

## Alderan recommences Detroit drilling with focus on historical Drum gold mine

### HIGHLIGHTS

- Drilling recommences at Alderan's Detroit Project in Utah, USA with focus on historical Drum open pit gold mine which produced 125,000oz gold.
- Drum is geologically open along strike and down dip and has not received any modern exploration since mining ceased in 1989.
- Alderan has planned 10 holes (~1,200m) to verify and extend known historical mineralisation.
- Modelling of historical drill data highlights strong potential for remnant mineralisation, high-grade gold in structural zones and mineralised extensions at Drum.
- Alderan's in-pit rock samples at Drum assay up to 10.7g/t gold with 36 of 76 samples assaying +0.5g/t gold and 22 assaying +1.0g/t gold
- First results from Drum drilling expected in March following remaining Detroit drill results.

Alderan Resources Limited (ASX: AL8) (**Alderan** or the **Company**) is pleased to announce drilling at its Detroit Project, located in the Drum Mountains region of western Utah, USA, has recommenced with 10 holes planned at the Drum Gold Mine (**Drum**).

Drum is an oxide gold deposit in the southeast of the Detroit project area. The open pit mine produced 125,000oz gold between 1984-89 and Alderan's historical drill hole modelling indicates<sup>1,2</sup>:

- Exploration potential exists for approximately 1.2 - 1.5 million tonnes of remnant mineralisation grading of approximately 1.1 - 1.4g/t gold (approximately 42,000 - 67,000 ounces) based solely on historical drillholes. This exploration potential quantity and grade is conceptual in nature, that there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.
- Drum is geologically open along strike to the south and down dip to the southwest where hole YC-174 intersected 15.2m @ 4.5g/t gold (includes 6.1m @ 10.3g/t Au) 150m down dip from West Pit historical ore.
- The mined East Pit ore horizon remains open down dip below the West Pit and has not been drill tested.
- Drum has returned long and high-grade historical drill intercepts. The longest intercept grading  $\geq 1.0\text{g/t}$  gold is 70.1m and the highest-grade individual assay over a 5ft (~1.54m) sample interval is 38.8g/t gold. Historical intersections from drilling undertaken by Western States Minerals and Nevada Resources Inc in 1982-89 include:
  - YC-58A: 13.7m @ 6.4g/t Au from 13.7m downhole including 4.6m @ 18.1g/t Au
  - YC-60: 24.4m @ 2.7g/t Au from 9.1m downhole including 7.6m @ 7.6g/t Au
  - YC-113A: 22.9m @ 5.0g/t Au from 19.8m downhole including 9.1m @ 10.8g/t Au
  - YC-169: 35.1m @ 4.3g/t Au from 25.9m downhole including 18.3m @ 7.7g/t Au
  - YC-174: 15.2m @ 4.5g/t Au from 73.2m downhole including 6.1m @ 10.3g/t Au
  - YC-242: 38.1m @ 3.2g/t Au from 30.5m downhole including 15.2m @ 6.4g/t Au

Alderan's in-pit rock sampling at Drum confirmed potential for remnant and high-grade gold with assays up to 10.7g/t gold. In addition, 36 of 76 samples collected assayed +0.5g/t gold and 22 of these assayed +1.0g/t gold<sup>3</sup>.

<sup>1</sup> Krahulec, K.; *Sedimentary rock-hosted gold and silver deposits in the Northeast Basin and Range, Utah; Utah Geol Survey; Jan 2011.*

<sup>2</sup> Alderan ASX announcement dated 18 & 19 November 2021.

<sup>3</sup> Alderan ASX announcement dated 16 December 2021.

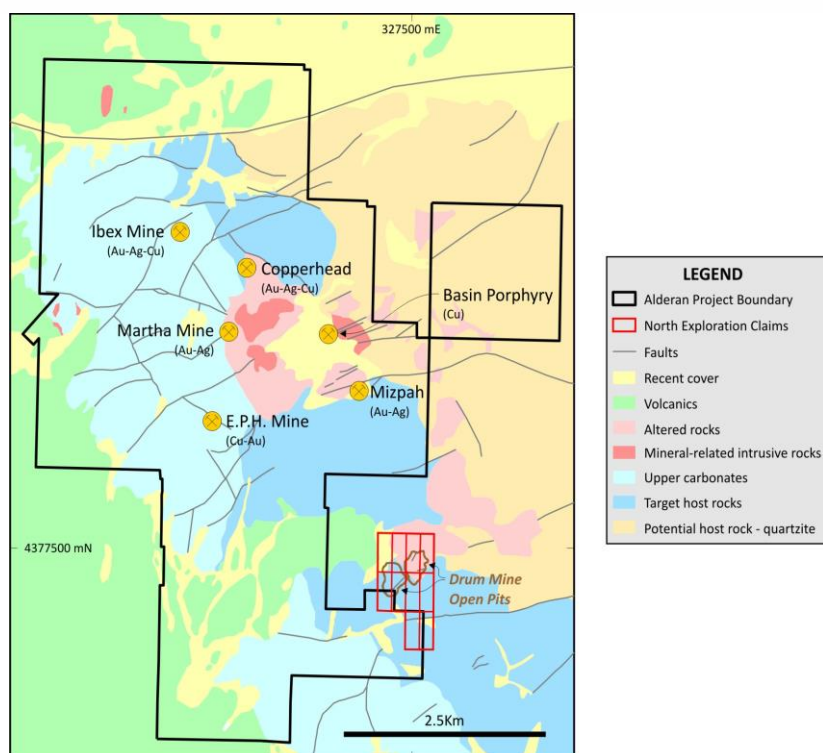


Figure 1: Detroit project geology showing location of Drum Gold Mine.

Alderan Managing Director, Scott Caithness said: “It is rare to secure an historical gold mine which has remained unexplored for more than 30 years and Alderan is excited to test this target with modern exploration techniques after it has sat dormant for so long.

“The potential of Drum to host a significant gold deposit has clearly been demonstrated by our modelling of historical drilling and in-pit rock sampling. Our 10-hole drill programme aims to both verify the historical work and confirm Drum’s upside potential and we look forward to results from it.”

#### Detroit Drilling Update<sup>4</sup>

Alderan re-commenced its drilling programme at Detroit following rig maintenance and a break over Christmas-New Year. Drilling will focus on the Drum Gold Mine where 10 holes are planned totalling approximately 1,200m.

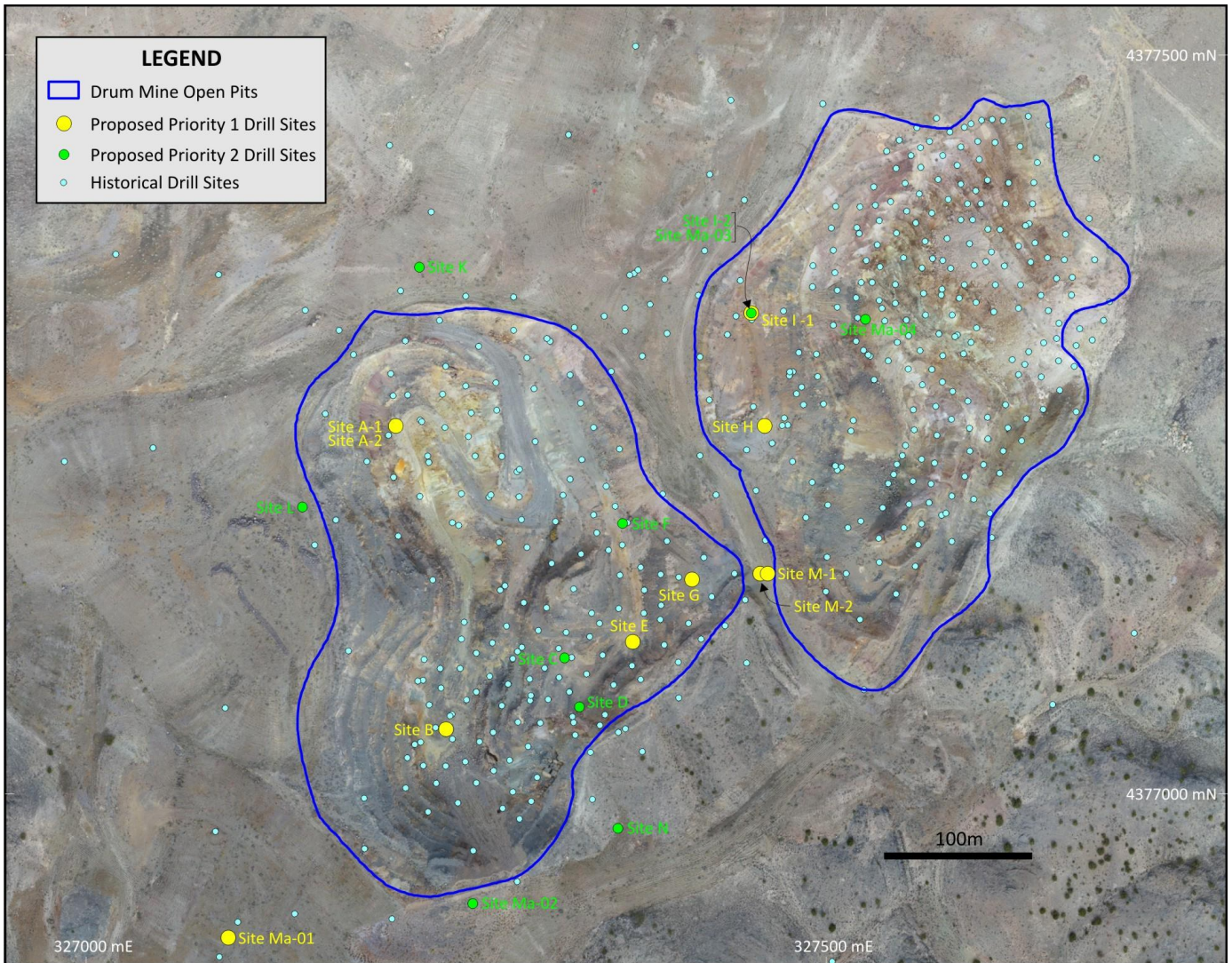
The planned drilling at Drum is aimed at both verifying historically drilled gold mineralisation and also testing for new mineralisation. A key focus of testing for new mineralisation will be drilling below the West Pit into the down dip extensions of the Tatow Formation, the prime ore horizon in the East Pit.

The table below summarises the planned holes:

Drill Site	Easting	Northing	Target Depth (m)	Site Rationale and Target
Site I-1	327 449	4 377 326	120	East Pit: Verify remnant mineralisation at bottom of YC-16 which intersected 56.4m @ 1.8g/t Au.
Site A-1	327 209	4 377 250	50	West Pit: Verify remnant mineralisation at bottom of YC-114 which intersected 9m @ 2.0g/t Au.
Site A-2	327 209	4 377 250	110	West Pit: Verify remnant mineralisation at bottom of YC-72 which intersected 9m @ 1.4g/t Au & Tatow test.
Site M-1	327 460	4 377 150	120	East Pit: Verify remnant mineralisation at bottom of DM-23 which intersected 16.8m @ 1.2g/t Au.
Site M-2	327 455	4 377 150	120	East Pit: Tatow test below dropcut.
Site B	327 243	4 377 045	150	West Pit: Verify remnant mineralisation at bottom of YC-169 which intersected 35m @ 4.3g/t Au & Tatow test.
Site G	327 409	4 377 146	140	West Pit: Tatow test in hanging wall of King Tut fault.
Site H	327 458	4 377 250	135	East Pit: Test down dip extension of YC-16 which intersected 56.4m @ 1.8g/t Au.
Site E	327 369	4 377 104	100	West Pit: Tatow test in hanging wall of King Tut fault.
Site Ma-01	327 096	4 376 904	120	West Pit Extension: Verify YC-174 which intersected 15.2m @ 4.5g/t Au; permit amendment required.

<sup>4</sup> Alderan ASX announcements dated 15 October 2021, 12 November 2021, 8 December 2021, 16 December 2021, 30 December 2021.





**Figure 1:** Aerial view of Drum Gold Mine showing historical and proposed drill sites. Priority 1 sites (yellow) will be drilled in the current Detroit drilling programme while Priority 2 sites (green) are contingent.

### Next Steps

Alderan awaits assays for drill holes 7DD21-003, 6DD21-004, 6DD21-005 and 6DD21-006 which were completed on its Detroit project prior to the 2021 Christmas-New Year shutdown. Assays for a 21m section of hole 6DD21-004 and a 31.8m section of hole 6DD21-005 were released on the ASX by Alderan on 30 December 2021.

In addition to the drilling at Detroit, geological mapping and magnetic geophysical surveying are proposed at Drum to improve the geological understanding of the deposit.

## Drum Background

Alderan secured an option over the Drum Gold Mine, one of the most productive and economically important sediment-hosted gold deposits in Utah, in late September 2021 as part of its strategy to consolidate the Detroit mining district<sup>5</sup>.

Drum was discovered in 1982 with a drill intercept of 15m grading 8.5g/t gold and was mined from the adjacent East and West pits between 1984-89<sup>6</sup>. Over its six-year mine life, it reportedly produced 125,000oz of gold from 3.17 million tonnes of oxide ore grading 1.22g/t gold. Towards the end of its life, a small underground operation was developed in the West Pit which produced mined grades of +4g/t gold.

Alderan's review of historical drill hole data at Drum suggests exploration potential for approximately 1.2 - 1.5 million tonnes of remnant mineralisation at a grade of approximately 1.1 - 1.4g/t gold (approximately 42,000-67,000 ounces)<sup>7</sup>. This estimate of exploration potential quantity and grade is conceptual in nature, there has been insufficient exploration to estimate Mineral Resources and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The mineralisation remains open along strike to the south and down dip to the southwest where drill holes include YC-174 which intersected 15.2m grading 4.5g/t gold (including 6.1m at 10.3g/t Au) 150m from historical ore in the West Pit. The ore horizon mined in the East Pit remains open down dip to the southwest and has not been drill tested below the West pit. Drum has both long and high-grade historical drill intercepts. Hole DM-9 intersected 70.1m grading 1.0g/t gold and the highest-grade individual assay over a 5ft (~1.5m) sample interval is 38.8g/t gold.

Alderan composite grab rock chip sampling along the outcropping walls of the East and West pits focussed on altered target host rocks of the Tatow and Chisholm formations which were the prime ore horizons during historical mining and in visible structural zones interpreted to be potential hosts of high-grade mineralisation. This sampling verified the potential of Drum with the highest gold assay being 10.65g/t over a 2.8m sampling interval. Additional high-grade sample intervals include 1.7m grading 7.01g/t gold and 2.8m grading 5.86g/t gold. A total of 36 samples of the 76 collected grade +0.5g/t gold with 22 of these grading +1.0g/t gold. An additional 17 samples grade +0.15g/t gold which is above the cutoff for oxide gold leach operations in neighbouring Nevada.

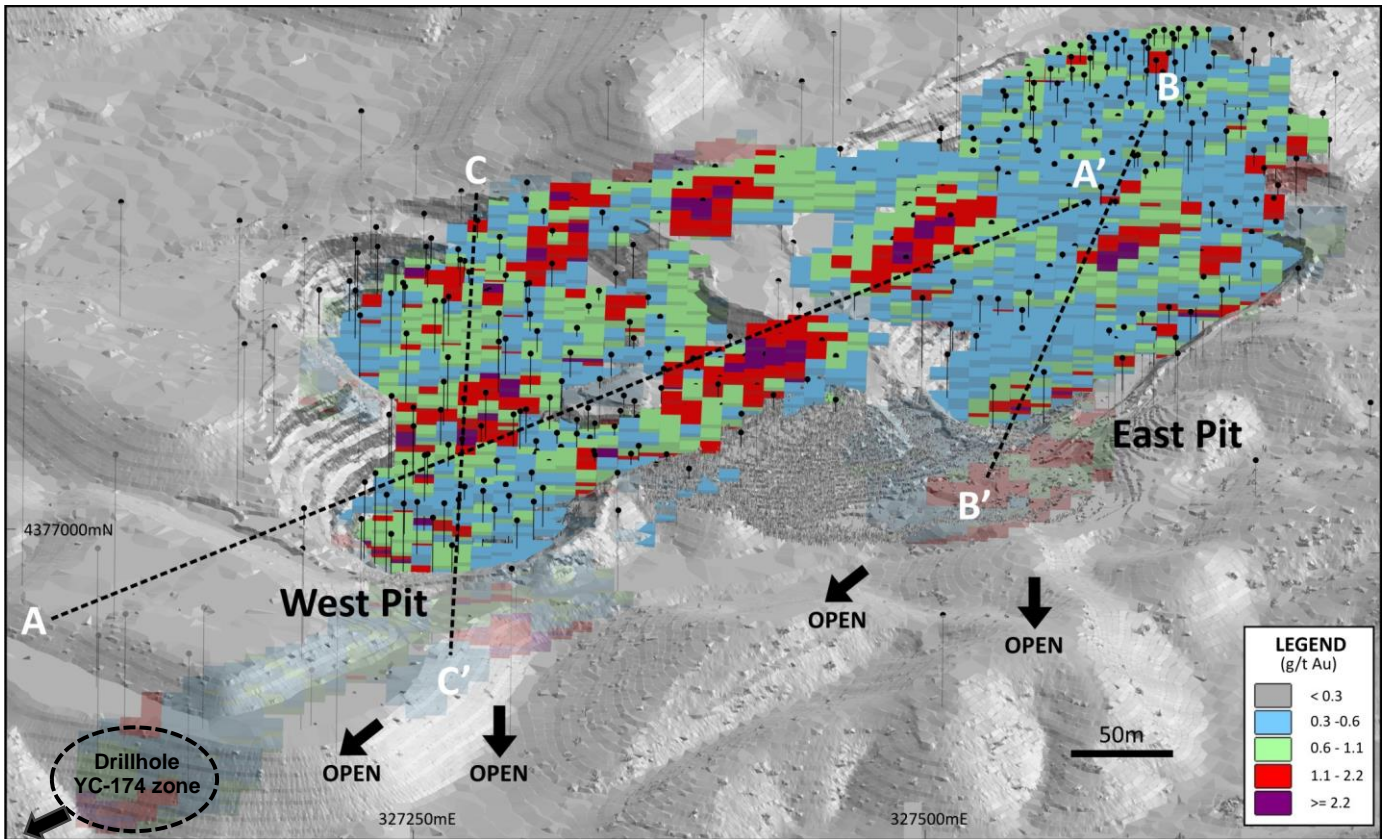
---

<sup>5</sup> Refer Alderan ASX announcement dated 30 September 2021.

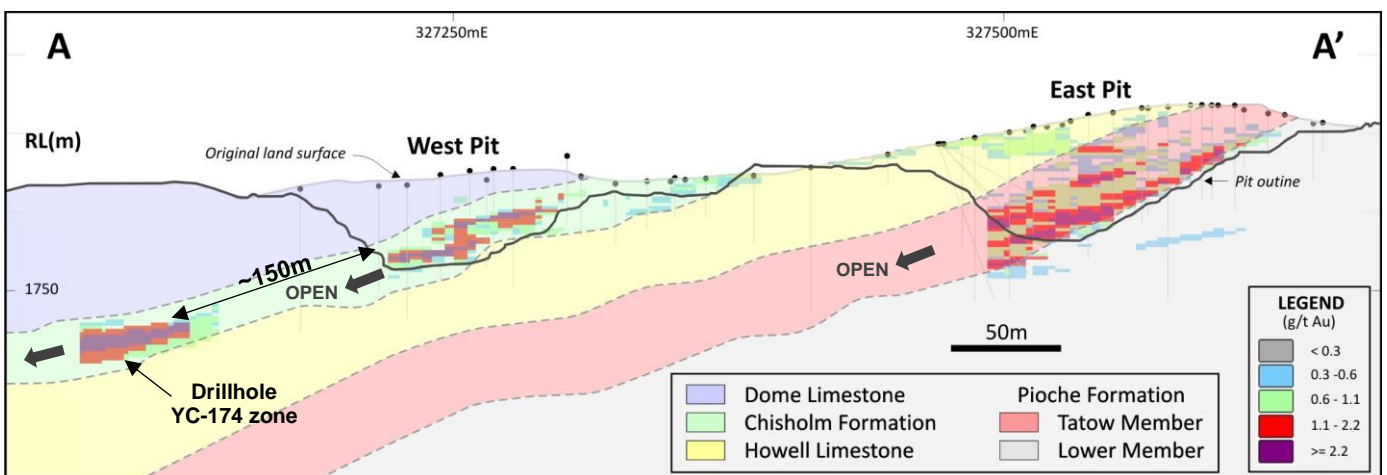
<sup>6</sup> Krahulec, K.; *Sedimentary rock-hosted gold and silver deposits in the Northeast Basin and Range, Utah; Utah Geol Survey; Jan 2011.*

<sup>7</sup> Refer Alderan ASX releases dated 18 and 19 November 2021.

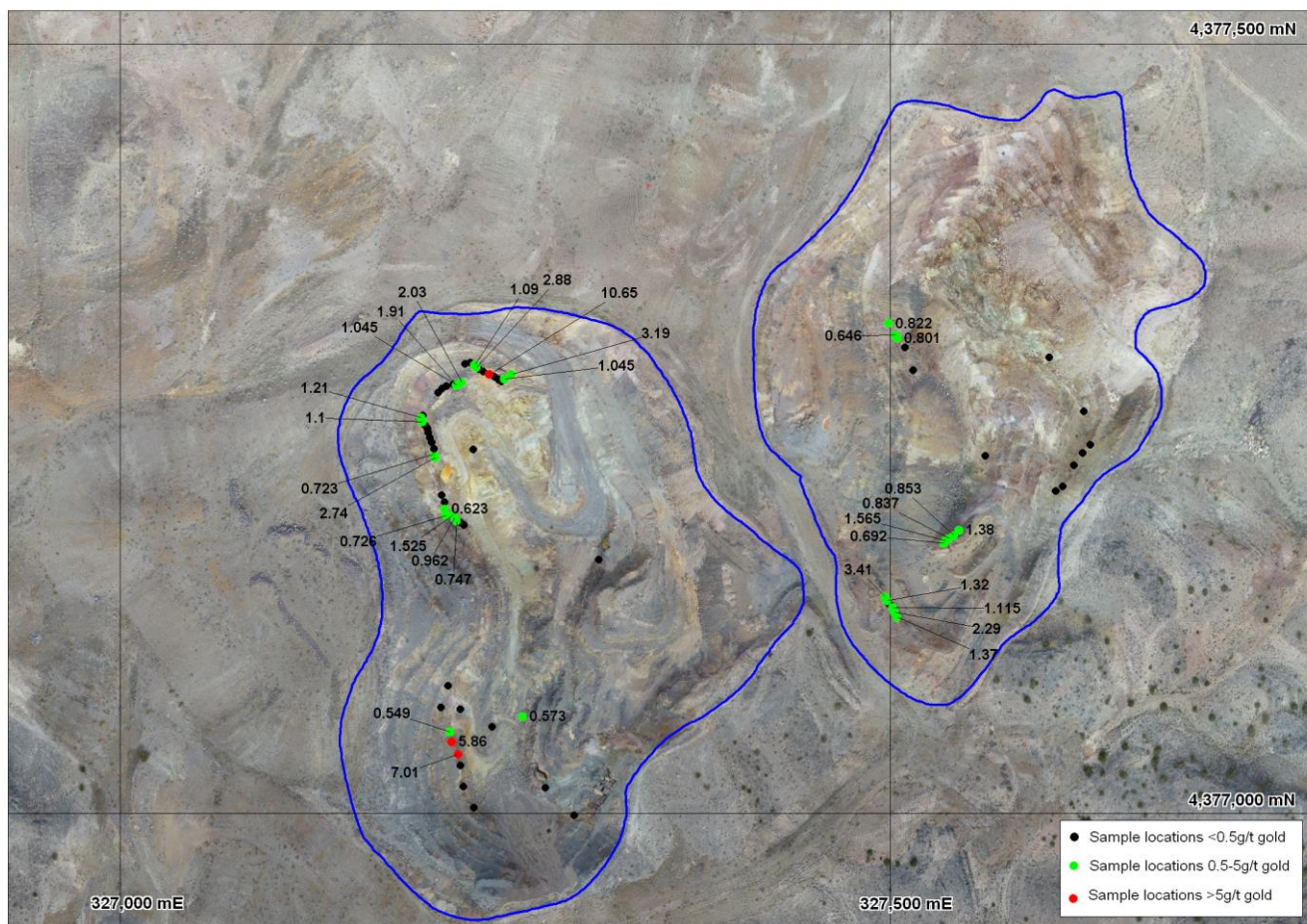




**Figure 3:** Oblique view from south of Drum Gold Mine 3D block model on digital terrain model showing historical drill holes, section lines and highlighting the zone of historical drill hole YC-174 which intersected 15.2m @ 4.5g/t Au (including 6.1m @ 10.3g/t Au) from 73.2m downhole. Mineralisation extends subsurface below both pits and is open to the south- southwest. The block model has been estimated from the historical (1980s) drill hole data applying Multiple Indicator Kriging technique. The waste blocks which grade lower than 0.1g/t gold are not shown.



**Figure 4:** Northeast-southwest long section (A-A') showing the Drum Gold Mine block model based on historical (1980s) drill holes and Alderan's interpreted geology. The modelled gold mineralisation extends below and to the southwest of the historical pit boundaries indicating potential for remnant mineralisation and hole YC-174 highlights the potential for high grade extensions down dip of the West Pit. Also, the mineralisation is modelled within two separate stratigraphic horizons, the Tatow Member and the Chisholm Formation which dip ~20-30 degrees southwest. The Tatow has not been adequately drilled down dip of the East Pit.



*Figure 5: Aerial view of Drum Gold Mine pits with Alderan rock sample locations and gold assay results.*

## Detroit Project

The Detroit Project is one of four projects held by Alderan (Figure 6) in Utah, USA. It lies within the Detroit Mining District, approximately 175km southwest of Salt Lake City, and contains numerous historical copper, gold and manganese mines. The district has been explored for copper and gold in the past by major mining companies such as Anaconda Copper, Kennecott, Newmont, BHP and Freeport-McMoRan but no one company was able to build a significant contiguous land position to enable district-wide modern exploration. The United States Geological Survey (**USGS**) has also explored the area, sampling extensive mineralised jasperoids.



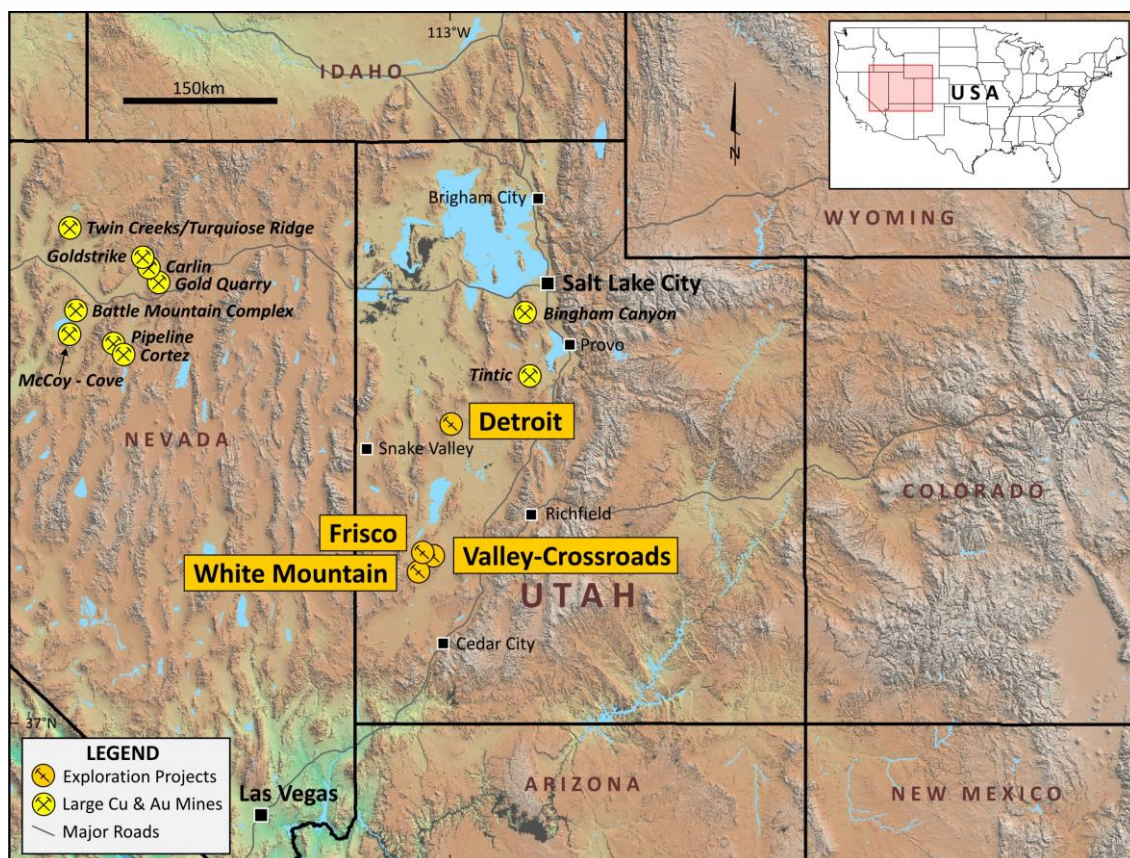


Figure 6: Alderan Resources project locations in western Utah.

**ENDS**

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

**ALDERAN RESOURCES LIMITED**

ABN: 55 165 079 201  
Suite 23, 513 Hay Street, Subiaco, 6008, WA  
[www.alderanresources.com.au](http://www.alderanresources.com.au)

For further information:  
e:[info@alderanresources.com.au](mailto:info@alderanresources.com.au)

p: +61 8 6143 6711  
Scott Caithness  
Managing Director  
<mailto:scott@alderanresources.com.au>

**Competent Persons Statement**

The information in this announcement that relates to the exploration potential historical exploration results were reported by the Company in accordance with listing rule 5.7 on 30 September 2021, 15 October 2021, 12 November 2021, 18 November 2021, 19 November 2021, 8 December 2021, 16 December 2021 and 30 December 2021. The Company confirms it is not aware of any new information or data that materially affects the information included in the previous announcements and that all material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed. Insufficient exploration has been conducted to estimate a Mineral Resource and it is uncertain whether future exploration will lead to the estimation of a Mineral Resource in the defined areas.