0.41% Zn, 0.04g/t Au, 2.7g/t Ag from 22m** |
| **incl** | **2m grading 0.49% Cu, 0.30% Zn, 0.11g/t Au, 6.1g/t Ag from 25m** |
| **also** | **3m grading 0.10% Cu, 0.80% Zn, 0.39% Pb, 4.1g/t Ag from 29m** |
| **ASRC001** | **12m grading 0.13% Cu, 0.19% Zn from 0m** |
| **and** | **15m grading 0.14% Cu, 0.23% Zn from 33m** |
| **and** | **5m grading 0.14% Cu, 0.17% Zn from 67m** |

- **Mapping with rock chip sampling has recorded significant grades of Cu, Zn and Pb mineralisation at Apsley, Belmore East, Red Hill and the recently discovered Stewarts Prospect. Highest grade samples include:**

| | |
|---|---|
| **Apsley (RK25)** | **6.54% Cu, 21.1% Zn, 2.00%Pb, 91.3g/t Ag, 0.47g/t Au** |
| **Belmore East (RK29)** | **2.01% Cu, 0.31% Zn, 11.7g/t Ag, 0.1g/t Au** |
| **Red Hill (RK58)** | **7.72% Cu, 0.82% Zn, 19.2g/t Ag, 0.7g/t Au** |
| **Stewarts (RK83)** | **7.33% Cu, 22.2% Zn, 8.11% Pb, 32.5g/t Ag** |


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- **Further target generative exploration is planned for the next 12 months including mapping, rock chip sampling and soil sampling. Further scout drilling is also planned for Stewarts, Red Hill and Cow Flat South as well as testing the ground EM plates generated at Belmore East and Red Hill South.**

Alkane Resources Limited (**ASX: ALK**) is pleased to announce results from its drilling program at the Company's Rockley Project (ROC) in Central New South Wales.

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

Alkane Managing Director, Nic Earner, said: *"Alkane's exploration team is using its considerable experience to advance exploration on another of our tenement packages, the Rockley Project. We're looking for large VMS or skarn-type deposits that contain gold or base metals, particularly copper.*

*"These results are encouraging; we have identified multiple occurrences of mineralisation and have several large targets within the Project area. We will conduct further scout drilling on the most prospective of these targets in the coming months."*

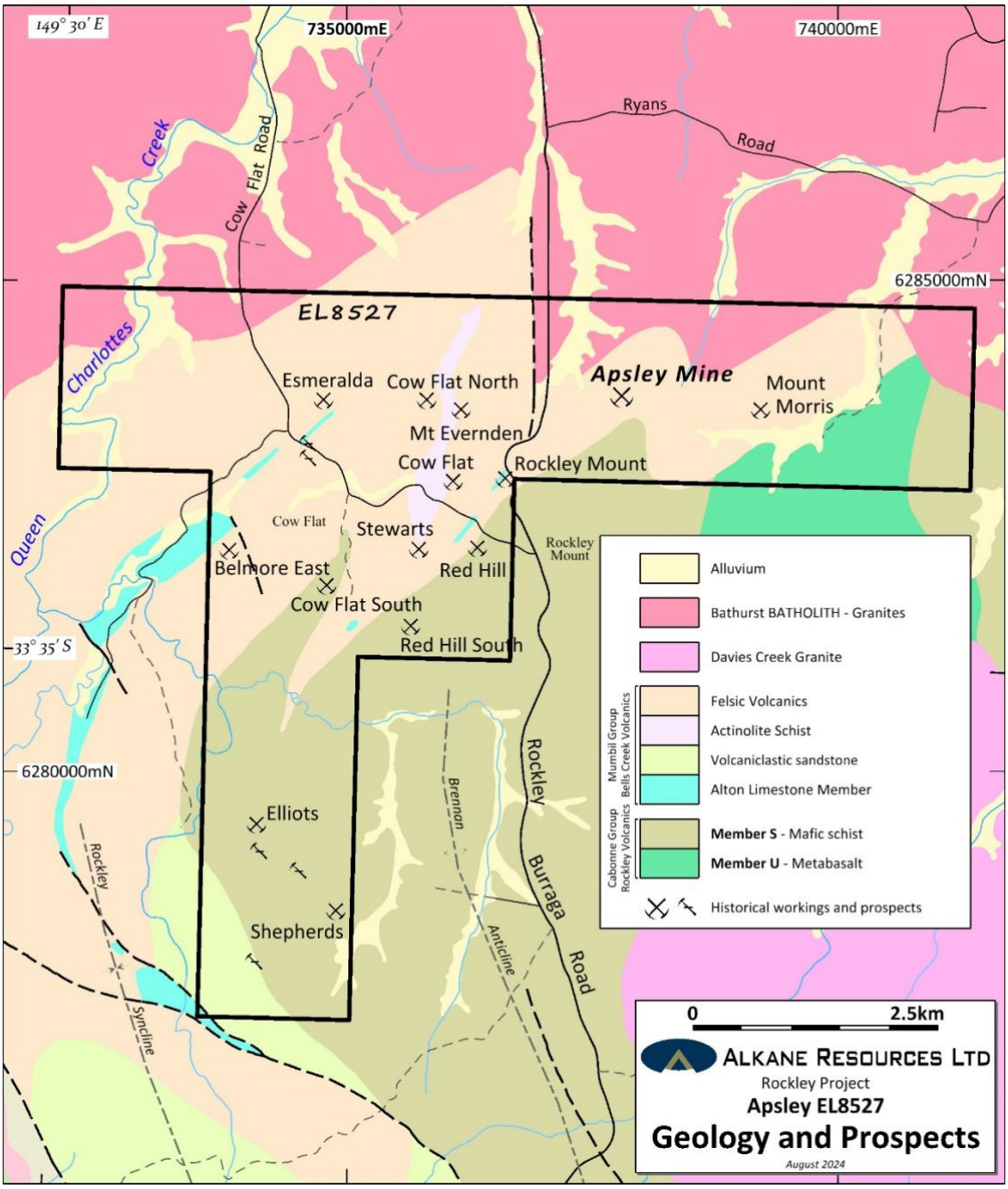
* Skarn deposits are developed by replacement, alteration, and contact metasomatism of the surrounding carbonate-rich (e.g. limestone) country rocks by hydrothermal solutions adjacent to a felsic (granitic), mafic, or ultramafic intrusive bodies.

## Rockley Project (ROC)

*Alkane Resources Ltd 100%*

The Rockley Project (comprising 3 licences – EL8174, EL8527 and EL9107) is located in the Central West of NSW along the eastern margin of the Hill End Trough. The ROC is considered highly prospective for volcanogenic massive sulphide (VMS), gold rich-deformed VMS (McPhillamys -type), and porphyry gold-copper with associated skarn deposits.

Exploration has focused on the Apsley Exploration Licence 8527, where a >1km$^2$ magnetic high anomaly has been characterised as resulting from significant calc-silicate alteration and Cu-Zn-Pb-Ag skarn mineralisation. The geology of the area comprises a package of variably pyritic, mafic to felsic volcaniclastics including large occurrences of limestone.




Exploration work over several years at Apsley consisted of target generation culminating in the recent completion of a scout drilling program using slimline RC. Recent exploration includes flying airborne electromagnetic (AEM) survey, fixed loop ground EM surveys, soil geochemistry surveying, and mapping with rock chip sampling. The purpose of the scout drilling was to test for significant mineralisation beneath the surface geochemical anomalism and/or the mapped historical workings.

Exploration work undertaken by Alkane to date includes:

- Review of historical data sets;
- Completion of an AEM survey over most of ROC;
- Fixed loop ground EM surveys over high-priority AEM targets;
- Mapping and rock chip sampling at several prospects;
- Soil sampling over parts of the magnetic anomaly; and
- Testing the magnetic feature at Apsley for skarn mineralisation with seven slimline RC holes.

A drilling program comprised seven slimline RC drill holes totalling 691m has been completed, targeting the Red Hill, Red Hill South and Cow Flat South prospects that are all positioned within a significant >1km$^2$ irregularly shaped magnetic high anomaly (see figure 2). The drill holes were collared at a 60$^o$ angle beneath mapped workings and/or multi-element and multi-point soil geochemical anomalies and advanced to 70m to 121m depth.

The drilling intersected phyllites to schists (chlorite-muscovite-biotite-quartz), limestones, and minor mafic volcanics and rhyodacitic feldspar porphyries. Extensive calc-silicate alteration, often occurring proximally to the contacts of the limestone units, with mineral assemblages comprised of carbonate-magnetite-garnet-amphibole-pyroxene. Skarn mineralisation intersected occurred as selective mineral replacement to semi-massive form and included sphalerite, pyrrhotite, pyrite, chalcopyrite, galena, and magnetite.

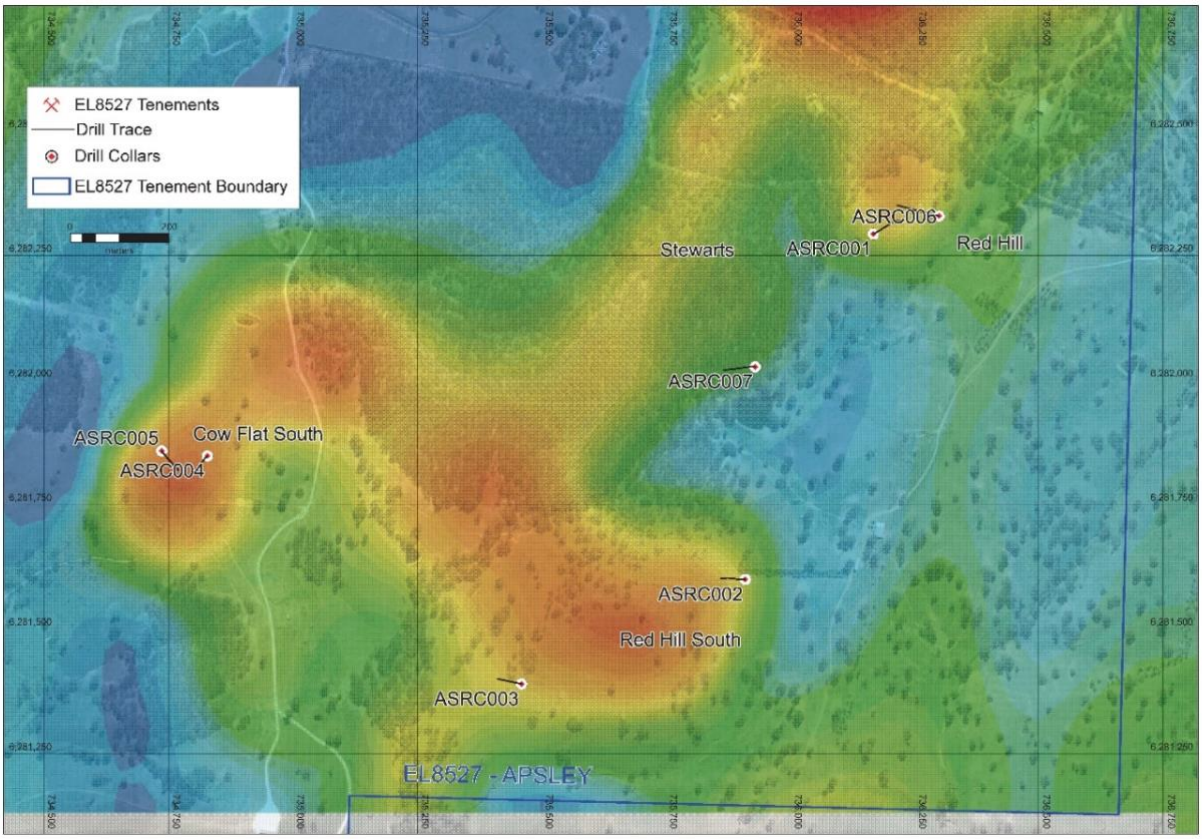



*Figure 2 – Recent drilling over RTP aeromagnetics*

**Cow Flat South Prospect**

Cow Flat South prospect is located 1.4km southwest of the historical Cow Flat Mine that recorded production of approximately 340 tonnes of copper with an average head grade of over 6% from 1875-1900. An anticline structure is mapped trending NNE and is coincident with anomalous Cu-Zn-Pb soil sampling conducted by previous companies. The AEM survey also identified five targets that are coincident or proximal to this structural and geochemical trend (see Figure 3). Alkane verified the historical soil anomaly with a 200m x 100m spaced survey and several rock chip samples where outcrop was present. Encouraging rock chip samples included a significant result of:

RK000066 – 0.82% Cu, 0.52% Zn, 0.17% Pb, 3.0g/t Ag

Two slimline RC drill holes targeting the strongest part of the magnetic high anomaly coincident with a multi-element and multipoint surface geochemical anomaly tested the Cow Flat South prospect. Assay results included significant results of:

| | |
|---|---|
| ASRC004 | 14m grading 0.14% Cu, 0.41% Zn, 0.04g/t Au, 2.7g/t Ag from 22m |
| incl | 2m grading 0.49% Cu, 0.30% Zn, 0.11g/t Au, 6.1g/t Ag from 25m |
| also | 3m grading 0.10% Cu, 0.80% Zn, 0.39% Pb, 4.1g/t Ag from 29m |
| | |
| ASRC005 | 62m grading 0.12% Cu, 0.39% Zn, 4.0g/t Ag from 6m |
| incl | 3m grading 0.44% Cu, 0.64% Zn, 0.34% Pb, 0.14g/t Au, 29.8g/t Ag from 20m |
| also | 3m grading 0.11% Cu, 1.33% Zn, 5.4g/t Ag from 65m |

The recent drilling identified a mixture of red and yellow garnets. However, historical drilling north of Cow Flat South identified only red garnets suggesting that a source intrusion and increasing copper grade is likely vectoring to the north. AEM target (APS_44) is positioned 430m north of the recent drilling and is now considered a high priority for further exploration. In addition, a significant AEM anomaly (APS_51) is located 600m south of the recent drilling and could represent a carbonate replacement massive sulphide positioned within the 2.6km structural and geochemical trend. Land access is being sought.

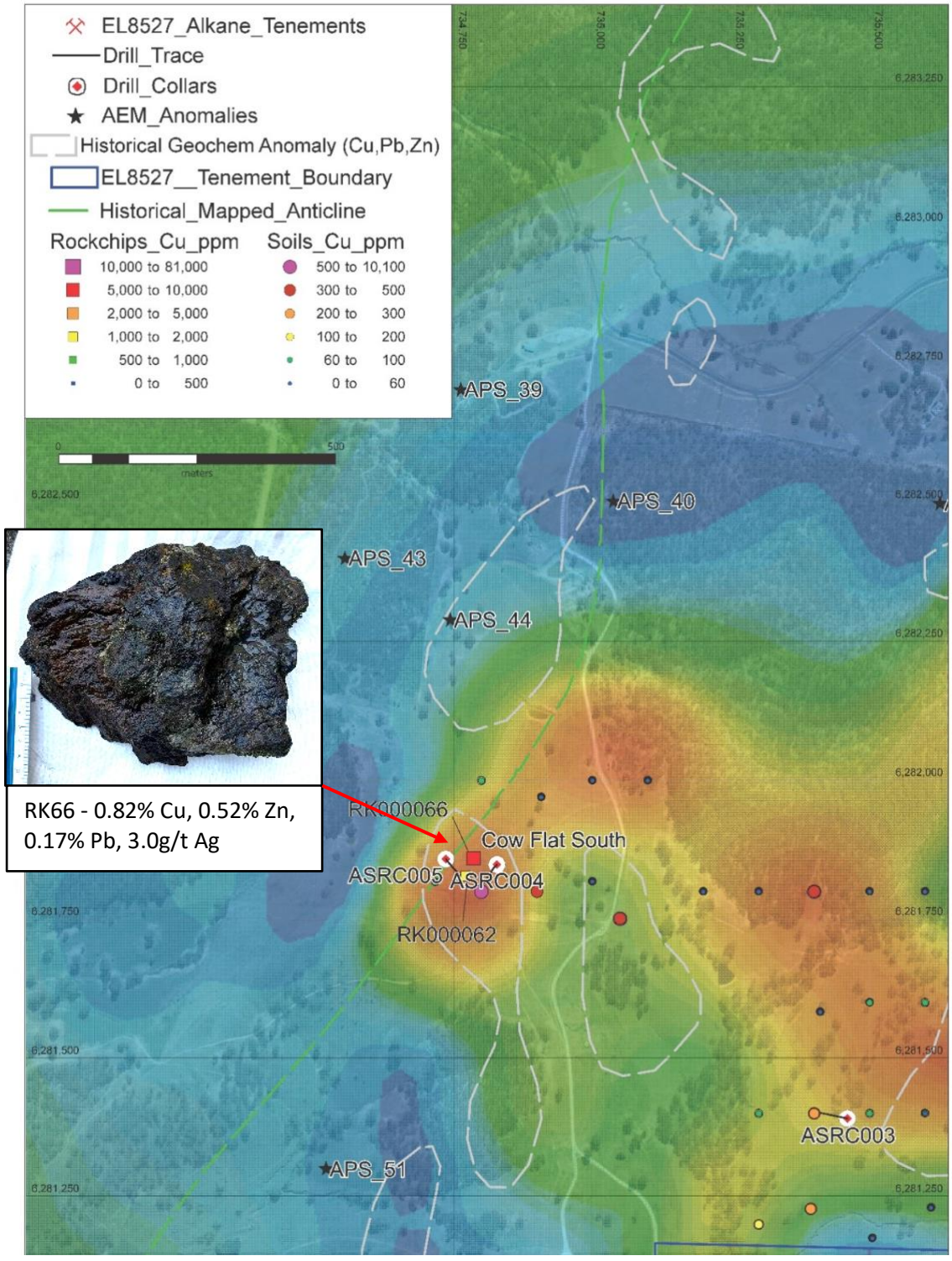



*Figure 3 – Cow Flat South drilling over RTP aeromagnetics and AEM anomalies.*

**Red Hill and Red Hill South Prospects**

The Red Hill and Red Hill South prospects are situated along a 3.5km NE trending Cu-Zn-Pb semi-continuous soil anomaly identified by previous exploration companies that is coincident with the lithological contact between the Bells Creek Volcanics and the Rockley Volcanics. This trend begins at the historical Apsley Mine and strikes southwest through the historical Mount Mine, Red Hill, and Red Hill South prospects that are all associated with an elevated magnetic response (see Figure 4).

Alkane verified the historical soil anomaly at Red Hill and Red Hill South with a 200m x 100m spaced survey which included several rock chip samples where outcrop is present. Best copper results include:

RK000054 – 8.01% Cu, 23.2g/t Ag, 0.12g/t Au

RK000058 – 7.72% Cu, 0.82% Zn, 19.2g/t Ag, 0.70g/t Au

RK000068 – 3.41% Cu, 0.77% Zn, 16.4g/t Ag

Five slimline RC drill holes targeted the southern part of the structural trend at the Red Hill and Red Hill South prospects. The drilling mostly tested beneath mapped shallow workings coincident with soil geochemistry and elevated magnetics. Four of the five drill holes intersected skarn mineralisation with significant results of:

| | |
|---|---|
| ASRC001 | 12m grading 0.13% Cu, 0.19% Zn from 0m |
| and | 15m grading 0.14% Cu, 0.23% Zn from 33m |
| and | 5m grading 0.14% Cu, 0.17% Zn from 67m |
| ASRC002 | 9m grading 0.33% Cu from 0m |
| and | 3m grading 0.38% Zn, 0.32% Pb from 54m |
| ASRC003 | 6m grading 0.17% Cu, 0.09% Zn from 12m |
| ASRC006 | 4m grading 0.34% Cu, 0.13% Zn from 62m |
| and | 24m grading 0.14% Zn, 0.19% Pb from 54m |

A fixed loop ground EM was conducted over the AEM target APS_50 at Red Hill South prospect before the drilling commenced. The ground EM determined that APS_50 did not fit a realistic bedrock conductor with the decay curve analysis. However, considering nearby drill holes ASRC002 and ASRC003 intersected low-grade Cu-Zn mineralisation, along with coincident soil geochemistry and an elevated magnetic anomaly at APS_50. Further exploration is being considered at APS_50 and along the 3.5km structural trend.

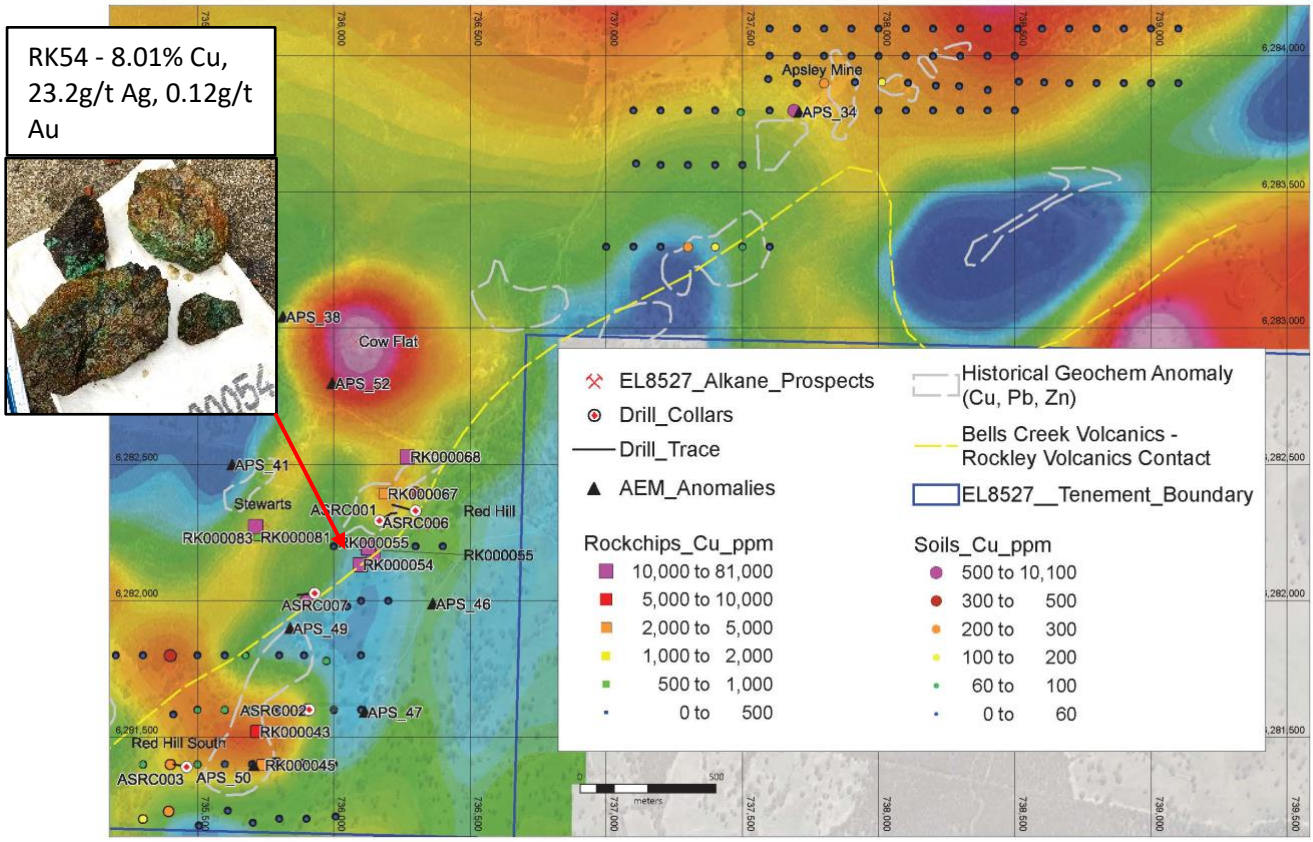



*Figure 4 – Apsley Mine to Red Hill South structural and geochemical trend over RTP aeromagnetics*

**Belmore East Prospect**

Belmore East prospect was defined by a high-priority AEM target APS_45. This target was further defined using fixed loop ground EM outlining a plate of dimensions 10-20m wide and 60-90m long with possible depth extensions. A historical Cu-Zn-Pb-Ag-Au multipoint soil anomaly is coincident with a bullseye magnetic high and proximal to APS_45 (see Figure 5). The historical soil anomaly was verified by rock chip sampling of outcrop and float in the area returning significant results of:

RK000029 – 2.01% Cu, 0.31% Zn, 11.7g/t Ag, 0.10g/t Au

RK000031 – 0.88% Cu, 0.31% Zn, 15.7g/t Ag, 0.20g/t Au

RK000039 – 1.20% Cu, 25.0g/t Ag, 0.17g/t Au

Drill testing of APS_45 is being planned.

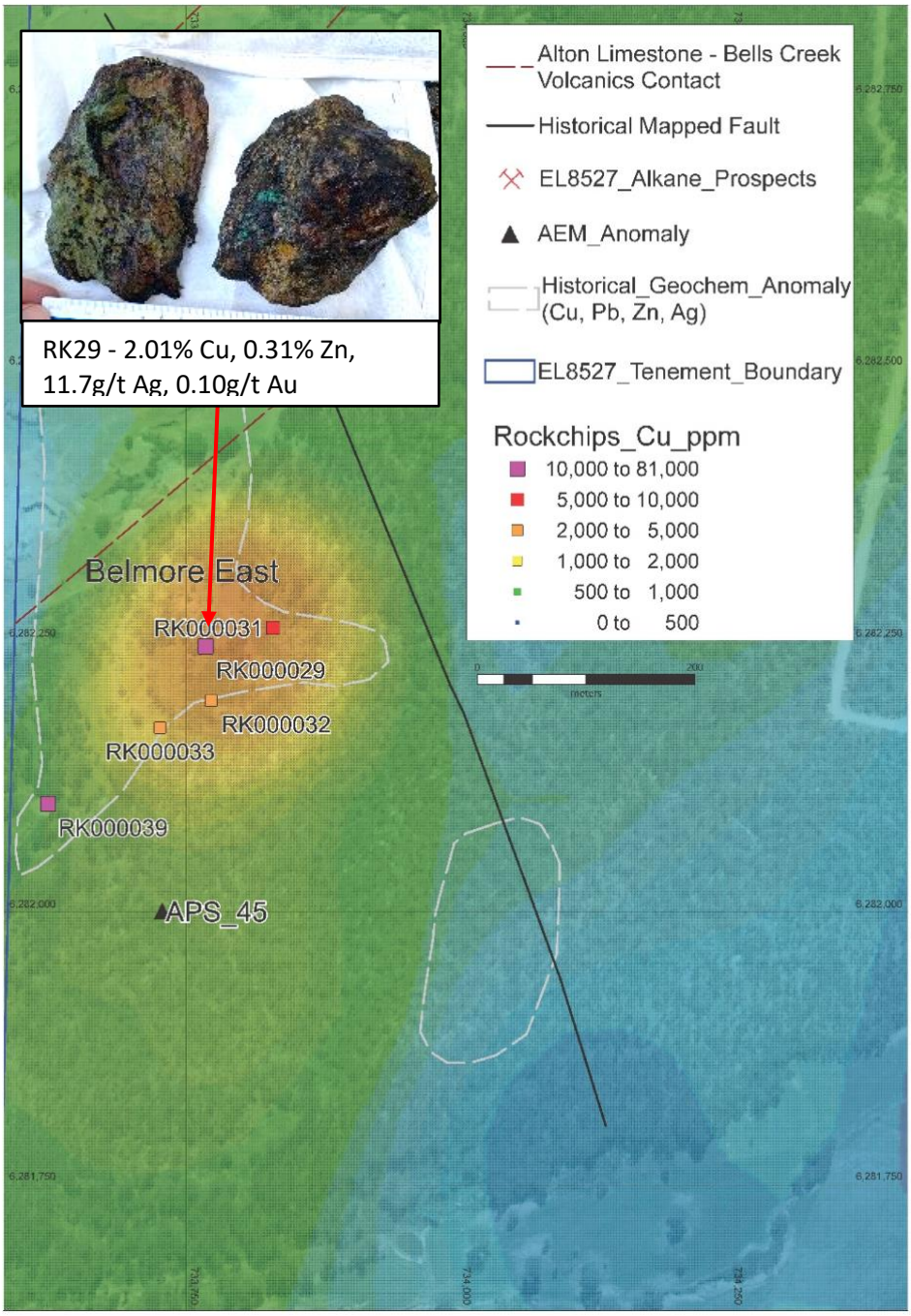



*Figure 5 – Belmore East Cu rock chip sampling with APS_45 and over RTP aeromagnetics*

**Stewarts Prospect**

Field reconnaissance by Alkane has identified workings located approximately 800m south of the historical Cow Flat Mine (340t Cu). The workings were mapped along strike to the southern extension of an actinolite schist that is host to the mineralisation at Cow Flat Mine and are positioned along the margin of a magnetic high.

Recent assay results were received for samples taken from an outcropping of gossanous material interpreted to be a weathered massive sulphide lens returning high grades of:

RK0000083 – 7.33% Cu, 22.2% Zn, 8.11% Pb and 32.5g/t Ag

No sulphides were identified in the sample and the very high grades were associated with secondary weathered products.

An AEM anomaly (APS_41) is located only 100m north of this mineralised outcrop that was originally downgraded as low priority due to its proximity to a track and fence line. Further surface and near-surface exploration is planned to assess APS_41, including detailed soil sampling. Drill testing of this prospect is planned.

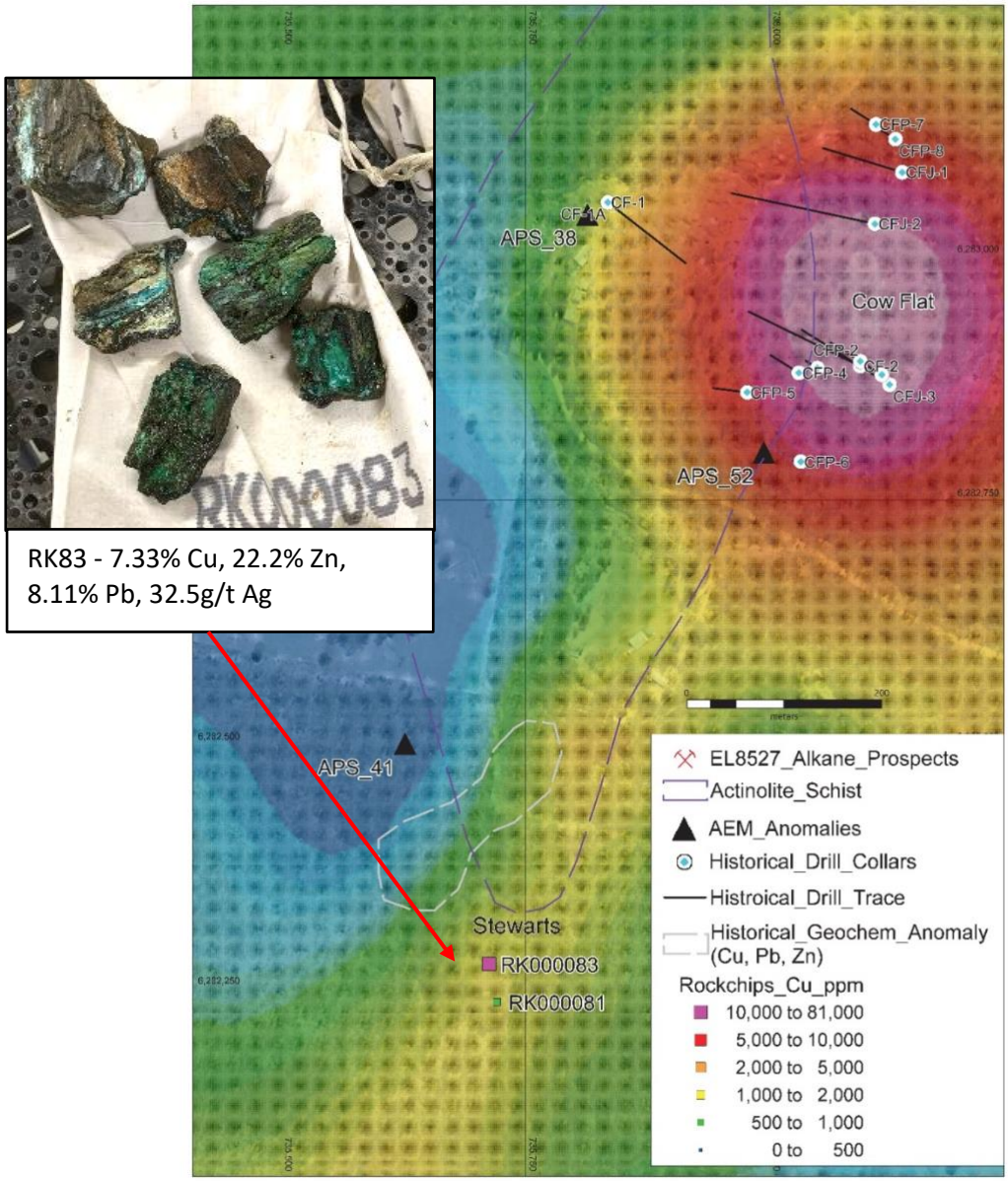



*Figure 6 – Stewarts prospect rock chip sampling with APS_41 over RTP aeromagnetics*

**Apsley Mine**

The Apsley Mine is located 1.8km northeast of the historical Cow Flat Mine. Recorded production exceeded 56 tonnes of copper with an average head grade of 9% from 1870-1920. The mine is situated on the northeastern extent of the 3.5km NE trending Cu-Zn-Pb semi-continuous soil anomaly identified by previous exploration companies and is on-strike and proximal with the lithological contact between the Bells Creek Volcanics and the Rockley Volcanics. Alkane verified the historical soil anomalism with a 100m x 100m spaced soil survey and several rock chip samples. Best assay results include:

| | |
|---|---|
| Apsley (RK20) | 5.18% Cu, 2.68% Zn, 12.2g/t Ag, 0.09g/t Au |
| Apsley (RK21) | 3.78% Cu, 2.28% Zn, 22.0g/t Ag, 0.16g/t Au |
| Apsley (RK25) | 6.54% Cu, 21.1% Zn, 2.00% Pb, 91.3g/t Ag, 0.47g/t Au |

Previous drilling beneath the workings has indicated broad intercepts of Cu-Zn-Pb-Ag, with narrower high-grade Au values. This includes historical results from re-assaying core hole **DDH2** of **13.5 metres grading 0.94% Cu, 6.1% Zn, 1.1% Pb, 1.0g/t Au, 17g/t Ag from 153.6m, including 2.1 metres grading 5.0g/t Au from 153.6m.** This historical information and results in relation to the Apsley Mine were sourced from DÁguilar Gold Limited's ASX Announcement 25 July 2007. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The recent soil and rock chip sampling along with historical drilling and soil sampling indicate the Apsley Mine mineralisation is open along strike and at depth. An AEM target (APS_34) generated by Alkane is located beneath a multielement soil geochemical anomaly and is proximal to mineralisation intersected by historical drilling. The Apsley Mine prospect is considered a high-priority target. Further exploration is planned to test APS_34 target as well as the surface geochemical anomalies NE and SW of the Apsley Mine.

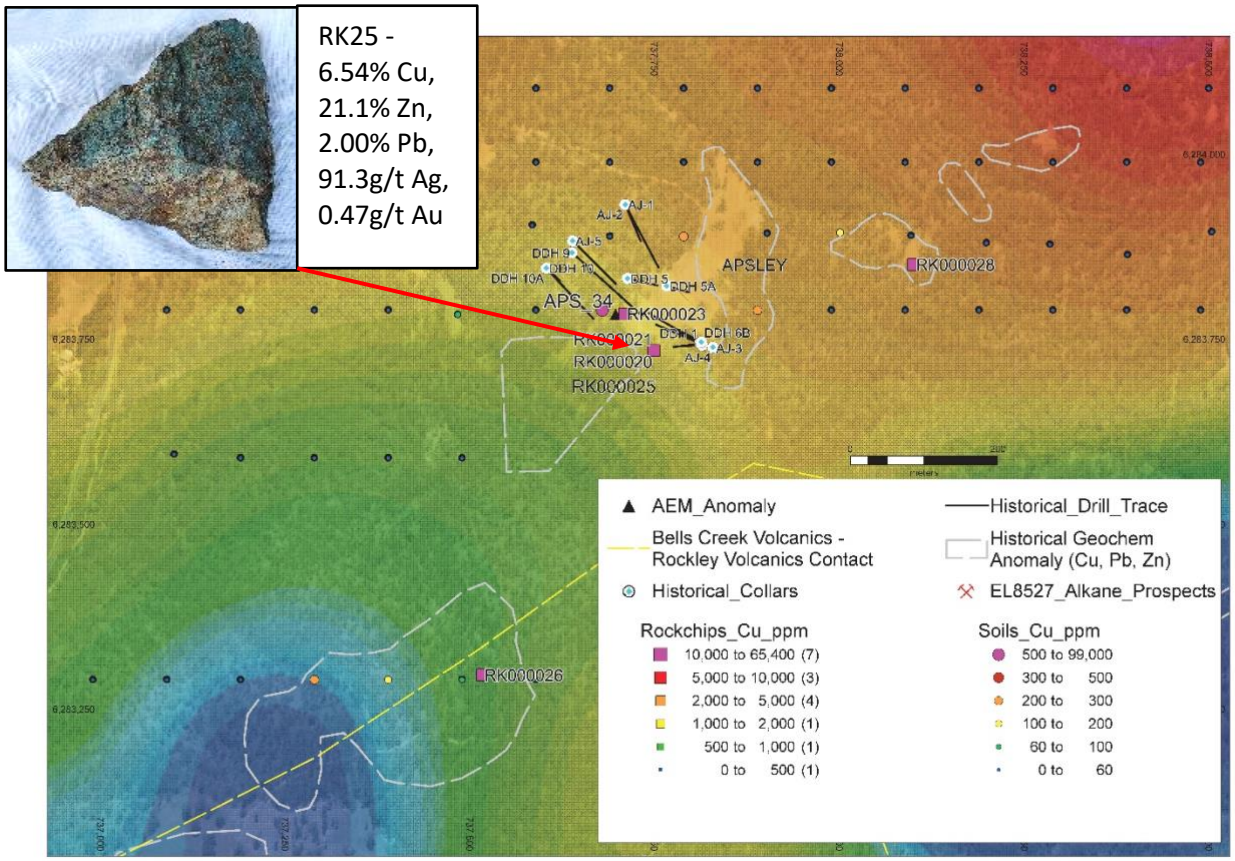



*Figure 7 – Apsley Mine soil and rock chip sampling with historical drilling over RTP aeromagnetics*

| Table 1 – Apsley Drilling Collar Details – August 2024 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Hole ID | Easting (MGA) | Northing (MGA) | RL | Dip | Azimuth (Grid) | Depth (m) | Type |
| **ASRC001** | 736168 | 6282294 | 941 | -60 | 60 | 121 | RC |
| **ASRC002** | 735910 | 6281600 | 926 | -60 | 270 | 92 | RC |
| **ASRC003** | 753460 | 6281390 | 858 | -60 | 282 | 99 | RC |
| **ASRC004** | 734828 | 6281848 | 874 | -60 | 225 | 70 | RC |
| **ASRC005** | 734736 | 6281858 | 885 | -60 | 142 | 88 | RC |
| **ASRC006** | 736300 | 6282330 | 941 | -60 | 282 | 121 | RC |
| **ASRC007** | 735930 | 6282027 | 909 | -60 | 270 | 100 | RC |

| Table 2 – Apsley Significant Results (>0.1% Cu or >0.4% Zn or >10g/t Ag or >0.1g/t Au) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Hole ID | Interval From (m) | Interval To (m) | Intercept (m) | Cu (%) | Zn (%) | Pb (%) | Ag (g/t) | Au (g/t) |
| **ASRC001** | 0 | 12 | 12 | 0.13 | 0.19 | - | - | - |
| and | 33 | 48 | 15 | 0.14 | 0.23 | - | 1.9 | - |
| incl | 39 | 42 | 3 | 0.41 | - | - | 1.3 | 0.05 |
| and | 67 | 72 | 5 | 0.14 | 0.17 | - | 1.7 | - |
| **ASRC002** | 0 | 9 | 9 | 0.33 | - | - | 1.8 | 0.03 |
| and | 27 | 29 | 2 | 0.11 | - | - | - | - |
| and | 54 | 57 | 3 | - | 0.38 | 0.32 | 1.7 | - |
| **ASRC003** | 12 | 18 | 6 | 0.17 | 0.09 | - | - | - |
| **ASRC004** | 0 | 3 | 3 | - | 0.46 | - | - | - |
| and | 22 | 36 | 14 | 0.14 | 0.41 | 0.09 | 2.7 | 0.04 |
| incl | 25 | 27 | 2 | 0.49 | 0.30 | - | 6.1 | 0.11 |
| also | 29 | 32 | 3 | 0.10 | 0.80 | 0.32 | 4.1 | 0.03 |
| **ASRC005** | 6 | 68 | 62 | 0.12 | 0.39 | - | 4.0 | 0.02 |
| incl | 20 | 23 | 3 | 0.44 | 0.64 | 0.34 | 29.8 | 0.14 |
| also | 65 | 68 | 3 | 0.11 | 1.33 | 0.13 | 5.4 | - |
| **ASRC006** | 62 | 66 | 4 | 0.34 | 0.13 | - | 2.5 | 0.03 |
| and | 90 | 114 | 24 | 0.14 | 0.19 | - | 1.8 | - |

Intercepts are calculated using a lower cut of 0.1% Cu or 0.4% Zn. Internal dilution (< cut off) is less than 4m of reported intercepts. True widths are unknown at this early exploration stage.

| Table 3 – Apsley Rock Chip Significant Assay Results – August 2024 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Prospect | Sample ID | Easting (MGA) | Northing (MGA) | Cu (%) | Zn (%) | Pb (%) | Ag (g/t) | Au (g/t) | Type |
| Apsley Mine | **RK000020** | 737760 | 6283747 | 5.18 | 2.68 | - | 12.15 | 0.09 | Outcrop |
| | **RK000021** | 737760 | 6283747 | 3.78 | 2.28 | - | 22 | 0.16 | Outcrop |
| | **RK000023** | 737721 | 6283796 | 2.56 | 0.9 | 1.14 | 181 | 0.3 | Outcrop |
| | **RK000025** | 737760 | 6283747 | 6.54 | 21.1 | 2.00 | 91.3 | 0.24 | float |
| | **RK000026** | 737528 | 6283308 | 1.49 | 0.22 | - | 24.7 | 0.47 | float |
| | **RK000028** | 738112 | 6283863 | 1.38 | 0.52 | 0.23 | 6.97 | 0.04 | float |
| Belmore East | **RK000029** | 733768 | 6282245 | 2.01 | 0.31 | - | 11.7 | 0.10 | Float |
| | **RK000031** | 733830 | 6282262 | 0.88 | 0.31 | - | 15.7 | 0.20 | Outcrop |
| | **RK000032** | 733773 | 6282195 | 0.23 | 0.12 | - | 1.3 | - | Outcrop |
| | **RK000033** | 733726 | 6282170 | 0.22 | 0.40 | - | - | - | Outcrop |
| | **RK000039** | 733623 | 6282100 | 1.20 | 0.12 | 0.06 | 25.0 | 0.17 | Outcrop |
| Red Hill South | **RK000043** | 735718 | 6281521 | 0.86 | 0.15 | - | 4.2 | 0.17 | Float |
| | **RK000045** | 735737 | 6281399 | 0.26 | 0.11 | - | - | - | Outcrop |
| Red Hill | **RK000054** | 736097 | 6282134 | 8.01 | 0.07 | - | 23.2 | 0.12 | Float |

| Table 3 – Apsley Rock Chip Significant Assay Results – August 2024 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Prospect** | **Sample ID** | **Easting (MGA)** | **Northing (MGA)** | **Cu (%)** | **Zn (%)** | **Pb (%)** | **Ag (g/t)** | **Au (g/t)** | **Type** |
| | **RK000055** | 736145 | 6282174 | 3.23 | 0.12 | - | 7.6 | - | Float |
| | **RK000058** | 736127 | 6282195 | 7.72 | 0.82 | - | 19.2 | 0.70 | Outcrop |
| | **RK000067** | 736187 | 6282394 | 0.29 | 0.06 | - | - | - | Outcrop |
| | **RK000068** | 736270 | 6282530 | 3.41 | 0.77 | - | 16.4 | - | Float |
| **Cow Flat South** | **RK000062** | 734772 | 6281828 | 0.13 | 0.22 | - | 2.1 | - | Float |
| | **RK000066** | 734786 | 6281860 | 0.82 | 0.52 | 0.17 | 3.0 | - | Outcrop |
| **Stewarts** | **RK000081** | 735721 | 6282235 | 0.06 | 0.48 | - | - | - | Float |
| | **RK000083** | 735713 | 6282274 | 7.33 | 22.2 | 8.11 | 32.5 | - | Outcrop |

### *Competent Person*

***Unless otherwise advised above or in the Announcements referenced, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr David Meates, MAIG, (Exploration Manager NSW) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Meates consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.***

### *Previous Information*

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

### *Disclaimer*

***This report contains certain forward-looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Alkane Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Alkane Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.***

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

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

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

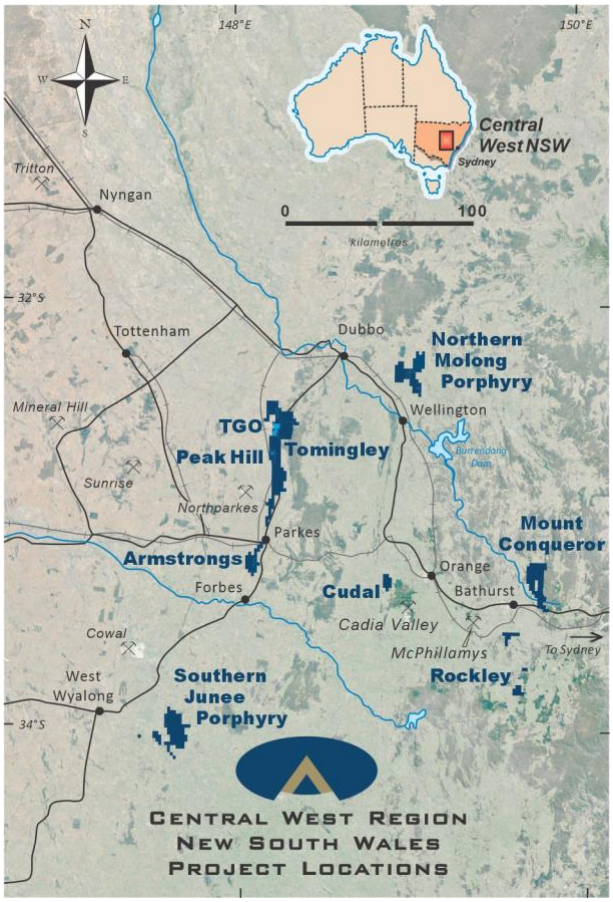
Alkane Resources intends to grow to become one of Australia's multi-mine gold and copper producers.

The Company's current gold production is from the Tomingley Gold Operations in Central West New South Wales, which has been operating since 2014 and has the resources to continue to operate 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 has the potential to provide additional ore for Tomingley's operations.

Alkane's exploration success includes the landmark porphyry gold-copper mineralisation discovery at Boda in 2019. With drilling ongoing adjacent to the initial resource identified at Boda, Alkane is confident of further consolidating Central West New South Wales' reputation as a significant gold and copper production region.

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies.



*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 ROCKLEY PROJECT – August 2024

### Section 1 Sampling Techniques and Data

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sampling techniques* | • *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* | • *RC drilling was undertaken by Chief Drilling Pty Ltd.*<br>• *RC samples are collected at one metre intervals via a cyclone on the rig. The cyclone is cleaned regularly to minimise any contamination.*<br>• *Rock chip samples taken from numerous prospect locations.* |
| | • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | • *Sampling and QAQC procedures for drilling are carried out using Alkane protocols as per industry best practice.*<br>• *The rock chip sample was biased towards mineralisation to establish its tenure and prospectivity for future drill testing.* |
| | • *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.* | • *RC Drilling – the total sample (~20-30kg) is delivered via cyclone into a large plastic bag which is retained for future use if required. A sub-sample of approximately 1kg is spear sampled from each plastic bag and composited to make a 3 metres sample interval. If strong mineralisation is observed by the site geologist this is sampled as a final 1m interval instead.*<br>• *Rock chip sampling – samples of several kgs were taken at each location.*<br>• *Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish*<br>• *A multi-element suite was determined using a multi-acid digest with a ICP Atomic Emission Spectrometry or ICP Mass Spectrometry analytical finish.* |
| *Drilling techniques* | • *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).* | • *Reverse circulation (RC) slimline drilling using 76mm rods 100mm face sampling hammer.* |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.* | • *RC sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet.* |
| | • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | • *Sample quality is qualitatively logged*<br>• *Drill cyclone is cleaned between rod changes and after each hole to minimise cross-hole contamination.* |

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| | • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | • *There is no known relationship between sample recovery and grade* |
| *Logging* | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* | • *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)* |
| | • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography* | • *Mostly logging was qualitative with visual estimates of the various characteristics. In addition, magnetic susceptibility data (quantitative) was collected as an aid for logging*<br>• *All drill holes were geologically logged into Geobank Mobile, followed by validation before importing into Alkane's central Geobank database*<br>• *All drill holes were logged by qualified and experienced geologists* |
| | • *The total length and percentage of the relevant intersections logged* | • *All drill holes were logged in full* |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.* | • *N/A* |
| | • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* | • *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.*<br>• *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.* |
| | • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | • *Samples were delivered by Alkane personnel to ALS Minerals Laboratory, Orange NSW. Crushed with 70% <2mm (ALS code CRU-31), split by riffle splitter (ALS code SPL-21), and pulverised 1000grm to 85% <75um (ALS code PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS codes CRU-QC, PUL-QC).* |
| | • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples* | • *Internal QAQC system in place to determine accuracy and precision of assays* |
| | • *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* | • *Duplicate RC samples are collected for both composite intervals and re-split intervals.* |

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| | • *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • *Sample are of appropriate size* |
| *Quality of assay data and laboratory tests* | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* | • *All samples were analysed by ALS Minerals*<br>• *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.*<br>• *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.* |
| | • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* | • *No geophysical tools were used to determine any element concentrations* |
| | • *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.* | • *Full QAQC system in place including certified standards and blanks of appropriate matrix and concentration levels* |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.* | • *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* |
| | • *The use of twinned holes.* | • *No twinned holes have been drilled at this early stage of exploration* |
| | • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | • *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*<br>• *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* |
| | • *Discuss any adjustment to assay data.* | • *No adjustments made* |
| *Location of data points* | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* | • *Drillholes are laid out using hand-held GPS (accuracy ±2m)*<br>• *Rock chip sample was located using a handheld Garmin GPS (accuracy ±2m).* |

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| | • *Specification of the grid system used.* | • *GDA94, MGA (Zone 55)* |
| | • *Quality and adequacy of topographic control.* | • *Drillholes are laid out using hand-held GPS and adjusted using a DTM trained from the AEM survey.* |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results..* | • *For all prospects are at an early exploration stage, and the data spacing is variable with focus on identifying new zones of mineralisation.* |
| | • *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* | • *No Mineral Resource estimation procedure and classifications apply to the exploration data being reported.* |
| | • *Whether sample compositing has been applied* | • *RC – 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.* |
| *Orientation of data in relation to geological structure* | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* | • *Early exploration, so too early to understand.* |
| | • *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* | • *Early exploration, so too early to understand.* |
| *Sample security* | • *The measures taken to ensure sample security.* | • *All samples are bagged into tied calico bags, before being grouped into polyweave bags and transported ~1hr to ALS Minerals Laboratory in Orange by Alkane personnel. All sample submissions are documented via ALS tracking system with results reported via email*<br>*Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years).*<br>*The Company has in place protocols to ensure data security.* |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • *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 |
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| *Mineral tenement and land tenure status* | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* | • *Exploration Licence EL8527 (Apsley) in the Rockley Project is 100% owned by Alkane Resources Ltd.* |
| | • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • *All exploration licences are in good standing. EL8527 expires on 7 March 2029.* |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • *Exploration activities by previous companies have been ongoing since the 1950s, with a focus on base metals (Cu-Pb-Zn). Most significantly was exploration by Jododex Australia Pty Ltd from 1976-1982 that completed regionally over 2,500 soil geochemical sampling for Cu-Pb-Zn-Ni-Co, IP surveying, aeromagnetic survey and diamond drilling within the EL8527 bounds.*<br><br>*APSLEY MINE PROSPECT diamond holes around the Apsley mine workings. High grade Cu-Pb-Zn-Ag mineralisation is hosted by a narrow sequence of magnetite-actinolite altered meta-sediments occurs within a thick sequence of acid volcanics. Best drilling results of DDH-2 intercepted 13.4m @ 9.5% Zn, 1.3% Cu, 1.3% Pb and 24g/t Ag from 153.8m. D'Aguilar Gold Ltd in 2007 re-sampled and re-assayed core from seven historical drill holes from Apsley and Cow Flat South Prospects. Gold assaying had not previously been routinely undertaken in all historical drill holes. Re-assaying of drill core from DDH-2 returned a revised interval of 13.5 metres grading 0.94% Cu, 6.1% Zn, 1.1% Pb, 1.0g/t Au, 17g/t Ag from 153.63m. Results included gold grades up to 5.0 g/t over 2.08m in DDH-2 from 153.63m.* |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | • *The Rockley Project covers the eastern margin of the Siluro-Devonian Hill End Trough with the ELs surrounding the Carboniferous Bathurst Granite. The rocks are deformed folded into northwest trending anticlines and synclines and are cut by numerous faults. The oldest basement unit are the late Ordovician Rockley Volcanics, predominantly volcaniclastics with lesser basalts. The Silurian Bells Creek Volcanics dominates the Project consisting of rhyolitic volcaniclastics and lavas, and minor limestone and schists, actinolite schist, and lithic sandstone and slate.*<br><br>*The Project is prospective for gold and base metal skarn and VHMS mineralisation. The historical workings at Cow Flat, Apsley, and Belmore lie within the Silurian Bells Creek Volcanics. The historical Elliots Mine and Red Hill Mine are located within the Ordovician Rockley Volcanics.* |
| *Drill hole Information* | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>  ○ *easting and northing of the drill hole collar*<br>  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>  ○ *dip and azimuth of the hole* | • *See body of announcement* |

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| | ○ *down hole length and interception depth*<br>○ *hole length.* | |
| | • *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.* | • *All drill holes have been reported in this announcement.* |
| *Data aggregation methods* | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* | • *Exploration results reported for uncut gold grades, grades calculated by length weighted average* |
| | • *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.* | • *Reported intercepts are calculated using a broad lower cut of 0.1% Cu or 0.4% Zn or 10g/t Ag or 0.1g/t Au and/or although grades lower than this may be present internally (internal dilution). Internal dilution is limited to <4m for the purpose of calculation.*<br>*No top cut has been used.*<br>*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* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported*<br>*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').* | • *The geometry is not known at the other reported prospects, exploration stage is too early with only limited drilling conducted.* |
| *Diagrams* | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • *Plans showing geology with drill collars are included in the body of the announcement.* |
| *Balanced reporting* | • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • *Comprehensive reporting has been undertaken with all holes listed in the included table.* |
| *Other substantive exploration data* | • *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • *Airborne Electromagnetic (AEM) survey was flown over EL8527. This survey was flown by UTS Geophysics Pty Ltd using a Eurocopter AS-350B3 helicopter fitted with the VTEM Max system. The survey was orientated east-west using 200m line spacing with 30m terrain clearance for 159 line-km.*<br>• *Two Fixed Loop Transient Electromagnetic (FLTEM) surveys were completed over AEM anomalies APS_45 and APS_50. APS_45 outlined a plate of dimensions 10-20m wide and 60-90m long with possible depth extensions. APS_50 did not fit a realistic bedrock conductor with the decay curve analysis defining an unusual signature and the target was subsequently downgraded.* |

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| | | • *A soil geochemistry survey was completed over both the Red Hill and Cow Flat South prospects confirming the historical soil sampling completed over EL8527 and testing for a complete suite of elements. The survey was completed at 100m x 200m for a total of 168 samples. A bulk sample was taken from each site by a hand pelican pick from an average depth of 0.2m and sieved to <5mm fraction. Samples were submitted to ALS laboratory in Orange and analysed for 51 elements including Au using method ME-MS41.* |
| *Further work* | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* | • *It is recommended that further assessment is undertaken of the AEM anomalies comprising of rock chip sampling and soil sampling. Drilling is also recommended at Belmore East, Stewarts, Red Hill and Red Hill South as well as the historical Apsley Mine. Planned further work is detailed in the body of text in the announcement.* |
| | • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive* | • *See figures included in the announcement.* |