



**STELLAR RESOURCES LIMITED**  
Rubicon MinTech Ventures Pty. Ltd.

**EL 49/2004 RAYNE**

**ANNUAL REPORT FOR THE PERIOD  
3 JANUARY 2010 – 2 JANUARY 2011**

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**DATE: January 2011**

**SUBMITTED TO: Executive Chairman**

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## ABSTRACT

This Annual Report for EL 49-2004 Rayne covers the period 3 January 2010 to 2 January 2011.

The Rayne licence covers a large low order aeromagnetic anomaly (the Dunkley Magnetic Anomaly) located 8km to the NE of Zeehan. Allegiance Mining's Melba Flats/Cuni prospects are situated approximately 1.5km east of the northeast boundary of the Rayne licence, where massive sulphides of nickel and copper occur in thin lenses associated with gabbro dykes and amphibolites.

The source of the magnetic anomaly in the Rayne EL is conjectural but analysis indicates that it is due to hornfelsing associated with granite apophyses and potentially could host a Renison style sulphide/carbonate replacement tin deposit. Apart from one hole (S1200) drilled by Renison in 1985, the magnetic anomaly remains untested.

The EL 49/2004 also contains historical occurrences of base metals, especially in the vicinity of the town of Zeehan, which abuts the southwest corner of the EL. Previous exploration in the area includes light to very sparse stream sediment sampling, geological mapping, a range of geophysical surveys and a few drill holes, more so in the south-west near Zeehan and in the north-east. The central and northern areas of the licence appear under-explored.

Due to the severe tightening in the world economy during the past 18 months, and the need therefore for Stellar to manage its funding position very carefully, there has been no significant office or fieldwork done on the licence for the reporting period.

In February/March a series of geochemical (Ni, Cu), geological and geophysical maps were produced as part of a data review by Dr Tom Whiting aimed at establishing drilling target sites.

Expenditure on EL 49/2004 for 2010 totals \$43,049.

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# 1. INTRODUCTION

## 1.1. EXPLORATION RATIONALE & GEOLOGICAL SETTING

The licence area is positioned to cover a large low order aeromagnetic anomaly (the Dunkley Magnetic Anomaly [DMA]) located 8km to the NE of Zeehan. The magnetic anomaly is situated immediately south of the Renison Bell Mining Lease and also immediately west of Great Resources/Zeehan Zinc Melba Flats prospects where massive sulphides of nickel and copper occur in thin lenses associated with gabbro dykes and amphibolites. Further eastwards there is a significant outcrop of ultramafic rocks at Serpentine Hill.

The source of the DMA is conjectural but analysis suggests it may be due to hornfelsing associated with a granite apophyses. Renison traced the Renison Mine Sequence to this area prior to the 1984 collapse of the tin price. They drilled one drill hole (S1200), which intersected only Crimson Creek Formation sediments and no significant mineralisation. The magnetic anomaly remains untested.

### 1.1.1. Geological Setting

The majority of the Rayne licence (SW segment) is underlain by Ordovician Gordon Limestone (including quartz sandstone and minor siltstone) and Silurian Eldon Group sediments comprising sandstone, siltstone and mudstone. These rocks strike NNW and comprise the eastern limb of a gently folded syncline.

The Gordon Limestone is overthrust on its eastern contact by Cambrian Crimson Creek Formation rocks along the Boodecker Fault. The Crimson Creek Formation is a thick sequence of tuffaceous siltstones, greywackes and clastic sediments. The base of the Crimson Creek is marked by a mixture of haematitic agglomerates, cherts, tuffs, sandstones and thin carbonates known as the Red Rock Member. This averages 20m thickness and is overlain by a dolomite horizon 5-15m thick called the No.1 at Renison Bell where it hosts replacement style pyrrhotite cassiterite mineralisation. A small section of the Lower Cambrian Success Creek Group abuts the Crimson Creek along the SW trending Dunkley Fault in the northern part of the licence area. The Success Creek Group comprises sandstones and polymict conglomerate, quartz sandstone and siltstone. The upper part of the Success Creek Group in this region includes two major dolomite-siderite carbonate horizons, 10-20m thick, which are the Nos 2 and 3 dolomites at Renison Bell.

Immediately to the east of the licence, at the Cuni prospect area and within the Crimson Creek Formation, are a series of north trending Cambrian pyroxenite and gabbro sill/dykes over a 2-3km strike length. Thin lenses (1m) of massive nickel and copper sulphides generally occur along the footwall contact of the dykes or within the underlying sediments.

## 1.2. LICENCE

TENEMENT NUMBER: 49/2004

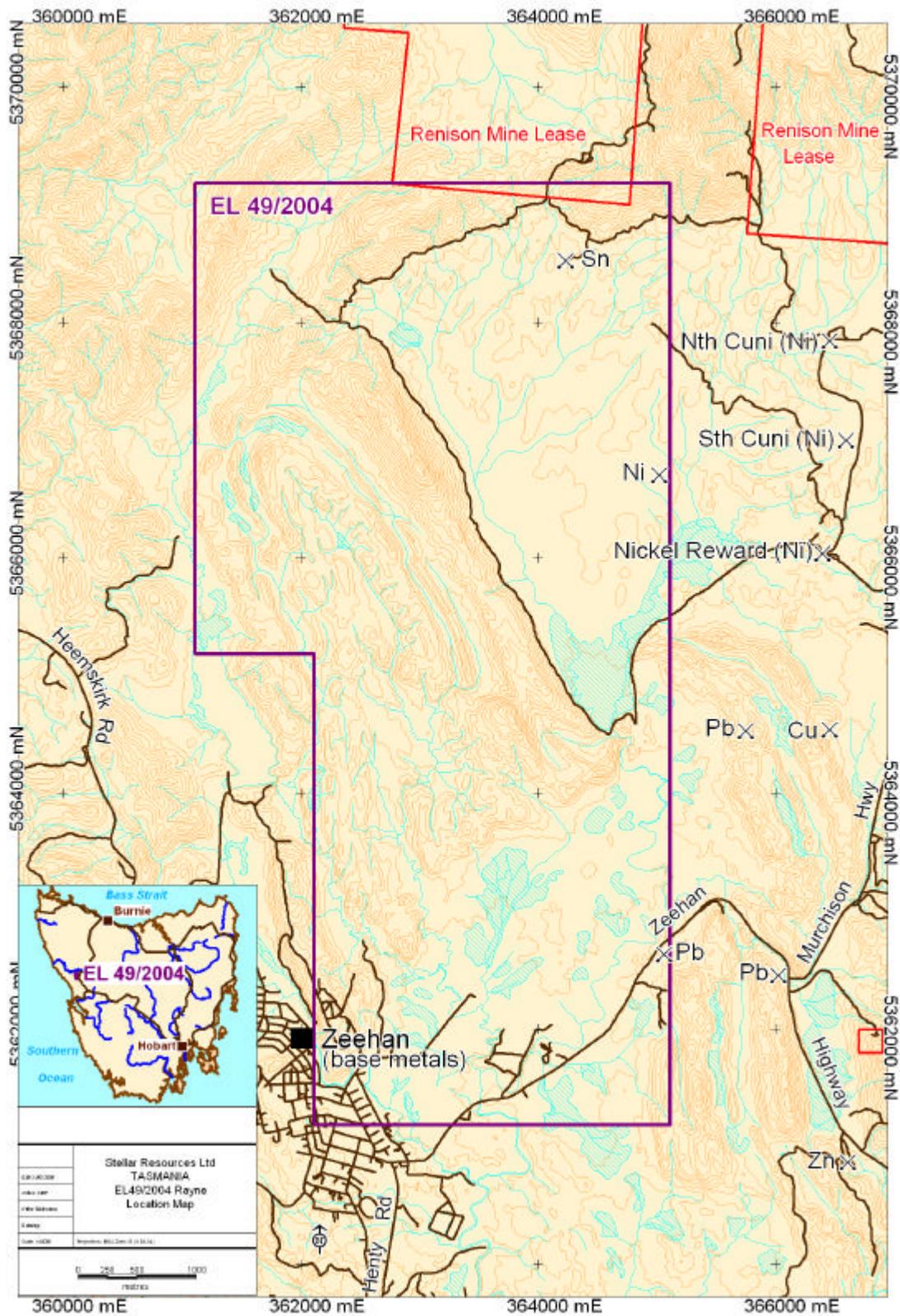
TENEMENT NAME: Rayne

TENEMENT LOCATION: Extends approximately 8km north of the town of Zeehan, which abuts the southwest corner of the licence. Main road access is from the Zeehan Highway, which passes through the southeast of the licence (Figure 1). The licence covers 28km<sup>2</sup> from 2km northwest of the Cuni nickel prospect, in the north, south to the town of Zeehan and the Zeehan Highway. Almost all of the EL area is Crown Land, and in accordance with the West Coast Planning Scheme 1999 is covered by "Natural Resources", private land is restricted to the Zeehan town site. The topography within the licence ranges from low/undulating to steep, being generally steeper in the west and northwest. Vegetation coverage by proportion high to low is buttongrass moorland, ti-tree/acacia forest, nothofagus rainforest, wet eucalyptus forest and wet scrub. Access is provided by the Zeehan Highway in the south, Cuni area mineral exploration tracks via the Murchison Highway to the northeast, the disused Dunkley's Tramway along Parting Creek in the north, and tracks running east of the Heemskirk Road in the west. Much of the area is not well serviced by tracks and may only be accessible by foot.

REPORTING PERIOD: 3 January 2010 to 2 January 2011

TENEMENT HOLDER: Rubicon Min Tech Ventures Pty Ltd., a wholly owned subsidiary of Stellar Resources Ltd.

### 1.3. LOCATION OF LICENCE



• Figure 1. EL49/2004, Location Map.

## 1.4. LAND TENURE

### SCHEDULE

LAND DISTRICT OF MONTAGU  
VICINITY OF ZEEHAN  
MUNICIPALITY OF WEST COAST  
EXPLORATION LICENCE 49/2004 28km<sup>2</sup>  
RUBICON MIN TECH VENTURES PTY. LTD.

Commencing at the northwest corner at grid coordinates 361 000 mE 5 369 000 mN, thence grid east to 365 000 mE, grid south to 5 361 000 mN, grid west to 362 000 mE, grid north to 5 365 000 mN, again grid west to 361 000 mE aforesaid, thence again grid north to the point of commencement.

Coordinate datum - AGD66AMG, Zone 55.

### EXCLUSIONS

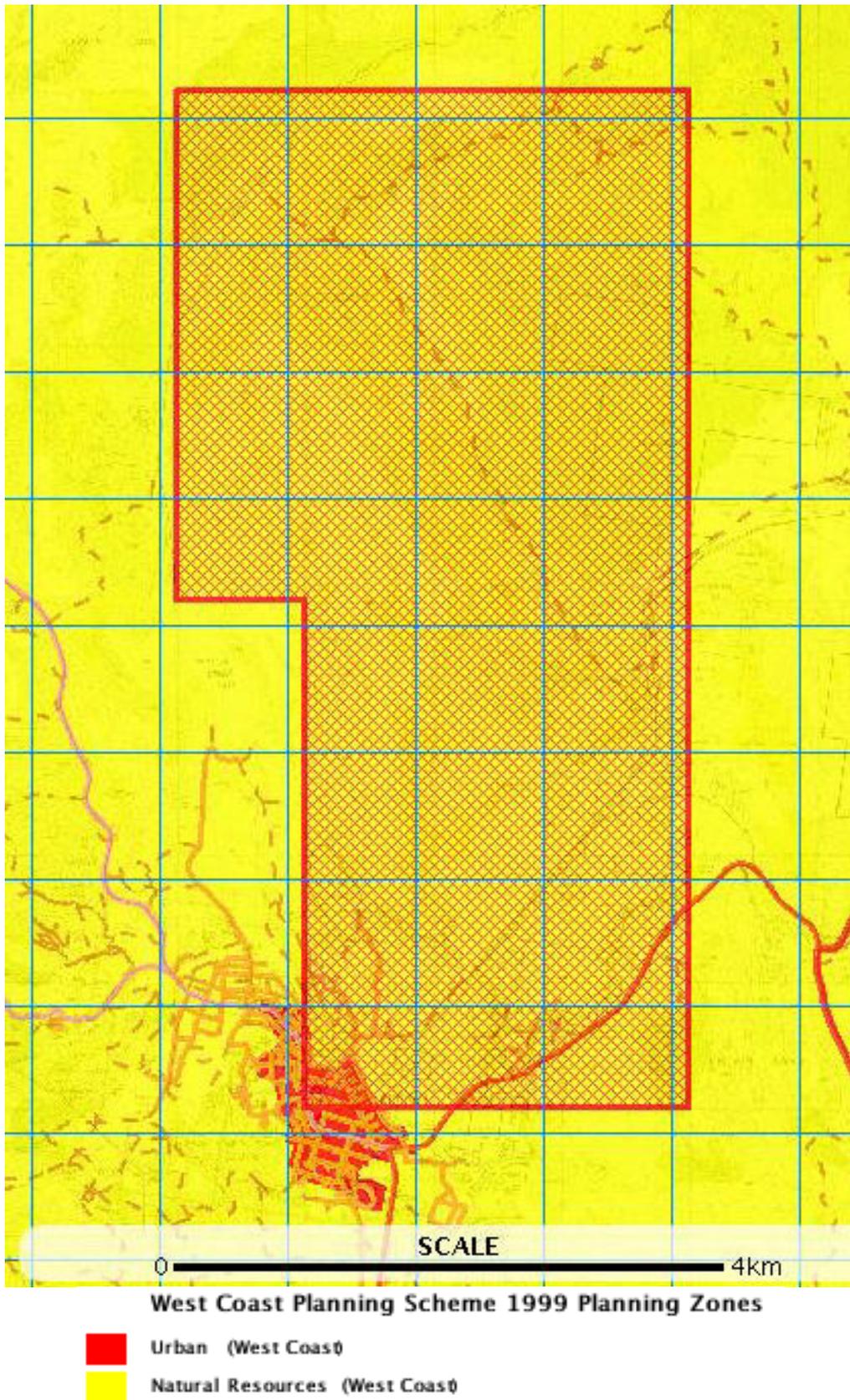
- (a) Any land owned or leased by the Commonwealth of Australia.
- (b) Mining Leases amounting to 20 ha (more or less) which were applied for or in force prior to the date of application for this licence: viz Renison Mine Lease.
- (c) Crown reservations or other land amounting to 19 ha (more or less) set apart or dedicated for any public purposes such as public reserves, municipal reserves or roadways unless such areas have been brought under the provisions of the *Mineral Resources Development Act 1995*.
- (d) Areas of private land which either have been, or are in the process of being, purchased by the Crown under the Regional Forest Agreement - Private Forests Reserves Program and / or private land over which the landowners have agreed, or are in the process of agreeing, to place a covenant or management agreement for conservation purposes under the Regional Forest Agreement - Private Forests Reserves Program.

### LAND TENURE

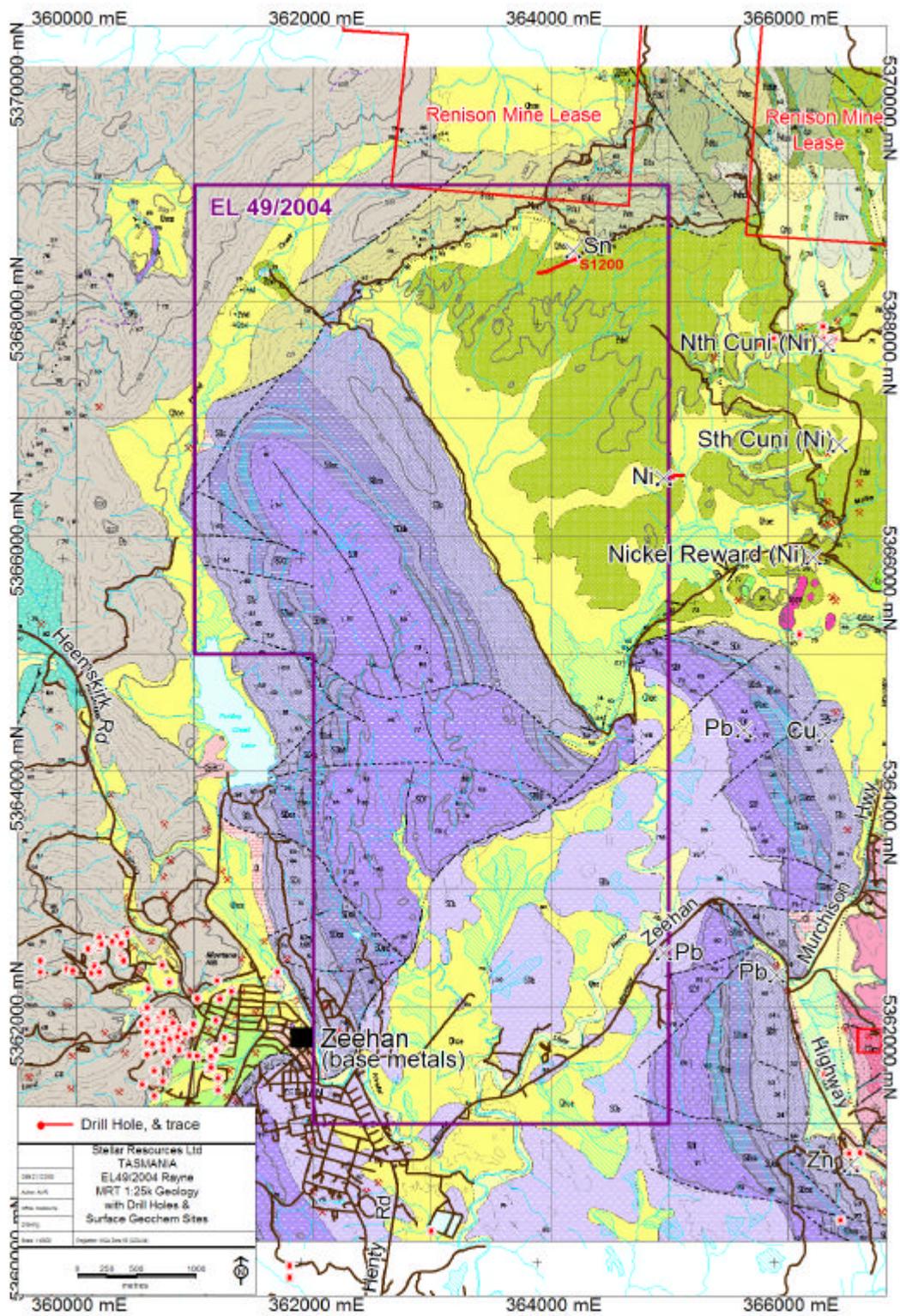
The area comprises:

- Private Property
- Crown Land
- Crown Land (Subject to DPIWE approval)
- Multiple Use State Forest
- Parting Creek Regional Reserve

The licence area contains Forest Communities Managed by Prescription.



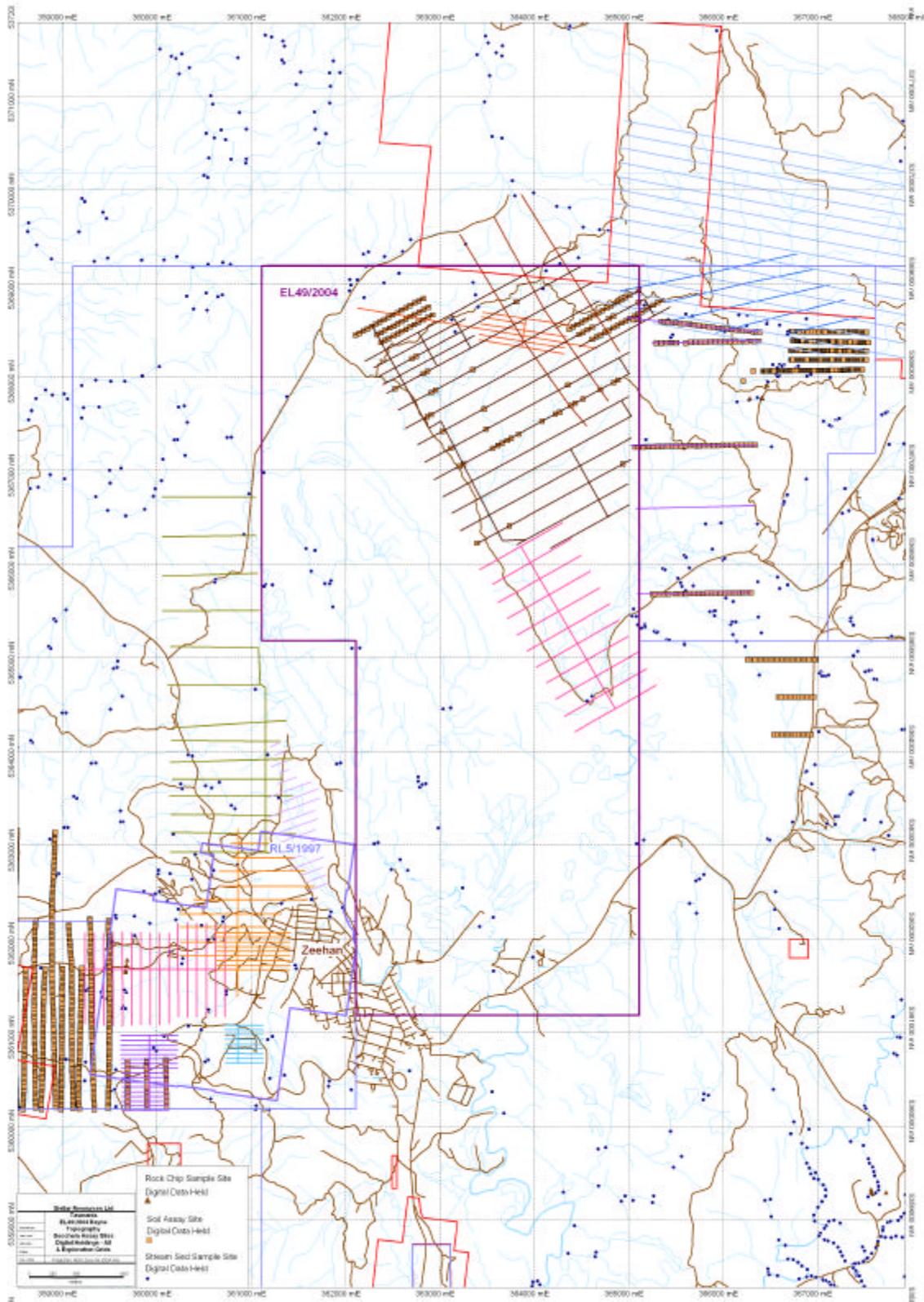
• Figure 2. EL49/2004, Land Tenure Map



• Figure 3. EL49/2004, MRT Geology Plan with drilling.

## **2. REVIEW OF PREVIOUS WORK**

MRT digital geology and geophysics datasets, DPIWE topographic data as well as data captured from open-file company reports continue to be reviewed and significant data summarised and tabulated in spreadsheet form. In particular information from reports of previous tenement holders has been captured from MRT open-file reports.



• Figure 4. EL49/2004, Previous Exploration Grids, and Geochemical Sample Sites.

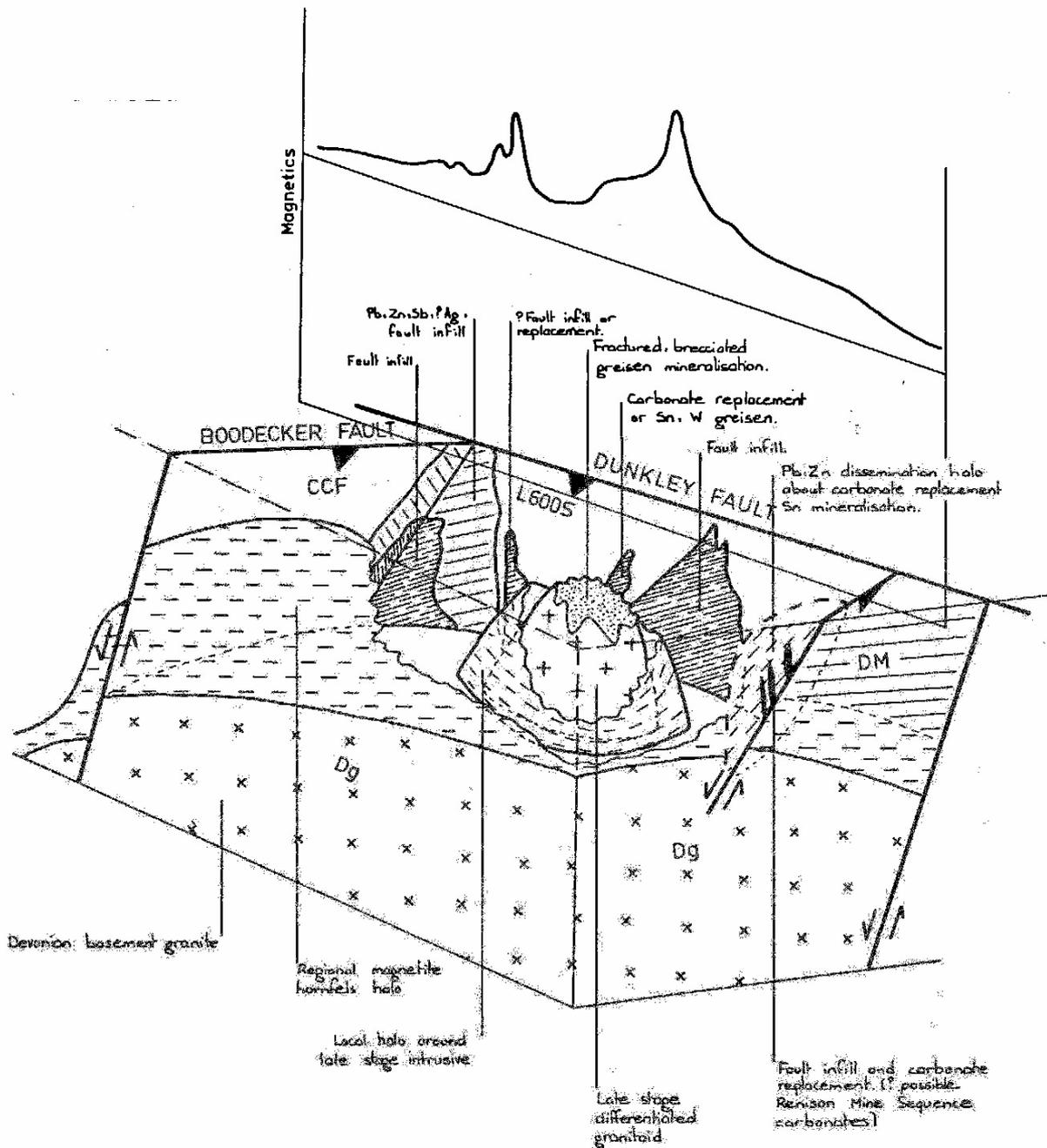
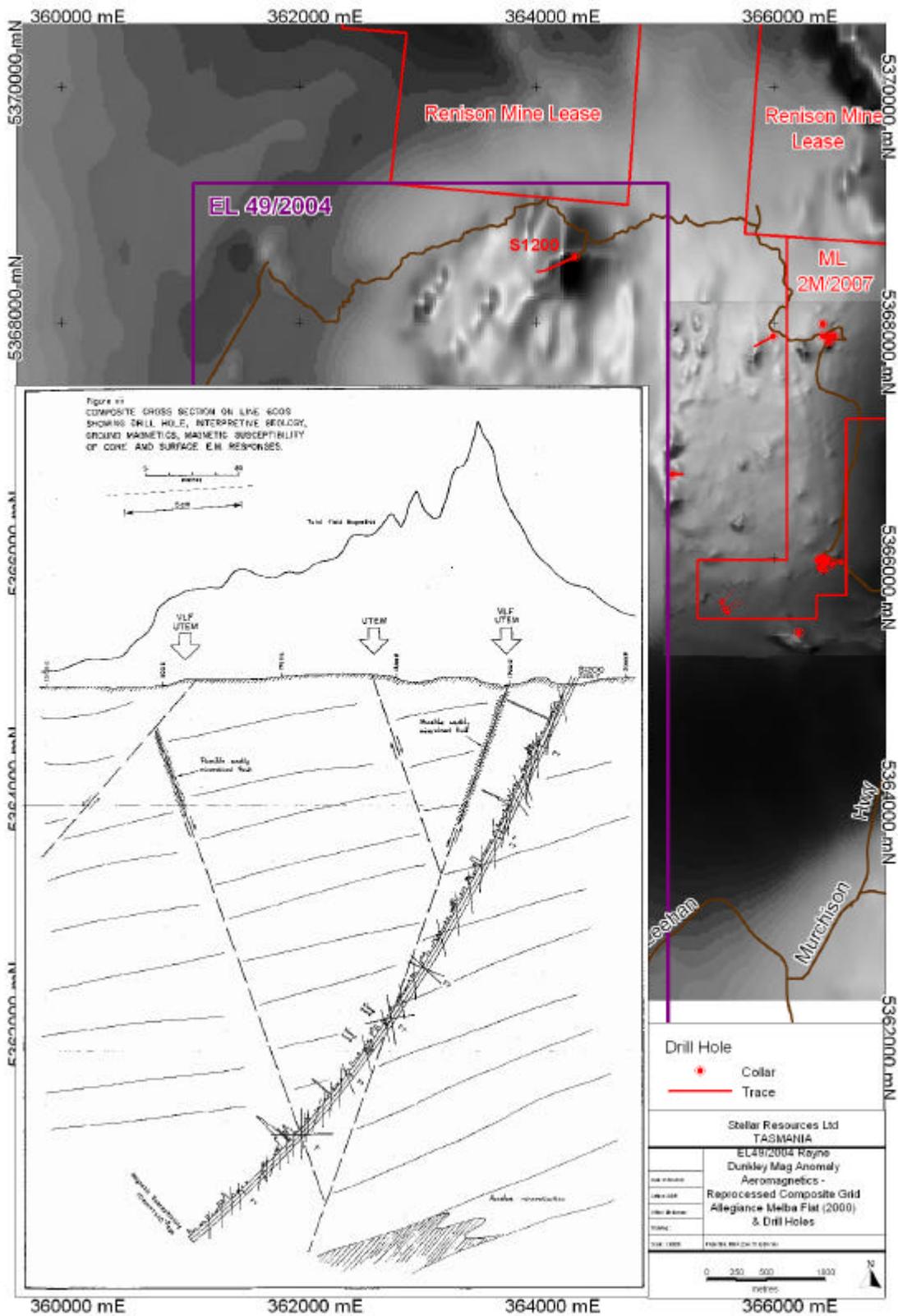


FIGURE (D) CONCEPTUAL MODEL OF GEOLOGY AND POSSIBLE MINERALISED ZONES WITHIN THE DUNKLEY FAULT GRID AREA. THE MAGNETIC PROFILE OF L6005 IS SUPERIMPOSED.

- Figure 5. EL49/2004, Dunkley Magnetic Anomaly Interpretation (Granite model), by Renison (TCR 84-2106, Kilpatrick 1983).



• Figure 6. EL49/2004, Dunkley Magnetic Anomaly – Aeromagnetics Greyscale Composite, with Renison Drill Hole S1200 Section by Renison (TCR 84-2106, Kilpatrick 1983).

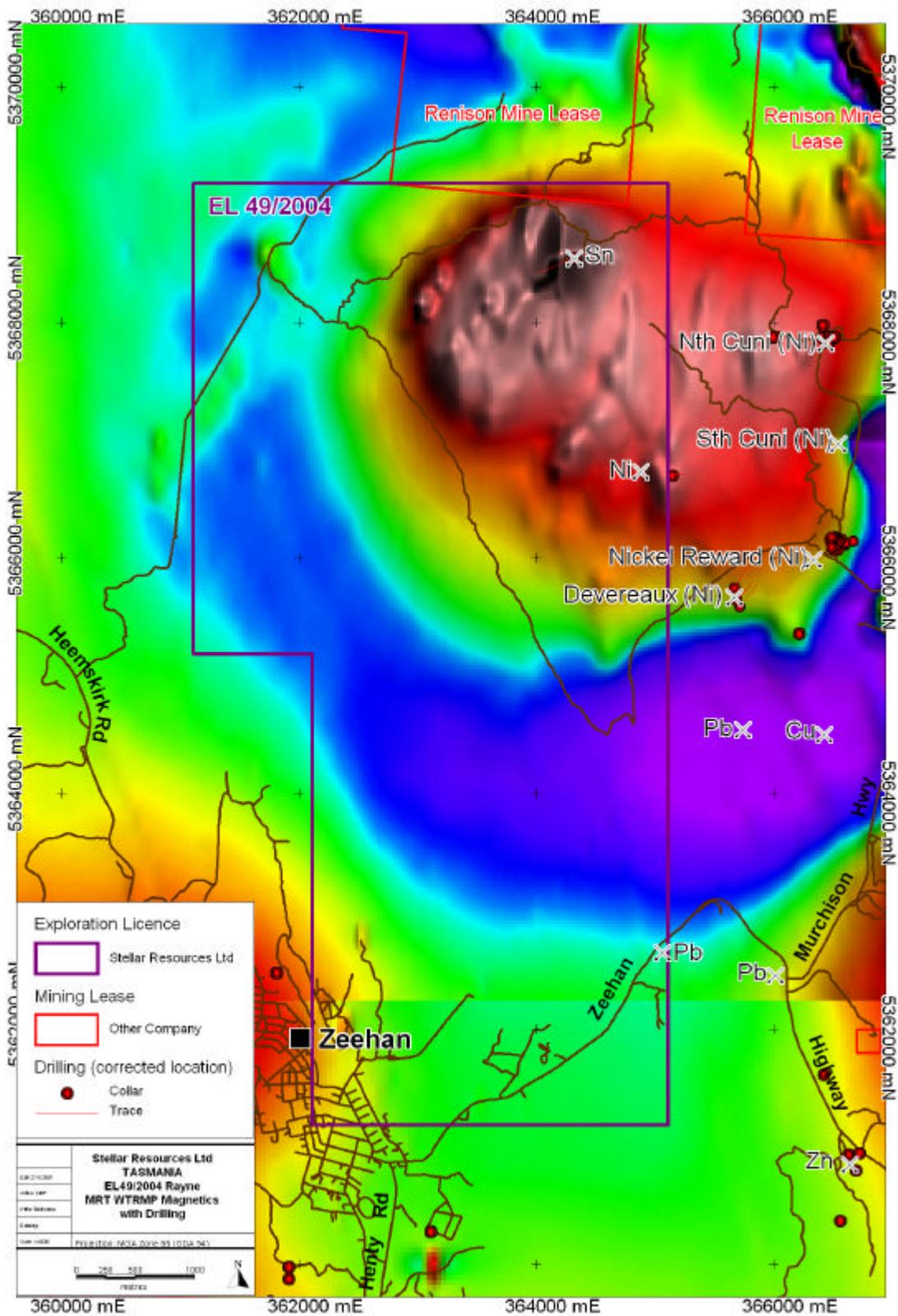
### **3. EXPLORATION COMPLETED DURING THE REPORTING PERIOD**

#### **3.1. REGIONAL EXPLORATION ACTIVITIES**

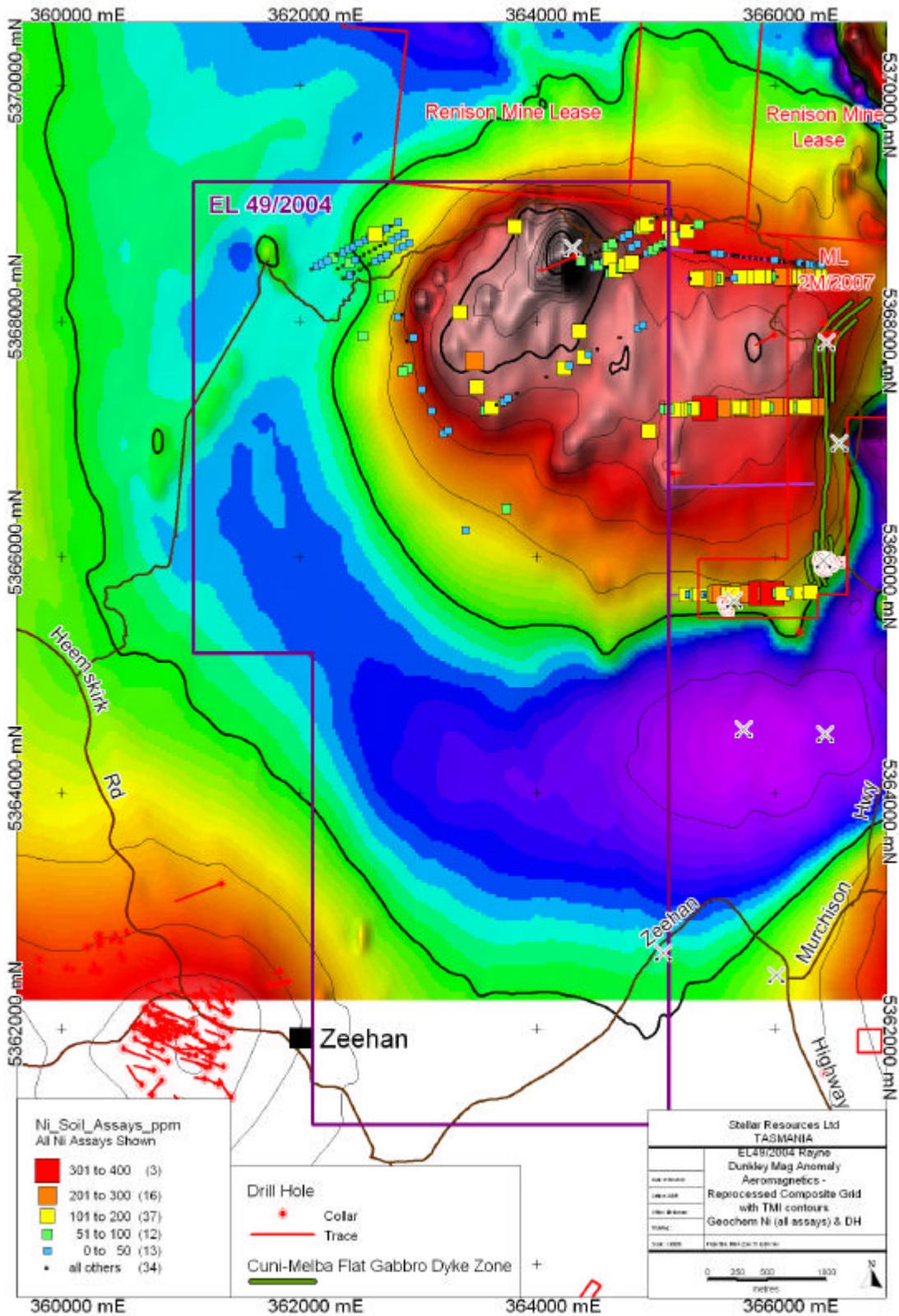
##### **3.1.1. Data Acquisition, Mapping & Analysis**

MRT digital geology and geophysics datasets, as well as DPIWE topographic data continue to be imported into MapInfo, from which further maps have been produced. Previous exploration data from EZ, Renison, CSR and CRAE has been digitised and captured from MRT open-file reports.

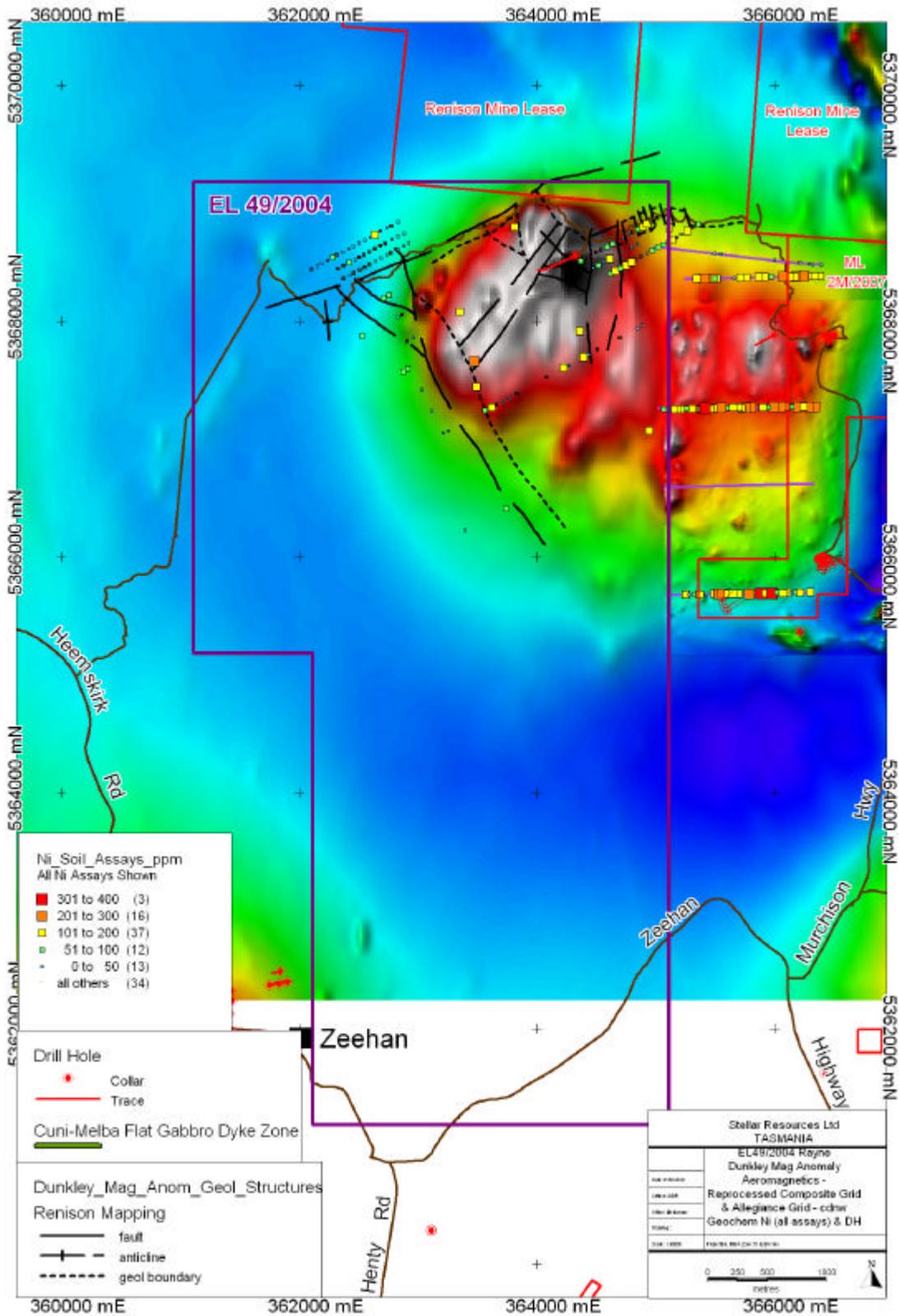
In February/March a series of geochemical (Ni, Cu), geological and geophysical maps were produced as part of a data review by Dr Tom Whiting aimed at establishing drilling target sites.



• Figure 7. EL49/2004, Aeromagnetics showing drill holes.

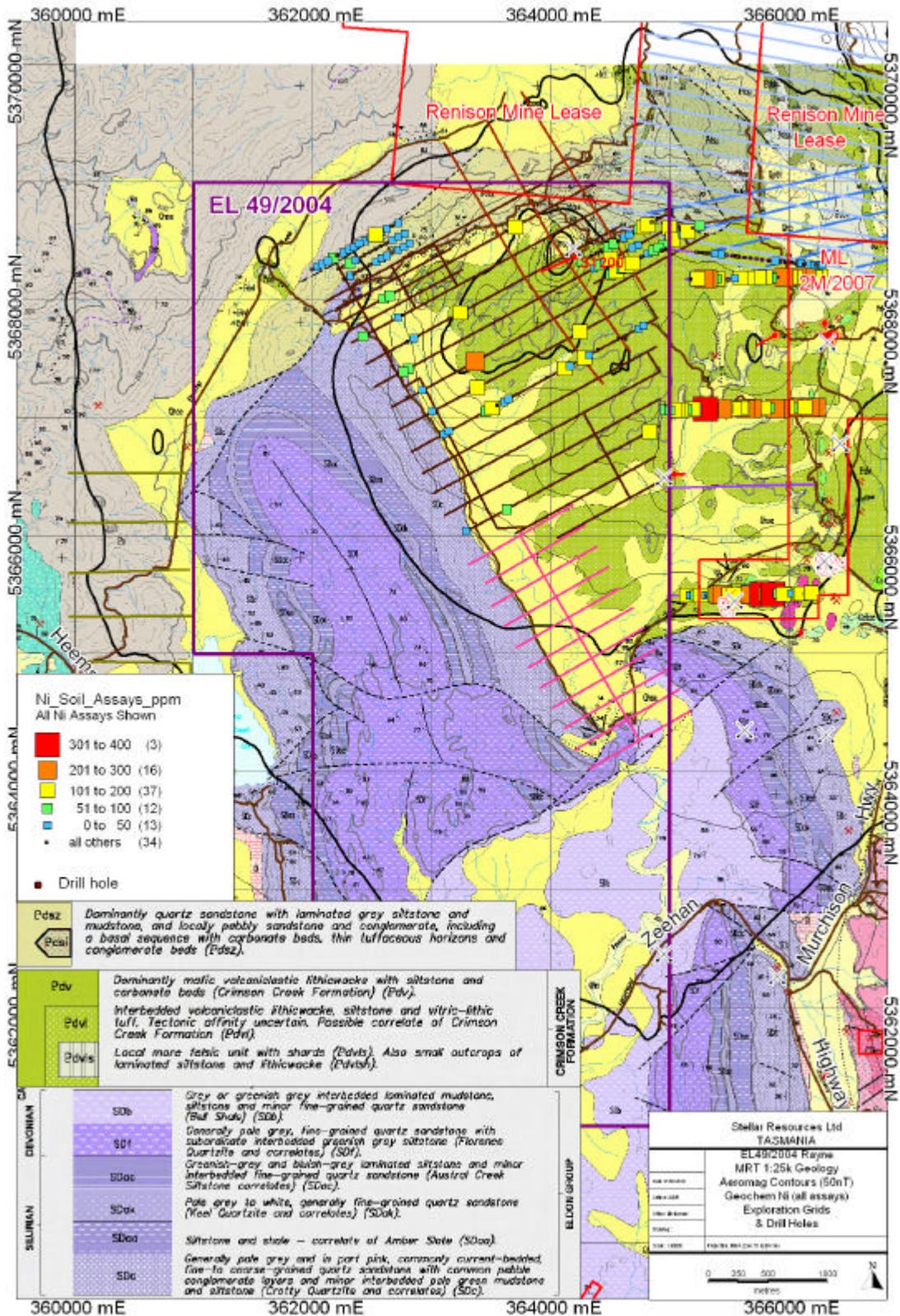


• Figure 8. EL49/2004, Aeromagnetics, with Ni geochemistry and drill holes.

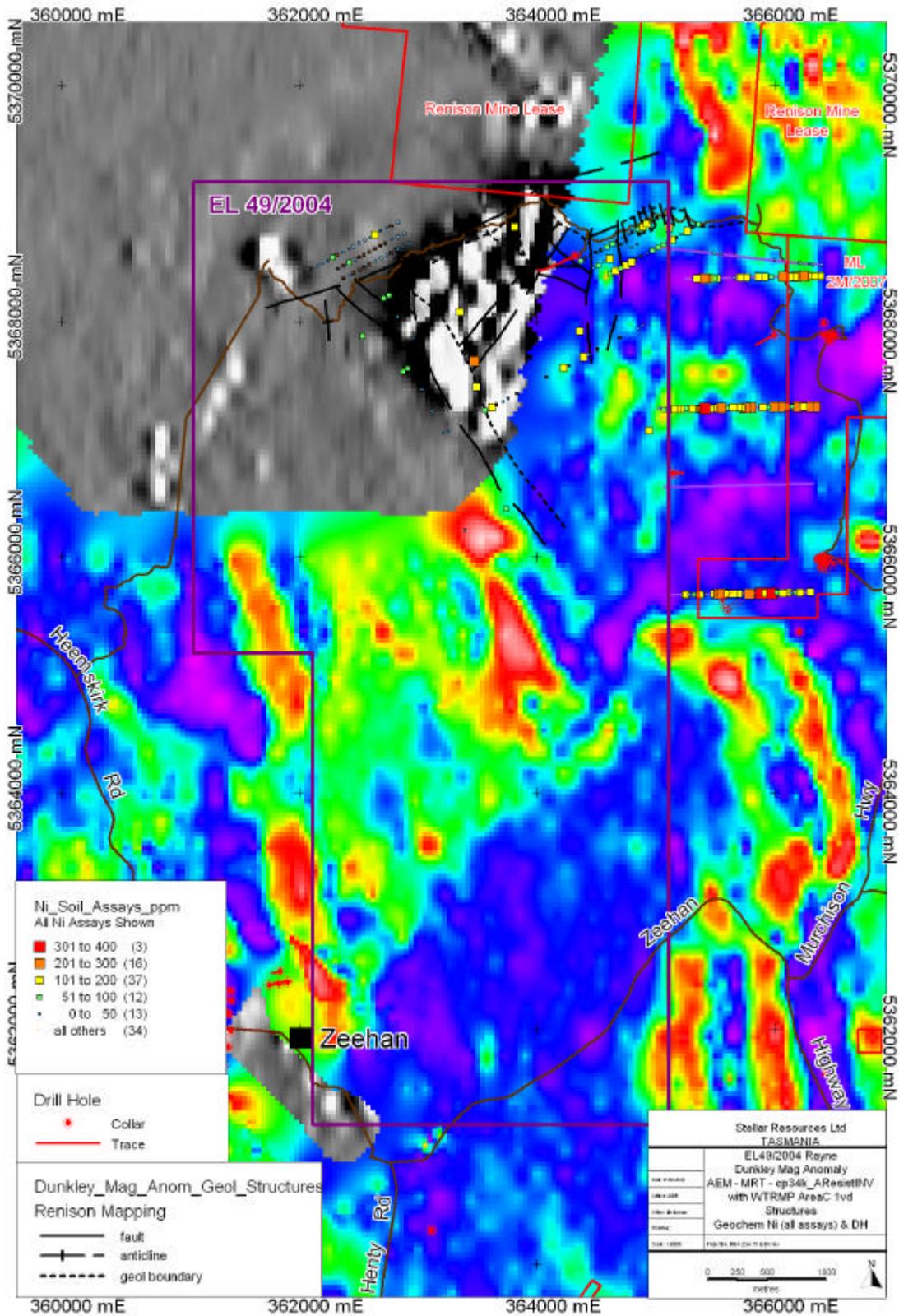


• Figure 9. EL49/2004, Aeromagnetics, with Ni geochemistry, structures and drill holes.

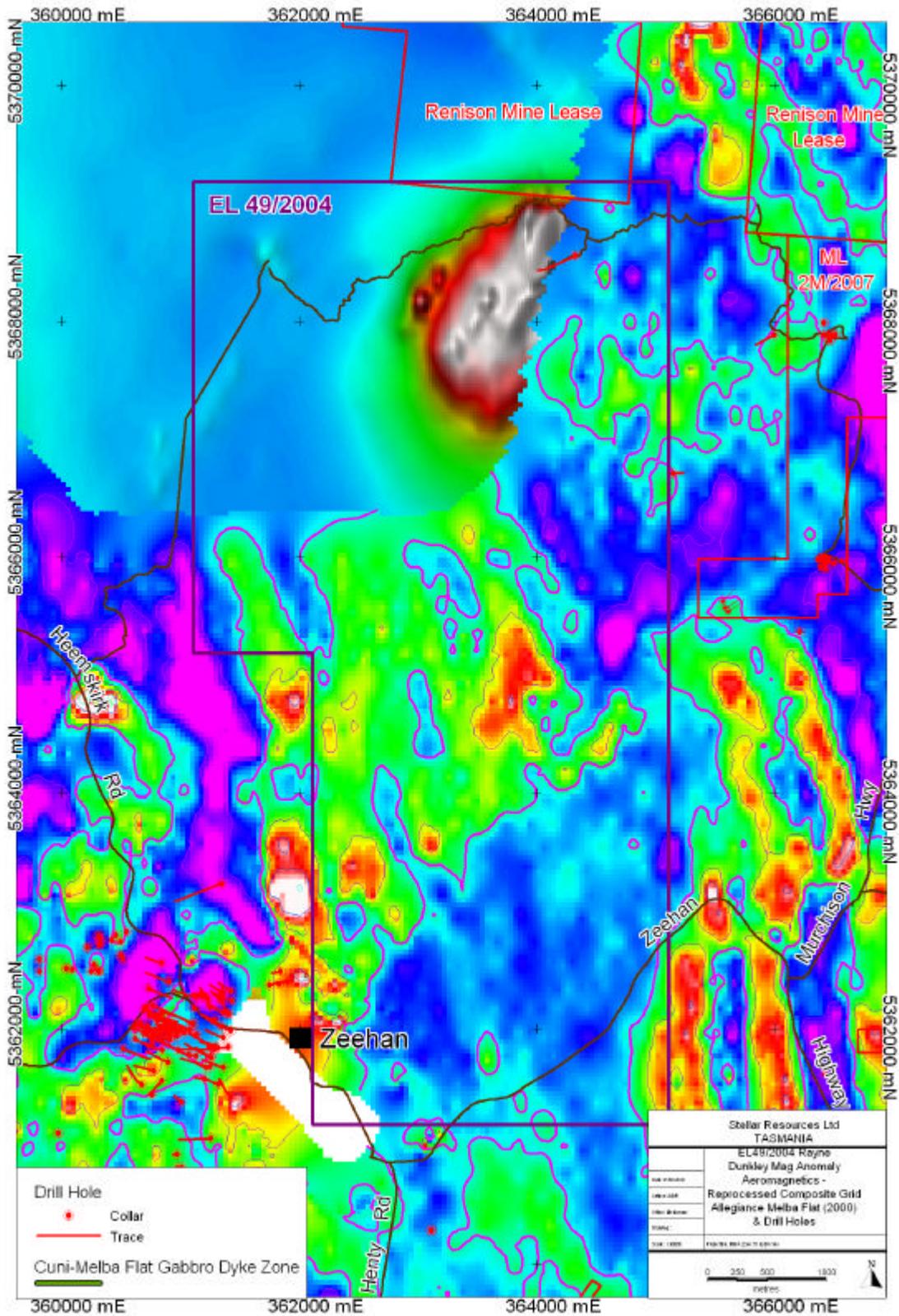




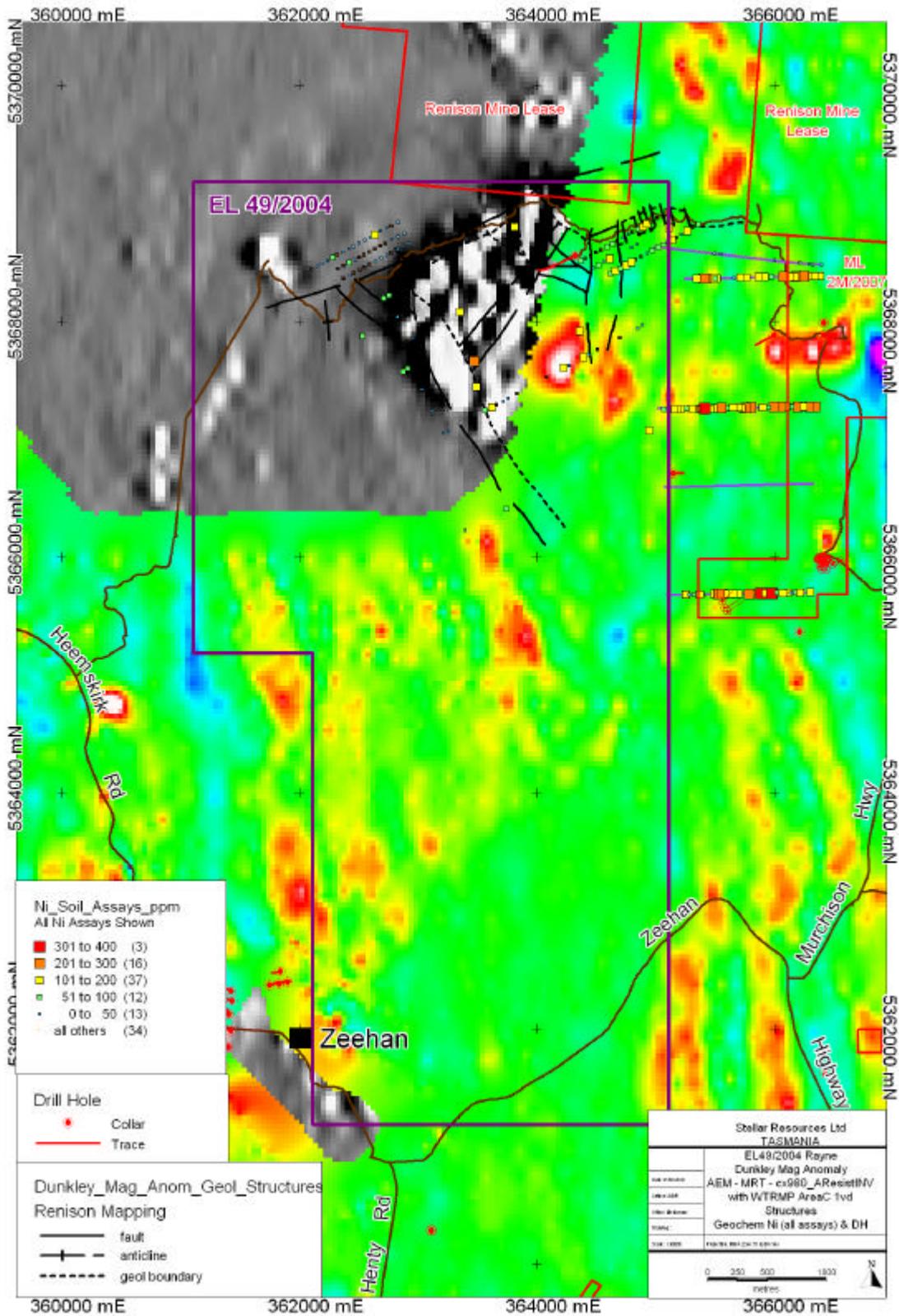
• Figure 11. EL49/2004, Geology - MRT, with Aeromagnetics Contours, Ni geochemistry, grids and drill holes.



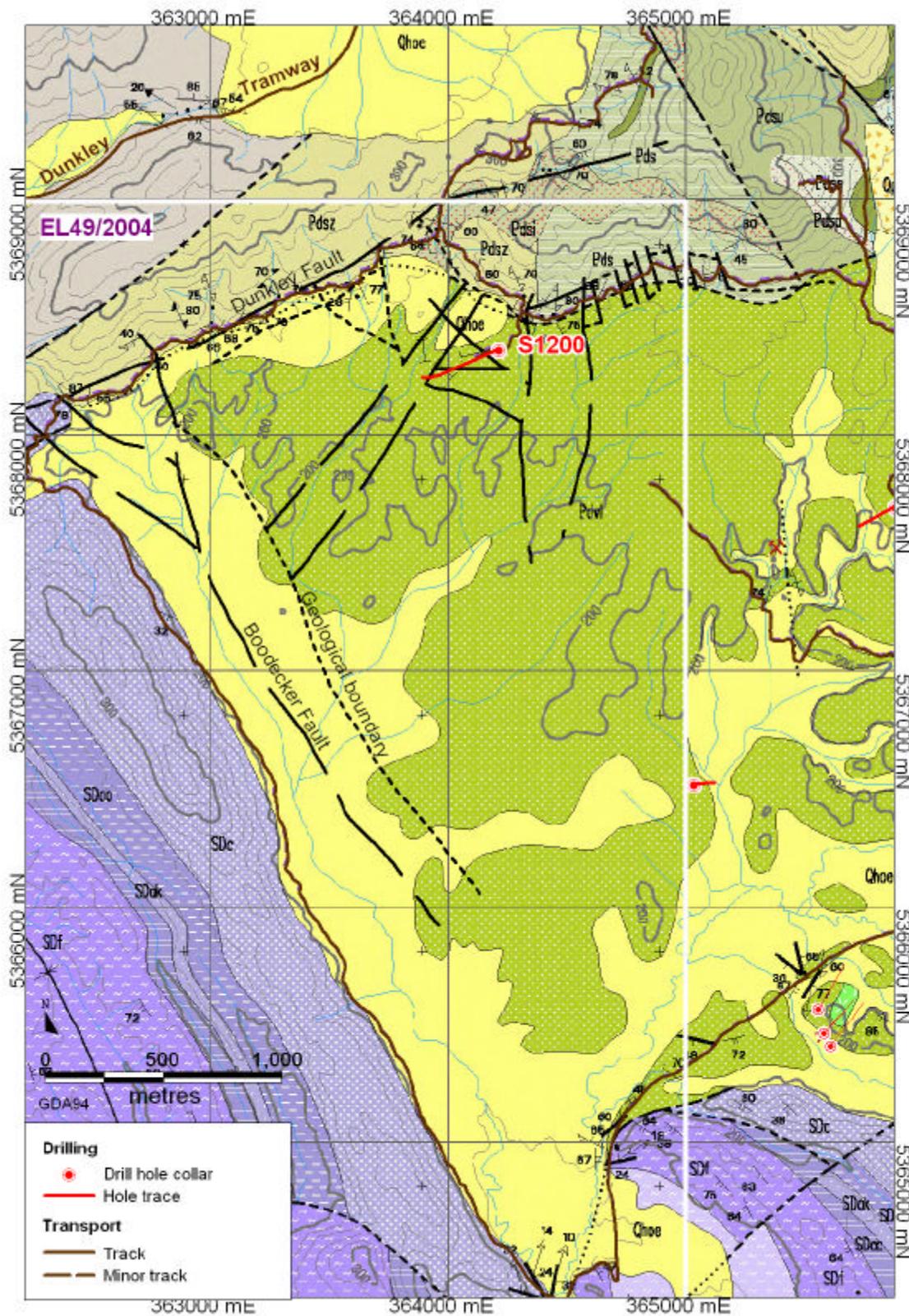
• Figure 12. EL49/2004, WTRMP EM cp34k aResistINV Coverage, with Ni Geochemistry, structures and drill holes.



• Figure 13. EL49/2004, WTRMP EM cp880 aResistINV Coverage, and drill holes.



• Figure 14. EL49/2004, WTRMP EM cx980 aResistINV Coverage, with Ni Geochemistry, structures and drill holes.



• Figure 15. EL49/2004, Structural Interpretation of the DMA area on MRT Geology.

#### **4. DISCUSSION OF RESULTS**

Renison's interpretation of the Dunkley Magnetic Anomaly and the geology was of a magnetic body at about 350 metres depth. Based on this they drilled diamond drill hole S1200 which did not explain the anomaly.

William's study (2008) suggested that the Precambrian basement is at depths of greater than 500 metres; that the source of the anomaly is a magnetic body within the basement which is about 2.5 km north-south x 2.9 km east-west and that it is probably an intrusive magnetic Devonian granitoid.

The "peak anomaly" has been modelled as a 100m x 100m x 100m magnetic body at a depth of about 300 – 400 metres but it could also be a flat body at a depth of 600 – 700 metres below surface. This deep body would correspond with the interpreted depth of the Renison Mine Sequence.

Based on this reinterpretation of the magnetic data it appears that historic drill hole S1200 did not test the target. It was too shallow but the lack of alteration and/or veining in the core from the deepest sections of the hole is difficult to explain. Considering the proximity of S1200 to the modelled magnetic and granitoids some alteration and/or veining would be expected.

The Dunkley Magnet Anomaly is a prime target for Renison style mineralisation.

Stellar's consultant Dr Tom Whiting also reviewed all data on EL49/2004 and neighbouring exploration licences, in particular EL43/1992 and RL5/2009 immediately east of EL49/2004. Historic narrow intersections of high grade Ni, Cu and PGE's by CRAE and Allegiance, hosted within basaltic dykes on EL43/1992, are considered to be indicative of processes similar to those giving rise to the formation of the Voiseys Bay Ni, Cu, PGE deposit in Canada.

This leads to the alternative hypothesis that the intensive magnetic anomaly (Dunkley Magnetic Anomaly – DMA) centred in the northeast of the licence is likely due to ultramafic rocks rather than granites. Dr Whiting has completed a risking and ranking exercise on all of Stellar's ground holdings in Tasmania. This has highlighted the DMA as a very high priority drill target.

## 5. CONCLUSIONS

Review of the historic exploration data suggests that the Dunkley Magnetic Anomaly is a very good Renison style sulphide / carbonate replacement tin target, which has not been effectively tested by past work.

Williams (2008) study supports the historical data interpretation and confirms the view that the EL could host a Renison style deposit at depth under the Dunkley Magnetic Anomaly in the northeast corner of EL 49/2004. Future work will concentrate initially on refining the target prior to commencing a deep (expensive) drilling program.

### 5.1 RECOMMENDATIONS

- High-resolution magnetics and VTEM over the whole EL to identify Voisey Bay style targets in the basaltic dykes (similar to the Cuni occurrences).
- Carry out a large loop ground EM survey over the deeper magnetic target to confirm the deep EM anomaly.
- Drill one deep hole on the deep mag/EM target in the northern part of the EL (Renison style or Voisey Bay style depending on geological interpretation).
- Drill 3 shallow holes on basalt dyke hosted Voisey Bay style targets that may arise from the VTEM.

## 6. PROPOSED EXPLORATION PROGRAMME

<b>EL49/2004 Rayne</b>		
<b>Proposed Exploration Programme and Costings - DMA Peak Only</b>		
<b>Access</b>	Upgrade of existing track	6000
<b>Drilling</b>	DMA Peak, 1 hole	140000
<b>Assays</b>	Assays for 50% of hole, Renison S1200 assays done for upper geology	12000
<b>Personnel</b>		28000
<b>Total</b>		<b>186000</b>

## **7. ENVIRONMENT**

There has been no field activity in the licence for the reporting period and therefore no environmental impact to report.

## 8. EXPENDITURE

Printed At: 01/12/2010 10:05:26 AM		Transaction Report				Page: 3
Job Details		Rubicon Limited				
Job No	Tran. Date	Department	Class	Group	Posting Ref	Amount
Doc Ref - Description	D1	RUB	GROUP			
EL 49/2004 Rayne						
1053		Technical			Total	AU\$2,720.50
105		STAFF COSTS				AU\$2,720.50
1061		Professional Technical			Total	AU\$24,030.65
106		CONTRACT PERSONNEL				AU\$24,030.65
1072		Geoscientist			Total	AU\$2,146.00
107		CONSULTANT PERSONNEL				AU\$2,146.00
1505		Rents/ Other Utilities			Total	-AU\$335.79
150		TENEMENT COSTS				-AU\$335.79
1651		Administration			Total	AU\$14,488.00
165		OVERHEADS				AU\$14,488.00
Class RUB						AU\$43,049.36

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## **Keywords**

Location: Zeehan, Cuni, Melba Flats  
Mineralisation environment: Carbonate replacement, skarns,  
Minerals: Cassiterite, Arsenopyrite, Magnetite  
Exploration methods: Geochemistry, Aeromagnetics, UTEM, Drilling  
Mine/prospect name: Dunkley Magnetic Anomaly  
Stratigraphic name: Oonah Formation, Success Creek Group, Crimson Creek Formation,  
Eldon Group  
Lithology: quartzite, slate, dolomites, sandstone, conglomerate, siltstone,  
greywacke, granite  
Geological Province: Dundas Trough  
Geological age: Precambrian, Cambrian, Ordovician, Devonian, Tertiary