

Rio Tinto returns the Frisco Copper Project to Alderan

HIGHLIGHTS

- Alderan regains 100% ownership of the Frisco Copper Project following termination of the option agreement with Rio Tinto subsidiary Kennecott Exploration Company (KEX)
- KEX, Alderan and historical drill intersections into the Cactus Breccia zone include:
 - 4.9m @ 6.72% Cu within 43.6m @ 1.69% Au from 207.9m downhole (DDH8; no Au assays)
 - 12.2m @ 3.31% Cu within 22.9m @ 2.06% Cu from 1.5m downhole (R14; no Au assays)
 - 8.0m @ 3.11% Cu, 0.96g/t Au within 32m @ 1.24% Cu, 0.31g/t Au from 61m downhole (ALCA010)
 - 6.5m @ 3.11% Cu, 0.55g/t Au from 94.3m downhole (ALCA001)
 - 12.2m @ 2.77% Cu within 25.9m @ 1.62% Cu from 42.7m downhole (R13B; no Au assays)
 - 41m @ 1.9% Cu, 0.62g/t Au within 74m @ 1.1% Cu, 0.35g/t Au from 252m downhole (SAWM0001)
 - 22.9m @ 1.84% Cu from 39.6m downhole (R12; no Au assays)
 - 17m @ 1.41% Cu, 0.41g/t Au within 151m @ 0.36% Cu, 0.08g/t Au from 147m downhole (ALCA002)
 - 38.4m @ 1.40% Cu from 218.2m downhole (DDH8B; no Au assays)
- KEX drone magnetic survey has highlighted un-explored magnetic low features analogous to the Cactus breccia magnetic low anomaly.
- Alderan is currently assessing its options on next steps at Frisco

Alderan Resources Limited (ASX: AL8) (Alderan or the Company) advises that Rio Tinto subsidiary Kennecott Exploration Corp (KEX) has returned the Frisco Copper Project located in Utah, USA to Alderan after terminating its option agreement. Alderan now holds a 100% interest in the project.

Managing Director of Alderan Resources, Scott Caithness commented:

“While Kennecott has done an excellent job exploring for a large-scale porphyry copper deposit at Frisco, the return of the project to Alderan provides the Company with the option of assessing Frisco’s potential for smaller tonnage high-grade copper deposits.”

“The Cactus breccia pipe has historical and recent high-grade copper-gold drill intersections including Kennecott’s hole SAWM0001 which intersected 41m grading 1.9% copper and 0.6g/t gold within a zone of 74m grading 1.1% copper, 0.35g/t gold down the hole. This intersection is consistent with historical holes drilled in and around Cactus which was mined until 1957 and remains open at depth.”

“Also, a number of magnetic low anomalies similar to the Cactus magnetic signature are evident in Kennecott’s drone magnetic survey. These may represent mineralised breccia pipes which are not exposed at surface and hence have not been explored in the past.”

KEX explored the Frisco property for large-scale porphyry copper deposits after entering into the option agreement with Alderan in November 2019. Exploration included geological mapping, induced polarisation

and drone magnetic geophysical surveys, rock sampling and eleven diamond drill holes testing six targets identified from the compilation and interpretation of KEX, Alderan and historical exploration data.¹

The highest grade KEX drill hole at Frisco intersected **41m @ 1.9% Cu, 0.62g/t Au** within **74m @ 1.1% Cu, 0.35g/t Au** from 219m downhole in SAWM0001 (see Figure 1). This hole is a modest step-out from historical holes DDH8 and DDH8B drilled in 1959 by Anaconda into the Cactus mine which intersected **43.6m @ 1.7% Cu** and **38.4m @ 1.4% Cu** respectively (no gold assays). KEX drone magnetics highlights a number of anomalies similar to the Cactus breccia magnetic low signature which require modelling and field investigation (see Figure 1).

Following the return of the project, Alderan is now assessing its options on next steps at Frisco.

Frisco Background

The Frisco Project is located within the historical San Francisco Mining District, Beaver County in southwestern Utah approximately 22km west of the town of Milford and 335km south of Salt Lake City, the State capital.

Base and precious metal mining commenced in the District in 1870 with most mines ceasing operations by 1920. The largest mines in the District were the Horn Silver Mine which produced lead, zinc, silver, copper and gold through to 1965 and the Cactus copper mine which is reported to have produced 76,007t of copper, 301,200 oz of silver and 13,550 oz of gold from ore grading 2.07% copper, 7.36g/t silver and 0.33g/t gold before closing in 1957. Cactus underground development extended to 274m below surface however operations were impacted by a collapse down to the 500ft (152m) level in 1914. Cactus and the neighbouring Comet and New Year breccia pipes were owned by different companies which constrained mine development².

At Cactus, copper mineralisation is hosted by tourmaline breccias which occur in a cluster of 'pipes' along the WNW trending Cactus Canyon structural corridor. The pipes consist of large, angular to sub-rounded clasts of altered intrusive varying from monzonite to quartz diorite in a matrix of quartz, hematite, tourmaline, pyrite and chalcopyrite.

Intermittent exploration in the District following the end of mining largely focussed around Cactus and Horn Silver. At Cactus exploration was carried out by Anaconda (1959), Rosario Exploration Company (1968-69), Amax (1971), Kennecott Exploration Company (1998-99) and Western Utah Copper Corp and CS Mining LLC (2000-2015) prior to Alderan securing the property. Work included geological mapping, rock sampling, magnetic and induced polarisation geophysical surveys and drilling both from surface and underground. Significant post mining copper-gold drill intersections at Cactus are included in Table 1.

Horn Silver Mine was developed on oxidised supergene lead, zinc and silver mineralisation along the Horn Silver Fault and associated cross structures. The mineralisation consists of limestone breccia containing high grade lead, zinc and silver +/- copper +/- gold. The most recent exploration (1999-2006) was carried out by Franconia Mineral Corp in joint venture with Teck Cominco and included re-furbishing the 650, 700, 800, 900 and 1100 levels in the mine, underground sampling and diamond drilling targeting manto style mineralisation.

¹ Refer Alderan ASX announcements dated 8 June 2017, 15 June 2017, 28 June 2017, 15 December 2017, 29 March 2018, 18 November 2019, 20 March 2020, 20 May 2020, 5 August 2020, 19 August 2020, 22 September 2020, 18 November 2020, 11 March 2021, 11 June 2021, 21 January 2022, 6 June 2022, 28 September 2022, 14 December 2022 & 14 February 2023 for further information.

² Wray, W.B.; *Mines and Geology of the San Francisco District, Beaver County, Utah*; 26 Sept 2003.

Table 1: Cactus Breccia Pipe Target - Significant post mining drill holes with intersections³

Company	Hole Number	Year Drilled	Depth (m)	From (m)	To (m)	Width (m)	Cu (%)	Au (g/t)	Ag (ppm)
Anaconda	DDH4	1959	303.6	27.40	47.60	20.20	2.44	0.40	14.60
				173.4	175.90	2.50	5.35	NA	NA
				180.10	203.60	23.50	1.49	NA	NA
			includes	183.20	203.60	20.40	1.48	0.21	6.43
			includes	189.00	201.50	12.50	2.03	0.28	8.54
Anaconda	DDH5	1959	217.9	153.30	178.00	24.70	1.50	NA	NA
Anaconda	DDH8	1959	251.5	207.90	251.50	43.60	1.69	NA	NA
			includes	244.10	249.00	4.90	6.72	NA	NA
Anaconda	DDH8 (Splay)	1959	281.0	218.20	256.60	38.40	1.40	NA	NA
Rosario	R12	1968-71	89.2	39.60	62.50	22.90	1.84	NA	NA
				69.30	89.20	19.90	0.68	NA	NA
Rosario	R13B	1968-71	82.3	22.90	35.10	12.20	2.64	NA	NA
				42.70	68.60	25.90	1.62	NA	NA
			includes	50.30	62.50	12.20	2.77	NA	NA
Rosario	R14	1968-71	38.1	1.50	24.40	22.90	2.06	NA	NA
			includes	1.50	13.70	12.20	3.31	NA	NA
Rosario	UDH602	1968-71	153.0	37.20	62.50	25.30	1.22	NA	NA
Alderan	ALCA001	2017	208.7	76.00	84.90	8.90	0.92	0.14	7.79
			208.7	94.30	100.85	6.55	3.11	0.55	18.08
Alderan	ALCA002	2017	403.15	147.20	298.00	150.80	0.36	0.08	3.20
			includes	175.60	232.00	56.40	0.81	0.19	6.03
			includes	175.60	193.15	17.55	1.41	0.41	5.40
			includes	226.00	232.00	6.00	1.48	0.19	22.50
Alderan	ALCA010	2018	158.3	61.00	93.50	32.50	1.24	0.31	10.60
			includes	76.00	84.00	8.00	3.11	0.98	29.20
Alderan	ALCA013	2018	255.9	43.70	94.20	50.50	0.64	0.09	5.80
				47.00	49.00	2.00	2.54	0.83	75.50
				76.00	92.00	16.00	1.35	0.12	6.80
Kennecott	SAWM0001	2020	377.2	219.00	293.00	74.00	1.10	0.35	4.50
			includes	252.00	293.00	41.00	1.90	0.62	7.10

Notes:

- 0.5% Cu cutoff used to define broader intercepts
- Samples analysed for intercepts pre-Alderan were not subject to JORC standard QA/QC protocols
- NA = assays not available

³ Refer Alderan ASX announcements dated 8 June 2017, 15 June 2017, 28 June 2017, 15 December 2017, 29 March 2018, 11 March 2021 for further information.

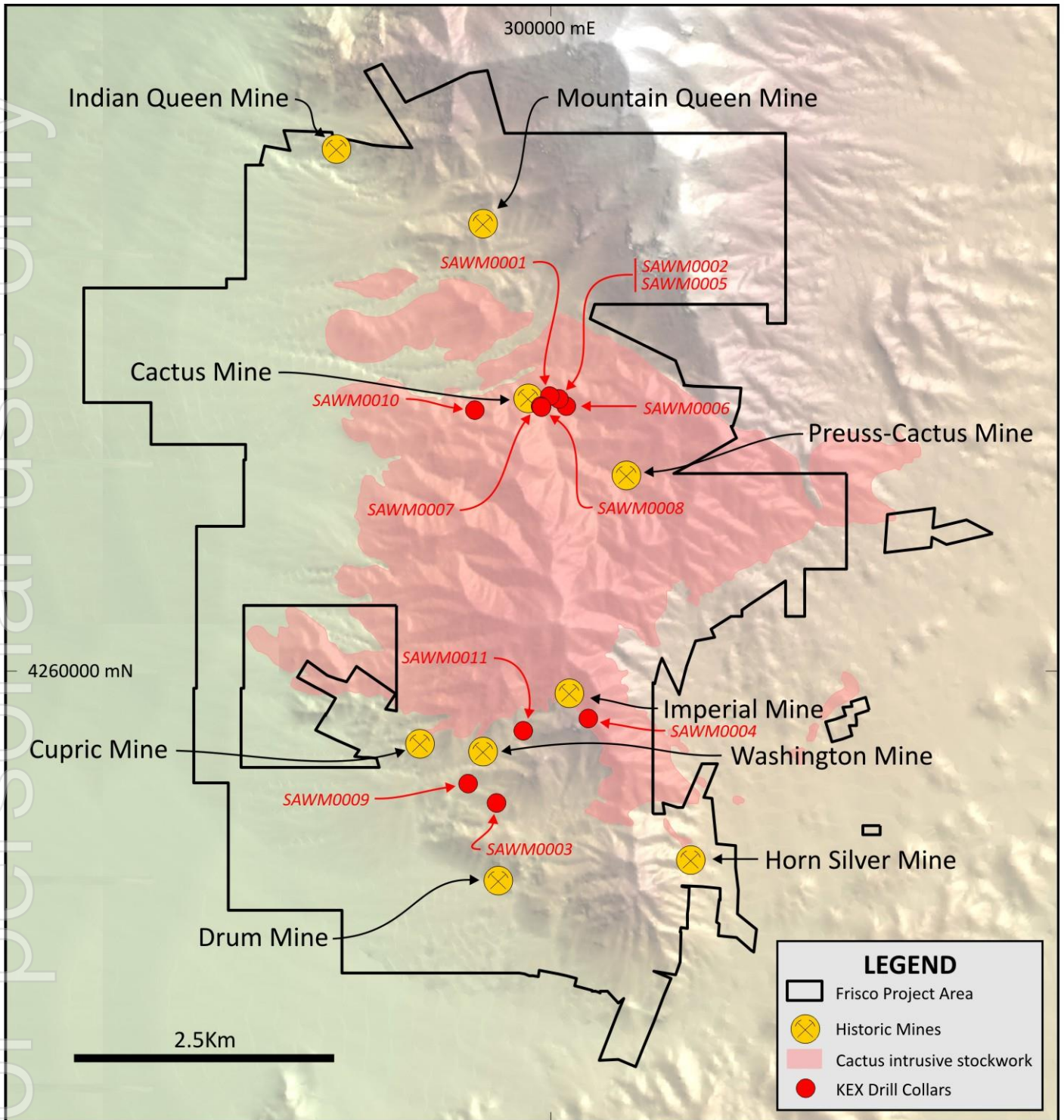


Figure 1: Frisco simplified geology showing the location of KEX drill holes SAWM0001-0011.

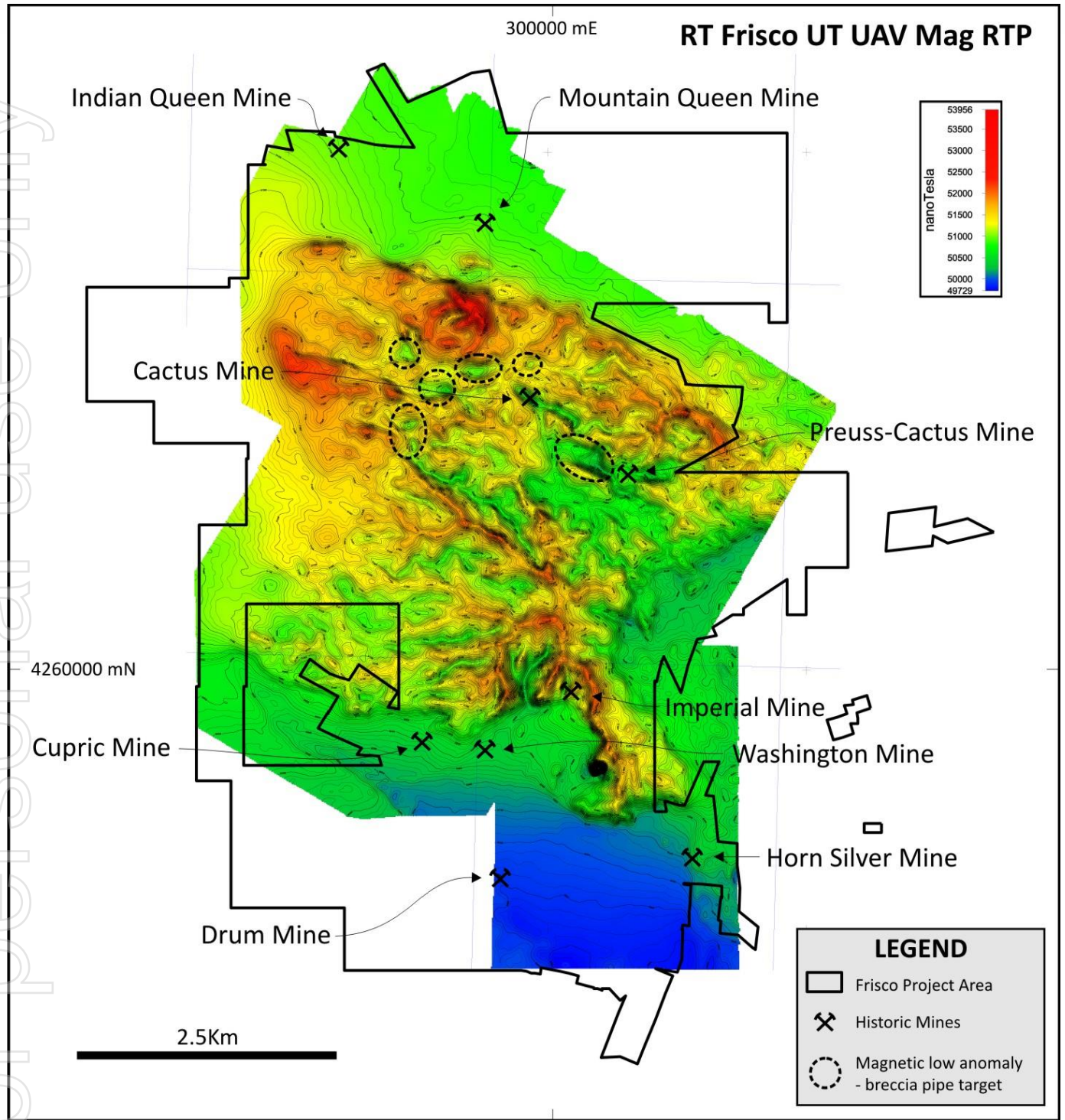


Figure 2: Reduced to pole UAV magnetics demonstrates that the Cactus Mine sits within a distinct NW-SE trending magnetic low anomaly. Additional highlighted magnetic low anomalies represent breccia pipe targets which require further investigation.

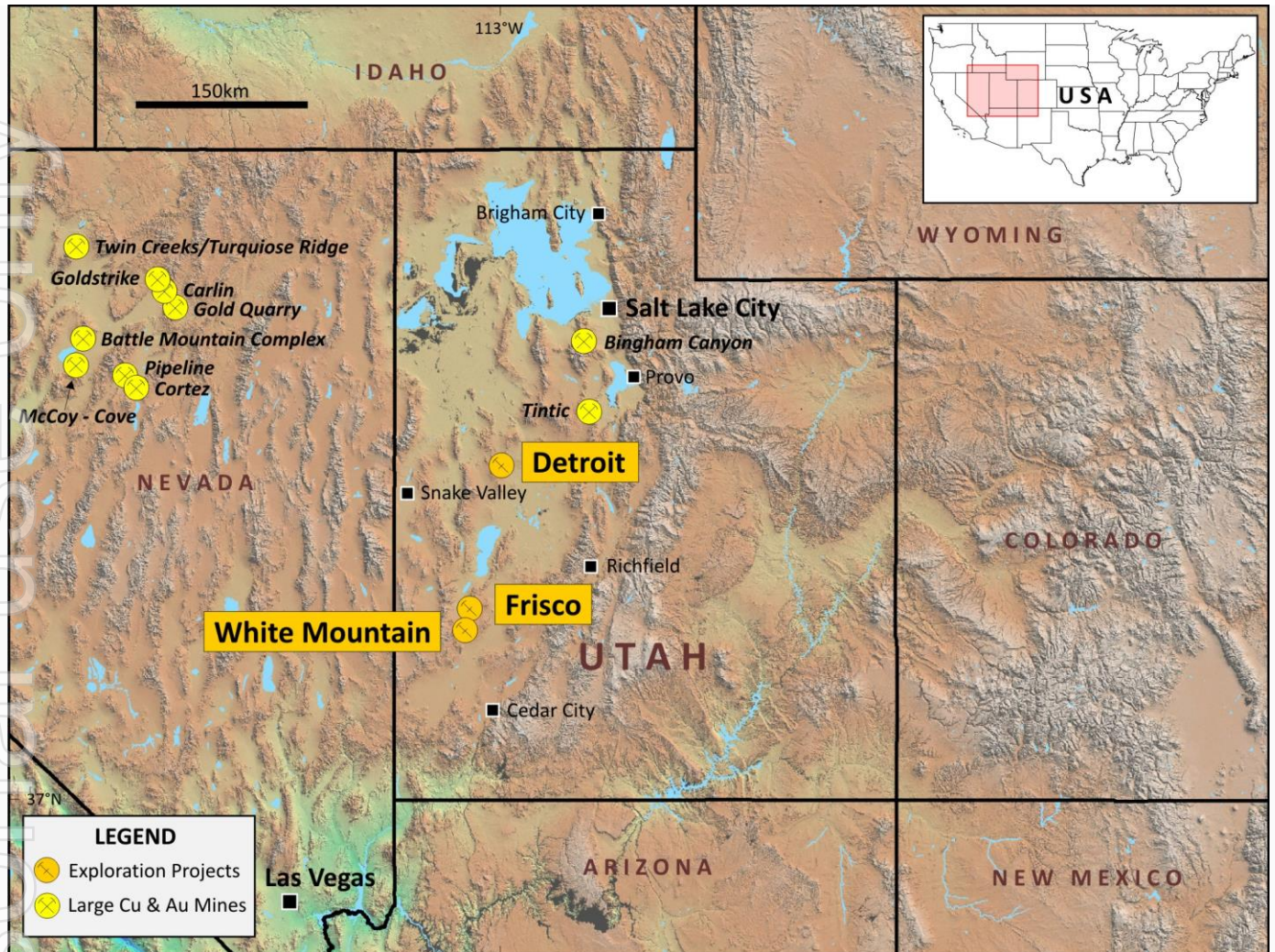


Figure 3: Alderan Resources project locations in USA.

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 base and precious metal exploration in the USA, with three key exploration projects in Utah, USA (Detroit, Frisco and White Mountain), with tenements held either directly or through option agreements via Alderan's USA subsidiary, Volantis Resources Corp. Our objective is to rapidly discover, delineate and develop copper and gold deposits for mining. The Company's project portfolio has high potential for discovery as it lies in under-explored geological belts with strong similarities to the nearby and highly productive Bingham, Carlin and Battle Mountain 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 in this announcement that relates to historical exploration results was reported by the Company in accordance with listing rule 5.7 on 8 June 2017, 15 June 2017, 28 June 2017, 15 December 2017, 29 March 2018, 18 November 2019, 20 March 2020, 20 May 2020, 5 August 2020, 19 August 2020, 22 September 2020, 18 November 2020, 11 March 2021, 11 June 2021, 21 January 2022, 6 June 2022, 28 September 2022, 14 December 2022 & 14 February 2023. The Company confirms it is not aware of any new information or data that materially affects the information included in the previous announcement.