

**EL18/2018**  
**TELEGRAPH CREEK, TASMANIA**

**THIRD ANNUAL REPORT**  
**FOR THE YEAR ENDED**  
**27 MARCH 2022**

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KINGFISHER EXPLORATION PTY LTD  
(A FLYNN GOLD LIMITED COMPANY)

Prepared by:  
H. Cowie  
March 2022



## EXECUTIVE SUMMARY

EL18/2018 covers 94 square kilometers of ground in the vicinity of Telegraph Creek, near Gladstone in NE Tasmania that is considered prospective for orogenic gold style deposits. The project is currently operated and funded by Flynn Gold Pty Ltd. This report documents exploration activities carried out in the third year of tenure during the period 28<sup>th</sup> March 2021 to 27<sup>th</sup> March 2022.

Exploration activity undertaken for EL18/2018 during the reporting period included:

- Landowner consultation;
- Geochemical interpretation of samples collected in the second reporting year;
- Field reconnaissance - mapping and rock chip sampling; and
- Work program design.

49 samples of float and outcrop collected during the previous reporting period were returned. Results were generally considered disappointing and failed to generate any significant follow-up targets however the north-western quadrant of the tenement requires further reconnaissance before the overall tenement prospectively can be evaluated.

Recommendations for exploration work during the fourth year of tenure include:

- Geological reconnaissance, rock chip sampling and mapping in the north-western quadrant of the tenement.
- Targeted soil sampling over magnetic features and areas defined by geological mapping and sampling.
- Tenement rationalization.

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## List of Digital Files

<i>Exploration Work Type</i>	<i>Filename</i>	<i>File format</i>
<b>Report</b>	EL182018_202203_01_Report	pdf
<b>Drilling</b>		
<b>Surface sampling</b>	EL182018_202203_02_Rock Sample Assay Data EL182018_202203_03_Rock Sample Description	xls xls
<b>Other (specify)</b>		
<b>File Verification Listing (this file)</b>	EL182018_202203_04_File Listing	xls

# 1 INTRODUCTION

This report is the Third Annual Report for EL18/2018 located near Gladstone in NE Tasmania (Figure 1). EL18/2018 covers 92 square kilometres of ground that is considered prospective for orogenic gold deposits based on proximity to mineralisation in the adjacent EL11/2012 and EL18/2016 leases. This report documents exploration activities completed over the 12 months ending 27<sup>th</sup> March 2022 (the Reporting Period).

EL18/2018 and the two adjacent EL's 11/2012 and 18/2016 altogether make up the Portland Gold Project, which is held by Kingfisher Exploration Pty Ltd (KFE), a wholly owned subsidiary of Flynn Gold Limited (ASX: FG1).

All maps and location coordinates contained within this report are presented in GDA94 datum format unless otherwise noted.

## 1.1 EXPLORATION RATIONALE

The main exploration target for EL18/2018 is for Victorian-style, turbidite-hosted orogenic gold deposits. Numerous studies indicate that north-eastern Tasmania is interpreted to represent a lateral equivalent of the turbidite-dominated fold-thrust belt of the western Lachlan Orogen in central Victoria (e.g. Bierlein et al, 2005). The turbidite successions of north-eastern Tasmania are host to extensive orogenic style gold mineralisation and numerous historical goldfields but are largely un-explored compared to the Victorian goldfields.

Recent work by Flynn Gold Pty Ltd within the adjacent EL11/2012 and EL18/2016 has identified multiple exploration targets and the EL18/2018 has been acquired to test for a possible eastwards continuation of the system.

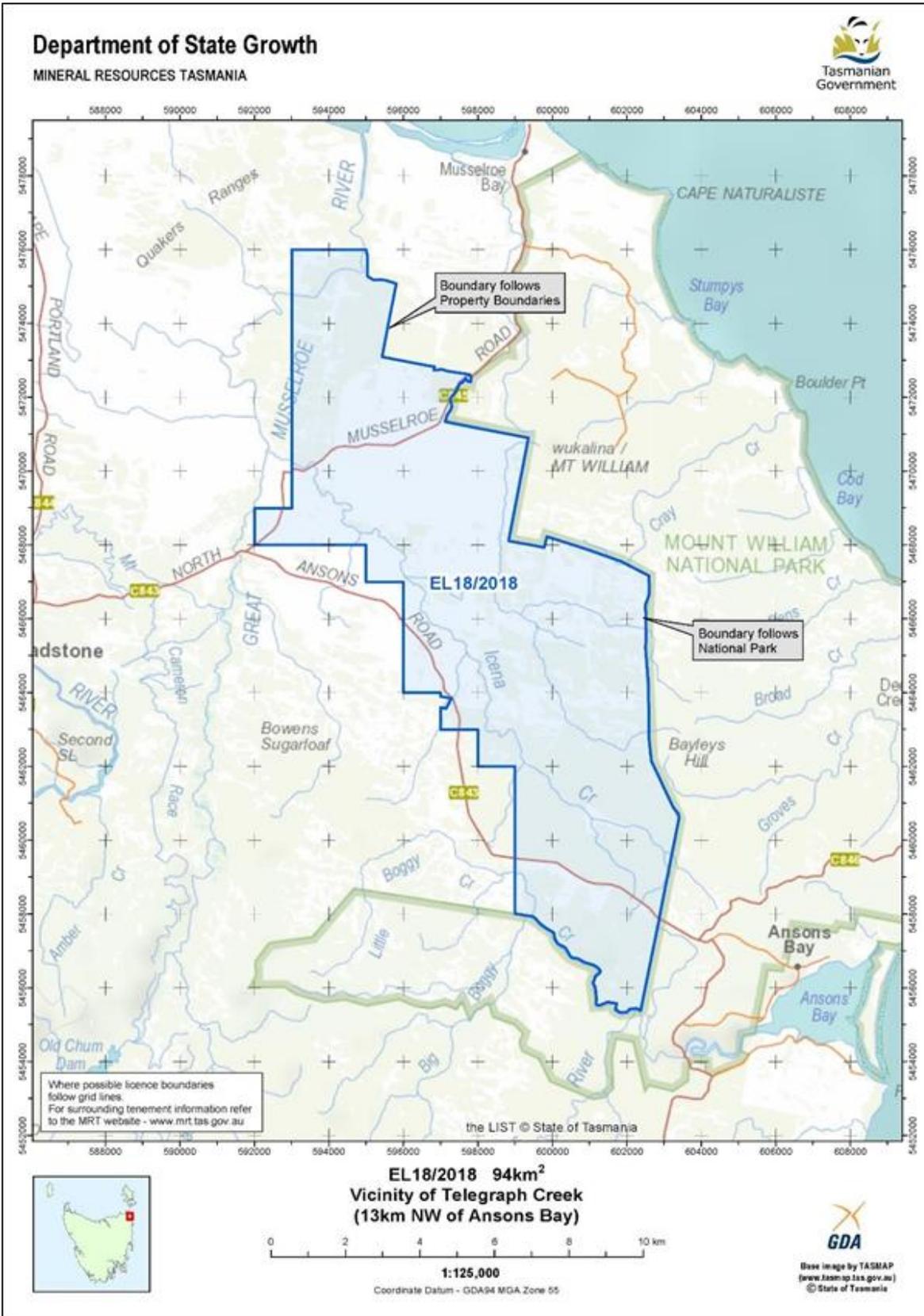


Figure 1. Location plan showing the EL18/2018 tenement area.

## 1.2 GEOLOGICAL SETTING

Figure 2 shows the simplified geology of the EL18/2018 tenement and Portland Gold Project area. Figure 3 includes the explanatory legend for Figure 2.

The Paleozoic geology of north-eastern Tasmania comprises a 5 to 7 km thick, deformed sequence of Ordovician-Silurian (to early Devonian) aged turbidites known as the Mathinna

Supergroup. Rocks of the Mathinna Supergroup was folded and metamorphosed to sub- to mid-greenschist facies during the Early to Middle Devonian. Several S- and I-type granitoid batholiths (namely the Scottsdale, Blue Tier and Eddystone Batholiths) intruded the Mathinna Supergroup during the Late Devonian (around 400 Ma to 375 Ma). The granitoids are surrounded by narrow metamorphic aureoles indicative of intrusion at relatively high crustal levels. The Mathinna Supergroup and granitoid rocks are unconformably overlain by flat-lying Permo-Triassic rocks of the Parmeener Supergroup which are intruded by sills of Jurassic dolerite. Exhumation and weathering during the Tertiary were accompanied by basaltic volcanism.

Historical gold workings in the Gladstone-Portland district comprise gold-bearing quartz-sulphide vein lodes hosted within the deformed and metamorphosed turbidite shales, sandstones and quartzite of the Mathinna Supergroup sediments.

Aeromagnetic and radiometric surveys flown over the Gladstone-Portland district have assisted with interpretation of local- and district-scale structural trends within the Mathinna Supergroup and boundaries with the Devonian granitoids and associated contact metamorphism. Significant variation in the magnetic properties of the Mathinna Supergroup appears to be due to metamorphic magnetite alteration of quartz phyllite units (Roach, 1990), and in some areas (EL11/2012) has allowed for magnetite-bearing marker units to be used to interpret folds and faults which are not apparent at surface.

Large magnetic features identified within EL18/2018 are apparently hosted in hornfelsed Mathinna Supergroup rocks and suggest extensive magnetite alteration in the area. However, alternative magnetic source rocks such as basalt or dolerite have not been entirely ruled out.

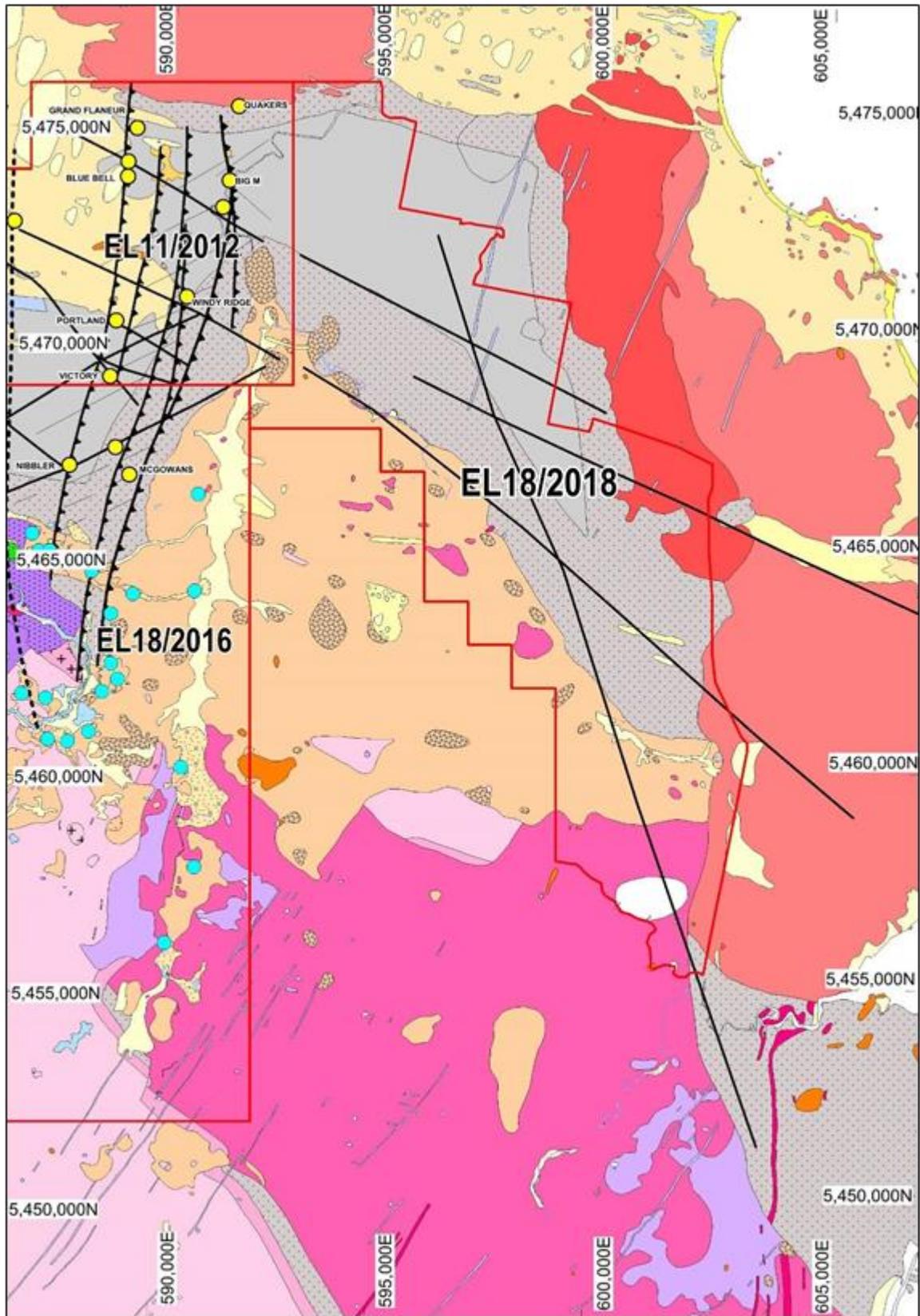


Figure 2. Geology map of the tenement area (adapted from the MRT 1:25,000 scale digital geology).

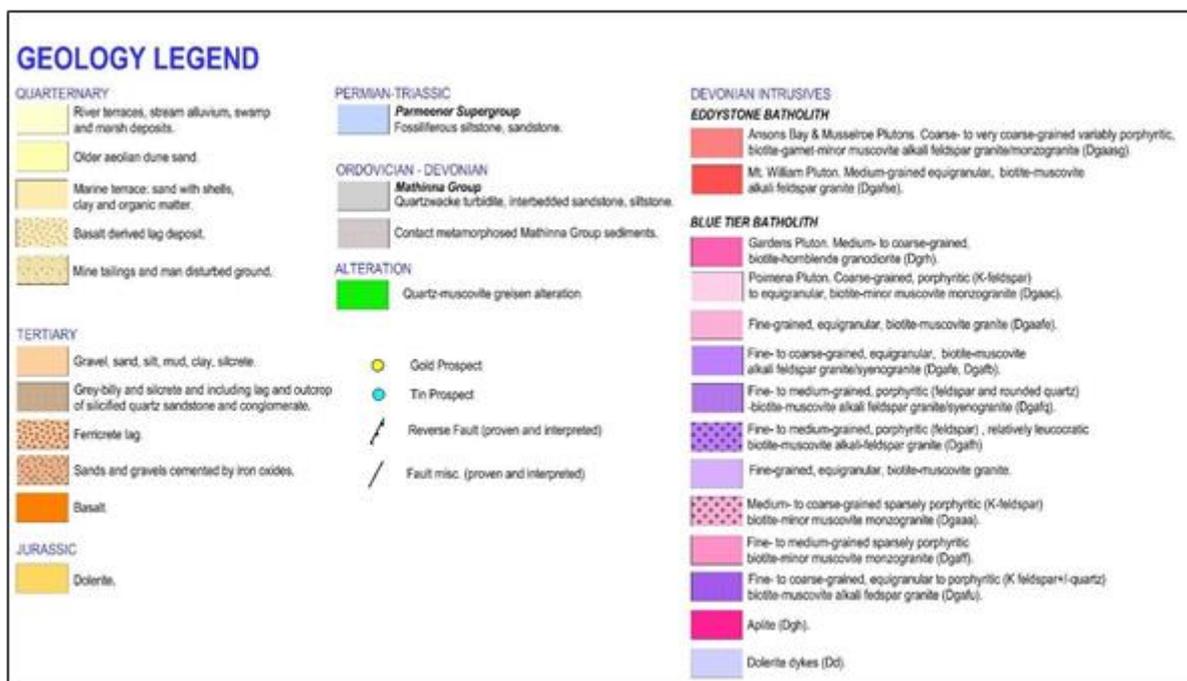


Figure 3. Explanatory legend for the geology map in Figure 2.

### 1.3 MINERALISATION STYLES

The Mathinna Supergroup rocks in north-eastern Tasmania are host to over 600 gold prospects and deposits, the most significant of which are Beaconsfield (3.25 Mt @ 19.0 g/t Au), the New Golden Gate mine (0.51 Mt @ 15.6 Mt Au) and Pinafore Reef, Lefroy (0.97 Mt @ 10.1 g/t Au). Most of the deposits are orogenic mesothermal to epizonal vein-style and occur in clusters along regional NNW trends. Intrusion-related gold (IRG) style mineralisation is noted to occur in the Lisle-Golconda and Golden Ridge areas. Significant Sn-W deposits are associated with S- and I-type granites and north-eastern Tasmania was a historical tin mining region.

Orogenic style gold mineralisation in north-eastern Tasmania is attributed to deformation, folding and peak orogeny in the Early to Middle Devonian, at about 390 Ma, with most of the vein deposits formed between 385 Ma and 395 Ma (Bierlein et al. 2005). An earlier phase (420-430 Ma) of gold mineralisation during the Silurian has also been noted in some deposits. Based on lithological, structural, tectonic and metallogenetic similarities, north-eastern Tasmania has been interpreted as a lateral correlate of the turbidite-dominated fold-thrust belt of the western Lachlan Orogen in central Victoria (Bierlein et al. 2005). Timing of gold mineralisation in NE Tasmania shows a broad relationship to the epizonal Au-As-Sb deposits of central Victoria (Melbourne Zone) (Figure 4).

Gold mineralisation in the Portland area (EL's 11/2012 and 18/2016), adjacent to EL18/2018, shows a close association with arsenopyrite and to a lesser extent pyrite. These sulphides occur as fine- to coarse-grain euhedral disseminations throughout mineralised quartz veins and adjacent altered sediments. Many of the historical gold workings at Portland are located on or adjacent to interpreted fold axes and/or axial-planar N-S to NNE trending reverse fault structures. Extensive silicified, fractured/brecciated and quartz-veined sandstone units locally intersected these structural trends and form an important stratigraphic control/host to the Portland gold mineralisation (Westbrook, 2019).

Geochemistry of surface samples at Portland indicates an As-(Sb-Bi) association with gold mineralisation. The Au-As-Sb association and general timing of NE Tasmanian gold mineralisation has drawn comparisons with the epizonal gold system of central Victoria (Figure 4).

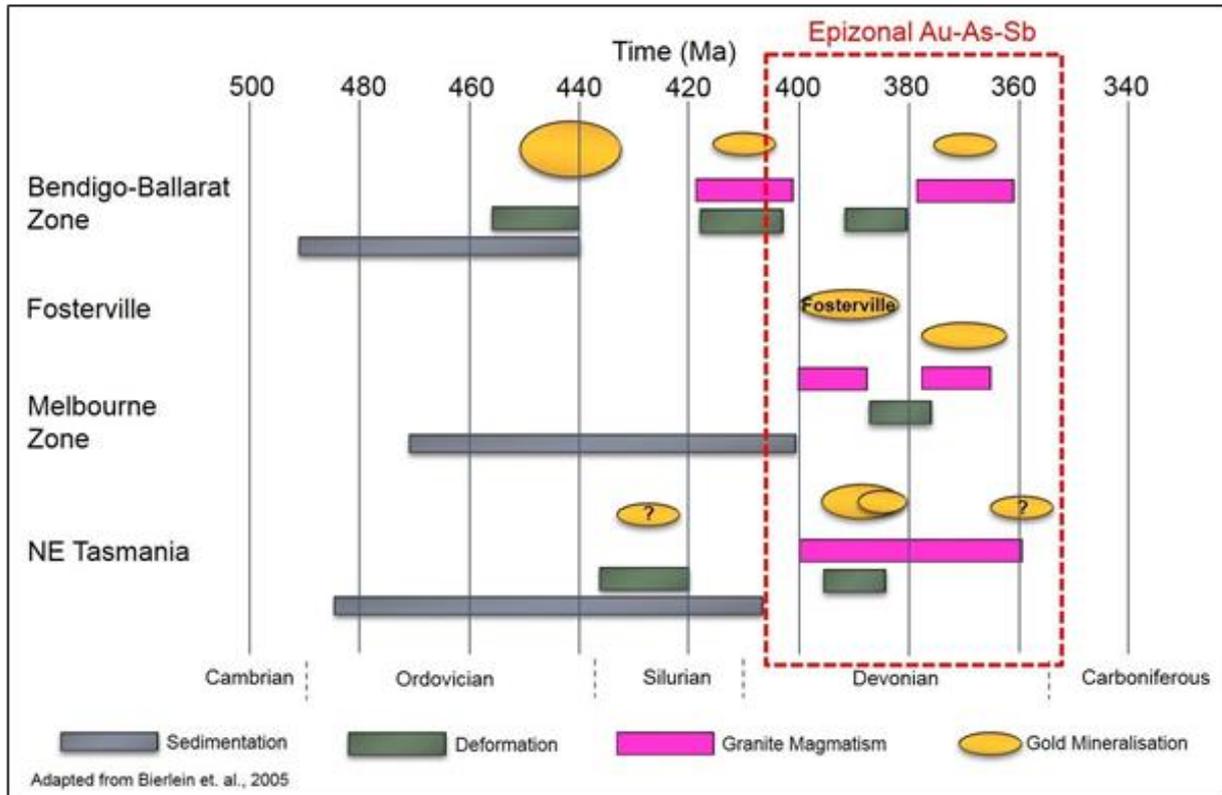


Figure 4. Summary diagram of the timing of sedimentation, deformation, granite magmatism and gold mineralisation events in central Victoria and NE Tasmania. Adapted from Bierlein et al (2005).

## 2 EXPLORATION COMPLETED DURING REPORTING PERIOD

Exploration activity undertaken during the reporting period included:

- Landowner liaison.
- Geochemical interpretation of samples collected in the second reporting year.
- Field reconnaissance - mapping and rock chip sampling
- Work program design.

### 2.1 LANDOWNER NOTIFICATIONS

Landowners from the hatched locations in Figure 5 were contacted during the reporting period and reconnaissance was carried out in these locations. Two landowners require notification for geological reconnaissance which will be carried out in the next reporting period.

The sale of the Icena properties within the tenement area caused minor disruptions to reconnaissance visits and required restarting the liaison process. One prospective property remains unvisited in the NW of the tenement. Local reports of gold bearing quartz veins within the unvisited area suggest a level of prospectivity however these reports have not been corroborated by modern exploration and no historic records are available.

### 2.2 FIELD RECONNAISSANCE

Previously Interpretated NNW- and NW-trending magnetic anomalies were traversed in an E-W orientation across farmland not covered during the prior reporting years. These areas visited contained little to no observable outcrop with the anomalies extensively covered by sand dune complexes. Soil sampling is required to establish any geochemical anomalism of these features through cover.

Initial conclusions based on model calculations using 3D inversion and forward methods, magnetic susceptibility values of the source bodies to the anomalies are 2 to 3 orders of magnitude higher than normal Mathinna Group sediment ranges and that magnetic anomalies with coincident gravity anomalies may suggest mass additional due to magnetite and/or pyrrhotite. At the current date, limited exposures of these magnetic anomalies in the northwest quadrant of the tenement have been observed and soil sampling is planned to ascertain any geochemical anomalism through cover over the wider magnetic feature.

Reconnaissance work indicates that the effect of granite magmatism (hornfelsing) is less pronounced in the north-western quadrant of the tenement and is analogous to the Portland Goldfield. Whereas the eastern and southern areas of the tenement show stronger effects of granite magmatism (described in the second annual report).

Quartz vein material and silicified and quartz veined sandstone is relatively common as either float or ploughed material in paddocks as described in the second annual report. Outcrop mapped as part of the previous reporting period was found to be veined with quartz in areas of weak to moderate deformation, however, results from sampling did not generate any areas requiring significant follow-up work. In contrast, areas covered during the third reporting period are extensively covered by sand dune complexes and outcrop/subcrop is largely obscured. Only minor evidence of veining was found as float, some of which appears to have historically used as road base. On the eastern boundary of EL11/2012, surrounding the Great Mussel Roe River there is a significant increase in veining and associated with historic exploration and mining activities. The extension of this may extend northeast into EL18/2018 and mapping of this area is a priority for the following reporting period. Soils sampling is required to establish the extent of any geochemical anomalism through cover.

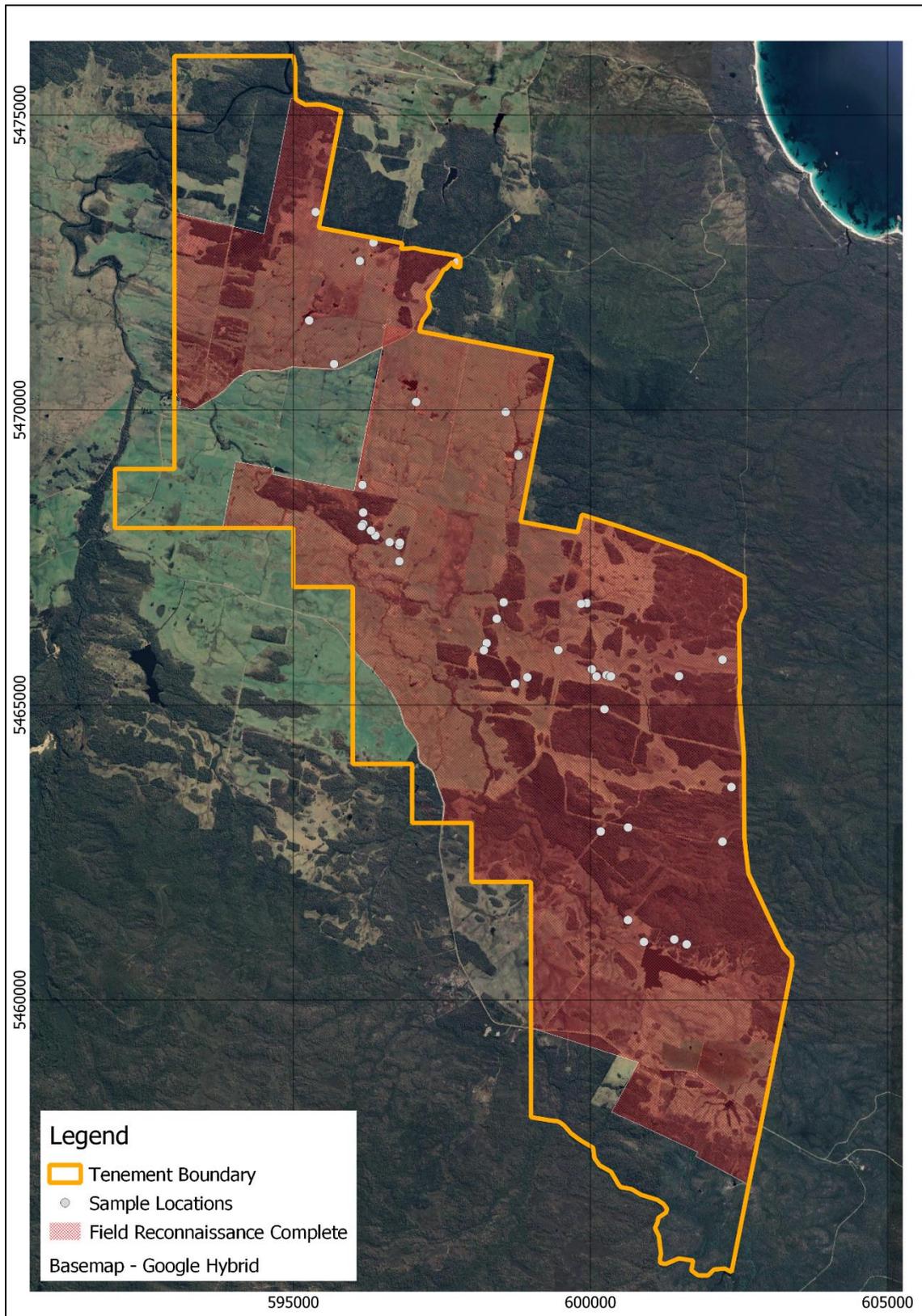


Figure 5. Properties where landowners have been contacted, and reconnaissance mapping and sampling undertaken. The remaining unvisited area in the north-western quadrant of the tenement considered a high priority due to the proximity to the Portland Goldfield



Figure 6. Top left: Sheeted dark blue quartz veins crosscutting bedding. Top right: Quartz bearing fault breccia. Bottom right: Quartz-sandstone breccia. Bottom left: Quartz-pyrite-arsenopyrite vein material from historical gold mine workings.

## 2.3 RECONNAISSANCE ASSAY RESULTS

49 rock chip samples submitted to ALS Burnie were returned during the reporting period. Results were generally considered disappointing with only 3 of the samples returning above detection gold. Prior to submission, sample 22536 was considered highly promising with abundant arsenopyrite disseminations throughout a dark-coloured quartz vein, results show high arsenic values however gold does not appear to be corelated. Follow-up sampling of this material is recommended. Samples that returned above detection limit gold show little to no spatial correlation and limited pathfinder association.

Pathfinder elements including Ag, As, Bi, Cu, W and Zn show minor spatial coincidence with granitic or aplitic intrusions, however sample density is not sufficient to ascertain whether there is a geochemical zonation over the wider tenement area. Soil sampling is recommended to follow-up on low tenor anomalies and test the magnetic features below cover.

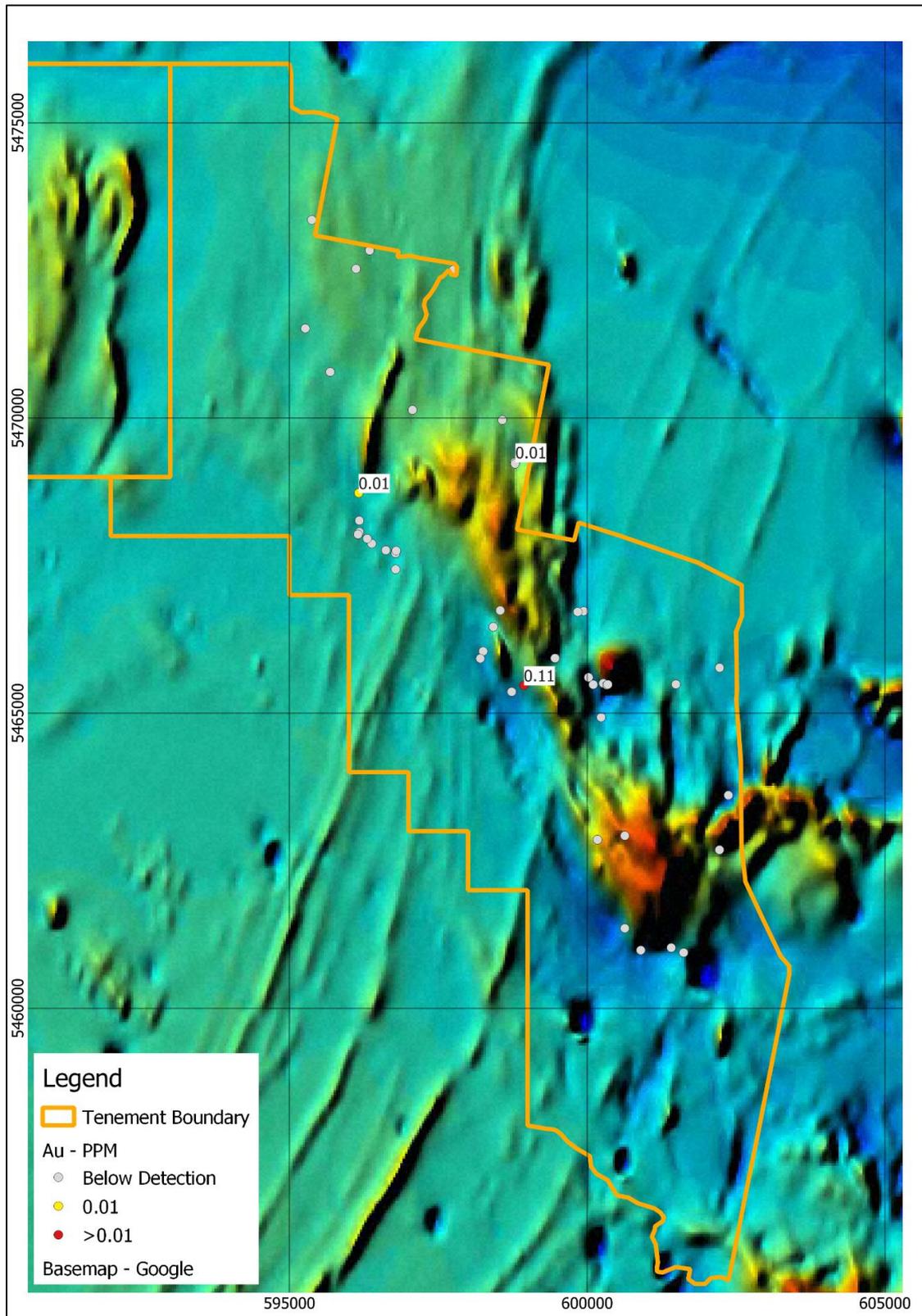


Figure 7. Highlights samples with low level geochemical anomalism and their proximity to the magnetic features that strike in a NW-SE direction.

### 3 RECOMMENDATIONS FOR FUTURE WORK

EL18/2018 is considered prospective for gold mineralisation of the style observed at the Portland goldfield. Similar styles of mineralisation, stratigraphy and structure are present; however, the area is characterized by more significant granitic magmatism, and much stronger hornfelsing in the host rocks, particularly siltstones and shales. Evidence for mineralisation associated with the NW-SE striking magnetic anomaly has not been identified with much of the feature being covered by sand dune complexes and requires further geochemical evaluation. Areas that remain unvisited including the most northern part of the tenement remain prospective due to their proximity to the Portland Gold field and (unconfirmed) anecdotal reports of mineralised quartz veins in the area. Following the results of work to be completed in the 4<sup>th</sup> year of tenure, the tenement may be considered for a size reduction.

Recommendations for exploration work in Year 4 of the license include:

- Further geological reconnaissance on properties not investigated in this reporting period.
- Soil sampling over prospective areas identified by geological mapping and sampling.
- Tenement evaluation and rationalisation.

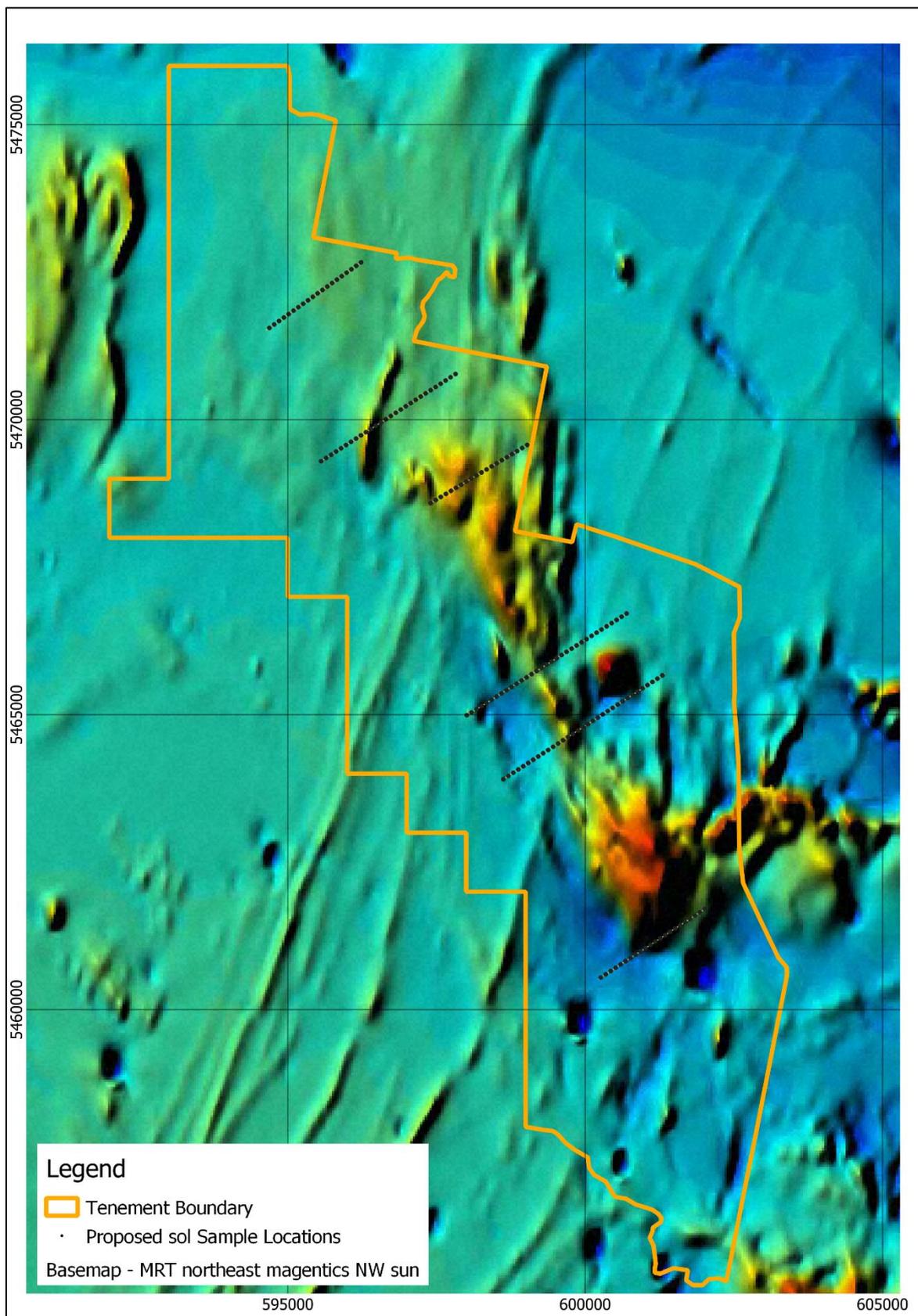


Figure 8. Proposed soil sampling traverses targeting low level pathfinder anomalism, low tenor gold anomalism and significant magnetic structures.

## 4 ENVIRONMENT

There was no environmental disturbance within EL18/2018 due to exploration activities during the reporting period.

## 5 EXPENDITURE

Exploration expenditure for EL18/2018 Year 3 is summarised in Table 1. Due to a focus on other higher priority tenements, the Year 3 minimum exploration commitment of \$47,000 for EL18/2018 was not met and it is proposed to make up the shortfall in during Year 4 work programs.

	ITEM	EXPENDITURE (AUD)
1.	<b>GEOSCIENTIFIC COSTS</b> Geology Geochemistry Geophysics Remote Sensing	\$20,500 \$3,430 \$0 \$0
2.	<b>DRILLING AND GRIDDING COSTS</b> Gridding Drilling	\$0 \$0
3.	<b>LAND ACCESS COSTS</b>	\$1,500
4.	<b>REHABILITATION COSTS</b>	\$0
5.	<b>FEASIBILITY STUDY COSTS</b>	\$0
6.	<b>OTHER COSTS</b> Field supplies and equipment, rental, bond and application fees	\$9,625
7.	<b>ADMINISTRATION COSTS</b> Administration and Legal	\$2,100
	<b>TOTAL EXPENDITURE</b>	<b>\$37,155</b>

Table 1. Exploration expenditure on EL18/2018 during the reporting period.

## 6 REFERENCES

Bierlein, F.P., Foster, D. A., Gray, D. R., Davidson, G. J. (2005). Timing of orogenic gold mineralisation in northeastern Tasmania: implications for the tectonic and metallogenetic evolution of Palaeozoic SE Australia. *Mineralium Deposita* 39: 890-903.

Roach, M.J. 1997. Detailed Ground Magnetic Surveys in the Gladstone and Denison Areas, N.E. Tasmania, EL 15/95. Unpublished report Anglo Australian Resources NL, University of Tasmania. [98\_4245A].

Westbrook, S.J. 2019. Seventh Annual Report, EL11/2012 Gladstone Tasmania.

Denholm, J. 2021. Second Annual Report, EL18/2018 Gladstone Tasmania