



Tim Callaghan – Resource and Exploration Geology



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**BLYTHE RIVER PROJECT**

**ANNUAL 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**

This report covers exploration activities completed on EL18/2007 Hampshire 2 to June 2013. Work for the reporting period focused mainly on baseline environmental studies and pre feasibility studies (PFS) for the development of the Blythe River Iron Project. The Blythe River Iron Project is focused on production of magnetite for iron ore from the Kara No2 skarns located on EL18/2007 and EL53/2007.

GDH Engineering were contracted to complete preliminary engineering and site surveys for the construction of the open pit, processing site and tailings storage facility. Baseline environmental studies were included in the PFS.

Resource delineation drilling of 400m is required to convert the current inferred Resource into an indicated resource. A preliminary drilling program of 300m is planned for the 2013-2014 year with further programs to be designed as the project progresses. Finalisation of the PFS is expected to occur during the next year, followed by environmental permitting and mine lease application.



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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

Permission to submit a combined annual report for all tenements in the Blythe Project was granted on 10<sup>th</sup> June 2009. The board of BRI decided to return to separate annual reporting for the tenements in early 2012. This report contains information on exploration activities completed on EL18/2007 for the June 2012 to June 2013 period.

Four of the five tenements are beyond their 5 year term of tenure and will require annual terms of extension and diligent commitment to work programs. A term of extension of 1 year was granted for EL18/2007 in July 2012 and a new Term of Extension is required for a further year.

The Blythe River Iron Project (BRIP) consists of a number of small to medium size magnetite skarn deposits located in NW Tasmania, approximately 30km south of Burnie (Figure 1 and 2). Preliminary development is focused on production of magnetite for iron ore from the Kara No2 skarns located on EL18/2007 and EL53/2007. Exploration is focused on resource delineation of semi massive to massive magnetite deposits.

The majority of the work completed over the last year was focused on EL18/2007 Hampshire 2, EL53/2007 Mt Everitt and EL25/2009 Highclere.



## 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.

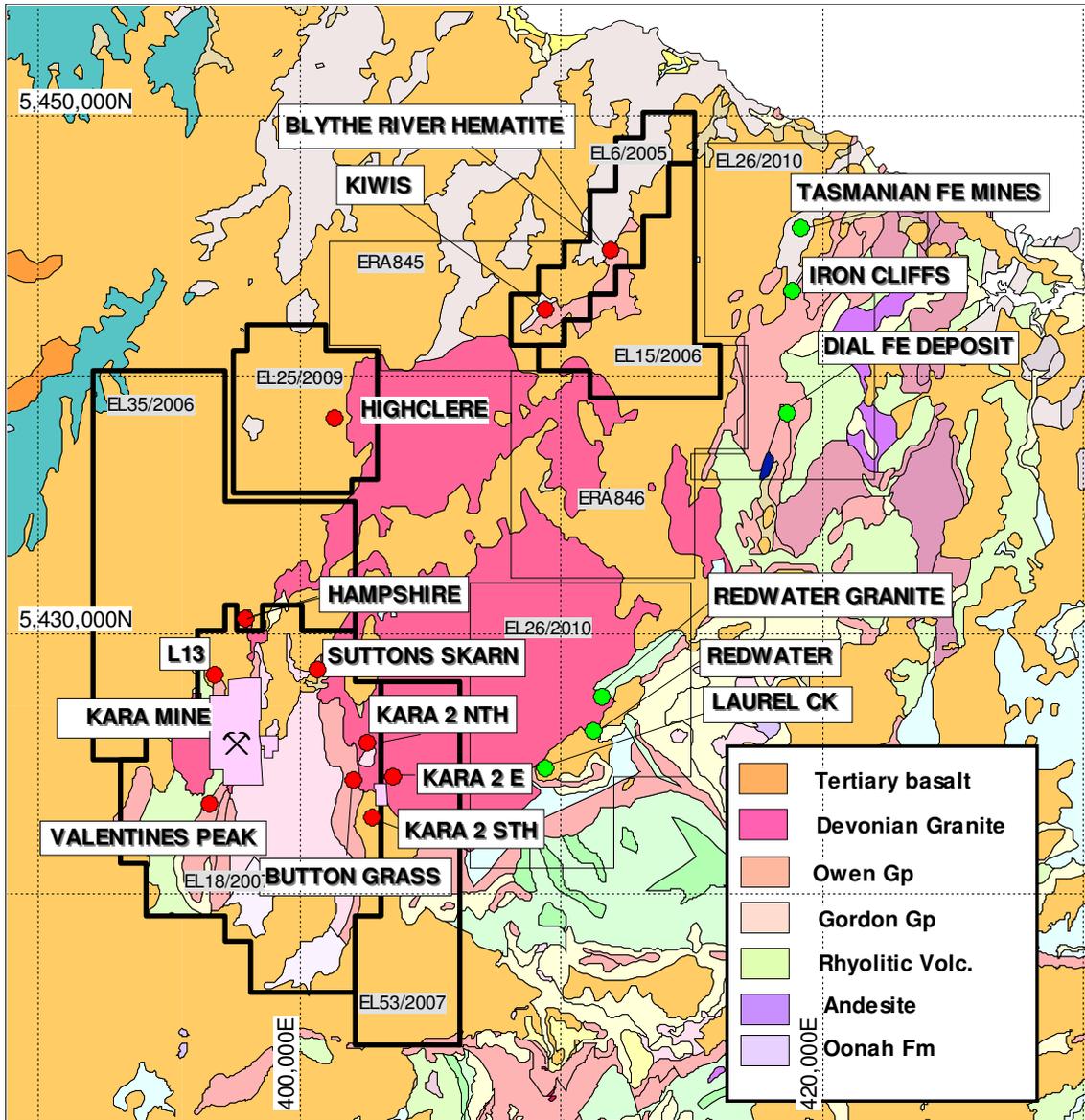


Figure 1. Blythe River Project location, Fe Prospects and MRT 250k Geology. Red dots are Blythe Project Fe prospects, green dots are other regional Fe Prospects.

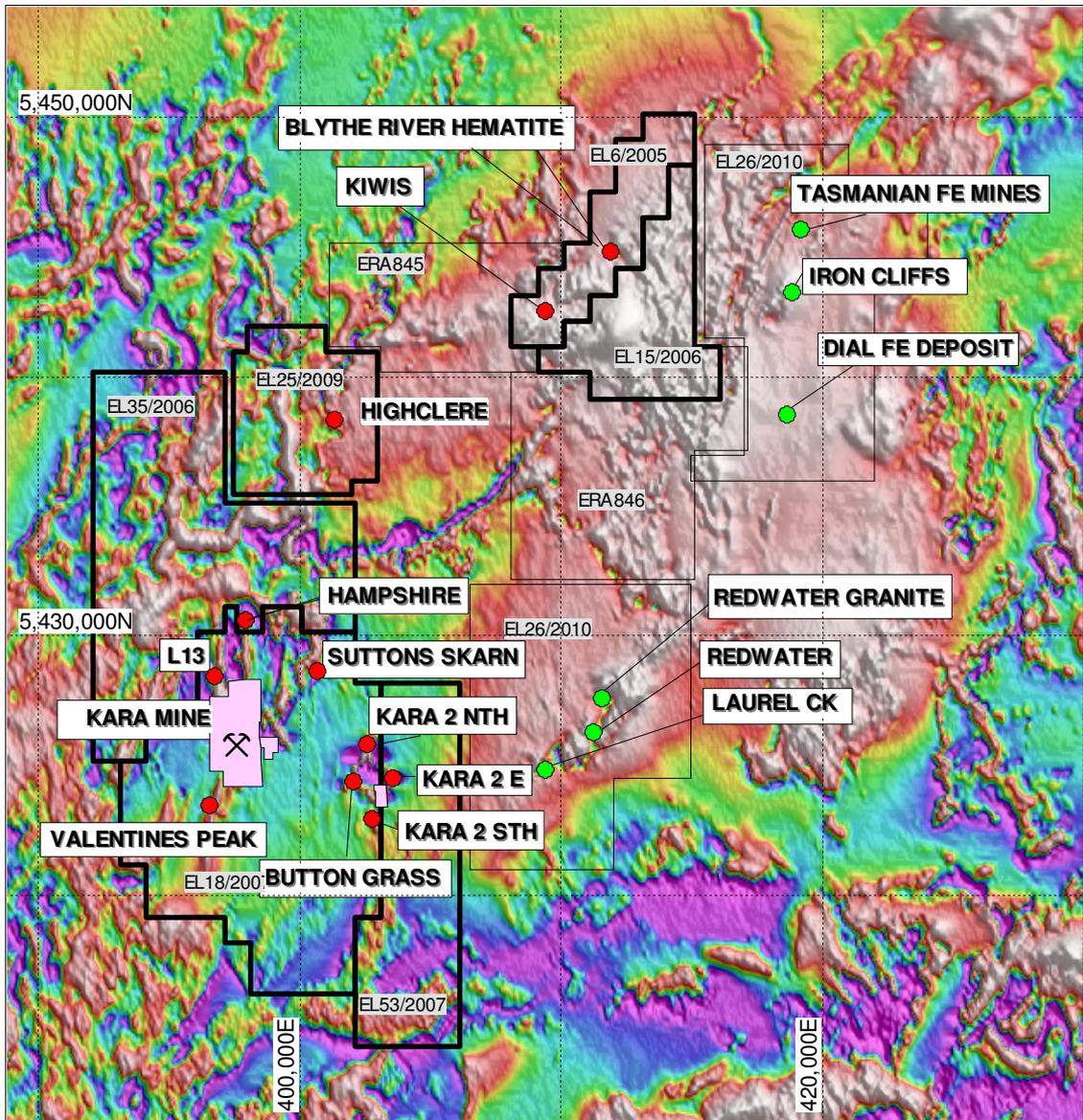


Figure 2. Blythe Project tenements, TMI and prospect locations. Red dots are Blythe Project Fe prospects, green dots are other regional Fe Prospects.



### **3 WORK COMPLETED JUNE 2011 – JUNE 2012**

Work completed on the Blythe River Project for the June 2012 to June 2013 period includes:

- Prefeasibility studies for the Blythe River Iron Project
- Baseline Environmental studies for the Blythe River Iron Project

GHD were contracted to complete preliminary engineering works, site layout and coordinate baseline environmental studies and Prefeasibility Study for the development of the Blythe River Iron Project. The Project is based on magnetite resources from the Kara No2 North and Kara No 2 East skarns located on EL18/2007 and EL 53/2007.

Studies conducted on both EL's during the past year include:

- Preliminary site engineering for mining, tailings dam, processing facility, and waste dumps (Figure 3).
- Flora and Fauna study of proposed infrastructure areas.
- Baseline water monitoring
- Aquatic fauna studies
- Site visits by Federal and State environmental authorities
- Stakeholder meetings.

Reports on baseline studies are yet to be finalized.





## 4 PROPOSED WORK PROGRAM

Proposed work between June 2013 and June 2014 will involve:

- Finalization of PFS studies, environmental baseline studies and permitting
- 500m of diamond drilling
- Relinquish southern and western margins of the EL.

### 4.1 PFS AND BASELINE STUDIES

GHD will finalize PFS studies on the Blythe River Iron Project mining, processing, waste dump and Tailings Storage Facility. Included with these will be finalization of the baseline environmental studies required for environmental permitting and application of a Mining Lease.

### 4.2 RESOURCE DELINEATION DRILLING

An infill drilling program involving over 4000m of drilling is required to delineate an Indicated Resource to allow detailed mine design, scheduling and testwork to be completed. The program was originally scheduled to commence in the 2012 year however delays in project finance have delayed the program. An initial drilling program of 300m from the full program of 4000m is scheduled for the 2013-2014 year. Further drilling programs will be submitted as the program proceeds.

Four drillholes on section 5425620N for 300m are proposed to infill the centre of the Kara No 2 North deposit (Figure 4 and 5). Proposed drillhole details are located in Table 2.

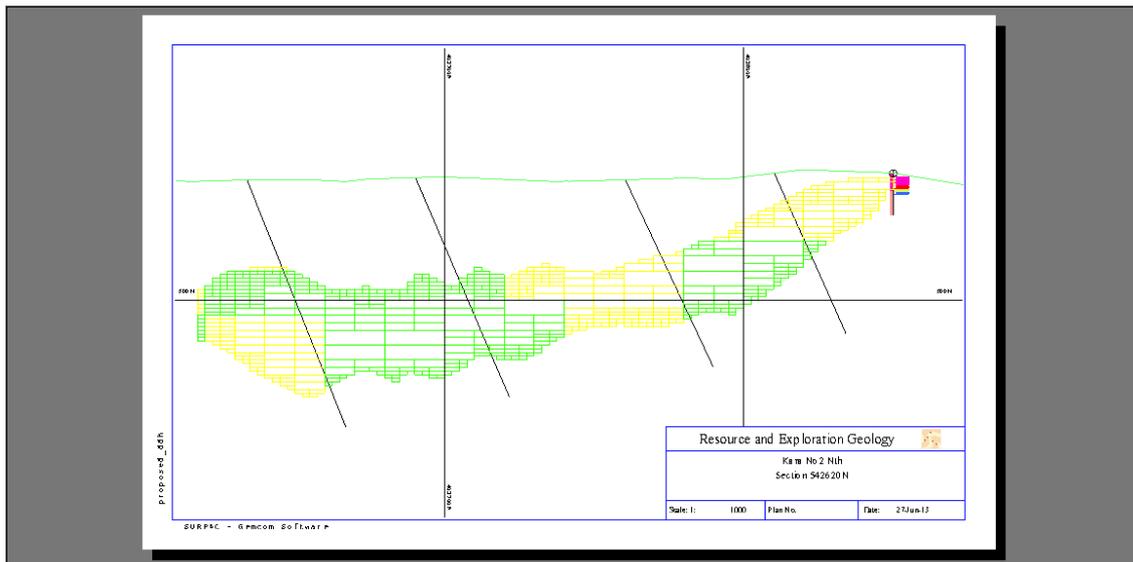


Figure 4. Section 5425620N, proposed drilling.



Minor track work and site clearing will be required to support the program. No more than 50m of track clearing and minor site works including sump construction are anticipated.

<b>Table 2. Proposed Drillhole Details</b>				
<b>Easting GDA94</b>	<b>Northing GDA94</b>	<b>Dip</b>	<b>Azm</b>	<b>Length m</b>
402635	5425620	-65	090	90
402690	5425620	-65	090	80
402775	5425620	-65	090	70
402810	5425620	-65	090	60

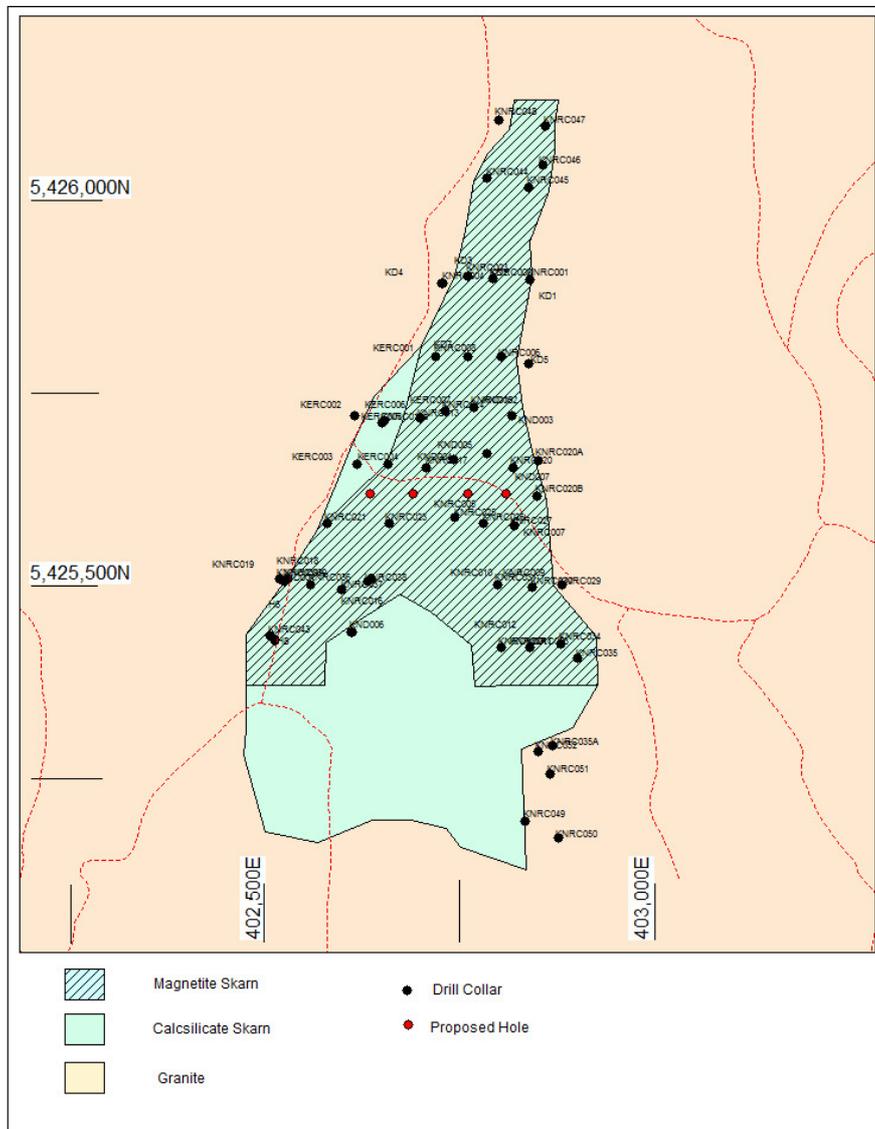


Figure 5. EL18/2007 Kara No2 North Skarn, existing drillholes and proposed drilling 2013.



### 4.3 RELINQUISHMENT

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.

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 skarns.

EL18/2007 covers an area of approximately 65.5kms after relinquishment.

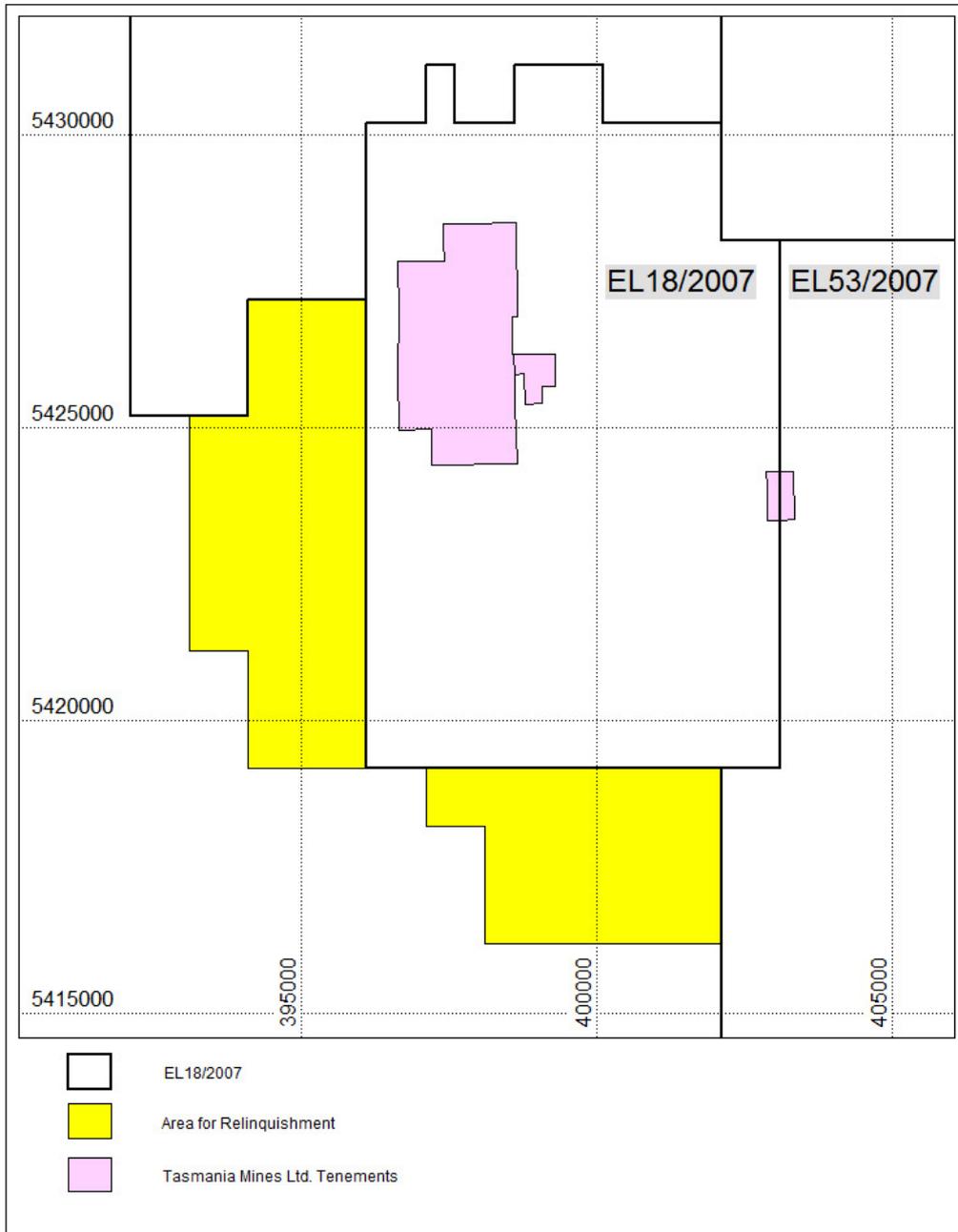


Figure 6. Areas to be relinquished from EL18/2007.



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## **5 ENVIRONMENTAL**

Earthworks from the 2011 drilling program have not yet been rehabilitated with the exception of backfilling of the sumps and drill collars. Further drilling from these sites is anticipated during the full resource drilling program.

Minor site works will be required for the proposed 2013-2014 drilling program. A letter to MRT for environmental permitting for the program has been submitted. Any additional works that may occur will require a separate permit.

All access roads will be rehabilitated on completion of the full work program if required.



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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.