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Unity Mining Limited

Firetower Project

EL 34-2007 Quamby Brook

Annual Report for Period

21 September 2011 to 20 September 2012

Vol. 1 of 1

September 2012

| | |
|-----------------------------------|---|
| Held by: | Greatland Pty Ltd |
| Manager & Operator | Unity Mining Limited |
| Author: | Alice Y E Warren |
| Date: | September 2012 |
| Map Sheets: | <u>Tasmania 1:25,000 Series</u> Montana (4639) Sheffield (4441) Quamby Bluff (4638) Gog (4440) Mole Creek (4638) <u>Tasmania 1:100,000 Series</u> Meander (8214) |
| Geographic Co-ord (GDA94): | Min East: 460,000m Max East: 480,000m Min North: 5,390,000m Max North: 5,405,000m |
| Commodities: | Base metals, gold, silver |

1.0 ABSTRACT

Unity Mining Ltd (UML) commenced exploration of EL 34-2007 Quamby Brook in the latter part of 2011-2012, as manager and operator of the Gog Range Joint Venture (known as the Firetower Project) with tenement holder Greatland Pty Ltd. Work undertaken during the 12 month report period, ending 20 September 2012, comprised a litho-structural interpretation of the whole of the area of the Firetower Project tenements for target generation. The work outlined several targets within the Firetower licences, but highlighted the lack of good resolution aeromagnetic coverage of EL34-2007. Recent drilling of one of the identified magnetic anomalies at 'Firetower West Prospect' in EL26-2004, to the north west of EL34-2007, revealed a large alteration system with weak copper mineralization, thus confirming the prospectivity of this area.

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Appendices

- Appendix 1 Gog Range Target Generation Report by Drazen Vukovic

Digital Files

EL342007_201209_01_Report.txt
(Report text, plus figures included in report)

EL342007_201209_02_Appendix.txt

2.0 INTRODUCTION

This report details exploration completed by Unity Mining Limited (UML) on EL 34-2007 Quamby Brook over the past year. A litho-structural report was completed covering the four Firetower Project exploration licences. Several targets were outlined within EL26-2004 and EL31-2004. Subsequent drilling of one of these targets within EL26-2004 intersected an alteration system with weak copper mineralization. No targets were identified within EL34-2007 but it was noted that there is only very poor aeromagnetic resolution over this tenement. EL34-2007 contains the strike continuation of many of the structural elements present within the tenements where targets were identified. The work highlighted the high prospectivity of the area of the Firetower Project tenements and also the need for high resolution aeromagnetic coverage of EL34-2007.

UML intends to continue exploration on the EL34-2007 in the next 12 months. A high resolution aeromagnetic survey will be completed over a large part of the tenement. This will be followed up by interpretation and ground investigation, and soil sampling of identified magnetic anomalies.

EL 34-2007 Quamby Brook is due for relinquishment on 20 September 2012.

2.1 Location & Access

EL 34-2007 Quamby Brook is located 50 km west of Launceston in central northern Tasmania, within the Municipalities of Kentish and Meander Valley. The EL lies immediately to the south of the town of Deloraine and forms the eastern licence of the four licences comprising the Firetower project. The location of the Firetower Project licences is shown in Figure 1.

Much of the tenement is private farming land and the remainder is wooded areas including three areas of designated state forest (Figure 2). Major roads, local roads and logging tracks provide good access throughout the project area (Figure 3). Access from Deloraine is via the Mole Creek Road which cuts through the western part of the tenement. The Lake Highway cuts through the centre and east of the tenement.

2.2 Tenure

EL 34-2007 Quamby Brook, covering 97.0 sq km, was granted to Greatland Pty Ltd on 21 September 2007 for a period of five years. The company submitted a successful bid to explore the tenement in accordance with Mineral Resources Tasmania's Exploration Release Areas process.

UML announced on 12 October 2011 a farm-in agreement with Greatland Pty Ltd to explore on four ELs in the Gog Range area, including EL 34-2007 Quamby Brook. Under the terms of the agreement UML may earn a 51% interest by spending \$2 million within the first two and a half years.

Any exploration activity proposed on EL 34-2007 Quamby Brook requires assessment by and approval from the Mineral Exploration Working Group (MWE) prior to commencement. Approval of exploration programs is conditional upon UML, as manager and operator, meeting the requirements of the Mineral Exploration Code of Practice (MECOP) and all site specific conditions.

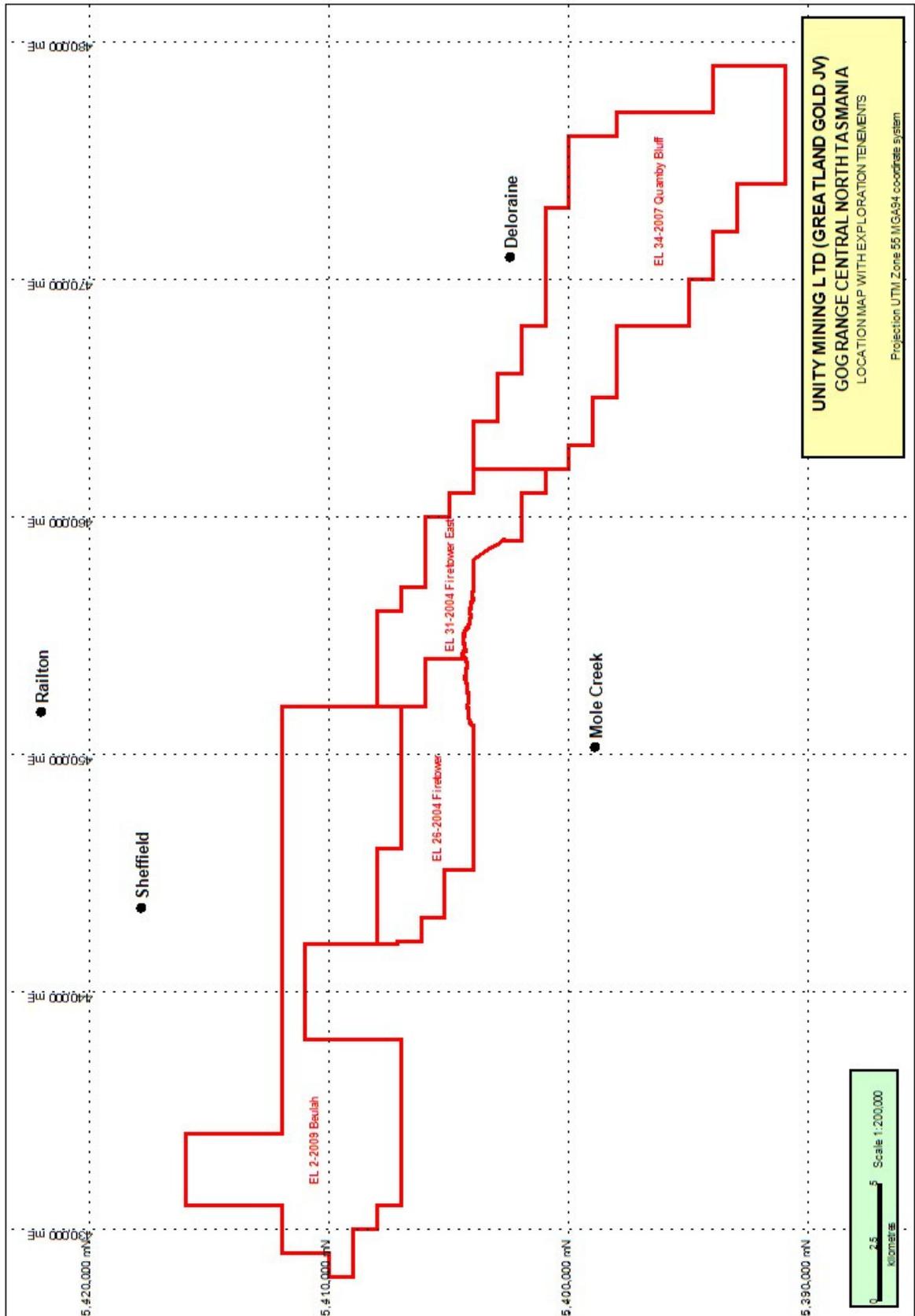


Figure 1 Location Map with Firetower Project tenements

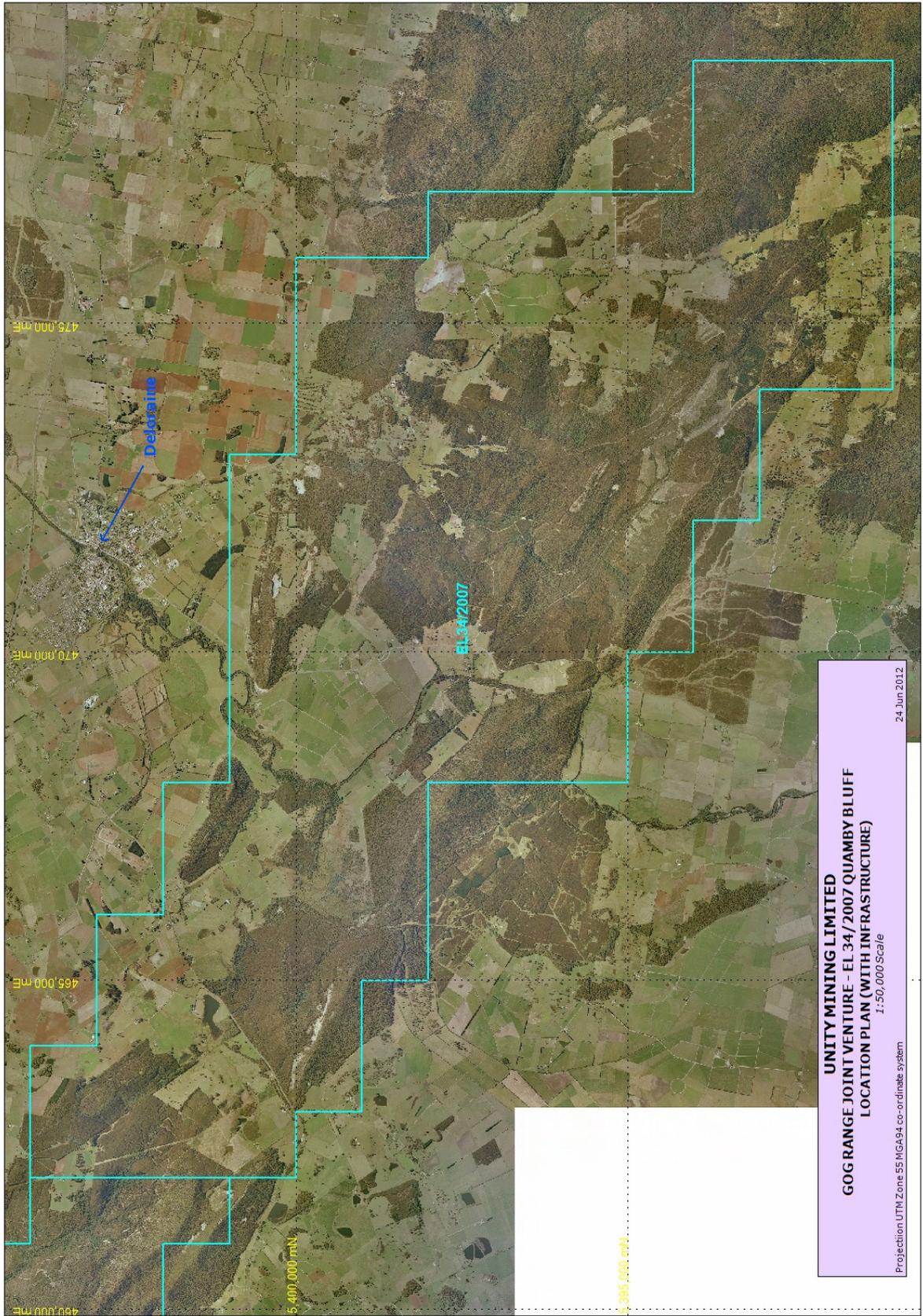


Figure 2: Location Map- EL34-2007.

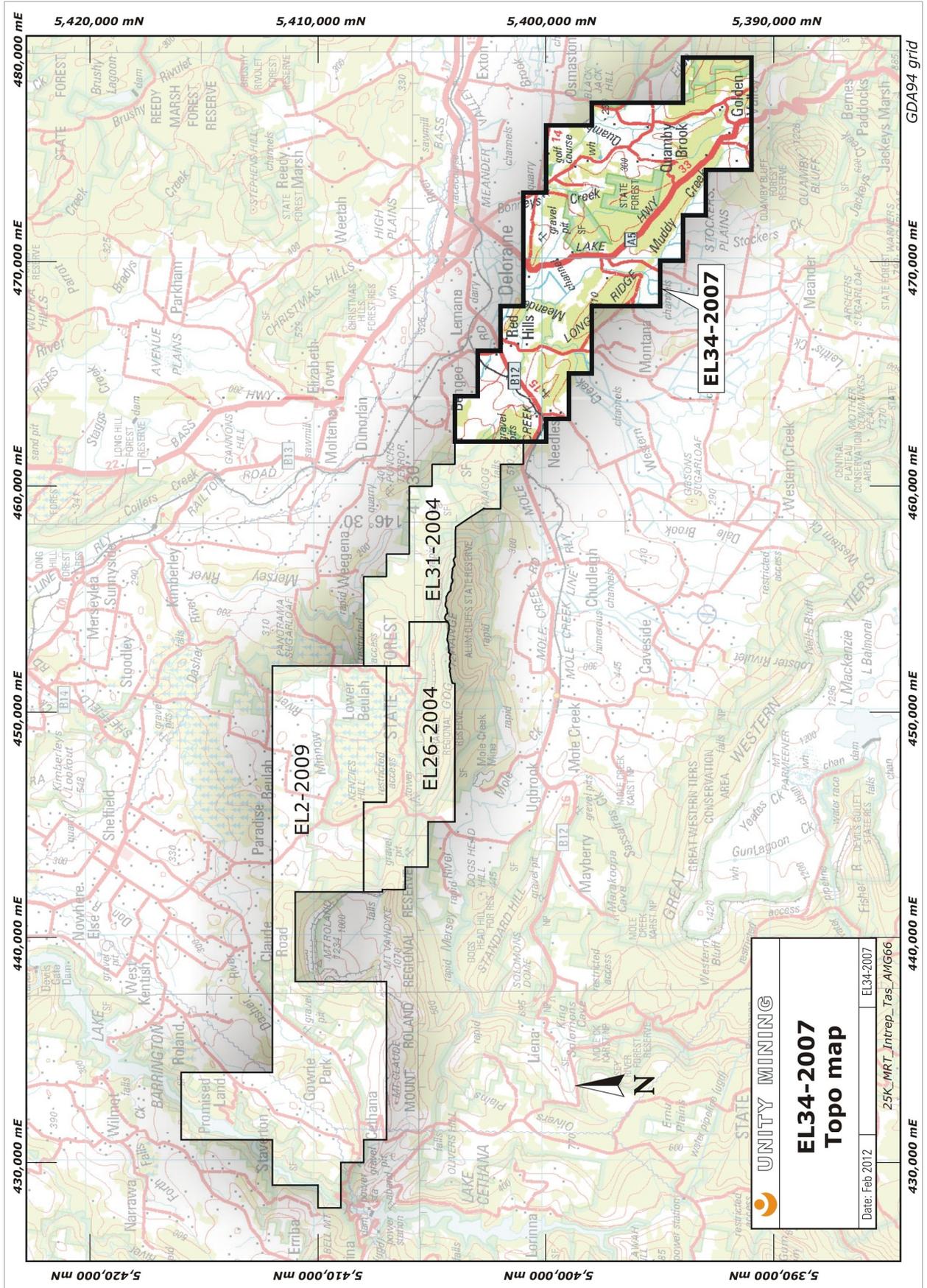


Figure 3: Topographic Map- EL34-2007.
(Grid projection UTM MGA94 Zone 55 co ordinate system)

3.0 GEOLOGY

3.1 Regional Geology

Neo-Proterozoic Tynnennan Group metasediments are unconformably overlain by the Mt Read Volcanics. The Cambrian Mt Read Volcanics are highly mineralised and host major polymetallic VHMS deposits, particularly in the west of Tasmania. The Cambrian volcanics and sediments are unconformably overlain by late Cambrian to early Ordovician Gordon Group consisting of siliclastics of the Roland Conglomerate and Moina Sandstone overlain by the Gordon Limestone. The regional and economic geological setting has been detailed in a previous report (Askins and Baxter, 2005).

3.2 Local Geology

Figure 4 shows the interpreted geology of the Firetower Project tenements. The oldest rocks in the licence area are the Neo-Proterozoic Tyennan Group which crop out in the southern part of the licence. These rocks comprise dominantly quartzites and quartz-mica schists. They form part of the Tyennan region which is a complex thrust stack of poly-deformed Neo-Proterozoic metamorphic rocks occurring as high grade rocks allochthonously thrust within lower grade units (Baxter 2008)

The Cambrian sequence within the licence area is dominantly sedimentary with only minor felsic to intermediate lava/intrusive units. It forms the along-strike continuation of rocks that crop out in the Sheffield-Gog area and it is correlated with the Gog Range Greywacke of the Western Volcano-Sedimentary Sequence. The sedimentary rocks comprise interbedded micaceous greywacke, siltstone, shale, siliceous conglomerate, and volcanoclastic sediments (Wells 1957, Barton et al 1969, Pike 1973, Herrmann 1991 and Woodward et al 1993 in Baxter 2008). Andesitic lavas/intrusive rocks are present within the Gog Range Greywacke at Kentish Hill in the southeast of EL34-2007 and Herrmann (1991) concluded that these correlate with the rocks of the Que-Hellyer footwall (in Baxter 2008). Minnow keratophyre forms the youngest unit of the Mt Read Volcanics in this area and it crops out in a small area along the north-eastern margin of the licence. The Mt Read Volcanics are overlain by Late Cambrian to Early Ordovician Owen Group conglomerates and sandstone crop out along the northern and the southern margins of the licence.

A small area of Permo-Triassic Lower Permian siltstones and mudstones occur in the far east of the licence, where areas of Jurassic dolerite are also present.

Alteration and Mineralisation

Mineral occurrences and areas of anomalies identified from previous work within EL34-2007 are shown in Figure 4 as prospects/anomalies.

There is one recorded historic mine/mineral occurrence within the licence. Copper was discovered in 1921 at Kentish Hill in the south-east of the licence. There was minor underground exploration by shaft and adit but there is no recorded production (MacIntosh-Reid 1923 in Baxter 2008).

From previous work several anomalous results have been highlighted.

Trenching at D4 in the centre of the licence returned a sample of 3.9 g/t Au (Cody and Wildy 1971).

Copper has been detected in drillholes at Kentish Hill in the south east of the tenement (Cogar and Wildy 1971) and in streams at Beefeater Hill (also known as Anomaly 10) in the north east of the tenement, Area 11 in the centre of the tenement, and, in the southeast part of the tenement at Areas 13 and 16 (Weste 1978 in Baxter 2008).

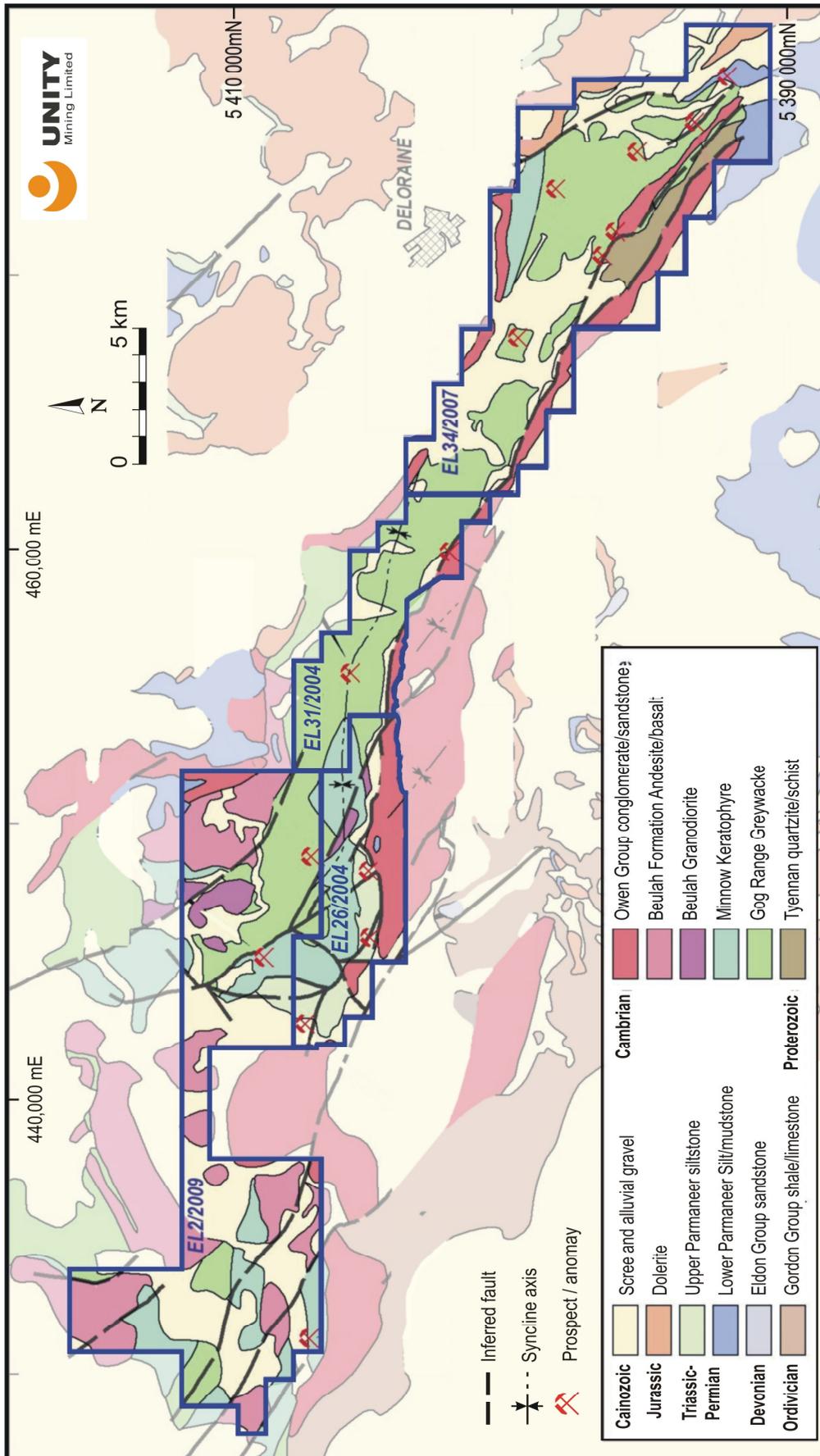


Figure 4: EL 34-2007 Interpreted Geology (from 1:25000 MRT)
(Projection UTM MGA94 Zone 55 Co-ordinate system)

Tin is present in trenches in area D3 in the centre of the licence (Cogar and Wildy 1971 in Baxter 2008).

A previously unrecorded adit, D 3, was found during reconnaissance work by Greatland Pty Ltd. One hundred and seventy metres west of the entrance to the D3 adit, which cross cuts the faulted Proterozoic-Cambrian contact, in situ gossan contains relics of folded massive pyrite banding with traces of malachite (Baxter 2008). Limonitic and vuggy schists crop out across the adit length for 11 metres from the contact and within an oblique shear close to the contact (Baxter 2008)

There is no official record, but some reference to alluvial mining in Quamby Brook downstream from the town of Golden Valley in the south of the licence area (Cogar and Wildy 1971).

4.0 PREVIOUS EXPLORATION

Work completed prior to September 2008 is outlined in Baxter 2008.

The most notable previous work was conducted by TW Davies Syndicate in 1971 (Cogar and Wildy 1971). Six vertical diamond holes at the Kentish Hill copper prospect in the southeast of the tenement. The best result was 46.5m at 0.14% copper in BH4 from 11.7m.

Since grant of EL34-2007 in September 2008 to 12 October 2012, Greatland have conducted a data review, soil sampling, rock chip sampling, drainage sampling and geological mapping on various parts of the tenement.

5.0 WORK COMPLETED (OCTOBER 2011 TO 20 SEPTEMBER 2012)

Work completed during the current twelve-month period comprised a litho-structural interpretation of the area covered by the four ELs of the Firetower Project in order to generate exploration targets. The report is included as Appendix I. Figure 5 shows the structural interpretation and targets generated from this report.

The work outlined several targets within the Firetower licences (figure 5), and highlighted the lack of good resolution aeromagnetic coverage of EL34-2007.

6.0 EXPENDITURE FOR 2011/12

Expenditure by UML on EL 34-2007 for the year ended 20 September 2012 was \$33,783, as follows:

| Expenditure Item | \$ |
|------------------|-----------------|
| Geology | 21,108 |
| Remote Sensing | 5,256 |
| Land Access | 6,398 |
| Administration | 1,021 |
| | |
| Total | \$33,783 |

7.0 PLANNED WORK AND EXPENDITURE FOR 2012/13

Planned work on EL34-2007 will commence with flying high resolution magnetics over the large part of the EL for which there is currently only poor magnetic data.

Recent drilling on EL 26-2004 located low level chalcopyrite mineralisation at the boundary between haematite and magnetite alteration, on the flanks of a distinctive magnetic anomaly. Conversely, at Firetower itself, the best gold

mineralisation is associated with magnetic depletion. Magnetism is therefore a most useful exploration tool in this environment.

Similar anomalies possibly occur within EL34-2007, but the present, regional-scale magnetic coverage makes it difficult to assess the area. Figure 6 is an aeromagnetic map of the Firetower Project ELs and shows the poor resolution of the area covered by EL34-2007. The white-bordered rectangle outlines the areas where it is proposed to attain high resolution aeromagnetic data to enable a thorough assessment of the licence area. It is proposed that data be acquired by helicopter, at minimum 200m line spacing and 100m above ground level. A VTEM survey may be considered, although probably radiometrics would be more useful in this geological setting.

Interpretation of the newly acquired magnetism will focus on identifying anomalies similar to those located at 'Firetower West' within EL26-2004, and the magnetic depletion zones associated with the Firetower mineralisation.

Estimated expenditure on EL 34-2007 Quamby Brook in the 12 months report period, ending 20 September 2013, is \$75,000.

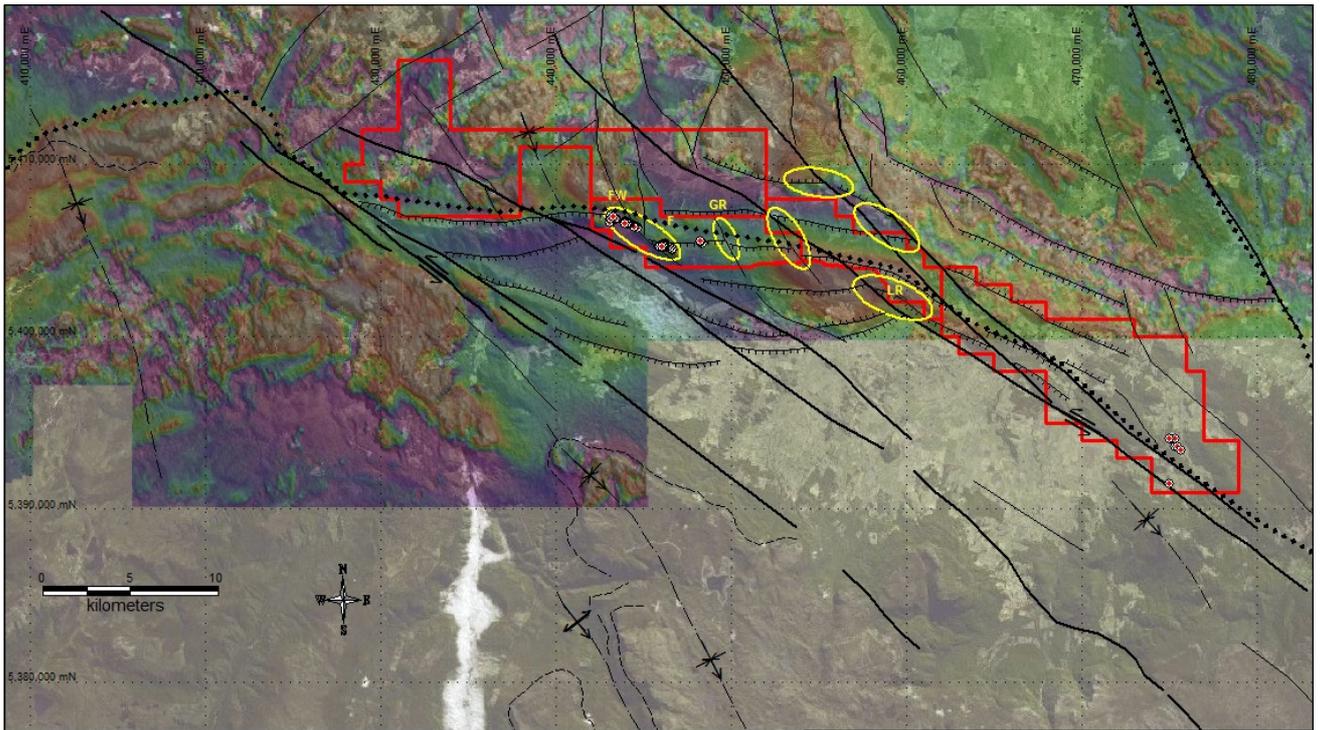


Figure 5

Structural Interpretation and Regional Targets (Vukovic 2012 Appendix 1)

(Projection UTM MGA94 Zone 55 coordinate system)

Drillhole collar location



Satellite & magnetic image interpretation



Anticline



Bedding trace



Dundas Trough margin



Fault



Fold axis



Late dilational fault



Major fault



Sinistral fault movement



Syncline

Target



(FW - Firetower West;
F - Firetower;
GR - Gregory's Road;
LR - Lobster Rivulet)

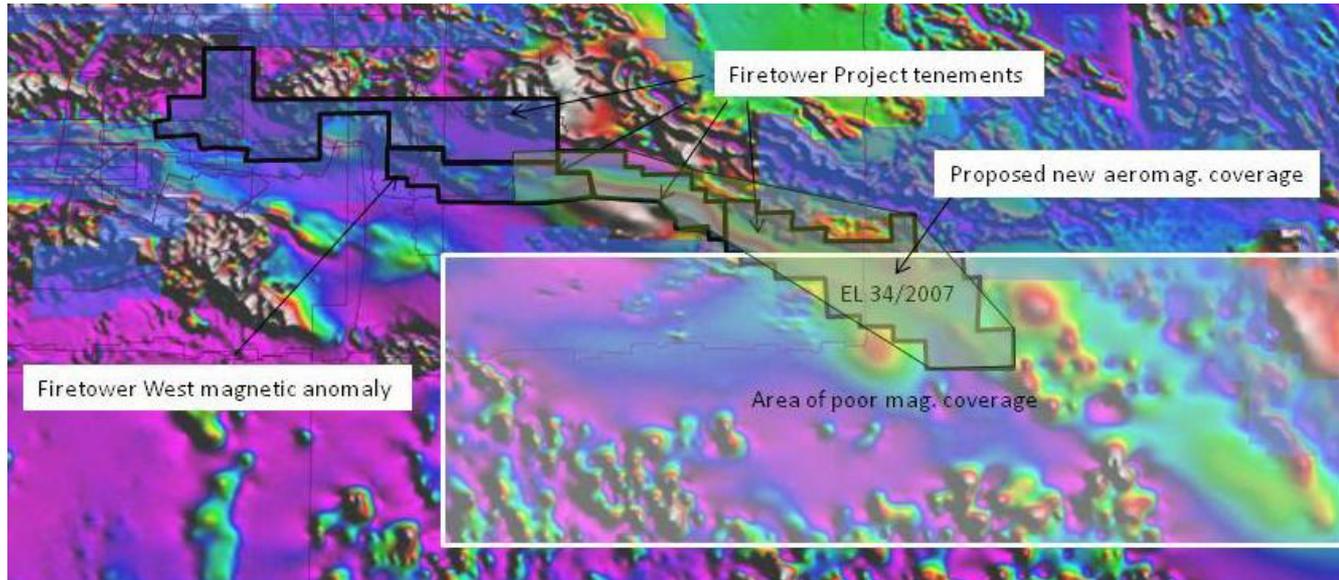


Fig 6 Aeromagnetic image of the Firetower Project tenements showing proposed work EL34-2007

8.0 REFERENCES

Askins, P.W. and Baxter, C., 2005. Annual Report for EL26/2004 and EL31/2004 for the Period to 26 November 2004 to 25 November 2005. Greatland Pty Ltd, pp22. (unpublished)

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Coger, P.E. and Wildy, R.L., 1971. Progress Report to 16 October 1971, EL25/70. T.W. Davies Prospecting Syndicate, 12 pp [TCR71-0830] (unpublished)