

A review of the

# Past A snapshot of the Present

# and a plan for the Future





## The Past

## Geology



EL8532 is located within the Lachlan Orogen in rocks belonging predominantly to Silurian-Devonian Dulladerry Volcanics and Cuga Burga Volcanics. Other rocks in the area include granites belonging to the Yeoval Batholith and sedimentary rocks belonging to the Devonian Harvey Range Group.

The Mount Aubrey area is dominated by rocks of the Dulladerry Volcanics with thick accumulations of Tertiary and Quaternary alluvium including gravels (Figure 1).

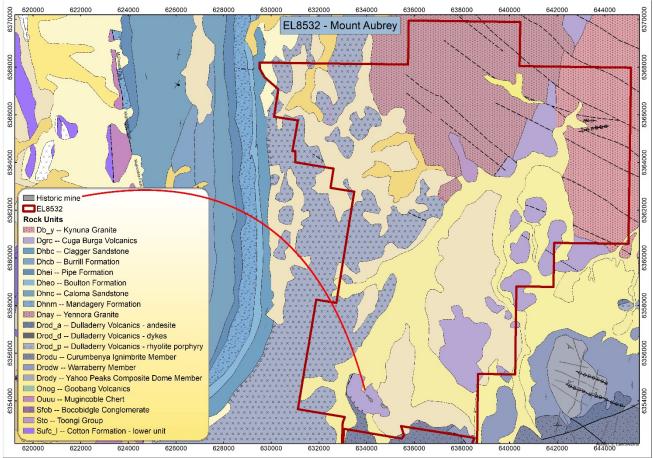


Figure 1:Regional geology of EL8532 in which the Mount Aubrey project lies.

BHP Gold during the period 1987-1990 completed mine-focused research at Mount Aubrey with detailed petrography completed by Doug Mason. In 1992 S. Hopf from the University of Newcastle described the lithologies around Mount Aubrey. The following summary comes from the above sources.

The Mount Aubrey deposit is located in a gently south-southwest dipping sequence of andesitic and basaltic lavas. Welded rhyolitic ignimbrite occurs at the top of the sequence and is underlain by finegrained amygdaloidal ophitic basaltic lavas. Strongly altered porphyritic andesitic flows with intercalated tuffaceous and basaltic layers underlie the basalt. A set of EW-trending, steeply dipping veins which contain quartz pseudomorphs after bladed calcite crop out in the mine area.





#### Basalts

The basalt is comagmatic with the andesites and is thought to have originated from a more mantle dominated source in a young marginal basin. Basaltic rocks are amygdaloidal and are marine in origin.

- Veining is common and includes minerals such as quartz and bladed calcite and also includes finely disseminated pyrite and chalcopyrite.
- o Micron sized native gold occurs in the quartz veins originating from hydraulic fracturing.
- Epidote-carbonate-chlorite alteration and veining is common in the basalts and mostly related to regional metamorphism.

#### Andesites and sediments

These rocks are thought to have formed in an island arc setting from a shoshonitic source which was modified due to crustal contamination. In the mine area the andesitic volcanics occur interbedded with the footwall sediments-volcanics with minor limestone.

- o Groundmass is chloritised while feldspar phenocrysts are variably altered to adularia-albite.
- Andesitic rocks in the mine are porphyritic.

#### Hydrothermal Alteration and Mineralisation

- o Regional alteration associated with metamorphism to greenschist facies.
- Alteration associated with mineralisation includes adularia-chlorite-sericite-silica-pyrite.
- Plagioclase is commonly replaced by albite and adularia while mafic minerals are typically pseudo-morphed by chlorite.
- Groundmass displayed varying degrees of silicification and chloritization with less common veining and it includes finely disseminated pyrite and chalcopyrite with minor galena.
- Gold is associated with chalcedonic quartz, carbonate replacement textures and quartz veins along with sericite, zoisite, chlorite and pyrite.
- There is overprinting and silica replacement of earlier carbonate lattice textures. Multiple vein stages and re-fracture of earlier veins.
- $\circ$  Gold occurs as bleb-shaped grains from 2.0-15.0 microns.
- Most gold observed occurs in microcrystalline quartz along with fine pyrite. Gold was interpreted to be carried in hydrothermal solutions as gold bisulphide complex and was deposited with quartz and sulphide (pyrite-arsenide) in response to cooling or mixing with meteoric water (BHP Gold 1989).
- From initial sampling by Ardea, basalt (being iron-rich) appears to be a preferred host rock.
- Gold formed in a shallow crustal setting (<1km) and by cavity-filling processes.
- Some gold has been redeposited in response to near-surface weathering processes (supergene enrichment).

In 2015 Cooper and Small (2015) added the following summary points:

- Tertiary blanket of semi-lithified, grey silcrete matrix conglomerate up to 10m thick inhibits surface exploration.
- Amygdaloidal basalt shows pillow textures that indicate sub-aqueous deposition. Basalt thickness is approximately 130m at Mount Aubrey.
- A mixed sequence of immature volcaniclastic sediments, trachytic and andesitic tuffs and minor fossiliferous limestone is found between the basalt and underlying andesite. These rocks are interpreted as occurring in a subaqueous intra-caldera setting. At least 250m thickness of these rocks is present.
- Strongly altered porphyritic andesitic flows with intercalated tuffaceous and basaltic layers lie below the sediments.





#### **Mineralisation and Controls**

In 2019 Ardea Resources contracted Mike Ostrowski to conduct an in-depth and independent geological review of the exploration license covering the Mount Aubrey prospect (Ostrowski 2019).

The main mineralised vein pinches and swells, often bifurcating into parallel veins and some associated stockwork veins hosted within basaltic and felsic rocks of the Dulladerry Volcanics. Previous tenement-holder YTC recognised the importance of basaltic rocks in hosting the best gold grades within and around epithermal-style quartz veins. Overlying felsic ignimbrite volcanic rocks and underlying intermediate to mafic volcanics and interbedded sediments were found to contain lower gold grades and relatively poorly-developed vein systems.

A WNW structural control within a thick volcano-sedimentary pile at Mount Aubrey is thought to be associated with the northern margin of the Lachlan Transverse Zone (LTZ). The location of major north-striking regional structures to the west and east of EL8532 may have influenced the opening of en echelon structures within the Dulladerry Volcanics and subsequent mineralised vein formation. The presence of possible shoots within the vein system implies a more localised structural influence on the main vein deposition.

The preferred ore deposit model for the Mount Aubrey deposit is low sulphidation epithermal, however the source of the gold-bearing fluids is postulated to be a sub volcanic intrusion genetically related to the Dulladerry Volcanics or a deeply-buried member of the Yeoval Batholith. Fluid inclusion studies and the presence of intrusive felsic dykes within EL8532 supports this theory.

It is likely that the historically mined higher grade components of the Mount Aubrey deposit are associated with supergene enrichment of gold in the oxide zone, however some of the deeper holes completed by BHP Gold suggest a continuation of good gold grades below the weathered zone that exists from 30-50 metres (generally the limit of BHP Gold drilling, with average hole depth only 42 metres). The role of the interpreted boiling zone (from bladed calcite vein textures) and bonanza gold grades is well documented, and these textures are pervasive at Mount Aubrey. The presence of abundant bladed carbonate replacement textures, multiple quartz vein stages, fine sulphide close to surface in wide mineralised quartz veins and pervasive silica alteration support the view that gold mineralization is primary and supergene upgrading of gold grades may have only played a minor role at Mount Aubrey.

#### Low sulphidation Epithermal Deposits – Mount Aubrey

Low sulphidation epithermal gold deposits typically form distal from the fluid/metal source, and are associated with banded chalcedonic quartz veins, bladed calcite – lattice textures (replaced by silica), silicic and phyllic alteration (silica-sericite-pyrite). Deeper propylitic alteration of wall rock is common and generally occurring focussed around quartz veins and structures. Rapid and well-recognised changes in alteration zonation typically occurs vertically in the low sulphidation epithermal system and manifesting as an outward halo to mineralised quartz veins and structures.

Low sulphidation epithermal deposits associated with gold-bearing pyrite are well known for bonanza gold grades in the oxide zone. The high gold grades are the result of the weathering, chemical liberation and reprecipitation of gold closer to the water table, facilitated by the breakdown of pyrite. More extensive quartz veins forming stockworks and sheeted veins within silicified halos (as seen at Mount Aubrey) are less prone to more penetrative chemical weathering caused by the oxidation of pyrite.





# **Geochemical Signature**

The high-level mineralisation at Mount Aubrey is associated with coincident Au-As-Sb anomalism,

and minor anomalous base metals including Cu-Pb-Zn. Mineralisation at Mount Aubrey is Ag poor with speculated increasing Ag with depth (Figure 2). The immobility of As and Sb in soils under most conditions is useful for pin pointing targets (Ardea soil auger up to 237ppm As and 3.45ppm Sb).

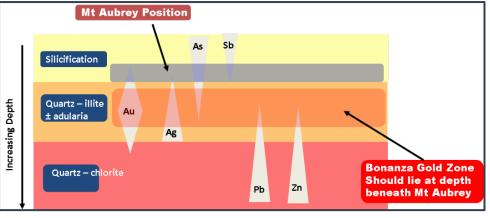


Figure 2: Position of Mount Aubrey System in the general epithermal regime. Adapted from YTC Resources 2007

#### Chronological History of Mount Aubrey discovery and exploration

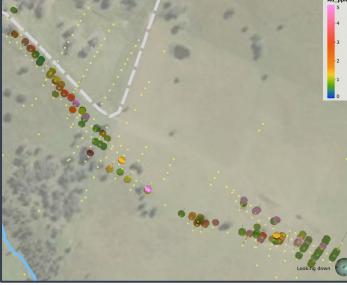
- o **1880-1900**.
  - Discovery of gold in ferruginous quartz veins by the Hodges family and exploitation by shallow shaft workings.
- o **1900-1939**.
  - Further exploitation by small-scale mining including Mount Aubrey, Blue Hills and a recently discovered shaft at Blue Hills South.
- o **1939-1985**.
  - Sporadic and patchy exploration and investigation. The Mines Department investigated My Aubrey and Blue Hills as part of their metallogenic and geological mapping programmes.
- o **1985**.
  - Austamax followed up rock chip sampling completed by the department at Mount Aubrey and Blue Hills. Recognised high level nature of gold mineralisation (As-Au-Sb).
- o **1986-1989**.
  - BHP start exploring in the area for a range of mineral styles including epithermal gold and discover the Mount Aubrey gold deposit.
- o **1989-1991**.
  - Mount Aubrey gold deposit developed as a small open cut gold mine by BHP Gold. Further prospect extensions discovered and investigated. Most drilling focusses on the Mount Aubrey deposit.
- o **1991**.
  - BHP Gold Newcrest completes a small drilling programme looking for extensions and drops the tenement.
- o **1991-2005**.
  - $\circ$   $\;$  Various companies explore the area with small and short-lived programmes.
  - Alkane Resources completes extensive RAB drilling in the Baldry area.
- o **2007-2015**.
  - YTC Resources completes various drilling programmes at the Mount Aubrey mine area, eastern extensions, Blue Hills Prospect and Mount Aubrey South.
  - IP completed around the Mount Aubrey Mine area.
- o 8 March 2017, Ardea Resources is granted EL8532, reconnaissance soil auger sampling.





#### 1987 -1990

In 1987 BHP gold drilled 65 RC holes (see green collars in Figure 6 and 7) along the outcrop and interpreted extent of the mineralised quartz veins mined by the Hodges family in small scale hand mined workings. Figure 3 shows the intercepts above 0.5g/t Au.



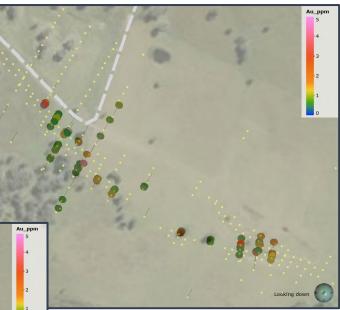


Figure 3:1987 RC drill program shown. Gold intercepts greater than 0.5g/t Au highlighted

1988 saw a follow up drill program of 95 RC holes (see blue collars in Figure 6 and 7) Just like the 1987 program the holes were drilled at -60°to the SSW and an average depth or 50m down hole (about 40m vertical depth). Figure 4 intercepts above 0.5g/t.

Figure 4: 1988 RC drill program shown. Gold intercepts greater than 0.5g/t Au highlighted

1989 saw the first RAB drill program on the Mount Aubrey deposit with the drilling of RAB001 to RAB080. (see pink collars in Figure 6 and 7). The purpose of this drilling program seems to have been two-fold. RAB001 to RAB045 were intended as a sterilisation program to the north of the mineralised zone in an area that was planned to house a large waste dump. Four holes (two south-east and two north-west of the Mount Aubrey mineralised system) tested the strike extent of the interpreted Mount Aubrey mineralised vein system, while the remaining 26 holes tested areas removed from the immediate Mount Aubrey area. The assay and geology data from the sterilisation drill program were lost and today we only have the collar data and a few cross sections used in historic reports. Eight trenches were also excavated during 1989 for vein mapping and geochemical characterisation. Three were excavated to the north-west of what would be the satellite pits and five along the line of the historic Hodges workings. 1989 also saw the drilling of the first diamond drill hole on Mount Aubrey. MAD001 was drilled south of what was planned to be the larger of the two satellite pits but was not immediately logged and assayed with only a brief summary log completed. No assay or geological data for MAD001 is available today.





1990 saw the continuation of RAB drilling at Mount Aubrey with the completion of RAB081 to RAB159 (see red collars in Figure 6 and 7). This program targeted three distinct areas. Firstly, it tested the extent of a second set of mineralised veins trending roughly 300 degrees from the south-eastern extent of the mineralised zone (at the time) and tested the area between what would be the main and first satellite pit (see Figure 5). This part of the program yielded positive results in the area that was to become the main pit with a few

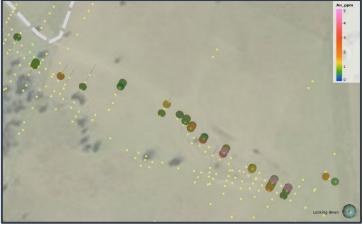


Figure 5: Target area over main pit and inter-pit area as per 1990 RAB drill program shown. Gold intercepts greater than 0.5g/t Au highlighted

encouraging +0.5g/t intersections to the north of the pit. Secondly it targeted an area to the north west of Mount Aubrey, but south-east of "Blue Hills" to test potential continuity of the system. Thirdly, a wide- spaced grid east of Mount Aubrey was drilled with roughly 400m spaced holes. The combined program was drilled either vertically or at -60° SSW. The holes drilled at -60° had an average down hole depth of 50m (just under 40m vertical depth) while the vertical holes were drilled to an average depth of 26m.

Below are two images depicting the work completed between 1987 and 1990. Figure 6 shows all collars while Figure 7 focusses on the mount Aubrey mine area.

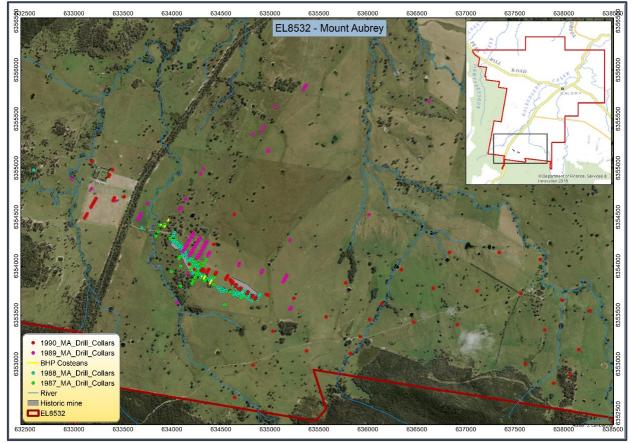


Figure 6: Drill collars of work completed during the period 1987 and 1990. Colours indicate different years. 1987 = Green, 1988 = Blue, 1989 = Pink, 1990 = Red





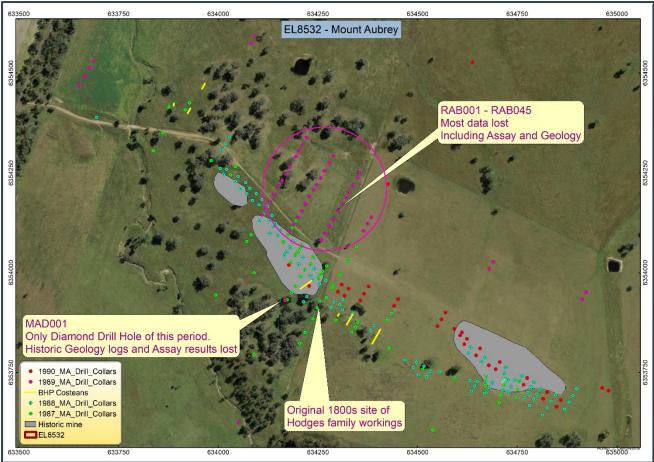


Figure 7: Drill collars of work completed during the period 1987 and 1990. Localised area around Mount Aubrey project shown. Colours indicate different years. 1987 = Green, 1988 = Blue, 1989 = Pink, 1990 = Red

Mining commenced September 1989 and concluded in February 1990 with a total of 120,000t of ore reported at a grade of 3.3g/t for around 12,000 ounces. Figure 8 shows a plan of the Mount Aubrey mine site with site compound, ore and waste stockpiles and three pits indicated.

The ore was sent to the London Victoria mine for treatment and served as supplementary feed for the larger London Victoria project.

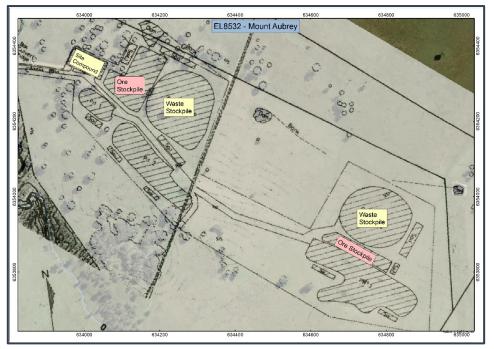


Figure 8: Site plan of the Mount Aubrey mine area. - From BHP report 1989





At the direction of the then-landowner, no blasting was completed during the production phase of the Mount Aubrey mine resulting in the pits only going as deep as the "free digging" method constraints allowed. There was also no mine cut-off grade with all exposed quartz material being mined as ore and carted to London Victoria. The small satellite pit in the north-west (pit1) was mined to a depth of between 10 and 15 meters (based on eye-witness accounts from the Hodges family who still own the land). The larger satellite pit was slightly deeper at about 20m, while the main pit in the south-east (pit 3) was mined to a depth of 45m below surface.

#### **1991**

BHP Gold-Newcrest Mining completed a small drilling programme looking for extensions and later relinquished the tenement (see Figure 9). The geological and assay data of this drill program has also been lost over time.

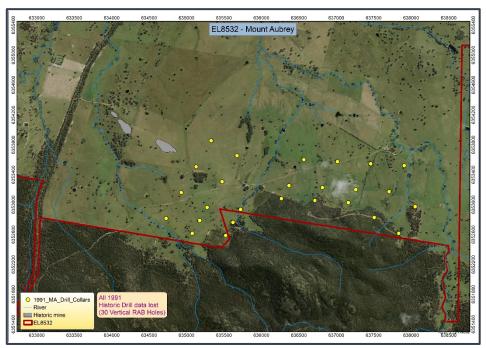


Figure 9: 1991 Newcrest exploration collars

#### 1991-2005.

Various companies explore the area, but no drilling or major projects were completed on the Mount Aubrey historic area.

#### 2007-2015.

YTC Resources took up the Mount Aubrey project area and completed various drilling programmes.

In 2007 three diamond drill holes were completed south of the historic pits testing the depth extent of the mineralisation (see pink collars in figure 12). The holes intersected strong silica alteration and anomalous gold but failed to intersect any significant mineralised veins. Diamond drill hole MAD004 intersected a long interval of low-grade gold with some veining in the top of the hole in basalt.





In 2009 an aircore program was drilled south and south-east of the main pit, testing strike extensions (see red collars in figure 12). These holes are drilled at -60° SSW and have an average down hole depth of 30m. Many of the aircore holes were terminated at shallow depth due to refusal (quartz veins and hard lithologies).

A few gold intercepts were made as indicated by figure 10.

Figure 10: 2009 aircore holes.

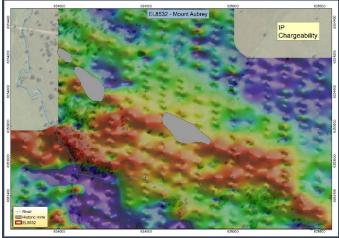


Figure 11: IP study completed in 2011. Chargeability map shown.

Figure 12 shows the drill programs between 2007 and

Ardea Resources is granted

EL8532 in March 2017.

2011.

2011 saw the last drilling on the Mount Aubrey project with the completion of 13 RC holes testing two distinct areas. MARC001-004 and MARC004b tested an area 1km south of the historic open pit mine. While no major mineralisation was reported, some of the holes were terminated due to intersecting a major fault with abundant sulphide and high water flows. YTC planned diamond tails for these holes, but they were never completed.

MARC005-012 tested an area 250m south of the main pit and found only one intercept greater than 0.5g/t.

An IP study was also completed around the Mount Aubrey Mine area during this period (Figure 11).

Figure 12: All drill collars for period 2007-2011 shown.





#### **The Present**

During early 2019 a soil auger program was conducted along strike of the historic Mount Aubrey pits to test for potential strike The sampling was extensions. done using a vehicle-mounted auger since it was known that cover depth may be an issue in the The soil program yielded area. confirmatorv results for mineralisation continuity along strike of the historic workings with peak 103ppb Au result to the north west concluding а clear mineralised strike pattern which coincides with the mineralisation extracted by the mine (Figure 13). Arsenic was associated with gold with average 94ppm. To the south east the pattern was repeated although slightly offset from the mined mineralisation.

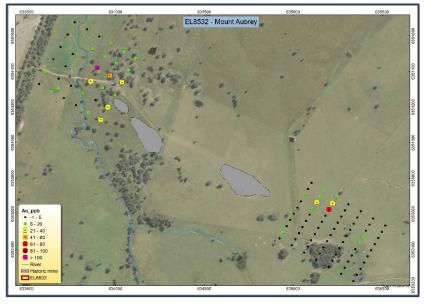


Figure 13: 2019 Soil sampling project

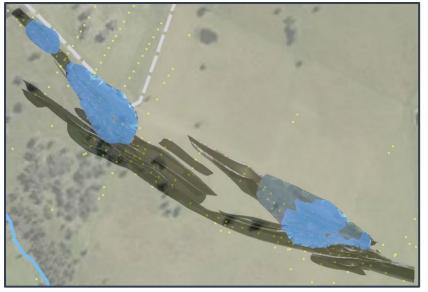
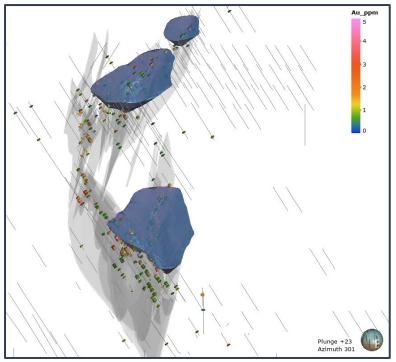


Figure 14: Plan view of 3D vein model of mount Aubrey generated by SRK in 2019.

With confirmation of the potential strike extension of the Mount Aubrey mineralisation, the next step was to investigate the depth of mineralisation using the existing data gathered since 1987. То achieve this, SRK Consulting was contracted to model the mineralised veins. This model served two main purposes. It clearly outlined the nonoutcropping veins and confirmed their interpreted strike and dip characteristics. Secondly it highlighted the potential for depth extension by identifying the depth to which the mineralised veins had been tested. Figures 15 and 16 depict the vein model generated.

10







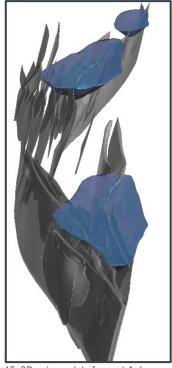


Figure 16: 3D vein model of Mount Aubrey looking at 301 degrees along strike. Drill intercepts above 0.5g/t Au highlighted.

Figure 15: 3D vein model of mount Aubrey looking 301 degrees along strike

The results from the modelling project were very encouraging. It highlighted that the project had only been tested down to a depth of 40m with any relevant drill density, and it also identified the physical vein characteristic that helped explain the offset soil anomalies to the south-east of the main pit. Most importantly it showed that there was significant economic grade mineralisation still in situ and not extracted by the production phase in 1990. If Ardea could quantify this in situ resource, it would for a nominal expenditure, clarify the potential size and follow-up drilling requirement. Comments made by BHP confirm that mine reserves were not fully extracted and rehabilitation and pit back filling was completed due to a range of issues not related to production outcomes.

One obstacle to generating a resource estimate was the lack of physical data from the open pit mines that could be used to accurately deplete the resource. Some historic reports mention a mining depth of 40m, but no pit survey data is available to reconstruct a pit shell. So, a method was required to capture the shape of a 29-year-old back-filled pit.

A few options were considered to tackle this problem. IP was the most recommended option. After discussions, a novel approach was selected.

#### Deep Ground Penetrating Radar.

The discussions with the Digital Ground Penetrating Radar (DGPR) contractor resulted in the potential for identifying the actual mineralised quartz veins (in addition to the pit volume). It would be beneficial to quantify both in a single survey. To test the theory, Ardea designed 15km of survey lines for the DGPR from 500m northwest to 750m southeast of the historic pits. The data acquisition took a day and a half and resulted in some spectacular data. Image 17 depicts the pit shapes in plan view as identified by the DGPR survey.

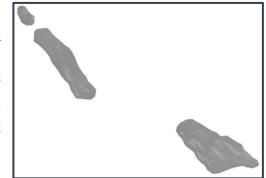


Figure 17: DGPR generated pit shells.





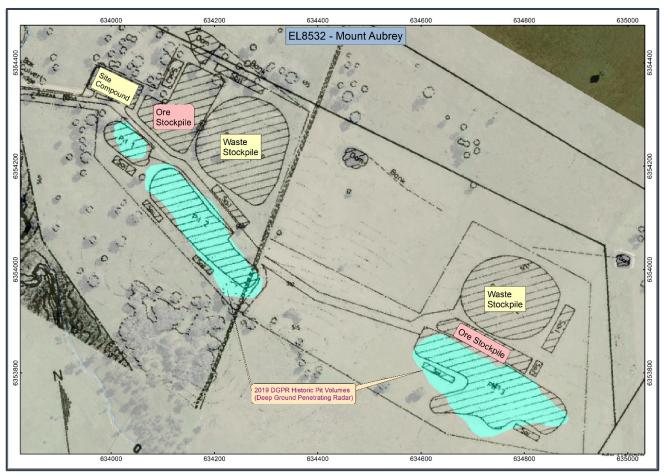
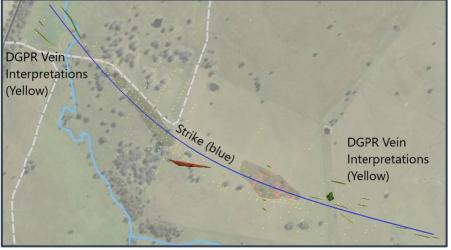


Figure 18: Mount Aubrey site plan with DGPR pit shapes in turquoise superimposed.

It's one thing to create shapes, but to validate them is another. To ensure that the DGPR shapes are credible, Ardea superimposed the pit shapes on a georeferenced image of the BHP mine (Figure 18).

The DGPR identified several vein arrays along with defining the backfilled pit shapes. An important aspect was the continuity of the strike of the veins. Importantly the veins to the northwest are not parallel to the those in the southeast. This is crucial since the mapped veins and the soil sample results are offset, and the modelled veins all indicate a change in strike in the middle of the deposit from around 313° to 285° (Figure 19). The fact that the DGPR was able to identify this increases the confidence in the results.

Figure 19: Change in strike of the mineralised veins on the Mount Aubrey project.





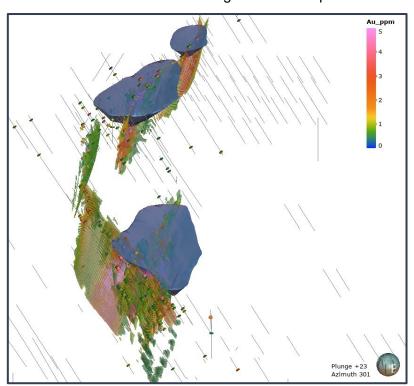
#### Resource

Once a volume for the pits was determined, Ardea were able to differentiate between what was extracted in 1990 and what mineralization remains. With this in mind, the first Inferred Mineral Resource estimation for Mount Aubrey began. Using the geological vein model created during the exploration target phase and the validated historic drill database, an inverse distance estimation was generated and then depleted using the pit generated by the DGPR. The resource extends about 100m southeast of the main pit and 20m northwest of the historic satellite pits and between these pits and has a maximum depth of 120m below surface. Below are a few images of the completed model.

Figure 20 depicts a view along strike looking from the southeast and shows the three historic pits, the drill holes with grades above 0.5g/t Au highlighted and the resource model with blocks above 0.5g/t Au shown. Figure 21 is a long section of the Mount Aubrey Resource with some higher grade intersections in the "In Situ" resource highlighted.

The published inferred resource is **1.21Mt at 1.61g/t Au for 62,400oz**.

Figure 20: View along strike of the Mount Aubrey resource showing pit solids, drill intercepts above 0.5g/t Au and the block model.



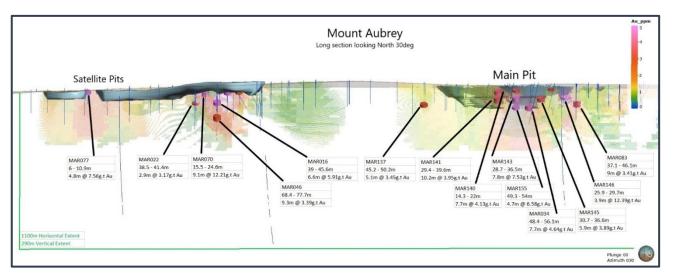


Figure 21: Long section of the Mount Aubrey project. GPR pit shells, block model and major in situ drill hole intersections are shown.







#### The Future

#### **Drill test for extension**

As mentioned above, the resource estimation is confined to the immediate pit area and thus leaves the extensional areas open for future exploration. Two obvious targets exist in strike and depth extension.

#### **Depth extension**



Figure 22: Separate vein phases with sulphides from MAD004 drill core.

Three holes were drilled below the pit in 2007 and did not intersect any major quartz veins. The minor veins logged revealed silicification and multiple vein phases as is seen in Figure 22. The three holes are also very widely spaced and therefore affords us a depth extension target.

The general stratigraphy consists of a sequence of gently southerly dipping ignimbrites/rhyolites underlain by a basalt, a sedimentary suite and then porphyritic andesites. The mineralised suite lies within the basalts and historic reports indicate that the mineralisation is best developed in the basalt. Modelling the stratigraphy is also a high priority at Mount Aubrey.

In an epithermal system as identified in the BHP mining operation, the expectation would be a feeder system below the mined shallow deposit.

As well as the WNW structure identified by BHP at Aubrey, the regional geological maps identify reverse faulted contacts bounding the southern and eastern margins of the Cuga Burga Volcanics.

With only three widely spaced deep historic holes targeting the mineralised system at depth, further deep drilling is required. Figure 23 depicts the shallow nature of the historic drilling as well as the wide space between deep intercepts. Specifically, there has been no attempt in historic drilling to quantify plunge directions on the known ore positions.





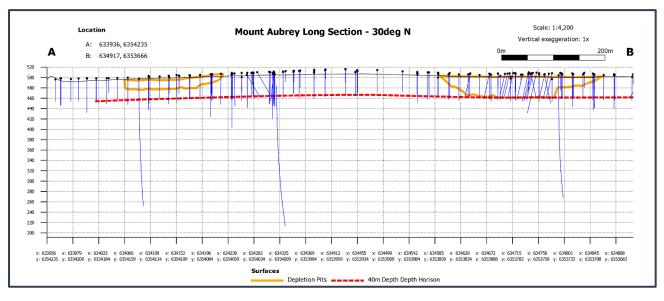


Figure 23: Long section of Mount Aubrey indicating the shallow nature of the current drill data.

There is a lot of work still to be done on understanding the Mount Aubrey deposit. Understanding the characteristics of the grade plunge will also be very important to any future resource work. Ardea, or to be correct, its spin-out company **Godolphin Resources Limited**, cannot explore this deposit by drilling 'Hail Mary' holes in areas without supporting data.

The initial phase of work has been completed, being the JORC 2012 resource announced by Ardea 28 August 2019.

#### **Strike Extension**

The DGPR survey identified a number of potential vein structures which represent drill targets for our planned drilling phase. During 2009 YTC completed an aircore program immediately south east of the Mount Aubrey pits which we have analysed along with the new DGPR shapes and found the results to be encouraging (see figure 24). Some positive grade intersections were made in the 2009 program and when compared against the DGPR shapes they align to form linear features. Several holes were drilled in the barren domain between veins and no holes were drilled to the east, where veins were positively identified by the DGPR leaving these veins untested and a real opportunity. The northern-most DGPR vein was tested by drilling immediately along strike but no significant grade intercepts were recorded. The existing drilling in the area does not penetrate to the fresh protolith and leaves this target (as defined by the DGPR veins) untested below the weathered zone.





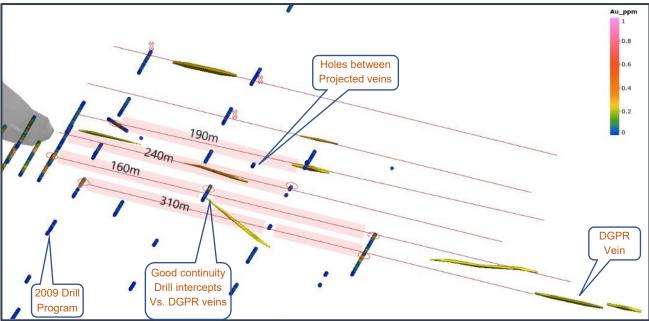
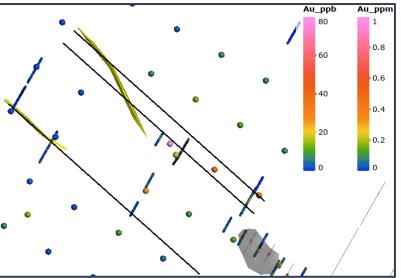


Figure 24: Analysis of drilling intercepts vs. DGPR veins indicate linear continuity potential.

A similar situation exists to the north west of the Mount Aubrey pits. Here reconnaissance holes have been drilled historically, and increased grade from this drilling aligns with the DGPR vein sets as well as with the higher grade intercepts from the Ardea soil auger assays as seen in figure 25.

Figure 25: Linear mineralisation potential indicated via 2019 soil sample results, DGPR veins and historic drill results.



The transported cover sequence in this area is much deeper than in the south eastern area and it has a seasonal drainage stream which may interfere with all the auger samples. The RC drill testing into fresh rock will be a vital source of information here.

At this stage the first phase of RC drilling to commence late 2019 following the listing of Godolphin is planned to be between 2500 and 3000m, targeting the areas mentioned above at depths of 40m for strike extension and 80-100m for depth extension as is seen in figure 26 & 27.





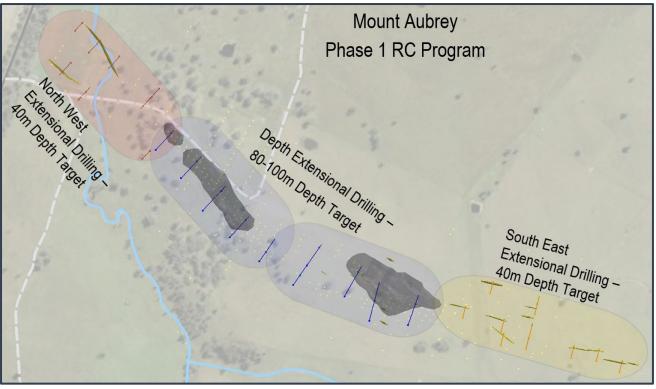


Figure 26: 2019-2020 Phase one drill design

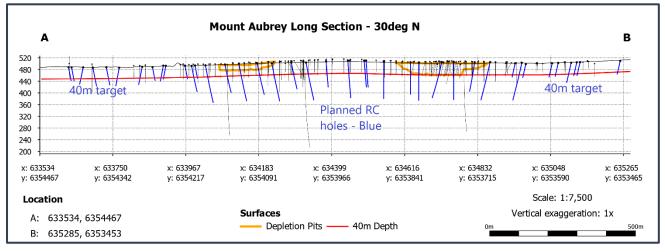


Figure 27: Long section indicating planned drill holes in blue with historic holes in black. 40m depth contour and historic pits on section also shown.



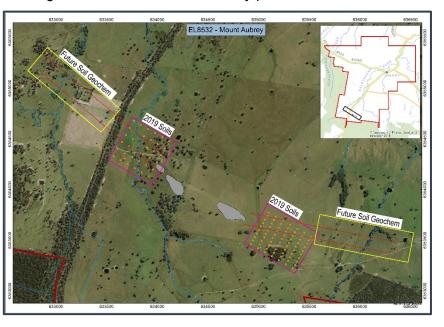


Soil auger multi-element geochemistry is also planned as part of the search for further strike extensions. These soil samples will be the first step in the sequence of target vectoring work aimed at generating a drill target along strike and are planned by using the information already gathered regarding the orientation of the veins in the DGPR study. This has indicated that the original historic "Blue Hills" target may not be a major zone of mineralisation but rather an off-shoot from the main system since it lies to the south of the current trend. This may also explain why the historic drilling in the area did not intersect any significant gold values. The trend currently points to a location north of

"Blue Hills" and along strike of the modelled veins.

Historic reconnaissance drilling did intersect minor gold grades in this area which is considered encouraging. Due to the deep cover the soil samples will need to be taken at a minimum depth of 5 meters depending on the depth of the "C" horizon (Figure 28).

Figure 28: Proposed soil grids planned for 2020.







# The Final Frontier"

Depending on the outcome of the first phase of drilling, additional more detailed definition style drill programs are planned to push the project into the final Resource Estimation phase for the "near mine" area.

Further from the current exploration footprint additional expansional studies are planned in the form of soil geochemical grids leading to the next step in exploration depending on the results obtained.

The 2019 soil program also identified another area to the south east called Emu Swamp. This area coincides with the projected strike of the mineralisation from the main Mount Aubrey deposit and has a few mapped chalcedonic veins with gold and molybdenum grades. The area also has probable presence of mineralised sub volcanic intrusions related to the Dulladerry Volcanics or the Yeoval Batholith and has mapped felsic intrusive dykes further north.

#### References

Cooper, I and Small, C, 2015. Exploration Licence 6673 Baldry, Ninth and Final annual report 5 December 2014 to 4 December 2015. YTC Resources Ltd. GS2016/062

Dugmore, M, 1988. Exploration Licence 2771 (BHP-Gold) "Curumbenya, New South Wales". Report for the third six monthly period 16tFebruary 1988 to 15 August 1988. BHP-Gold. GS1989/183

Hopf, S, 1992. Host rock geochemistry and alteration in the Palaeozoic Mount Aubrey epithermal Gold deposit, NSW. Geol. Soc. Aust. Abstracts 32 p79-80.

Ostrowski, M, 2019. Exploration Licence No 8532 "Mount Aubrey" - Previous Exploration Overview, Interpretation of Past Results and Target Generation (Internal Ardea Report prepared by Rangott Mineral Exploration Pty Ltd).