

## Alderan Receives Approval to Commence Drilling at New Years Copper-Gold Prospect Utah, USA

### HIGHLIGHTS

- Approval has been received from Utah's Dept of Oil, Gas and Mining to commence drilling at the New Years copper-gold prospect - Stage 1 drilling expected to start in August.
- Shallow historical drill intersections into New Years and the gap between the Cactus and New Years magnetic anomalies include:
  - **13.7m @ 2.32% Cu** within **19.8m @ 1.67% Cu** from 22.9m downhole (NY-6)
  - **10.7m @ 1.52% Cu** within **27.4m @ 0.85% Cu** from surface (NY-2)
  - **10.7m @ 1.60% Cu** and **4.6m @ 1.3% Cu** within **42.7m @ 0.80% Cu** from surface (NYM-1)
- New Years sits in the same magnetic low corridor 400m northwest of the historical Cactus and Comet copper-gold mines – all have coincident magnetic low anomalies.
- New Years pXRF soil assays highlight a 400m x 300m anomaly with grades up to 0.33% copper plus three additional anomalies.
- New Years has received no drilling since the early 1960s and has potential for both oxide and primary copper mineralisation.
- New Years is one of twelve new Cactus 'look-a-like' magnetic anomalies highlighted by Alderan's 3-D magnetic inversion modelling.
- Alderan's 3-D modelling of the Cactus and Comet deposits suggests that mineralisation remains open and that more remains than was historically mined.

**Alderan Resources Limited (ASX: AL8) (Alderan or the Company)** is very pleased to announce that approval has been received from Utah's Department of Oil, Gas and Mines (DOG M) to commence drilling at the New Years copper prospect in the Cactus district of the Frisco copper-gold project. The approval allows Alderan to drill three Stage 1 holes while archaeological investigations are carried out on Stage 2 drill sites which have not undergone prior archaeological review. Alderan will now liaise with the drilling company which is on standby for the programme on rig availability ahead of confirming a start date which is expected to be in August.

Cactus is an historical copper-gold mining district in the Frisco project in southern Utah, USA. Reported historical production at the Cactus mine was **1.27Mt at a grade of 2.07% copper, 0.33g/t gold**.<sup>1</sup> The New Years prospect lies approximately 400m northwest of Cactus mine in the Cactus Canyon fault zone which also hosts the historical Comet gold-copper mine. Historical drilling in the 1960s at New Years intersected **13.7m @ 2.32% Cu** within **19.8m @ 1.67% Cu** from 22.9m downhole (NY-6) and **10.7m @ 1.52% Cu** within **27.4m @ 0.85% Cu** from surface (NY-2). Hole NYM-1 drilled midway between Cactus and New Years in 2002 intersected **10.7m @ 1.60% Cu** and **4.6m @ 1.3% Cu** within **42.7m @ 0.80% Cu** from surface.<sup>2</sup>

<sup>1</sup> Refer Alderan ASX announcement dated 22 February 2024

<sup>2</sup> Refer Alderan ASX announcements dated 22 February 2024, 13 March 2024

**Managing Director of Alderan, Scott Caithness, commented:**

*“Alderan is very excited to receive approval from Utah’s Dept of Oil, Gas and Mining to enable drilling to get underway at New Years. Our next step is to liaise with the drilling company on when it can get a rig to site to commence the programme however our expectation is that this will be in August.*

*“New Years is an outstanding copper target in the multi-target Cactus copper-gold district. It lies within the northwest structural corridor which hosts the historical high grade Cactus and Comet copper-gold deposits, it has a coincident magnetic low anomaly, a 400m x 300m copper soil anomaly with pXRF grades up to 0.33%, surface rock samples that grade up to 4.6% Cu and high-grade 1960s drill intersections of +10m grading +1.5% Cu. The soil sampling has identified three additional anomalies on the New Years grid and the magnetic inversion modelling has highlighted twelve Cactus ‘look-a-like’ magnetic anomalies.*

*“New Years has not been drilled since 1964 hence Stage 1 drill holes will include verifying the historical holes ahead of Stage 2 holes which will focus on stepping out and extending the mineralisation.”*

**New Years Prospect Proposed Drilling**

Stage 1 drilling at New Years will be carried out from three permitted drill sites as outlined in Table 1.<sup>3</sup> The holes are designed to confirm and potentially extend the mineralisation intersected in historical holes, some of which date back to 1964.

The Stage 2 drill holes are designed to extend the mineralisation expected in the initial round of drilling and also test anomalies identified from the geophysical modelling. Archaeological investigations will be carried out on some of these sites prior to approval from DOGM for the Stage 2 drilling. These investigations are standard procedure in Utah and primarily involve assessing the location and significance of historical mining relicts and whether the drill sites will impact any that are significant. The results of previous archaeological studies in the area has not impacted exploration.

**Table 1: New Years Prospect – Stage 1 Proposed Drill Holes**

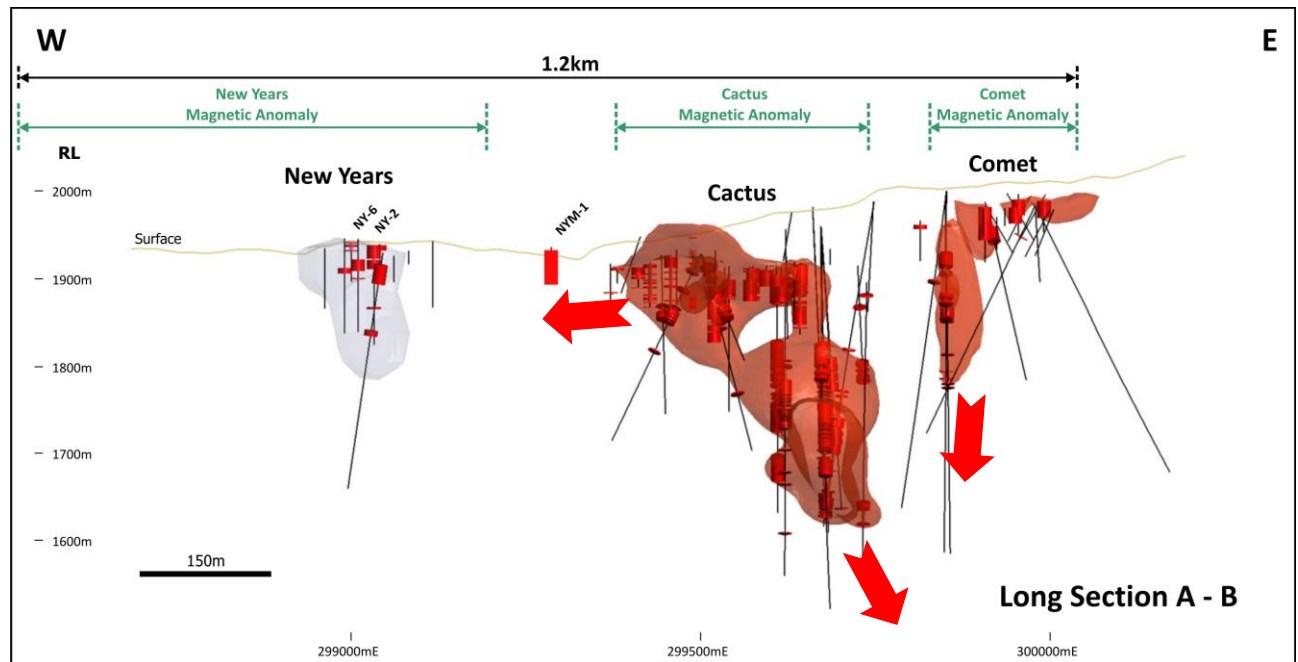
Hole Number	WGS84 Easting	WGS84 Northing	SRTM30	Azimuth	Dip	Depth (m)	Comments
NY2024-DDH-A	299620.00	4262740.00	1926.0	0	-90	100	Twin hole of Newmont’s NYM-1 drilled in 2002 which intersected 10.7m @ 1.6% Cu from 22.9m within 42.7m @ 0.8% Cu; mineralisation not closed and all oxide
NY2024-DDH-B	299483.27	4262932.68	1939.8	0	-90	120	Twin hole of Rosario’s NY-6 drilled in 1964 which intersected 13.7m @ 2.3% Cu, 0.22g/t Au from 22.9m downhole
NY2024-DDH-J	299502.49	4262928.28	1943.0	0	-90	120	Twin hole of Rosario’s NY-2 drilled in 1964 which intersected 9.1m @ 1.69% Cu, 0.22g/t Au within 27.8m @ 0.85% Cu from surface
<b>Total</b>						<b>340</b>	

The New Years prospect is located approximately 400m and 700m respectively northwest of the historical Cactus and Comet copper-gold deposits within the Cactus Canyon fault zone. Reported historical production at the Cactus mine was 1.27Mt at a grade of 2.07% copper, 0.33g/t gold while Comet was a smaller mine with a gold grade of +1g/t. Alderan’s exploration has entailed 3-D modelling of mineralisation

<sup>3</sup> Refer Alderan ASX announcement dated 29 April 2024

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at Cactus and Comet and 3-D inversion modelling of drone magnetics over the Cactus district to determine whether further potential exists at Cactus and Comet and to identify new prospects based on the modelling results. The outcomes are that further potential exists at Cactus and Comet and new targets exist at the New Years prospect (see Figure 1) and 12 additional Cactus 'look-a-like' magnetic anomalies.



**Figure 1:** NW-SE section along the Cactus Canyon fault showing the Leapfrog 3-D modelled Cactus and Comet copper-gold deposits and the New Years prospect. The 3D inversion modelled magnetic anomalies cover a distance of 1.2km. The section draws holes from a 300m wide corridor so that the deposits can be displayed.

New Years is Alderan's priority target for drill testing. In addition to its location in the same major fault structure as Cactus and Comet, key exploration results which have highlighted New Years include:

- Historical (1964) drill holes with high grade copper intersections (see Figure 1):
  - 13.7m @ 2.32% Cu within 19.8m @ 1.67% Cu (NY-6)
  - 10.7m @ 1.52% Cu within 27.4m @ 0.85% Cu (NY-2)
  - down hole assays over 1.5m intervals grading up to 5.4% Cu and 0.22g/t Au
  - no drilling at New Years since the mid-1960s
- A 2002 hole drilled by Newmont midway between Cactus and New Years intersected 10.7m @ 1.60% Cu within 42.7m @ 0.80% Cu (NYM-1) all oxidized
- Surface rock sample grades up to 4.5% copper
- A coincident large magnetic low anomaly in the 3-D inversion modelling sitting within the northwest trending total magnetic intensity low zone which hosts Cactus and Comet and is interpreted to coincide with the Cactus Canyon fault zone (see Figures 2, 3 & 4)
- Magnetics indicating a 1.2km prospective strike length from Comet to New Years
- A 400m x 300m copper in soil anomaly with portable XRF assays up to 0.33% Cu over New Years plus three additional anomalies within the soil grid (see Figure 5).<sup>4</sup>

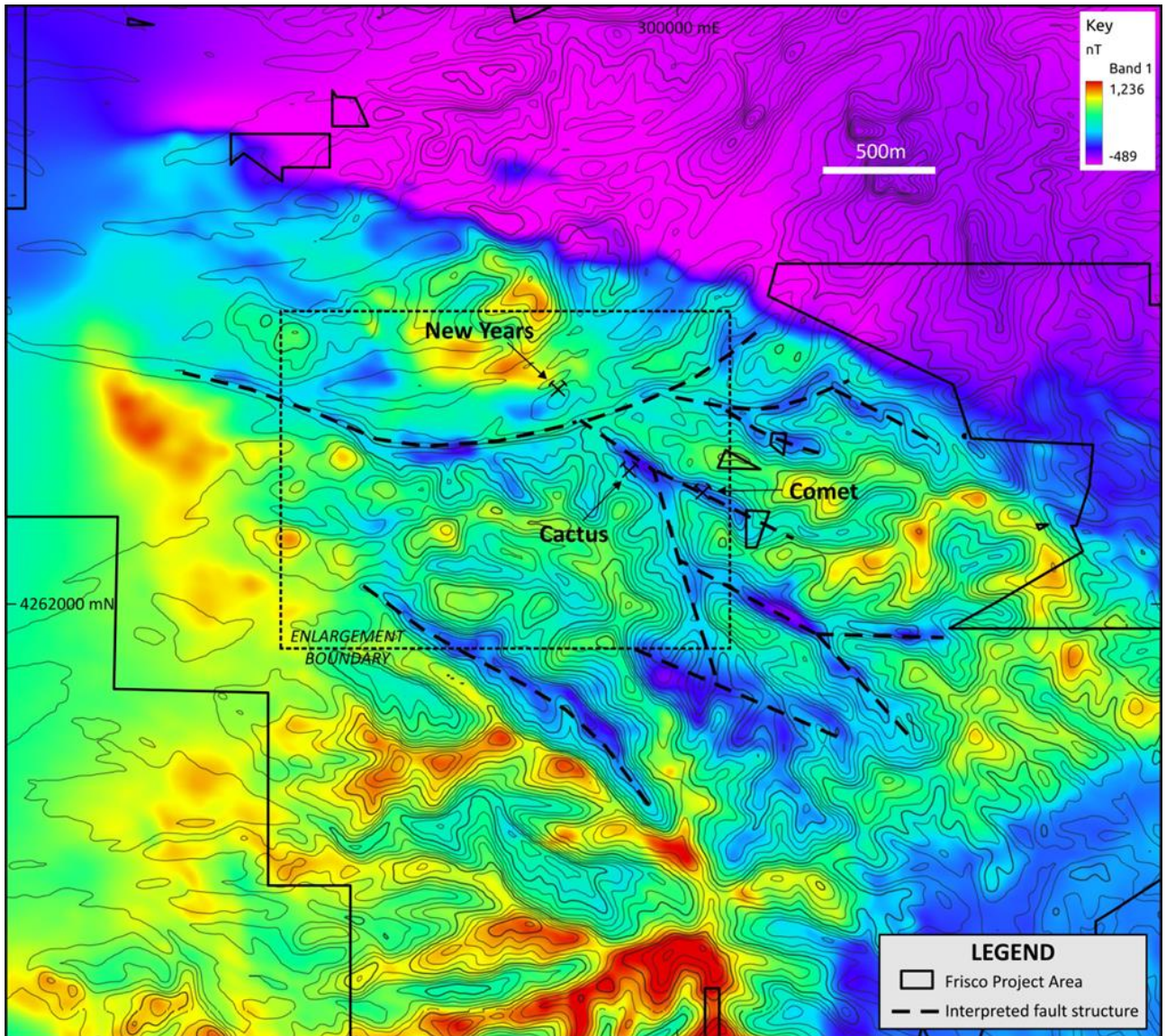
In addition to New Years, the 3-D magnetics inversion modelling in the Cactus district has identified an additional 12 anomalies which look very similar to the anomalies coincident with the Cactus and Comet

<sup>4</sup> Refer Alderan ASX announcements dated 25 June 2024, 8 July 2024

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mines. A number of these anomalies sit within total magnetic intensity magnetic low corridors which are interpreted to be analogous to the Cactus Canyon fault structure which hosts Cactus and Comet.



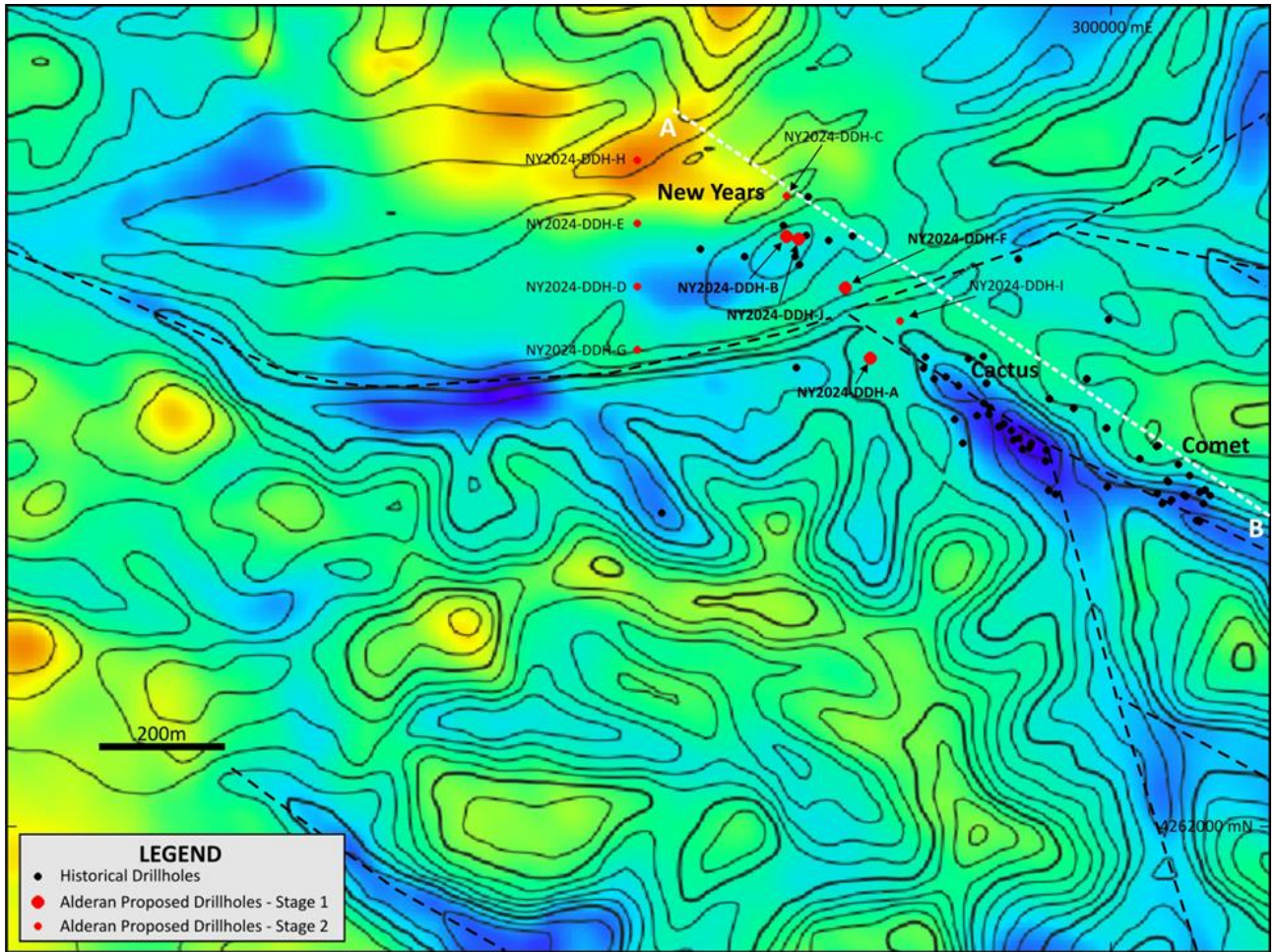
**Figure 2:** Total magnetic intensity overlay on contours of the magnetic field in the Cactus district. Comet, Cactus and New Year align along a NW-SE trending magnetic low, the Cactus Canyon fault zone, which can be seen extending beyond the enlargement boundary area to the northwest. New Years sits near its intersection with an arcuate NE-SW structure. Three parallel magnetic low zones occur to the south and there is a NNW-SSE trending low which intersects the Cactus Canyon fault zone at Cactus. The enlargement boundary area is shown in Figures 3 and 4 to follow.

### Next Steps - New Years Prospect Drilling

The next step at New Years is to confirm rig availability and a start date with the drilling company. Once a start date has been confirmed, preparations will commence for the Stage 1 three-hole diamond drilling programme totalling 340m at New Years. Work will also commence on the archaeological filed inspection to enable Stage 2 drill site permitting by DOGM

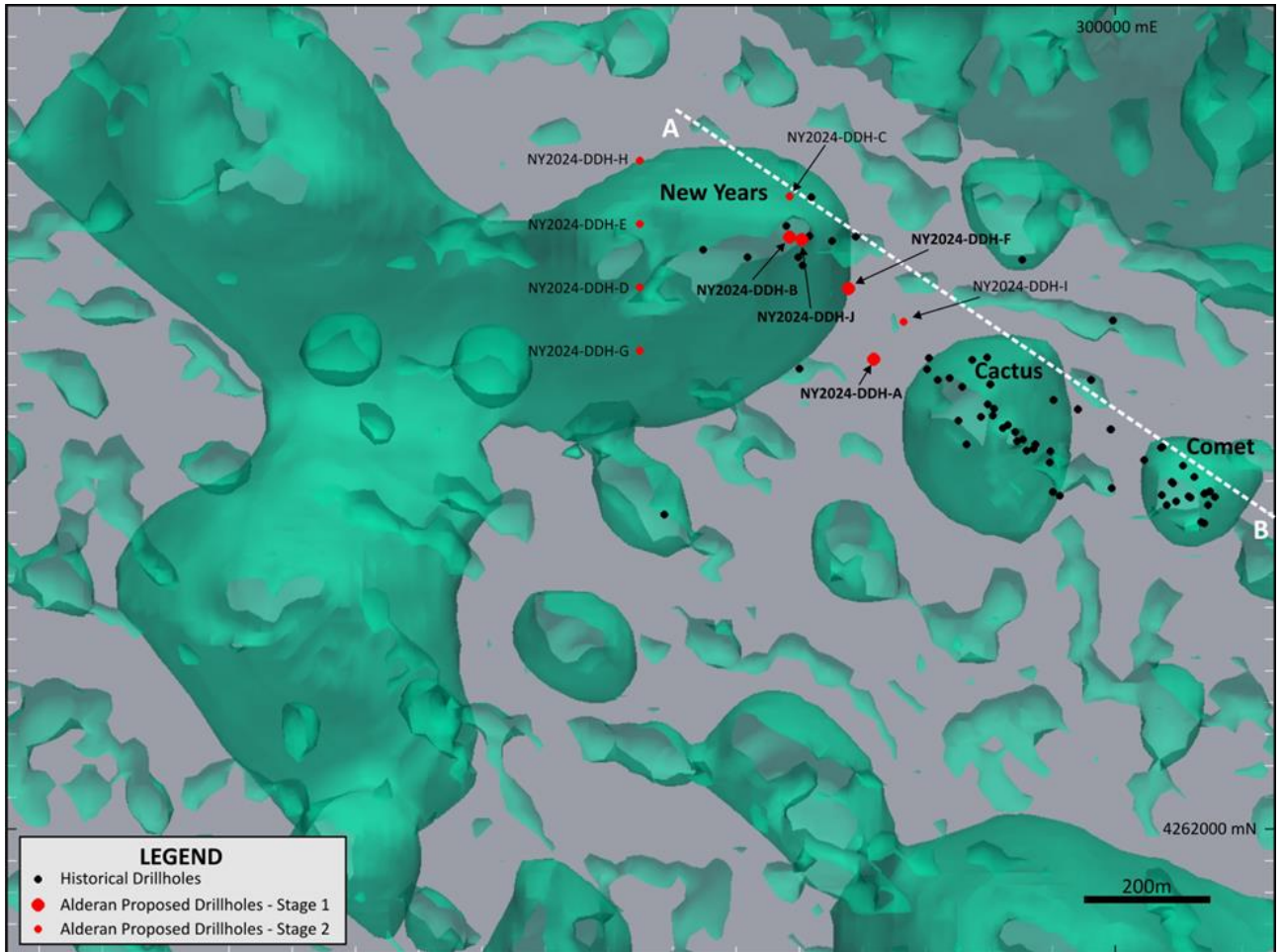
It is expected that drilling will commence in August.





**Figure 3:** Total magnetic intensity overlain on contours of the shape of the magnetic field enlargement area highlighting that Cactus and Comet sit within a northwest trending magnetic low (blue) zone which trends into New Years plus a number other magnetic low zones which have potential for copper mineralisation. Alderan's permitted Stage 1 holes are NY2024DDH-A, NY2024DDH-B and NY2024DDH-J.

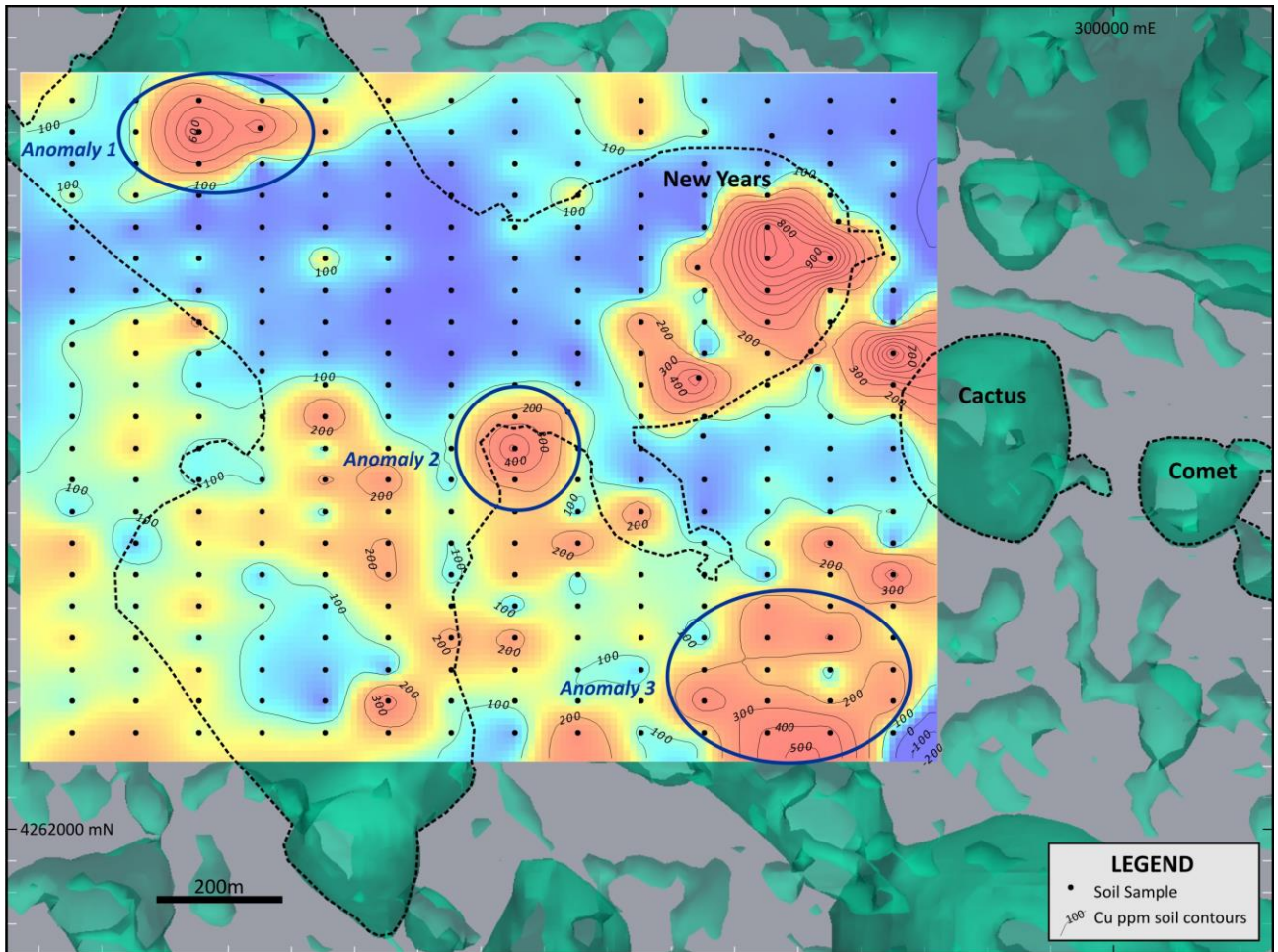
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**Figure 4:** Total magnetic intensity susceptibility 3-D inversion modelling highlights magnetic low anomalies (0.004 SI isosurface) coincident with Cactus, Comet and New Years. The New Years composite anomaly has three lows and extends for 1km east-west and 1.2km north-south.

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**Figure 5:** Colour contoured pXRF soil copper assays overlain on total magnetic intensity susceptibility 3-D inversion modelled magnetic low anomalies (0.004 SI isosurface). Soils have highlighted the New Years prospect copper anomaly with grades up to 0.33% plus new Anomalies 1-3.

**END**

This announcement was authorised for release by the Board of Alderan Resources Limited.

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### About Alderan Resources Limited

Alderan Resources specialises in critical and precious metal exploration.<sup>5</sup> The Company has seven (7) lithium projects in Minas Gerais, Brazil (AL8 ASX announcement dated 20<sup>th</sup> October, 2023) plus copper and gold projects in Utah, USA (Frisco, Detroit, White Mountain), with tenements held either directly or through option agreements via Alderan's USA subsidiaries, Volantis Resources Corp and Valyrian Resources Corp (see Figures 6-8). Alderan's objective is to rapidly discover, delineate and develop critical metal and gold deposits for mining. The Company's project portfolio has high potential for discovery as it lies in under-explored geological belts with similar geology to neighbouring mining districts. Our exploration plans also include reviewing new opportunities to secure and upgrade our pipeline of projects.

For more information please visit: <https://alderanresources.com.au/>

### Competent Persons Statement

The information contained in this announcement that relates to exploration results is based on, and fairly reflects, information compiled by Mr Scott Caithness, who is a Member of the Australian Institute of Mining and Metallurgy. Mr Caithness is the Managing Director of Alderan and 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 Caithness consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. Mr Caithness holds securities in the Company.

### Cautionary Statement

The Company stresses that the pre-Alderan assay data from historical soil samples and drill holes noted in this announcement were not subject to modern quality assurance and quality control practices and hence are not JORC compliant. All historical assays for soils, rocks and drill holes are regarded as indicative of exploration potential only.

<sup>5</sup> <https://www.energy.gov/cmm/what-are-critical-materials-and-critical-minerals>



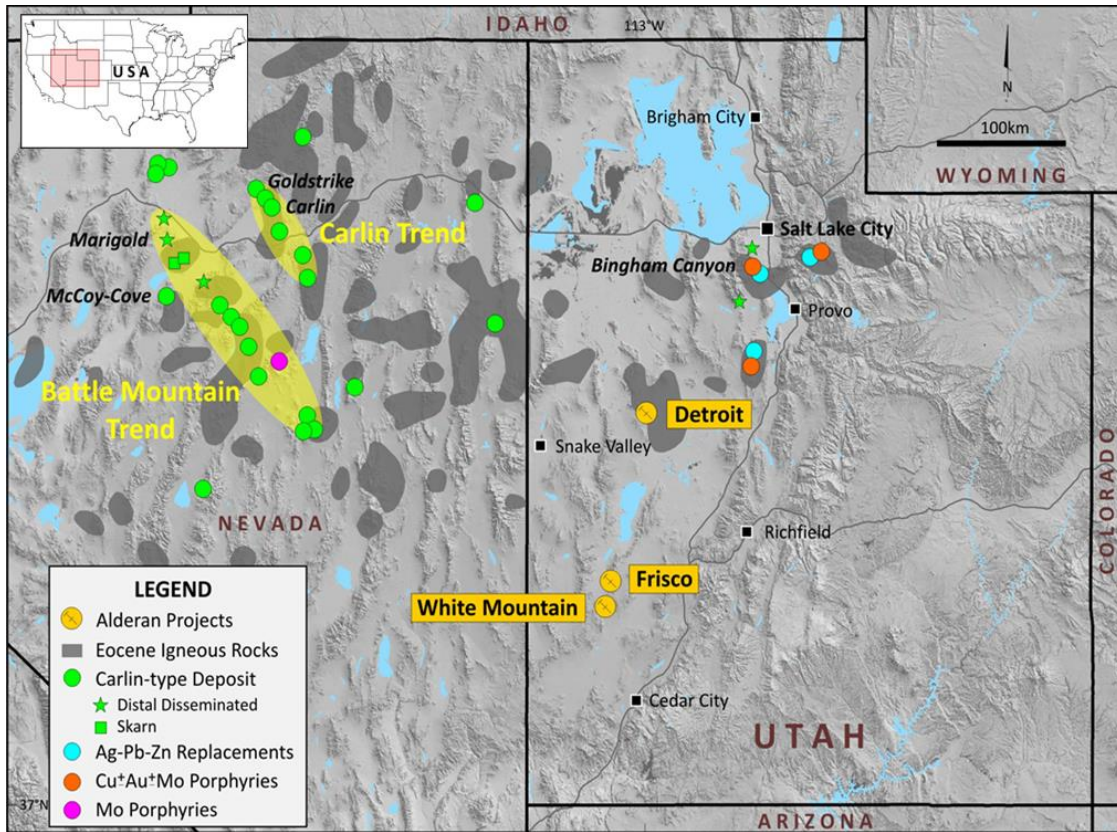


Figure 6: Alderan Resources project locations in Utah, USA.

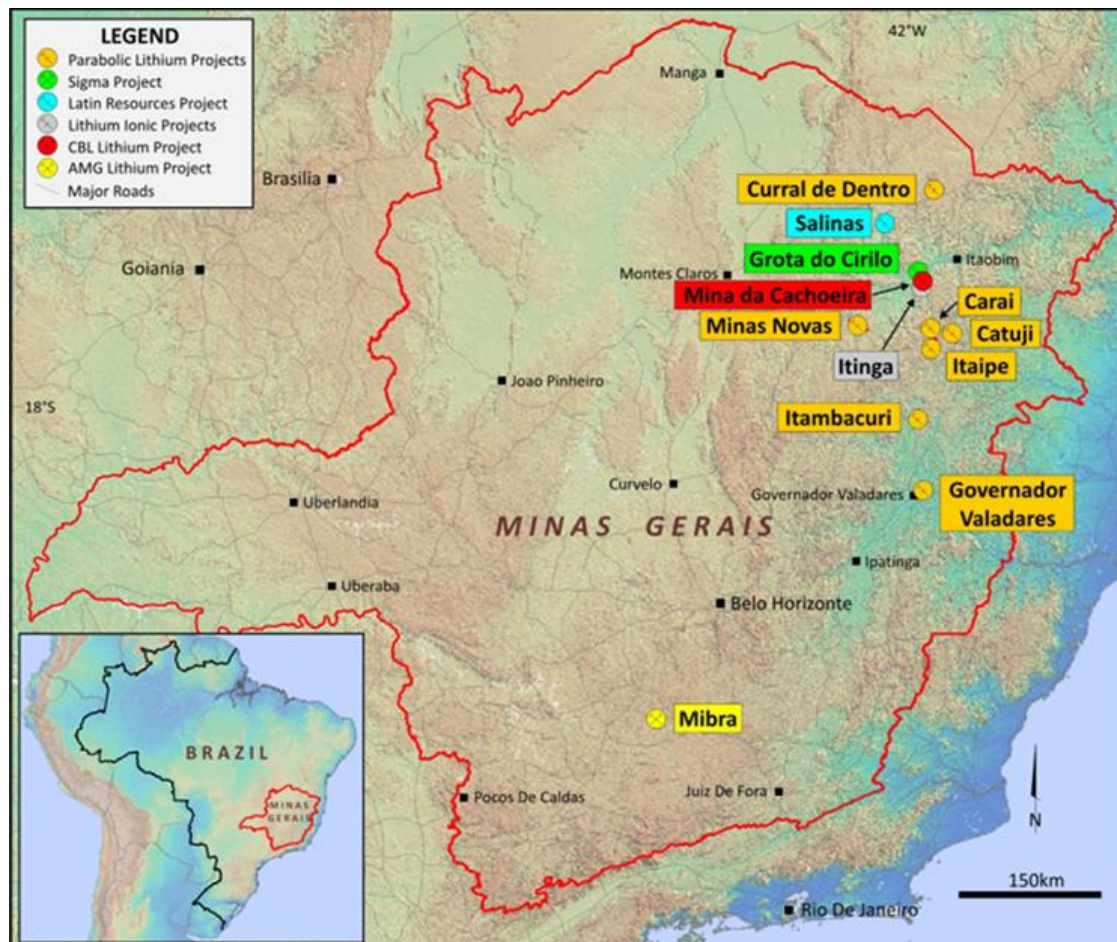


Figure 7: Alderan Resources project locations in Minas Gerais, Brazil.

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**Figure 8:** Alderan Resources Salitre Lithium project locations in Bahia, Brazil.

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