

EL11/2019
Denison River
Diamond Drill Report
DRG006
Exploration Drilling Grant Initiative round 8

For:

Edrill Australia Pty. Ltd.

April, 2024

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Summary

Drill hole DRG006 is located on Edrill Australia's Denison River Exploration Licence 11/2019, located in North-Eastern Tasmania. The hole was part of a successful application to Round 8 of Mineral Resources Tasmania's Exploration Drilling Grant Initiative by Edrill Australia. It was collared on July 11 and completed on September 1 at a final depth of 554.4 m.

The aim of the DRG006 was to test interpretation of passive seismic data for structures within metasediments and the depth of an underlying intrusive body. Additionally, the hole aimed to test for a southern extension of the structure reported at the Bardenhagens Workings prospect, and establish whether the underlying intrusive was the potential source for potential supergene gold mineralisation found within EL11/2019.

Hole depth was planned for 700 m, but significant hole deviation and highly broken ground bogging drill rods resulted in early termination of the hole at a depth of 554.4 m. The geology consists of sandstone-dominated turbidites of the Retreat Formation, and one narrow Tertiary basalt dyke.

The hypothesised intrusive at depth was not adequately tested due to a combination of deviation of the hole from the planned azimuth and inclination and early termination of the hole prior to the expected intersection of the intrusive. Alteration and metamorphism within the hole generally did not appear to be significantly increasing to indicate the presence of a proximal intrusive. Deviation of the hole also prevented adequate testing for a southern extension of the structure reported at Bardenhagens Workings.

A total of 82 samples were submitted to ALS for analysis by fire assay, with the majority of samples below detection. A maximum value of 0.13 ppm Au was obtained at 391 m in a pervasively silicified sandstone with minor disseminated pyrite immediately above a fault zone, while a minor albitised zone with sheeted silica veins and moderate disseminated sulfide immediately below this returned assays of 0.01 ppm Au.

Strata plunges gently to the south, with local-scale folding dominated by mostly open NNW-trending folds. Multiple faults and shear zones sub-parallel to bedding indicate N-S shortening, while E-W features are mostly joints and various veins perpendicular to bedding, with rare faults. These E-W structures aligning well with joints and poddy veins associated with mineral occurrences in the vicinity of the East Denison prospect and the intersected Tertiary basalt dyke. The orientation of these features appear to agree well with interpreted passive seismic features, but more work is required to determine the positional accuracy of structures interpreted from passive seismic. Analysis of structural measurements is ongoing.

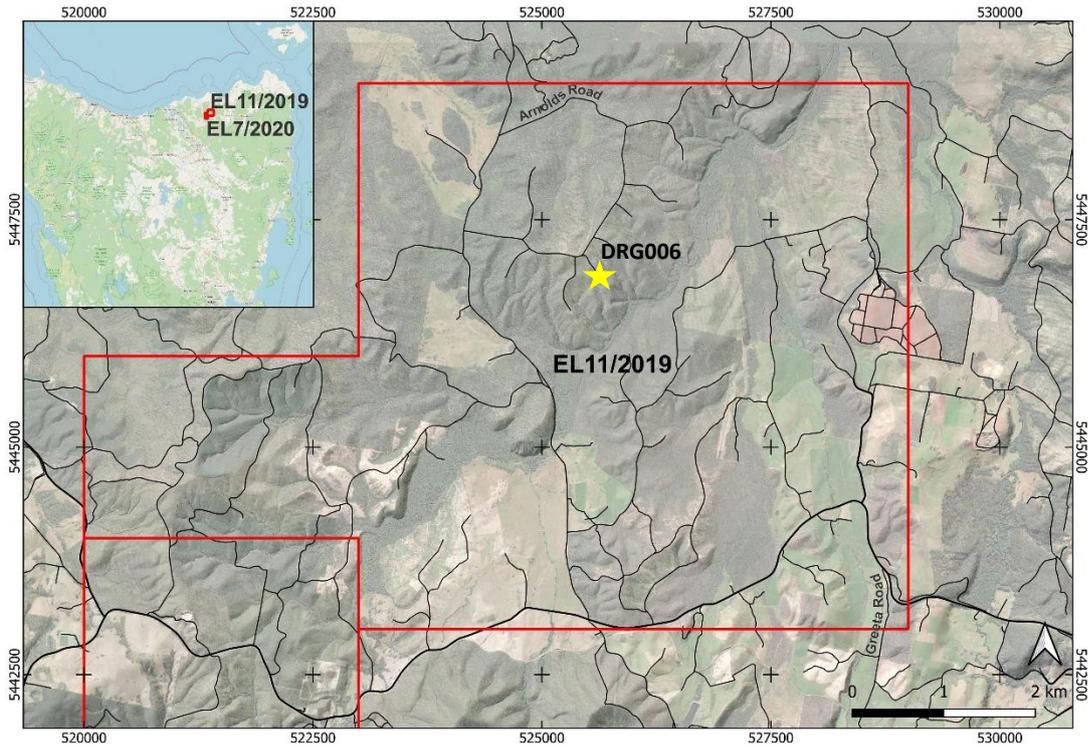


Figure 1: Location of EL11/2019 and DRG006.

Introduction

Edrill Australia was awarded funding of up to \$70,000 under Round 7 of the Exploration Drilling Grant Initiative provided by the Tasmanian Government to support drilling of a diamond drillhole on Edrill’s EL11/2019 located in NE Tasmania approximately 17 km to the west of Scottsdale, and 15km NE of Lilydale. The purpose of this report is to detail findings from diamond drillhole DRG006, completed under this program.

Drill hole DRG006 is located within Edrill Australia’s EL11/2019 in NE Tasmania. The drill site may be accessed by 2 WD vehicle via a network of well-maintained forestry roads. The hole was drilled to a total depth of 554.4 m between July 11th and September 1st, 2023 using an Atlas Copco CS1000 diamond drill rig. Hole details are summarised below in Table 1. The hole was surveyed using an Axis Gyro core orientation tool at nominal 30m intervals. Upon completion, the drill hole was capped, and the site rehabilitated as detailed below in Site Rehabilitation.

Drillhole data including drill logs, geochemistry, downhole surveys, structures, and RQD were previously submitted with the 2024 Annual Report for EL11/2019.

All coordinates listed in this report were collected using a Garmin handheld GPS, and are in GDA94 MGA Zone 55.

Table 1: Tenement details for EL11/2019.

Licence	Name	Area	Date Granted	Expiry Date
EL11/2019	Denison River	42 sq. km	05-Feb-20	04-Feb-25

Table 2: Drillhole collar information. Coordinates provided in GDA94 MGA Z55.

Hole_ID	Easting	Northing	RL	EOH	Dip	Azimuth	Date Commenced	Date Completed
DRG006	525769	5447194	138	554.4	-67	179	11/07/2023	1/09/2023

Geology

The geology of EL11/2019 is dominated by Silurian Panama Group rocks of the Mathinna Supergroup. Most of the property is mapped as underlain by the Lone Star Formation, a predominantly thin-bedded siltstone with interbedded fine-grained quartz-rich sandstone increasing towards the top (Seymour et al, 2011). These silts overlie the interbedded turbidites of the Retreat Formation, which is dominated by medium to fine-grained quartz-rich sandstone with subordinate siltstone-mudstone. Sediments have been shortened in an ENE-WSW direction, resulting in a regional trend of NNW-trending fold axes, with available mapping data suggesting Mathinna sediments dip gently to the east, with folds plunging gently to the south within EL11/2019.

Structural mapping in the region shows most faults are oriented NNW-SSE, parallel with a large thrust fault approximately 1 km to the east of DRG006 with the older Retreat Formation rocks thrust over Lone Star Formation rocks. Regional geophysical data shows this as the western margin of a major structural zone, which also marks the boundary between the poorly exposed Lisle Granite from the Diddleum Granite. Although it is not formally grouped with the Scottsdale Batholith, the Lisle Granite is presumed here to be part of it, with both are described as medium- to coarse-grained equigranular biotite-hornblende granites, and ages of 395.3-391.3Ma and 392.6-388.8Ma have been obtained for the Lisle Granodiorite and the Diddleum plutons respectively. Modelling of regional gravity data suggest the granite body may be in excess of 1km below surface in the vicinity of the drill hole. However, dykes with propylitic alteration have been intersected in the vicinity of historic mines within EL11/2019, including the Sir William Denison and Wiangatta mines, respectively located approximately 1.5km to the SW and 1.8 km to the SE of DRG006, and Roach (1994) modelled an intrusive body underlying the licence as shallow as 500m. More recently, interpretation of a passive seismic survey for Edrill suggested several potential cupolas underlying the tenement, and reprocessing of gravity and magnetic data by Bombardieri et al (2021) suggest an intrusive body shallowly underlying EL11/2019 in the vicinity of the East Denison prospect. The intrusive modelled by Bombardieri et al. (2021) broadly follows the contact between the Lone Star and Retreat Formations, with high model uncertainties in this area noted due to similar densities and magnetic susceptibilities of the potential intrusive and sediments.

The East Denison area is extensively veined, with sandstone units often featuring stockwork veining and variable silicification. Veins are oriented predominantly parallel to the NNW and ENE structures noted above. Outcrop in the vicinity of DRG006 is sparse, with subcrop in the vicinity of DRG006 consisting of highly veined fine to medium sandstones. Existing 1:25,000 geology (Figure 2) indicates the collar of DRG006 is within Retreat Formation sandstones, consistent with geology reported a short distance to the north at Bardenhagen's Workings.

Historical Mining and Exploration

DRG006 is located approximately 350 metres to the SW of Bardenhagens Workings mineral occurrence, and approximately 1.25 km NE of the faulted transition into the overlying Lone Star Formation, along which there is a total of 24 mineral occurrences listed. The majority of workings along this unconformity operated from about 1870 until the early 1900's, and mostly consist of small pits and trenches targeting quartz veins, with few reporting economic extraction of Au. The largest working in the area is the Wiangatta mine, which was reported to have worked a narrow vein to a depth of about 80m, averaging 68.4g/t Au, the gold being nearly pure (Komyshan, 2004).

Since mining ceased at the Golconda Goldfields there has been little systematic work completed in the area. The ground has been held by numerous companies, including EZ (EL2/1967, EL12/1967), Comalco (EL25/1976), Argyle Minerals NL (EL32/1985), Shell (EL6/1990), Anglo Australian (EL38/1994), Lefroy Resources/Beaconsfield Gold NL/Tamar Gold (EL13/2006), and Tracker Geoservices (EL7/2014). Few of these companies appear to have completed work in the area, and no diamond drilling is known prior to activity by Edrill apart from four holes at Bardenhagens Workings, of which only one was logged.

There is no detail available on historic extraction from Bardenhagens Workings (originally named Cootes Reef). However, excavation works in the 2000's exposed a NNE-striking quartz reef for over 80m in strike. A single sample assayed at 4.73g/t Au, with all other rock samples <1g/t Au, and averaging 0.51g/t Au. Channel sampling along sections of the hangingwall, reef and footwall proved Au within the reef to be consistently elevated, averaging approximately 0.36g/t Au compared with 0.12g/t and 0.15g/t for the hangingwall and footwalls respectively.

The only other nearby exploration work consists of C-horizon soil sampling by Anglo Australian, which extends along either side of the Denison River from the Southern Globe workings to 1km NE of Bardenhagens Workings. This sampling program highlighted mineralisation at the East Denison prospect, but did not directly cover the location of DRG006, with the closest samples located at Bardenhagens Workings at or below detection limits.

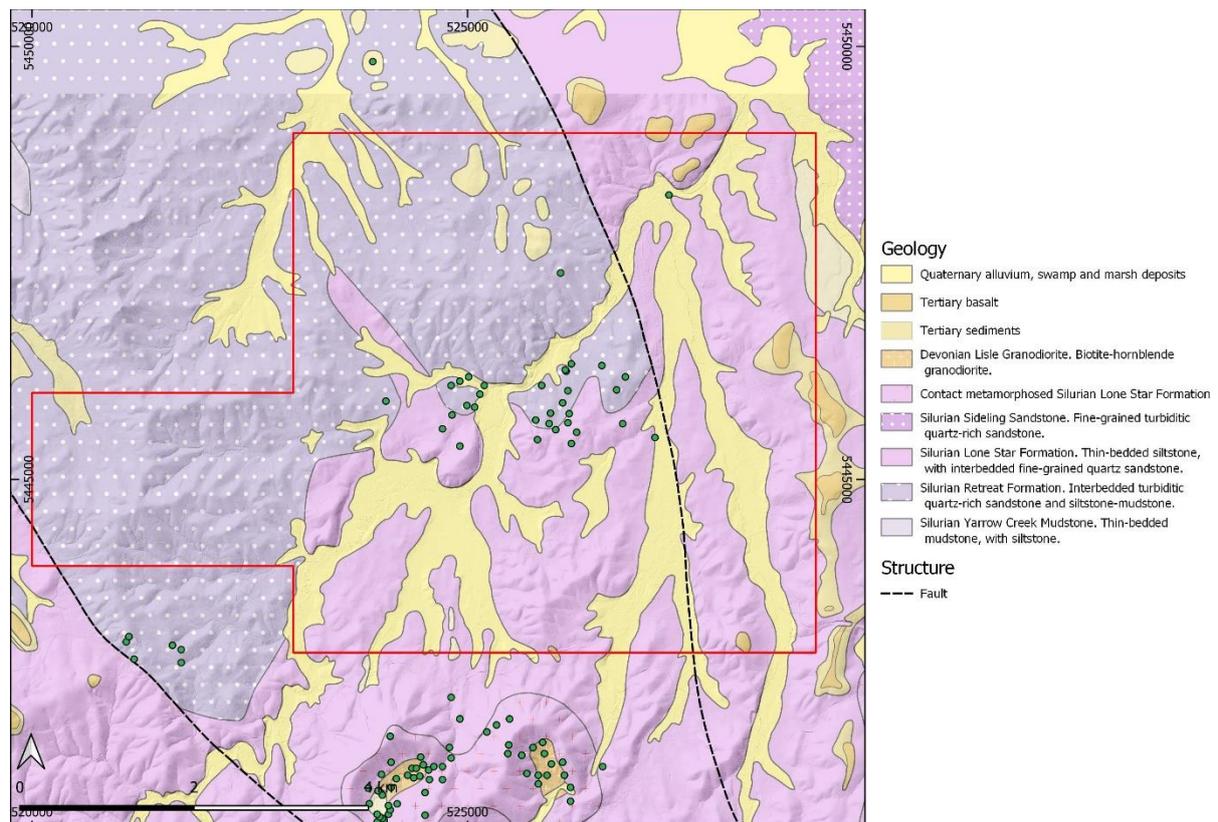


Figure 2: Geology and mineral occurrences for EL11/2019.

DRG006 Summary

DRG006 was drilled with multiple objectives:

- Verify interpretation of an intrusive body approximately 500 m below surface, the nature of this contact, and associated prospectivity
- Verify interpretation of passive seismic modelling of structures within Mathinna metasediments
- Test for a southerly extension of a NNE-trending structure hosting mineralisation at Bardenhagens Workings

Planned hole depth was 700 m, with an inclination of -70 to result in intersection of the southerly projection of the mineralised structure at Bardenhagens Workings around 480 m downhole, and

intersection of the modelled granite approximately 580 m downhole. Where orientations allowed, structures were measured for testing interpretation of structures within metasediments by passive seismic modelling. These data will be correlated with structural information from other DDH across EL11/2019 to inform structural trends across the tenement, and combined with seismic velocity data collected from drill core samples to tighten constraints on passive seismic modelling and improve interpretation.

Results

DRG006 was commenced on July 11, 2023, and completed at a depth of 554.4 m on September 1, 2023. The hole was terminated early at 554.4 m due to bogged drill rods in highly broken ground and significant deviation of the drill hole. Drilling was commenced in HQ diameter, and reduced to NQ at 87 m depth. An interpretive section of the hole is shown in Figure 5, with drill hole data included in digital appendices.

The hole was collared into strongly weathered and oxidised Retreat Formation saprolitic sandstone dominated turbidites with strong FeO banding in sandstones and silt intervals variably altered to clay to the base of oxidation at 21.5 m. Sulfides are oxidised in this zone, with minor zones of spotted oxidation within sandstones.

Sandstone-dominated Retreat Formation turbidites continue below the base of oxidation, with trace to weak chlorite alteration throughout, accompanied by trace to minor fine disseminated pyrite, and minor infiltration of oxidation from faults and fracture planes from 21 to 70 m. Immediately below the oxidation zone medium-grained sandstones have patchy banded biotite metamorphism interspersed with strong clay-altered silts, with minor zones of weakly silicified and sericitised feldspathic sandstone.

Medium- to very coarse-grained quartz sandstone with variable argillic alteration and spotted biotite hornfels textures of the feldspathic matrix dominates from 35 to 46 m, ending in a strongly oxidised 1 m zone at 46 m where the rock has decomposed to loosely consolidated sands. Below this is an interval of feldspathic sandstone to about 69.2 m. Sediments in this zone are fault-bound, variably silicified, and with patchy sericite and silica alteration, with minor black silt interbeds with variable clay alteration. Pyrite is elevated in this zone, particularly on illite-coated fractures, but elevated mineralisation does not cross bounding fault zones. The base of this zone is marked by a brittle fault zone with angular highly silicified sediment clasts within oxidised clay-illite infill.

A large fault zone with variable shear is intersected from 69 – 70 m, hosting oxidised clays and moderate to strongly silicified clasts. Shear textures parallel to bedding penetrate rocks above and below the fault, with textures visible in rocks several metres above and below the fault, and a repeat of sheared feldspathic sediments with bedding-parallel shear from 80.5 – 82.5 m.

Below 70 m to the end of hole at 554.4 m is a monotonous turbidite sequence with relatively minor local variations in composition, alteration, and veining. Sandstones rarely show grading, but commonly contain siltstone rip-ups at the base of beds and loading structures in underlying silts. Silts generally have planar to graphitic shear parallel to bedding with rare slickens, while joints in sandstone often host veins.

Rocks generally have pervasive trace to weak chlorite alteration fine disseminated pyrite interpreted as related to regional metamorphism, along with varying degrees of silicification and hornfelsing. Turbidites from 380 – 392 m are moderately quartz veined with pervasive silicification, and are underlain by a fault-bound minor zone of albitised and weakly hornfelsed sandstone with banded quartz veining and 3% disseminated pyrite (Figure 3). This interval forms the most mineralised interval in the drillhole.



Figure 3: Minor zone of albitised sediments with sheeted quartz veins in DRG006 at 393m.

The only variation from the turbidite sequence is a minor Tertiary basalt dyke with intrusive margins, intercepted 346 m downhole. Dyke margins are undulose, but suggest the dyke dips steeply to the NE. The hypothesised intrusive at depth was not intersected at depth, and alteration and metamorphism did not appear to be significantly increasing to indicate the presence of a proximal significant intrusive body. This could be due to a number of factors, including deviation and flattening of the hole from the planned azimuth and inclination, and early termination of the hole prior to the expected intersection of the intrusive.

Structure and Veining

Core was very broken in the upper parts of the drillhole and several other potentially structurally important zones, preventing measurement of structures beyond angle of structures relative to core axis. Bedding generally plunges 20 – 30° to the south, with local NNW-trending folds, and small-scale folds producing local variations including rare steeply north-dipping beds. Faults and shears are mostly parallel with bedding, and are visible mostly in sheared siltstone units as brittle chloritic shear zones. Moderate to steep NW to NNW dipping faults are parallel with jointing, and are interpreted as secondary to bedding-parallel faults and shears.

Measured faults do not include larger faults associated with rubble zones which could not be measured, but shear textures in adjacent siltstone units generally imply the majority of these are sub-parallel to bedding. Rare slickens suggesting these are a result of N-NNW shortening, with rocks to the south thrust northwards. The orientation of the major fault/shear zone at 70 m depth could not be measured, but sheared silts within and adjacent to this zone indicate the fabric is sub-parallel to bedding. A similar distribution of bedding and fault planes indicates N-NNW shortening and associated faulting occurred prior to development of NNW-trending folds.

Veins consist of quartz, quartz-carbonate, quartz-chlorite, and illite, with rare pyrite-rich veinlets, and are predominantly aligned with steeply N- to NNW-dipping joints. Chlorite in veins is strongest proximal to siltstone horizons, and commonly hosts trace amounts of pyrite. There does not appear to be any trends in specific vein orientation for individual vein types.

Although broken ground prevented core orientation over large parts of the hole, bedding, fault, vein, and joint data are consistent with structures measured in other diamond drillholes in the tenement

area, and from this it is assumed structures in the upper part of DRG006 are consistent with measurements further downhole.

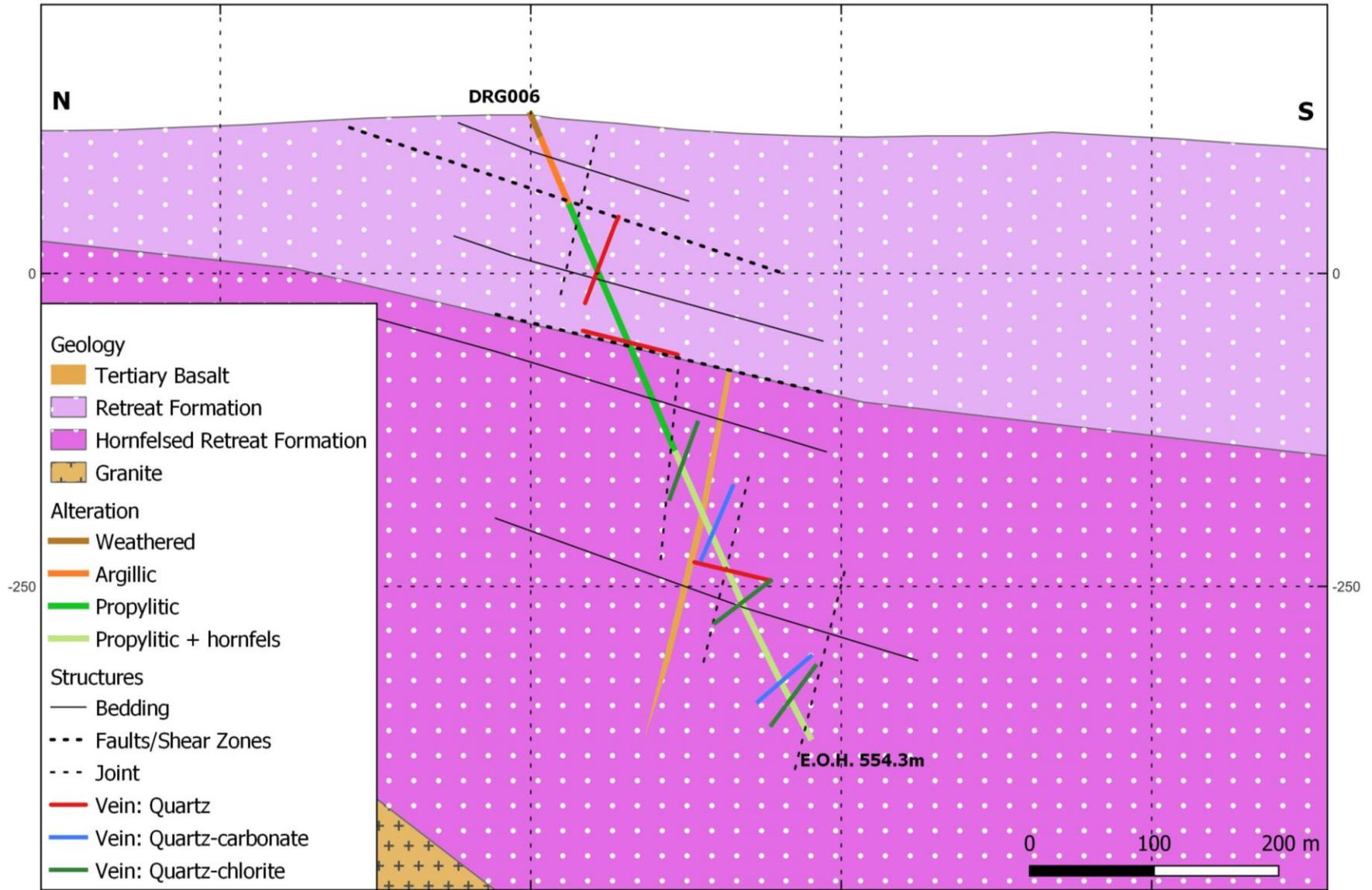
Structural data are provided in digital appendix 7.

Sampling

A total of 82 samples were submitted to ALS for analysis by fire assay, with the majority of samples below detection. A maximum value of 0.13 ppm Au was obtained at 391 m in a pervasively silicified sandstone with minor disseminated pyrite immediately above a fault zone, while a more strongly silicified and sulfidic zone with albitisation immediately below this fault returned assays of 0.01 ppm Au. Sample assay data is provided in digital appendix 4.

Drill Core Storage

Drill core was stacked on pallets and delivered to the MRT Mornington Core Library for permanent storage in February 2024.



Site Rehabilitation

The drill pad was rehabilitated upon completion of the hole and removal of the drill from site (see Figure 5). Minimal works were required due to the pad being located at the end of an established forestry road, with no contouring required. An access path for the water pump which required construction of a temporary access trail did not require removal of trees or excavating, and has been left to regenerate.

The drill collar remains in-situ due to drill rods stuck downhole. An attempt will be made to recover these in 2025, and will be cut below surface if they cannot be removed.

The site will be monitored for revegetation progress for the duration of the licence period.



Figure 5: DRG006 drill site looking to SE. Site located at end of forestry road and no sumps excavated. Drill collar remaining in place until 2025.

Conclusions and Recommendations

DRG006 was drilled to test structural interpretation of passive seismic data and the depth of an underlying intrusive body, in addition to the southern extension of a mineralised structure reported at the Bardenhagens Workings prospect. Hole depth was planned for 700 m, but was terminated early at 554.4 m due to bogged drill rods.

Geology of DRG006 consists of variably hornfelsed sandstone-dominated turbidites of the Retreat Formation, and one narrow, steeply dipping Tertiary basalt dyke at 350 m. The hypothesised intrusive at depth was not adequately tested due to early termination of the hole, but alteration and metamorphism within the hole do not indicate a proximal intrusive. Deviation of the hole also prevented adequate testing for a southern extension of the structure reported at Bardenhagens Workings. A total of 82 samples were submitted to ALS for analysis by fire assay. Most samples returned assays below detection, with a maximum of 0.13 ppm Au at 391 m in silicified sandstone with minor disseminated pyrite located a minor albitised zone with sheeted silica veins.

Structural measurements of drill core shows strata plunging gently to the south, with local-scale folding dominated by mostly open NNW-trending folds. Multiple faults and shear zones sub-parallel

to bedding indicate N-S shortening, while E-W features are mostly joints and various veins perpendicular to bedding, with rare faults. The orientation of these features broadly agree with interpreted passive seismic features, which suggest mostly NNW structures with several E-W features, although greater resolution is required to accurately determine positions of features in passive seismic data.

Further analysis of structural measurements is recommended. Additional work is required to determine the positional accuracy of structures interpreted from passive seismic, potentially including refining modelling of passive seismic data with seismic velocities obtained from DRG006. This reprocessing may also aid in determining the position of underlying intrusives and locating of subsequent drill holes in the tenement with similar objectives.

References

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List of Digital Appendices

Exploration Work Type	Filename	File format
Report	EL112019_DRG006_01_Report	pdf
Drilling		
	EL112019_DRG006_02_SL.xls	xls
	EL112019_DRG006_03_DS.xls	xls
	EL112019_DRG006_04_DG.xls	xls
	EL112019_DRG006_05_DL.xls	xls
	EL112019_DRG006_06_Lithcodes.xls	xls
	EL112019_DRG006_07_Structure.xls	xls
	EL112019_DRG006_08_RQD.xls	xls
File Verification Listing (<i>this file</i>)	EL112019_DRG006_09_FileListing.xls	xls