



Tim Callaghan – Resource and Exploration Geology



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**BLYTHE RIVER PROJECT**  
**PARTIAL RELINQUISHMENT REPORT**  
**EL18/2007 HAMPSHIRE 2**  
**NW TASMANIA**

**Prepared for: Forward Mining Limited**

**Tim Callaghan, June 2013**

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## **MAP CONVENTIONS**

Coordinates in this report and in digital data associated with this report are recorded as GDA94 Zone 55.

RL's in this report are MSL.

Cross sections are drawn looking north.



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## **EXECUTIVE SUMMARY**

EL18/2007 was originally granted to Iron Mountain Pty Ltd in 2007. The EL was acquired by Blythe River Iron Pty Ltd in 2012. The Original EL covered an area of 103km<sup>2</sup>. Two areas on the far western and southern extent of the EL are to be relinquished as a Partial Relinquishment in the 6<sup>th</sup> year of tenure. A total of 33km<sup>2</sup> have been relinquished. No field work was completed on the areas to be relinquished. Geological studies include a review of open file aeromagnetic data and historic and MRT geological maps.



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## 1 INTRODUCTION

EL18/2007 Hampshire 2 is one of 5 current exploration licenses held by Blythe River Iron Ltd (BRI). The Camena License EL15/2006 has been relinquished from the 6 previously held. Tenement details are listed in Table 1.

<b>EL</b>	<b>Name</b>	<b>Held By</b>	<b>Size</b>	<b>Expiry</b>	<b>Comments</b>
EL6/2005	Cuprona	BRI	22km <sup>2</sup>	9/2013	Extension Expires Sept 2013
EL15/2006	Camena	BRI	30km <sup>2</sup>	6/2013	Relinquished
EL25/2009	Highclere	BRI	33km <sup>2</sup>	5/2015	2 years remaining
EL35/2006	Hampshire 1	BRI	89km <sup>2</sup>	2/2013	Extension pending
EL18/2007	Hampshire 2	BRI	103km <sup>2</sup>	7/2012	Extension application.
EL53/2007	Mt Everett	BRI	47km <sup>2</sup>	12/2013	Extension granted to 2013

This report contains information on exploration activities completed on areas to be relinquished on EL18/2007 for the June 2007 to June 2013 period.



## 2 REGIONAL GEOLOGY

The Blythe River Iron Project is located on the western margin of the Dial Range Trough and is underlain by lithologies of the Late Proterozoic Oonah Formation, Owen Group Siliciclastics, Gordon Group Limestone, Devonian Granites and Tertiary Basalt (Figure 1). The Dial Trough is a structurally interesting basin that includes a possible Northern Extension of the Hellyer Fault, and significant basin bounding faults on the western and eastern sides. The Devonian post orogenic Husetop Granite dominates the geology to the south of the project area and is considered to underlie much of the southern dial trough. The Dial Trough has been poorly mapped and stratigraphic correlations are uncertain for many units.

### *Oonah Formation*

The oldest rocks in the district are the Proterozoic Oonah formation, consisting of poly-deformed quartzwacke, siltstone and pelite with lesser dolerite intrusives. These are overlain by a sequence of pelite-carbonate with minor mafic volcanics and conglomerate. This association is host to replacement deposits at Mt Bischoff and near Zeehan and consequently represents a potential host for similar styles of skarn mineralisation.

### *Mt Read Volcanics*

Mt Read Volcanic associations have been correlated with the felsic volcanoclastics of the Western Volcano-sedimentary sequence and the Tyndall Group quartz-feldspar phyrlic volcanoclastics.

### *Owen Group*

The Late Cambrian to Ordovician Owen Group overlies the Mt Read Volcanics and is comprised dominantly of siliciclastic conglomerate and sandstone. Locally volcanic derived conglomerates are associated with basal members. The Moina Sandstone, comprised of coarse to fine siliciclastic sandstone with minor intercalated conglomerate is the uppermost siliciclastic unit of the Owen Group and has a gradational contact with the overlying Gordon Group.

### *Gordon Group Limestone*

Conformably overlying the Owen Group is the Gordon Group limestone and dolomite sequence which is the host of the Kara district magnetite skarns. The stratigraphic thickness of the limestone is regionally variable ranging between 50-1000m.

### *Husetop Granite*

The Husetop granite outcrops in much of the Blythe River Prospect and is believed to extend below much of the area (Leaman, 1993). Leaman concludes that the Husetop granite is anomalously dense and highly magnetic, which may explain the abundance of iron metasomatism in the district. The granite is responsible for massive Magnetite-Sn-WO<sub>3</sub> mineralisation of the Kara District. The association of Tasmanian Devonian granites with Magnetite, Sn-WO<sub>3</sub>, Pb-Zn-Ag and Au mineralisation is well documented.



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### *Tertiary Basalt*

Basaltic flows are widespread throughout the Blythe River Iron Project area, flooding Tertiary palaeo-topographic lows. The basalts vary widely in thickness and frequently have a high magnetic susceptibility creating difficulties for magnetite exploration below basaltic cover. Recent resource and exploration drilling at the Kara Mine indicates that the magnetite skarn extends below basalt cover.

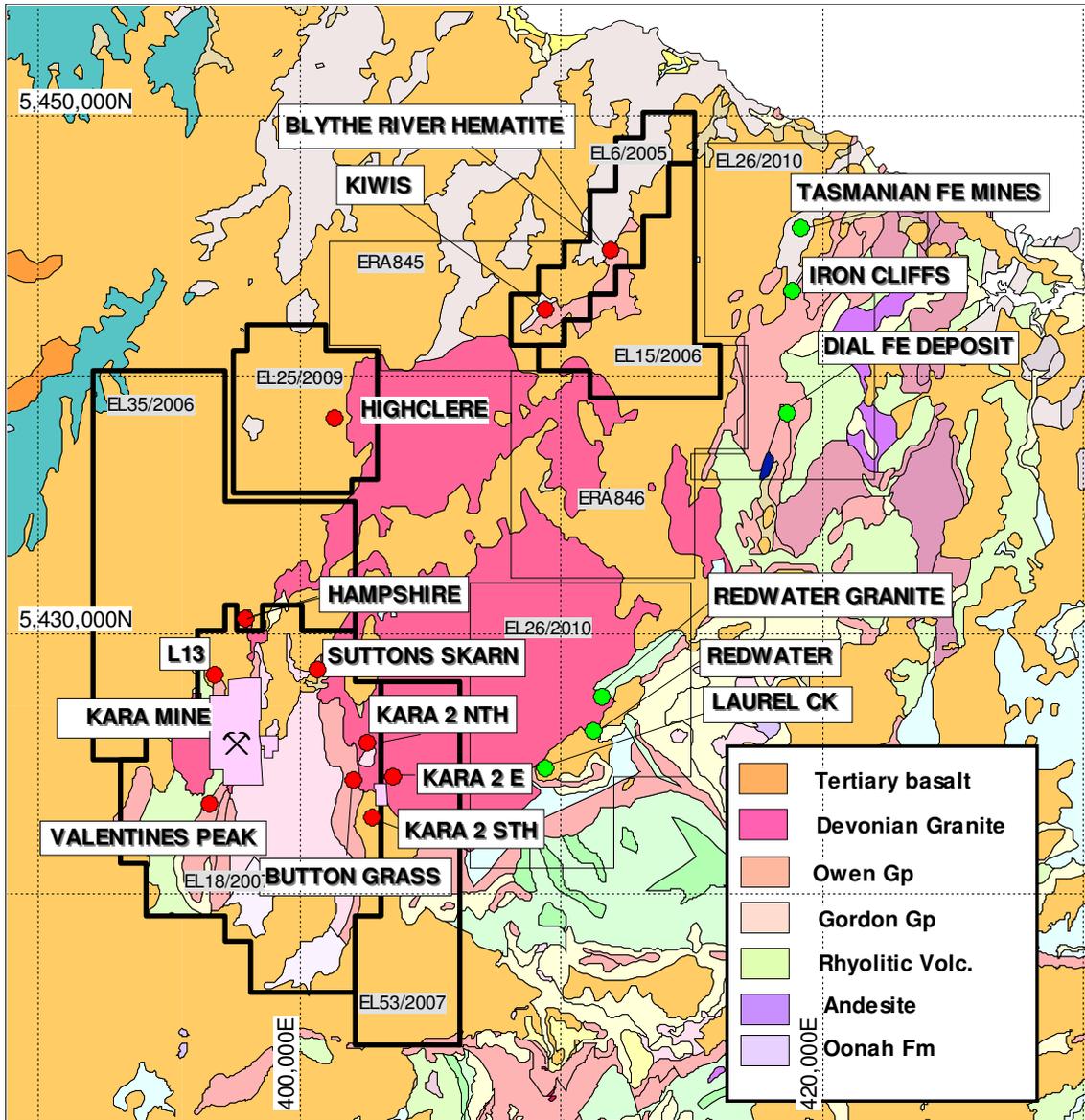


Figure 1. Blythe River Project location, Fe Prospects and MRT 250k Geology. Red dots are Blythe Project Fe prospects, green dots are other regional Fe Prospects.

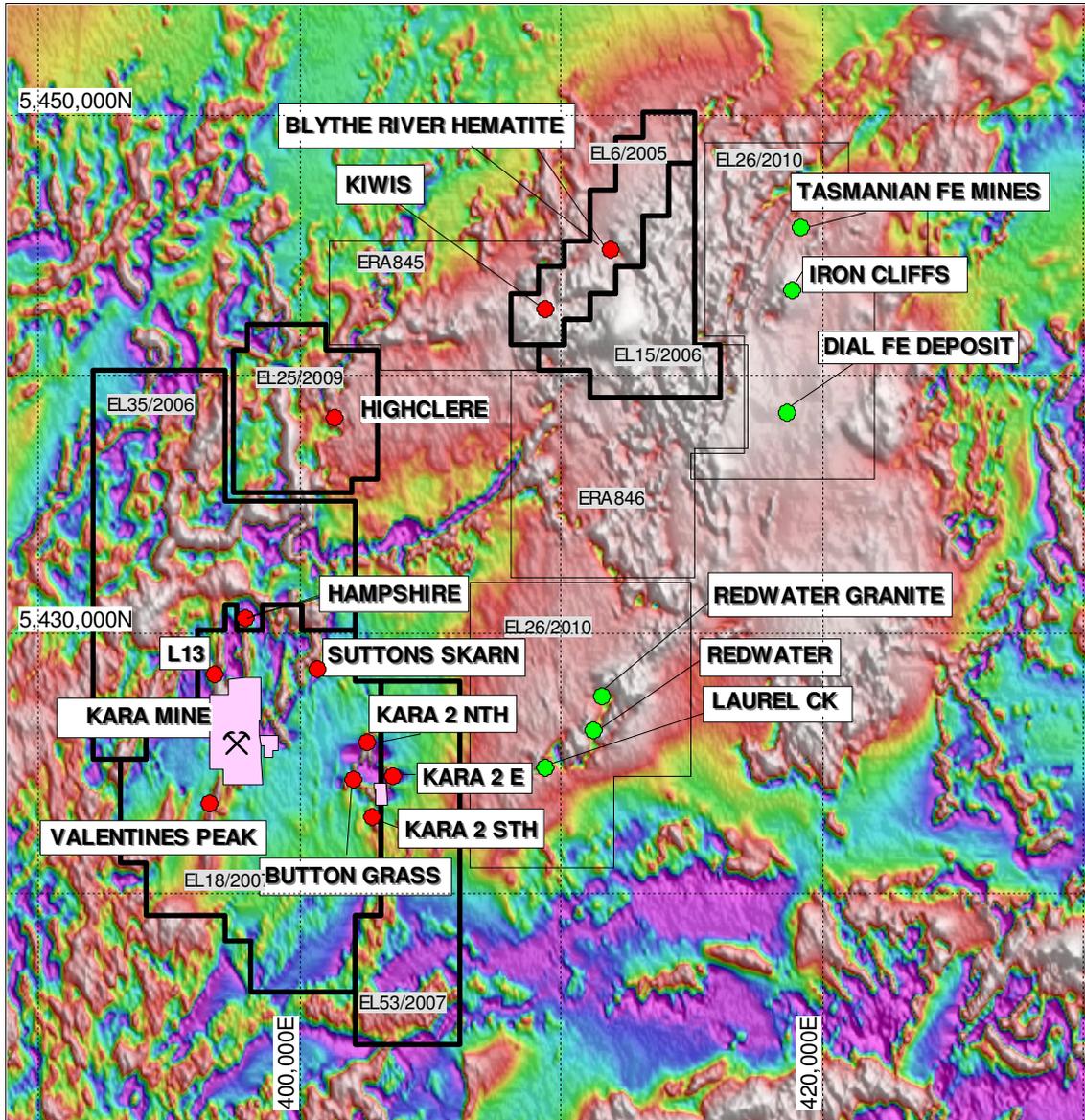


Figure 2. Blythe Project tenements, TMI and prospect locations. Red dots are Blythe Project Fe prospects, green dots are other regional Fe Prospects.



### **3 AREA TO BE RELINQUISHED**

A total of 33km<sup>2</sup> from two separate blocks are recommended for relinquishment from EL18/2007. The areas for relinquishment are outlined in Figure 6.

Approximate SW and NE corner coordinates are listed below (assuming rectangular area for relinquishment):

#### Western Area

393111.07E	5419183.22N
396116.11E	5427183.32N

#### Eastern Area

397111.08E	5416183.22N
402111.17E	5419183.31N

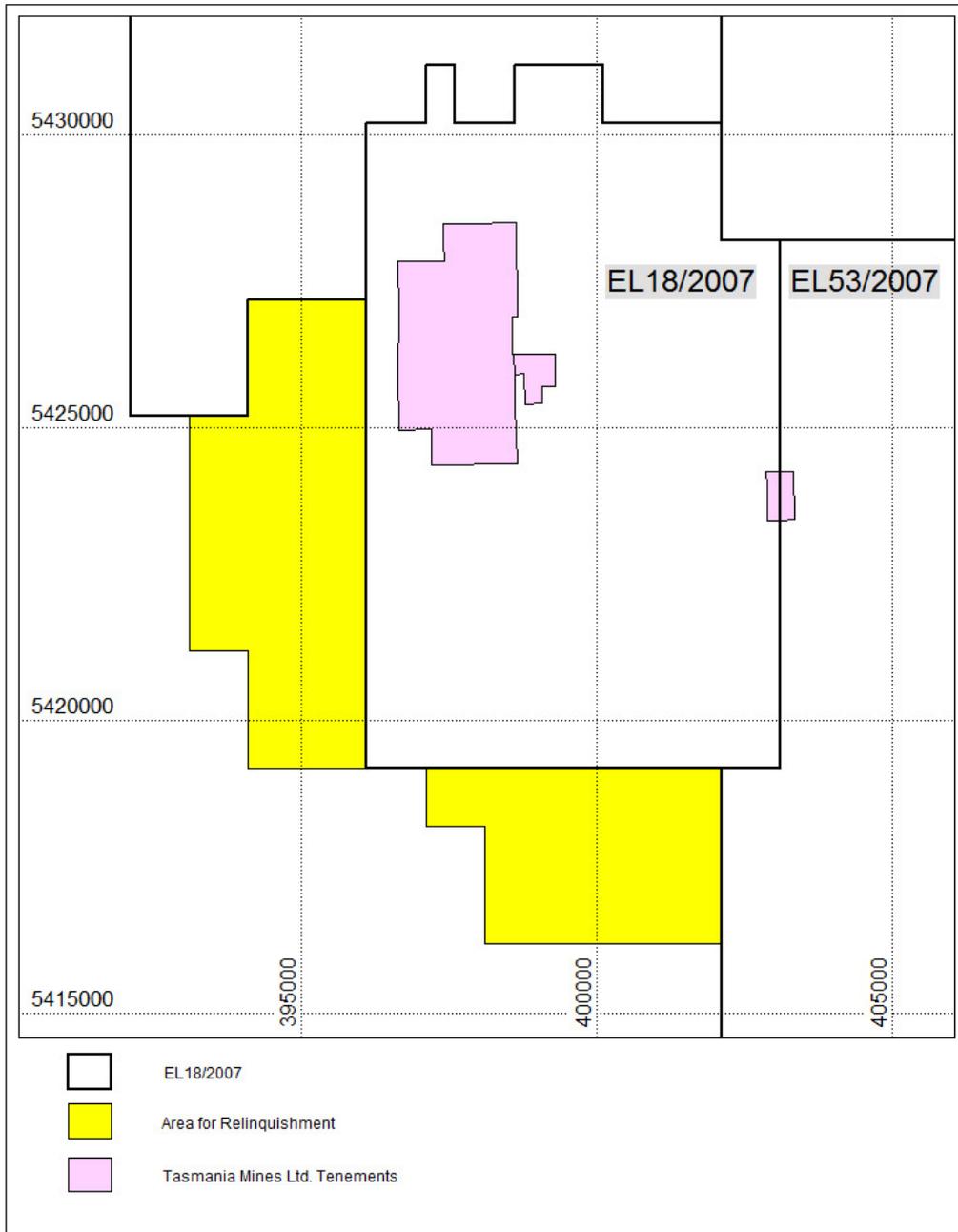


Figure 3. Areas to be relinquished from EL18/2007.



#### **4 WORK COMPLETED ON AREAS TO BE RELINQUISHED EL18/2007**

No field work has been completed on these remote parts of the EL. Geological assessment has been made of these areas using open file aeromagnetic data and MRT geological mapping and historic company maps.

The western area to be relinquished is underlain by Cambrian volcanics which are considered to be less prospective magnetite-tungsten skarns. A moderate magnetic anomaly is associated with the volcanics but the magnetic intensity is much less than those associated with the magnetite skarns.

The southern area is underlain by the Ordovician Limestone, Silurian siltstones and Tertiary Basalt. There are no significant magnetic anomalies associated with the area to be relinquished. The calcareous sediments in the area to be relinquished are considered to be too far away from the granite to host proximal magnetite-tungsten skarns.

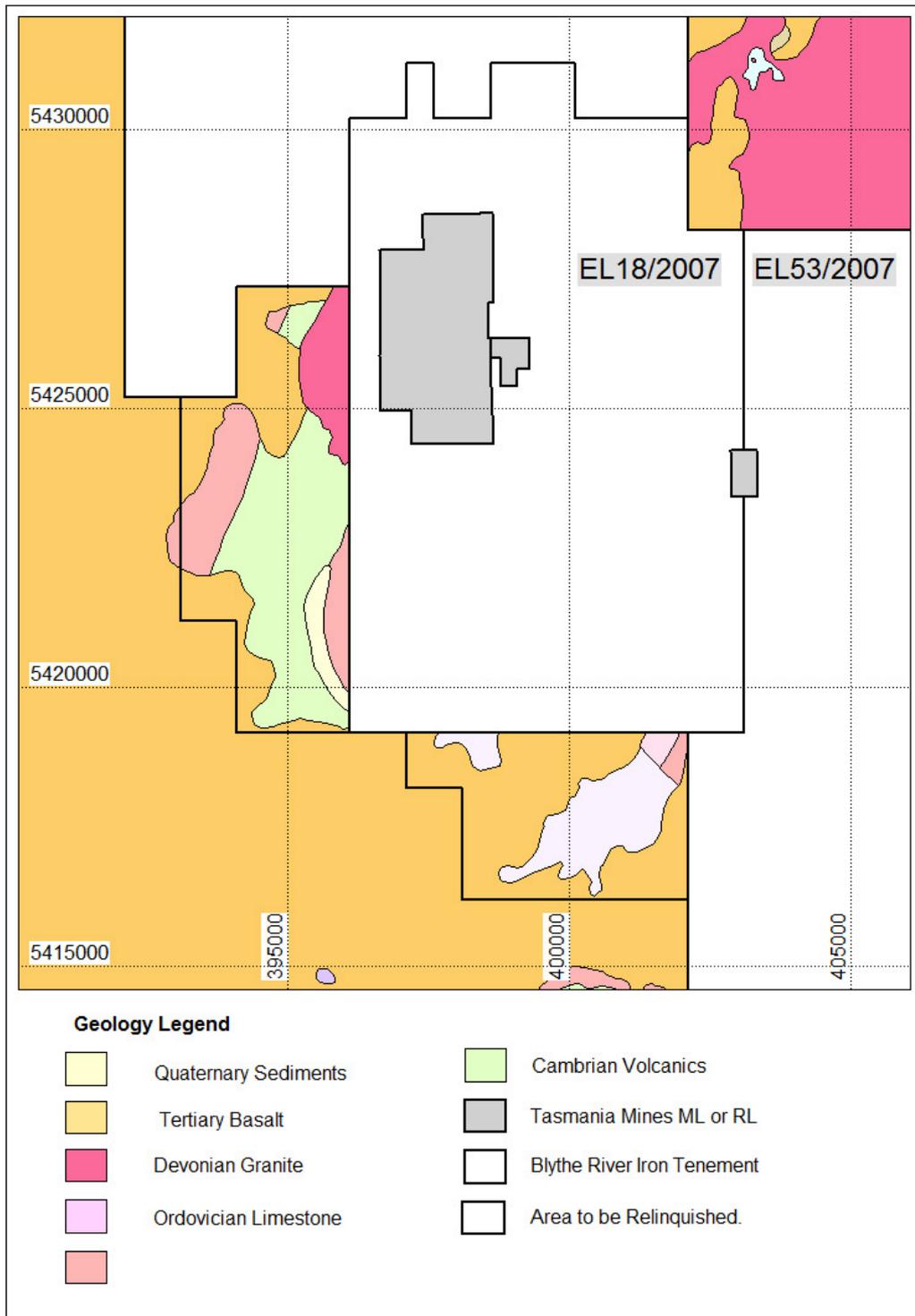


Figure 4. Geology Map of areas to be relinquished from EL18/2007.



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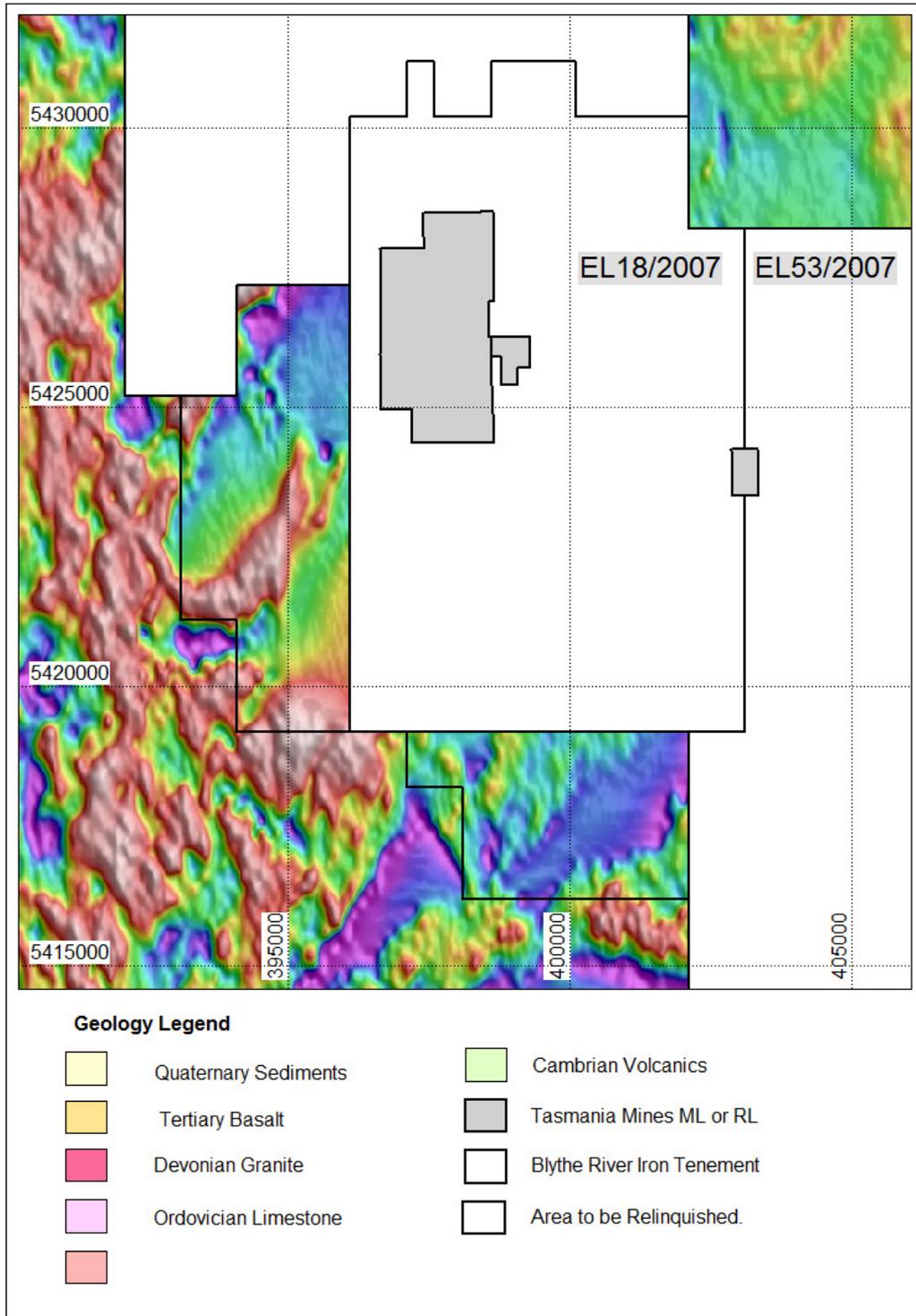


Figure 5. Total Magnetic Intensity Image of areas to be relinquished from EL18/2007.



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#### **4 ENVIRONMENTAL**

No field work was completed on the areas to be relinquished.



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## **ADDITIONAL NOTES**

### ***LIMITATIONS AND CONSENT***

The report is provided to Blythe River Iron Pty Ltd in the context of an Annual Report and should not be used or relied upon for any other purpose.

This report has been prepared using information available to the Author at the time of writing. The opinions stated herein are given in good faith and with the belief that the basic assumptions are factual and correct and the interpretations reasonable.

This report is not intended for use as a public document nor, in whole or in part, in a public document without written consent to the form and context in which it appears.

### ***COMPETENT PERSON AND JORC CODE***

This report was prepared in accordance with the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code") by Tim Callaghan, who is a Member of The Australian Institute of Mining and Metallurgy ("AusIMM"), has a minimum of five years experience in the estimation and assessment and evaluation of Mineral Resources of this style and is the competent Person as defined in the JORC Code. This announcement accurately summarises and fairly reports his estimations and he has consented to the resource report in the form and context it appears.

### ***STATEMENT OF INDEPENDENCE***

Tim Callaghan has no material interest or entitlement in the securities or assets of the Blythe River Iron Pty Ltd or any associated companies.