

# EL36/2010 Mt Donaldson Relinquishment Report 2015

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# Abstract

The initial aim of exploration on EL36/2010 was to locate the Mt Donaldson Hydraulic workings and see if the gold in the tertiary gravels could have been derived locally. Old reports indicated there was pyrite with the gold in the basal layers of the gravels. The workings were not located, but are believed to be at the head of Guthries Creek in thick scrub.

Aeromagnetics and Radiometrics do not indicate a structure that may be a local source for the Gold in the tertiary gravels.

Focus has therefore been diverted to Middletons Ck and therefore the majority of the Licence is surrendered.



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## FIGURES

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Figure 2 – Surrender Plan

Figure 3 – Donaldson Water Race

Figure 4 – Donaldson and New Donaldson Location Plan

Figure 5 – SMEG Aeromagnetics

Figure 6 - SMEG Radiomagnetics

# 1. Introduction

The location of the Donaldson Hydraulic workings was the initial focus of exploration to ascertain if the gold had a possible nearby source

The Donaldson water race was followed from where it is highly visible on the buttongrass into the forest and followed to its end in the headwaters of Guthrie Creek. See **Figure 3**.

Therefore an assumption was made that the Donaldson and New Donaldson workings are in the vicinity of the ridge between Sabbath and Guthrie Creeks. Due to thick re-growth following fire, this could not be confirmed. See **Figure 4**.

Historic reports indicate that significant pyrite was found in the basal layers of the Donaldson prospecting pits. A 1 metre wide reef of pyritic material was located in Guthrie's Creek and a similar reef is known to exist in Sabbath Creek. Both carry no gold.

## 1.1 Report Datum

GDA94

## 1.2 Exploration Rationale

The aim of the exploration program on EL 36/2010 up to 2014 was to establish the source of the alluvial gold found in tertiary gravels in the Corinna district.

## 1.3 Geological Setting

The geology of the Corinna licence EL 36/2010 is part of the Arthur Lineament which separates the western Ahrberg Group lithologies from the more easterly low strain zones of the Oonah Group.

Rocks within the tenement are part of a complex tectonic zone consisting of a linear belt of sheared and highly strained lithologies composed of Cambrian metasedimentary and mafic igneous lithologies of the eastern Ahrberg Group including Savage Dolomites, Bernafai Volcanics and sediments of the Donaldson Group.

Within the tenement, the Savage Dolomites are mostly pale grey and cream fine grained oolitic dolomites with stromatolites, variable silicified dolomites and silica flour (Turner et al 1992). Overlying the dolomites in the vicinity of Elizabeth Ridge are found the Bernafai Volcanics. These volcanics are a sequence of mafic lavas and shallow intrusive, schistose volcanoclastics and volcanogenic mudstones (Henham 1990).

## 1.4 Licence Information

### 1.4.1 Licence Number

EL36/2010

### 1.4.2 Licence Name

Mt Donaldson

### 1.4.3 Licence Location

Mt Donaldson and Middletons Ck at Corinna  
See **Figure 1**

### 1.4.4 Reporting Period

24<sup>th</sup> November 2011 – 23<sup>rd</sup> November 2014

#### 1.4.5 Tenement Holder

Ron Gregory  
T/A – Ron Gregory Prospecting

## 2. Previous Work

### 2.1 Work Prior to Current Licence

Sabbath Ck was one of the first creeks worked for alluvial gold not long after gold was found at Middleton's Ck located near Corinna in 1879. Once the creeks were worked out attention was directed to the source of the gold which appeared to be the tertiary gravels that capped the low ridge between Sabbath and Guthrie's Creeks. The Donaldson Hydraulic Gold Mining Co. was formed and a water race was dug from the Donaldson River to bring water onto the field for hydraulic mining. This never eventuated as the "Hydraulic Mining" boom of the 1890's collapsed when Lucy Spur and other similar mines in the area failed due to poor returns.

Please refer to UR1939\_026\_46 (Blake F. – Report on the Corinna Goldfield) for further information.

## 3. Exploration

### 3.1 Desktop Studies

Dr Nic Haygarth provided a historical review of Gold mining in the Mt Donaldson district. This was provided in the 2011-12, Annual Report. (Gregory R.)

A thorough examination of historical reports was conducted by Ron Gregory Prospecting.

### 3.2 Regional Exploration Activities

No regional exploration was conducted in 2013-2014

### 3.3 Prospect-based Exploration Activities

#### Donaldson Hydraulic Prospect.

The Donaldson water race was followed from where it is highly visible on the buttongrass into the forest and followed to its end in the headwaters of Guthrie Creek. See **Figure 2**.

Therefore an assumption was made that the Donaldson (1895) and New Donaldson (possibly the 1930's) is in the vicinity of the ridge between Sabbath and Guthrie Creeks - See **Figure 4**. Due to thick re-growth following fire, this could not be confirmed and none of the reported prospecting pits were located. Should there be another hot fire in the area then an inspection should be made within weeks of the event. The use of LiDar was considered but was beyond the resources of Ron Gregory.

Prospecting was conducted in Guthries Creek.

Historic reports indicate that significant pyrite was found in the basal layers of the Donaldson prospecting pits. A 1 metre wide reef of pyritic material was located in Guthries Creek and a similar reef is known to exist in Sabbath Creek. Both carry no gold. It is possible that such reefs are the source of the pyrite in the base of the gravels.

### 3.3.2 Geology

No geological mapping was undertaken.

### 3.3.3 Geochemistry

No Geochemistry was conducted beyond the assay of the pyritic formation located in Guthries Creek (MPR2012/112 provided in the 2013 Annual Report (Gregory R.).

### 3.3.4 Geophysics

Mr. Phil Muir (SMEG) provided a Report on the publically available geophysics over EL36/2010. The following are the Conclusions and Recommendations from the Report, regarding the Donaldson hydraulic district

*“Magnetic data in the northern half of the tenement shows little of significant interest, with the possible exception of the far eastern side where the NNW-trending Bernafai Volcanics belt re-enters the tenement. Here the whole volcanics belt is almost orthogonal to its NNE trend in the southern half of the tenement. There is obviously a significant NNW structural feature controlling this change in direction, but apart from these observations the magnetics data doesn't really offer any more useful information.”*

See **Figure 5** for Aeromagnetics.

See **Figure 6** for Radiometrics.

### 3.3.5 Remote Sensing

No Remote Sensing was conducted in 2013 – 2014

### 3.3.6 Drilling

No drilling was conducted in 2013-2014

### 3.3.7 Ore Reserves and Resources

Non applicable

### 3.3.8 3D Modelling

Not applicable

## 4. Results

The Donaldson and New Donaldson Hydraulic mines are not located as charted. This is not surprising as there would be an inherent inaccuracy on the old charts which has possibly been transferred to modern mapping. Current Aeromagnetics and Radiometrics do not support a structure that may be a bedrock source for the gold found in the tertiary gravels.

## 5. Conclusions

### 5.1 Conclusions

It is possible that the pyrite reefs and others not found due to cover are the source of the pyrite in the base of the gravels.

The likelihood of a local hardrock source for the Gold in tertiary gravels is remote.

### 5.2 Recommendations

Surrender the majority of EL 36/2010 and concentrate on Middletons Creek which is worthy of follow-up work.. See **Figure 2**

## 6. Environment

No environmental impact was done by the work conducted to date.

## 7. Expenditure

2012 - \$13,900

2013 - \$21,633

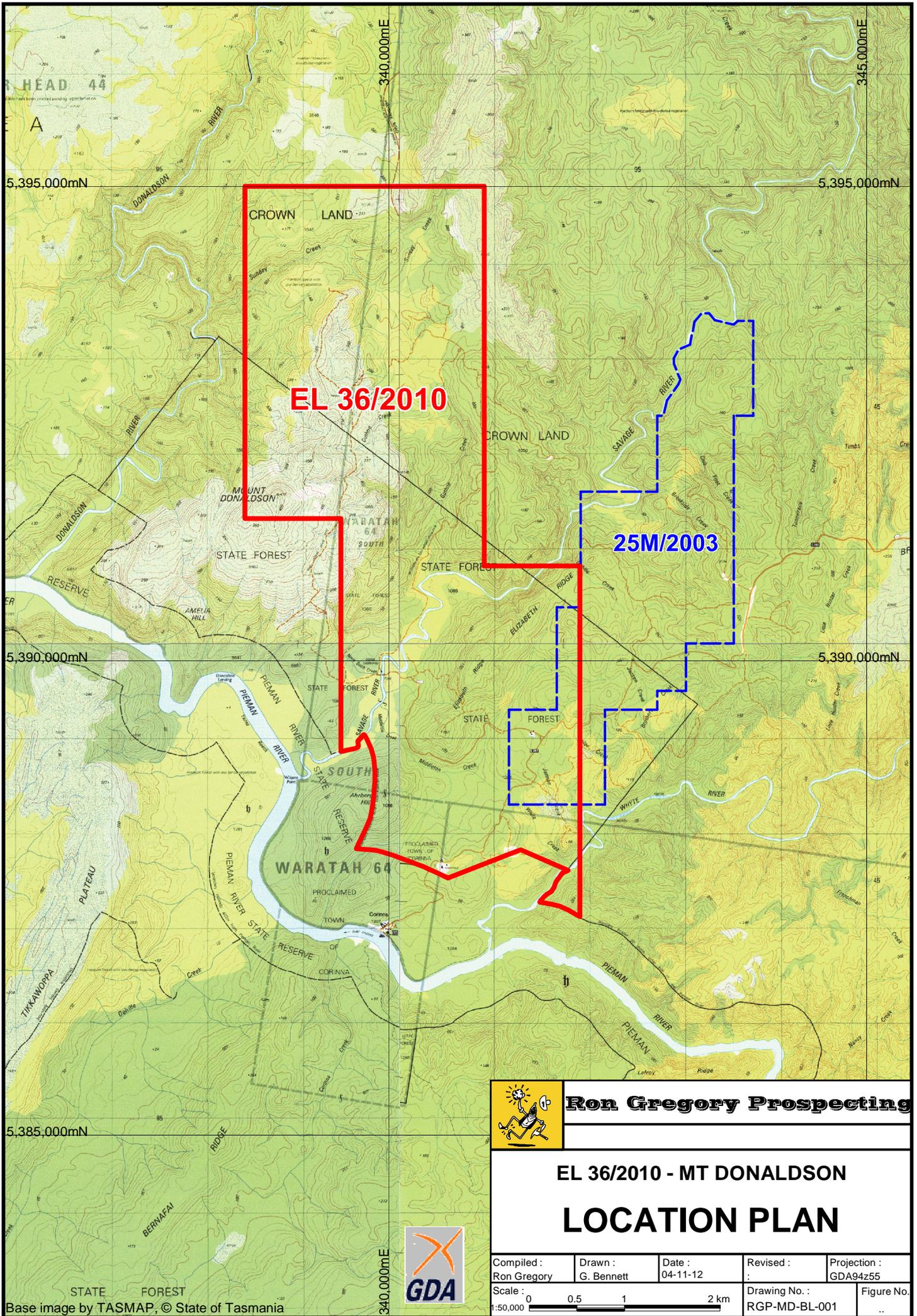
2014 - \$8,665

**Total - \$44,198**

## 8. References

GSB70\_96 - Geology and genesis of silica flour and gold in the Corinna district, western Tasmania – Khin Zaw, Turner N. J., Large R. R., Nolan H. D.& Mernagh T.

UR1939\_026\_46 Blake F. – Report on the Corinna Goldfield 1939



**Ron Gregory Prospecting**

**EL 36/2010 - MT DONALDSON**

**LOCATION PLAN**

Compiled : Ron Gregory	Drawn : G. Bennett	Date : 04-11-12	Revised : :	Projection : GDA94z55
Scale : 1:50,000			Drawing No. : RGP-MD-BL-001	Figure No. : ..





**AREA FOR REDUCTION**

**EL36/2010**

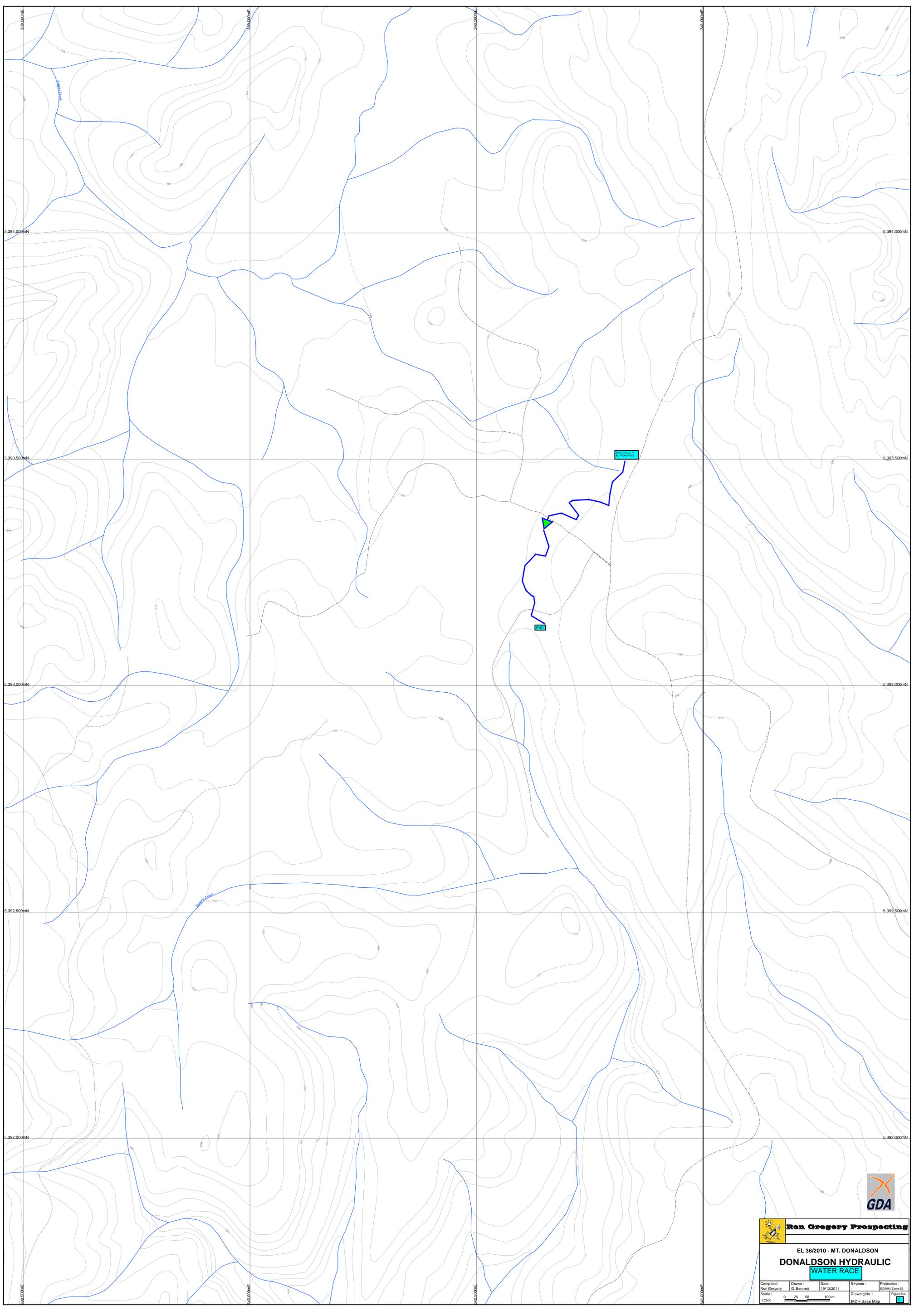
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**Ron Gregory Prospecting**

**EL 36/2010 - MT DONALDSON  
AREA FOR REDUCTION**

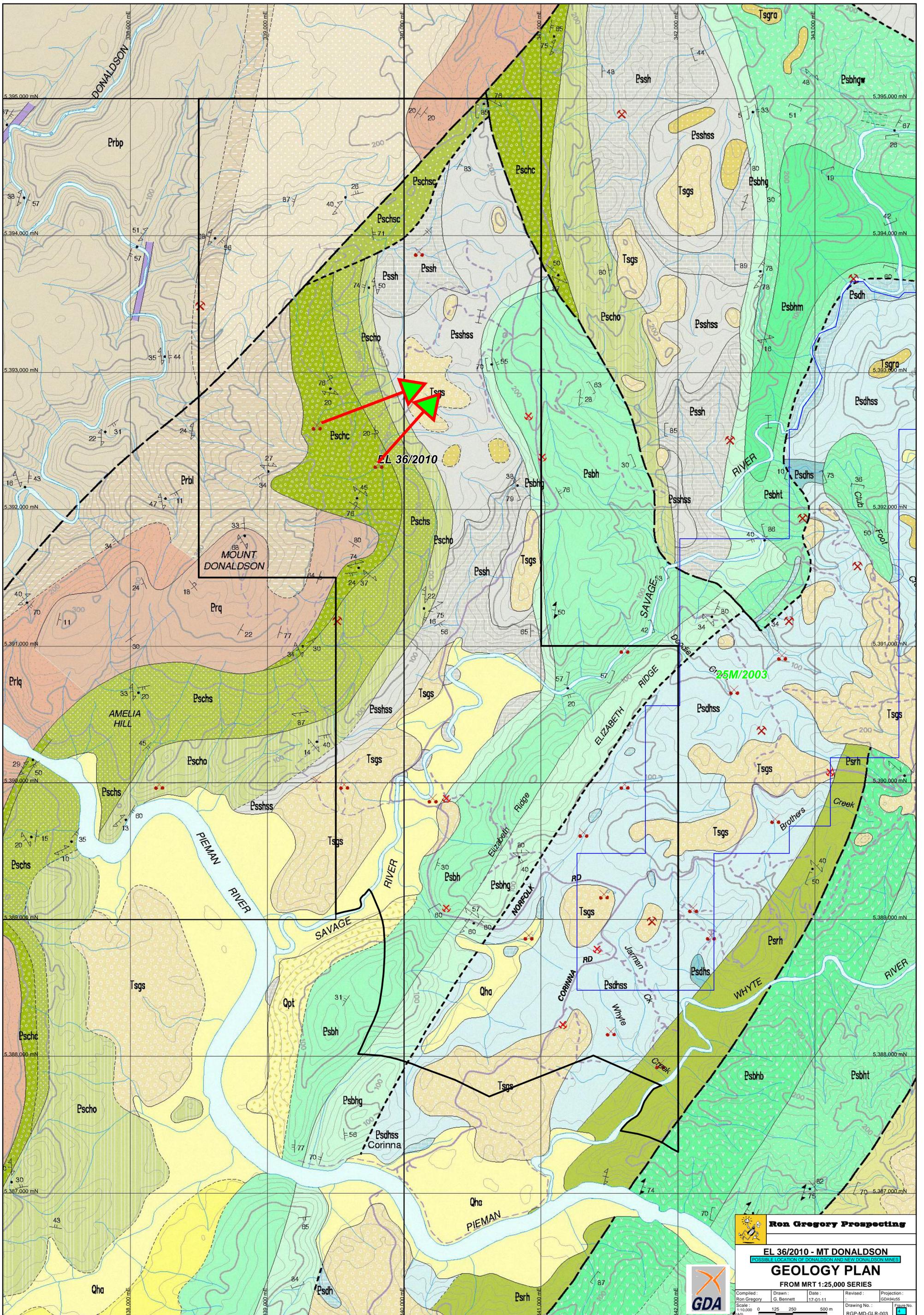
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Scale : 1:30,000			Drawing No. : RGP-MD-TL-011	Figure No. : 



**Ron Gregory Prospecting**

**EL 36/2010 - MT. DONALDSON  
DONALDSON HYDRAULIC  
WATER RACE**

Compiled: Ron Gregory	Drawn: G. Bennett	Date: 18/12/2011	Revised:	Projection: GDA94 Zone 55
Scale: 1:2500	0 25 50 100 m		Drawing No.:	Figure No.:
MDH Base Map				



**Ron Gregory Prospecting**

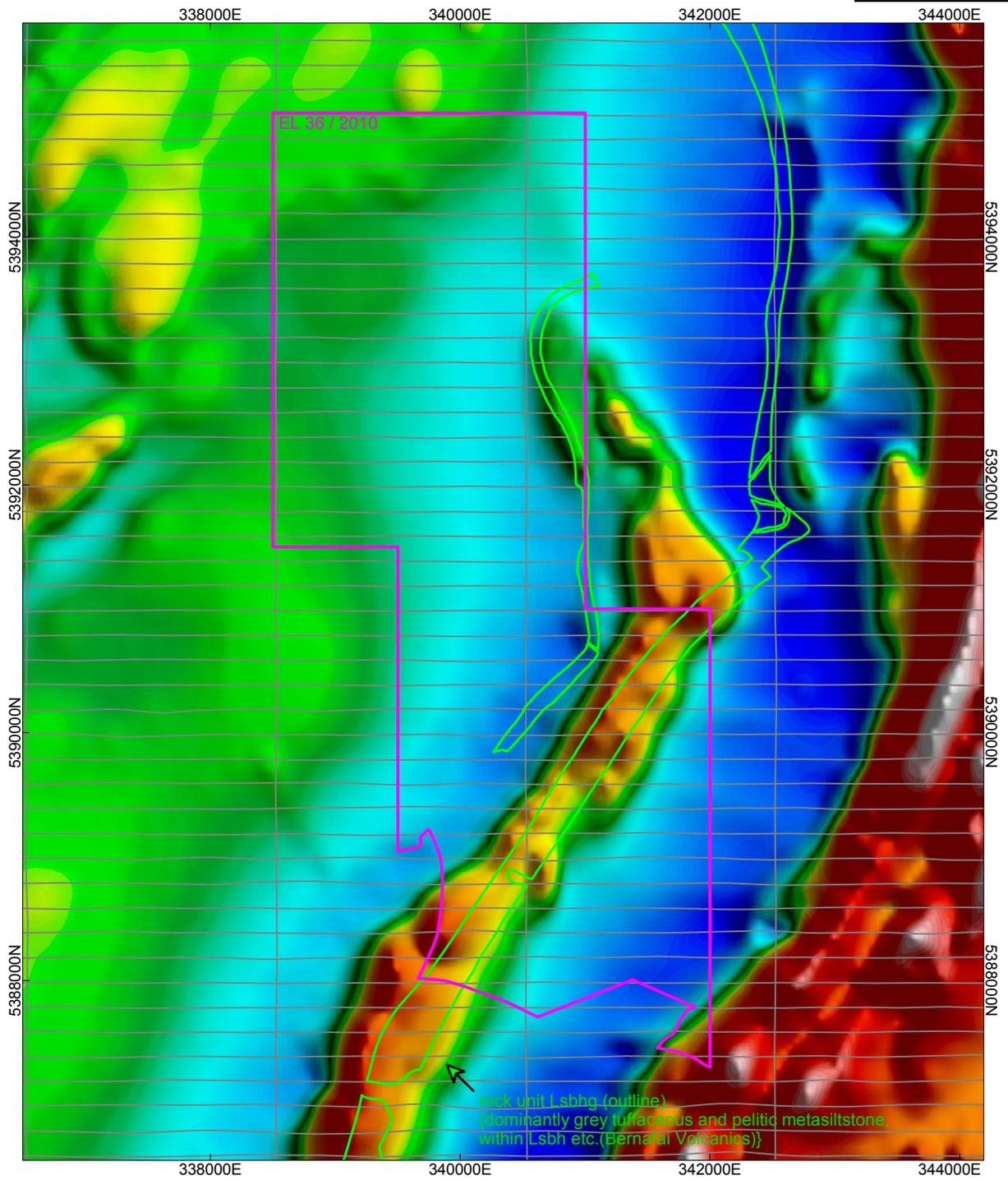
**EL 36/2010 - MT DONALDSON**  
 POSSIBLE LOCATION OF DONALDSON AND NEW DONALDSON MINES

**GEOLOGY PLAN**  
 FROM MRT 1:25,000 SERIES

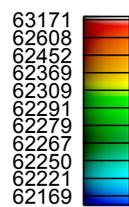
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			RGP-MD-GLR-003	4



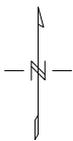
Figure 4



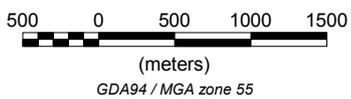
Flightpath overlay in grey



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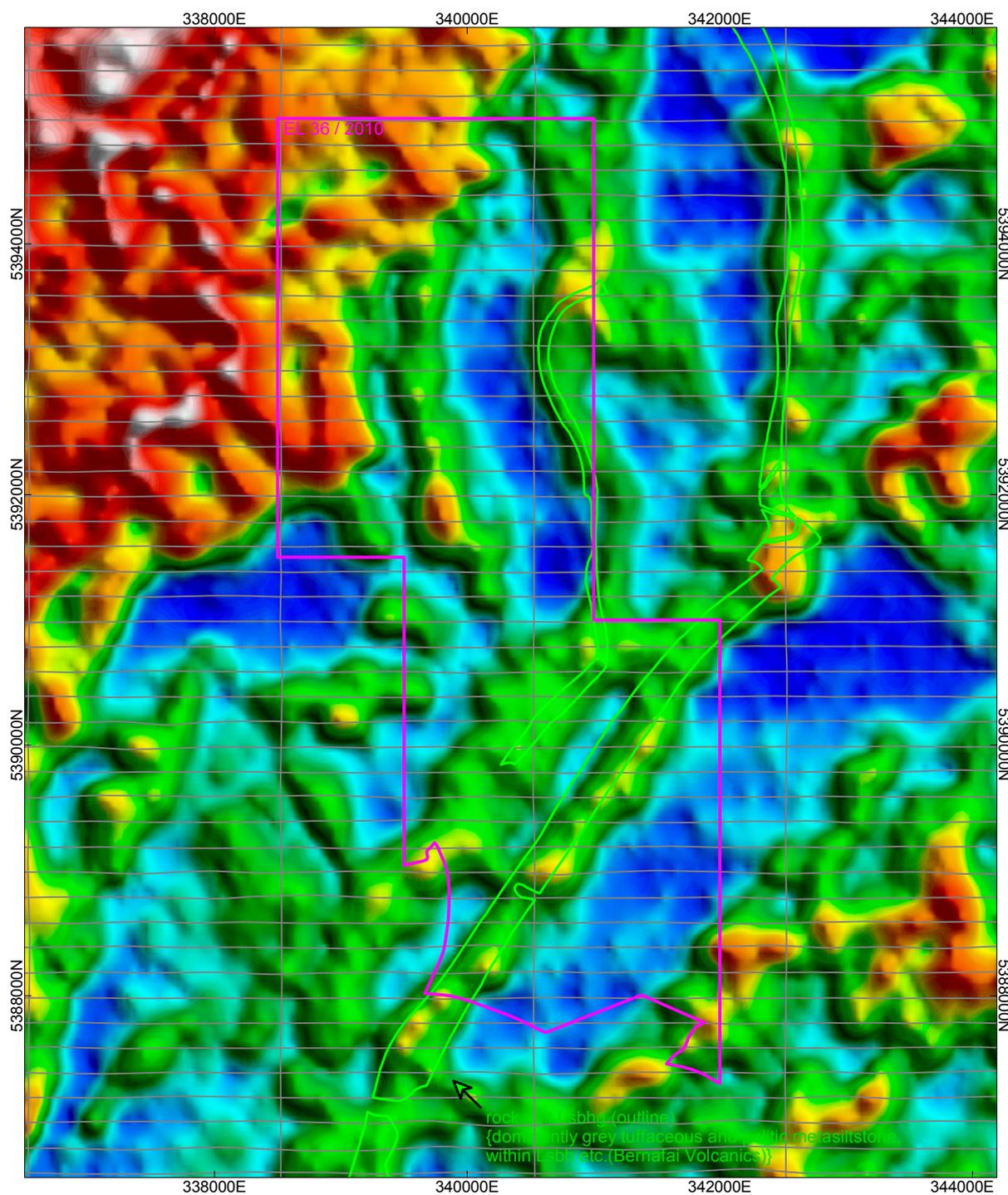
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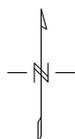
**EL 36/2010**  
Magnetics  
Reduction to the Pole

FIGURE 5

Figure 7



Flightpath overlay in grey



1 : 50,000 when printed to scale



(meters)  
GDA94 / MGA zone 55

**EL 36/2010**  
Radiometrics  
Total Count

**FIGURE 6**