

**Lottah Mining Pty Ltd**

---

# **Annual Report**

**on**

# **Exploration Licence 11/2014**

---

For the period

14/09/2015 – 14/09/2016

Prepared by:

A Rae

Lottah Mining Pty Ltd

15th August 2016

For

Lottah Mining Pty Ltd

15 Anglesea St

Wivenhoe, Tasmania 7320

# 1. Foreword

## 1.1 Function of the Annual Report

This Annual Report has been prepared as a public document for submission to Mineral Resources Tasmania (MRT). The report provides a summary of the exploration activities undertaken by Lottah Mining Pty Ltd on EL11/2014 during September 2015 - September 2016.

## 1.2 Role in the Regulation Process

This document fulfils the role of an Annual Report on EL11/2014 for the period September 2015 - September 2016, as required under Section 28 of the *Mineral Resources Development Act 1995*.

## 1.3 Datum

Geocentric Datum MGA94, zone 55 has been used for this report unless otherwise stated.

### Distribution

1 x Mineral Resources Tasmania

1 x Lottah Mining Pty Ltd – Sydney Office

1 x Lottah Mining Pty Ltd – Wivenhoe Field Office

## EXECUTIVE SUMMARY

This report covers exploration activities completed on EL11/2014 - Camena. The EL forms part of a tenement package prospective for Magnetite and Tungsten mineralisation around the House Top Granite in NW Tasmania.

Exploration completed on the Camena EL over the last 12 months includes compilation of historic exploration, reconnaissance and geological reconnaissance.

## CONTENTS

1. Foreword.....	1
1.1 Function of the Annual Report.....	1
1.2 Role in the Regulation Process.....	1
1.3 Datum.....	1
EXECUTIVE SUMMARY .....	2
2 INTRODUCTION .....	4
3 REGIONAL GEOLOGY .....	6
3.1 LOCAL GEOLOGY .....	7
4 WORK COMPLETED .....	11
5 DISCUSSION.....	11
6 PROPOSED WORK PROGRAM .....	11
7 EXPENDITURE.....	11
8 ENVIRONMENTAL.....	12
9 REFERENCES .....	13

## TABLE OF FIGURES

Figure 1. EL11/2014 Land Tenure.....	5
Figure 2. Blythe River Project location, Fe Prospects and MRT 250k Geology.....	8
Figure 3. Blythe Project tenements, TMI and prospect locations.....	9
Figure 4. Camena 1VD_TMI and gravity high.....	10
Table 1. Table of expenditure on EL11/2014.....	11

## 2 INTRODUCTION

The Blythe River Iron Project (BRIP) consists of a number of small to medium size magnetite skarn deposits located in NW Tasmania (Figures 2 and 3). Exploration is focused on resource delineation of semi massive to massive magnetite deposits to provide a resource base for a magnetite mining operation for the iron ore market.

EL11/2014 is 30 square kilometres and located approximately 10km south east of Burnie. Previous work on the EL11/2014 identified a gravity high overlying a magnetic high showing potential for a magnetite deposit (figure 4).

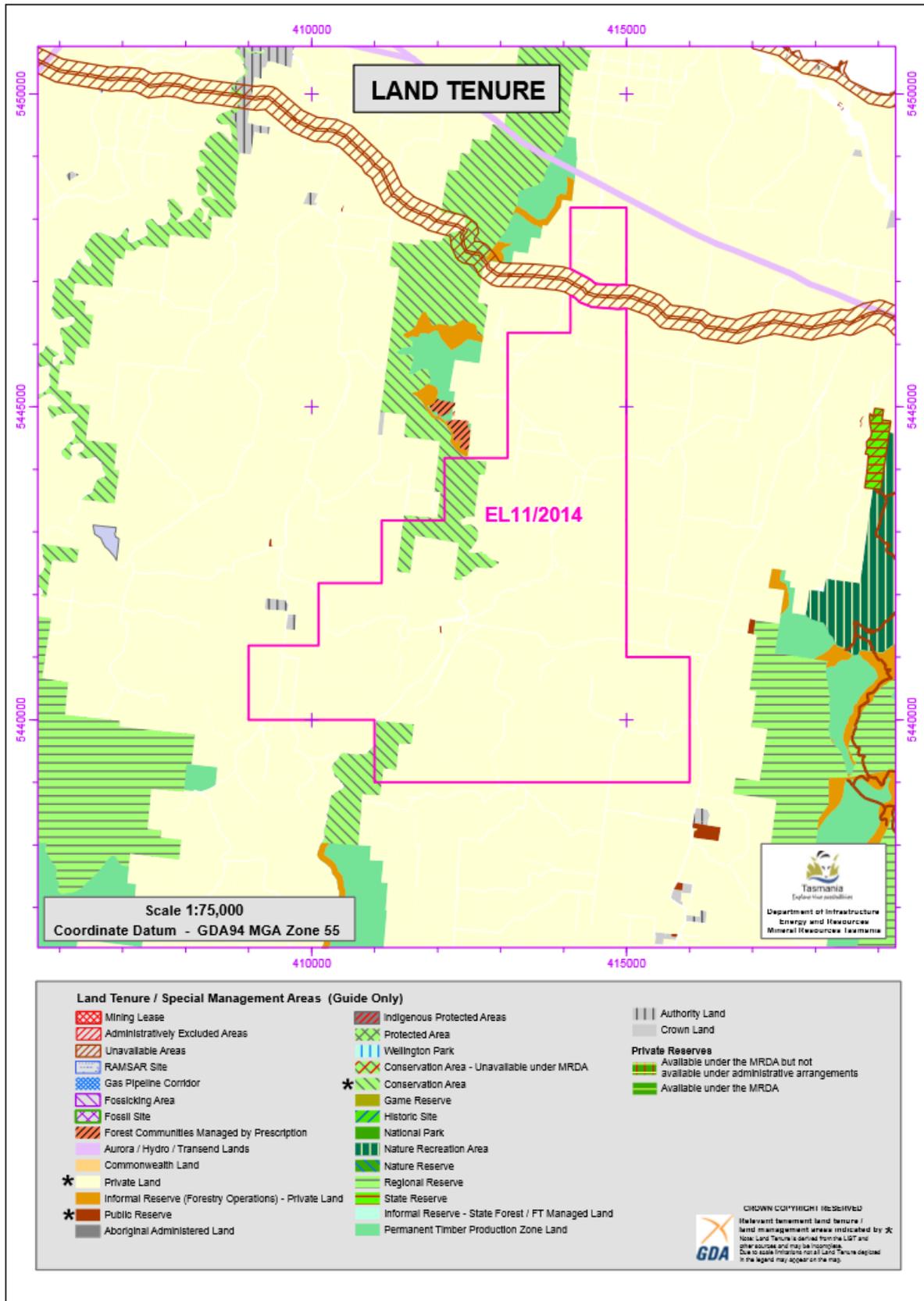


Figure 1. EL11/2014 Land Tenure.

### 3 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 Housetop 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 polydeformed 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 phyric 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.

#### Housetop Granite

The Housetop 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 Housetop 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-SnWO<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.

#### 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.

### 3.1 LOCAL GEOLOGY

The geology of EL11/2014 is dominated by thick Tertiary basalt flows which cover most of the earlier lithology. There is a minor Devonian granite outcrop to the south of the EL. A thin band of Ordovician Siliciclastics is located in the far west of the EL. The Ordovician-Oonah formation boundary located just west of the EL hosts a series of massive hematite-silica bodies.

Minor magnetite-hematite nodules are associated within the soils of the Tertiary basalts

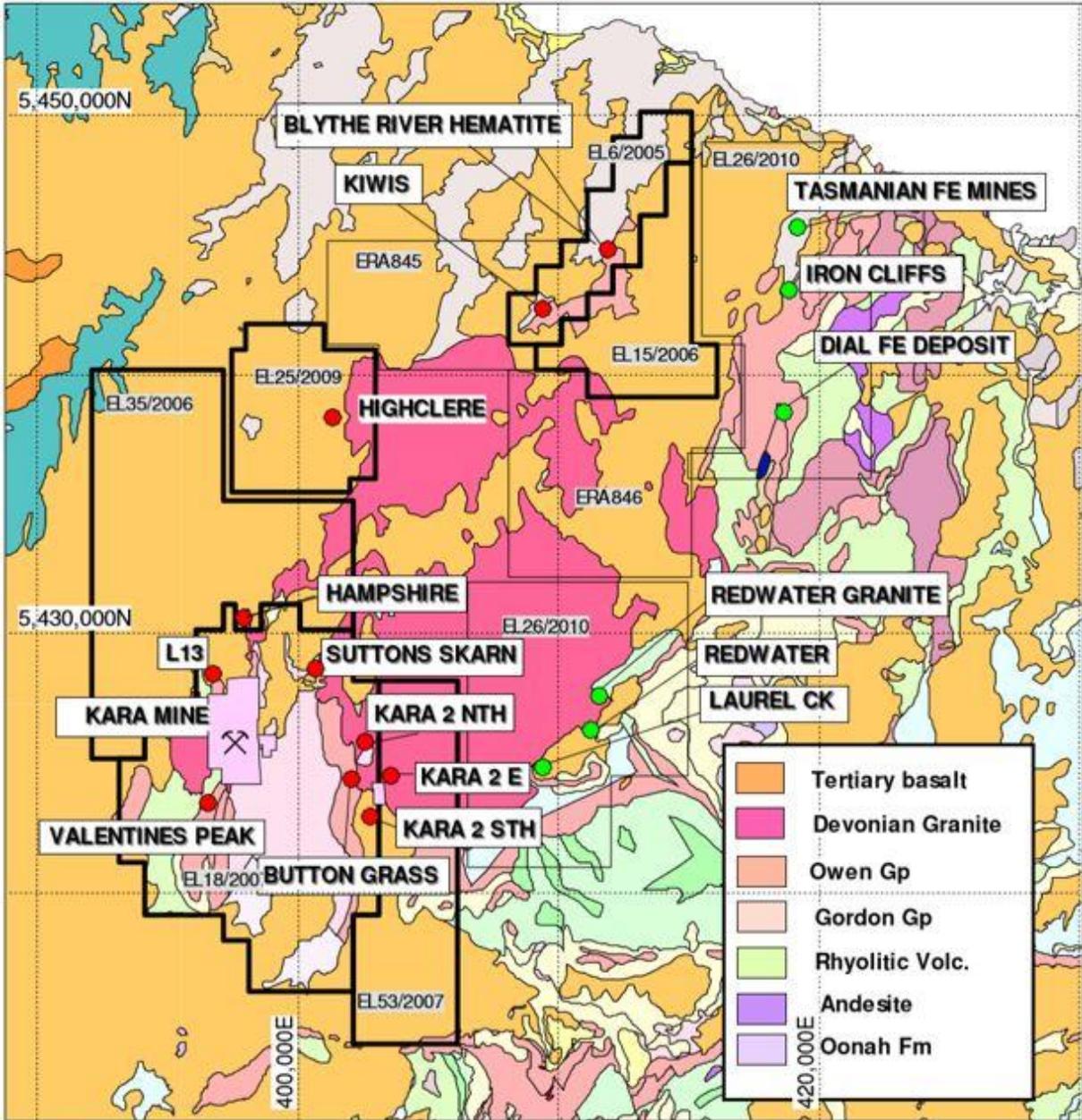


Figure 2. Blythe River Project location, Fe Prospects and MRT 250k Geology. Red dots are Blythe Project Fe prospects, green dots are other regional Fe Prospects.

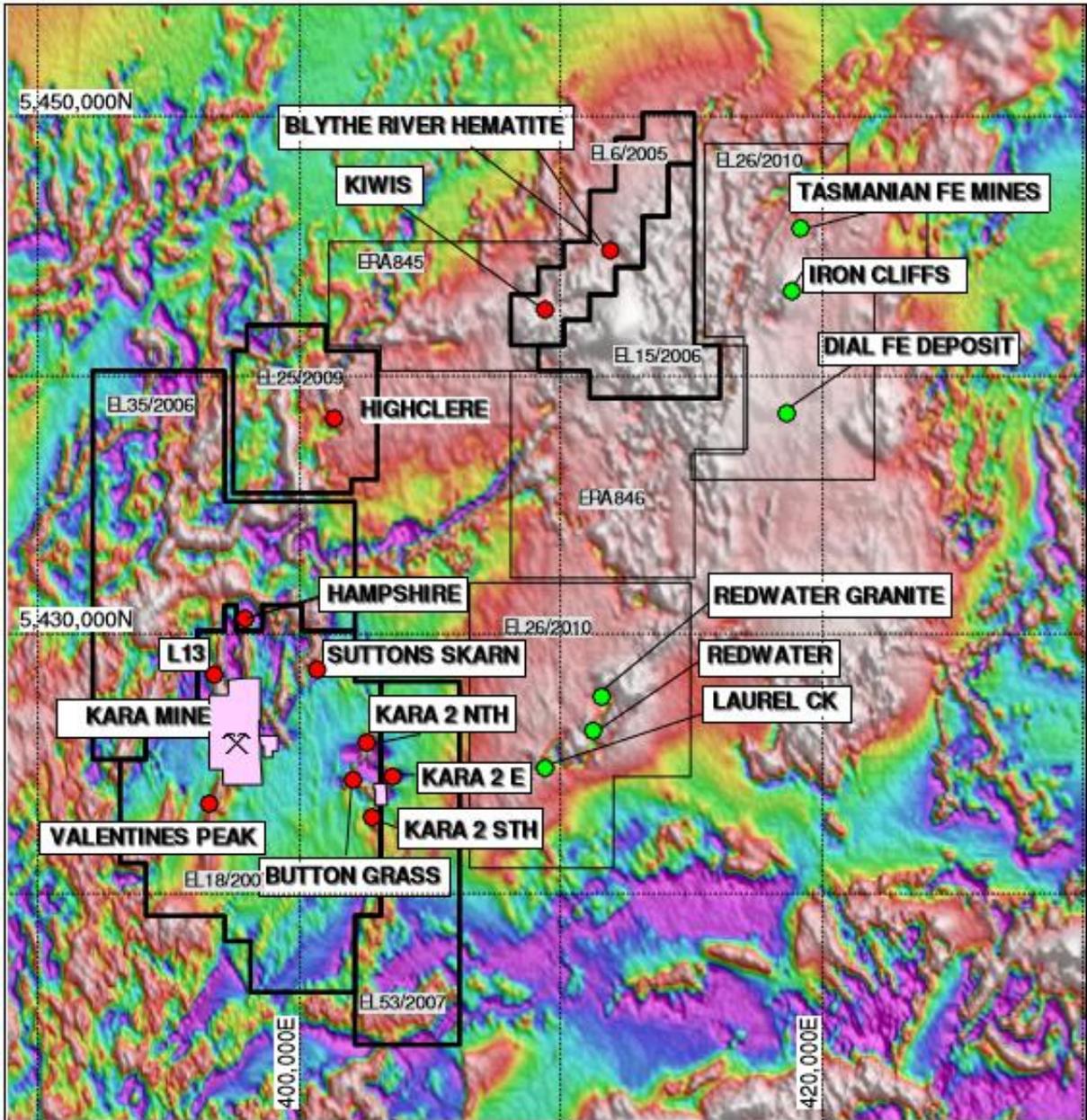


Figure 3. Blythe Project tenements, TMI and prospect locations. Red dots are Blythe Project Fe prospects, green dots are other regional Fe Prospects.

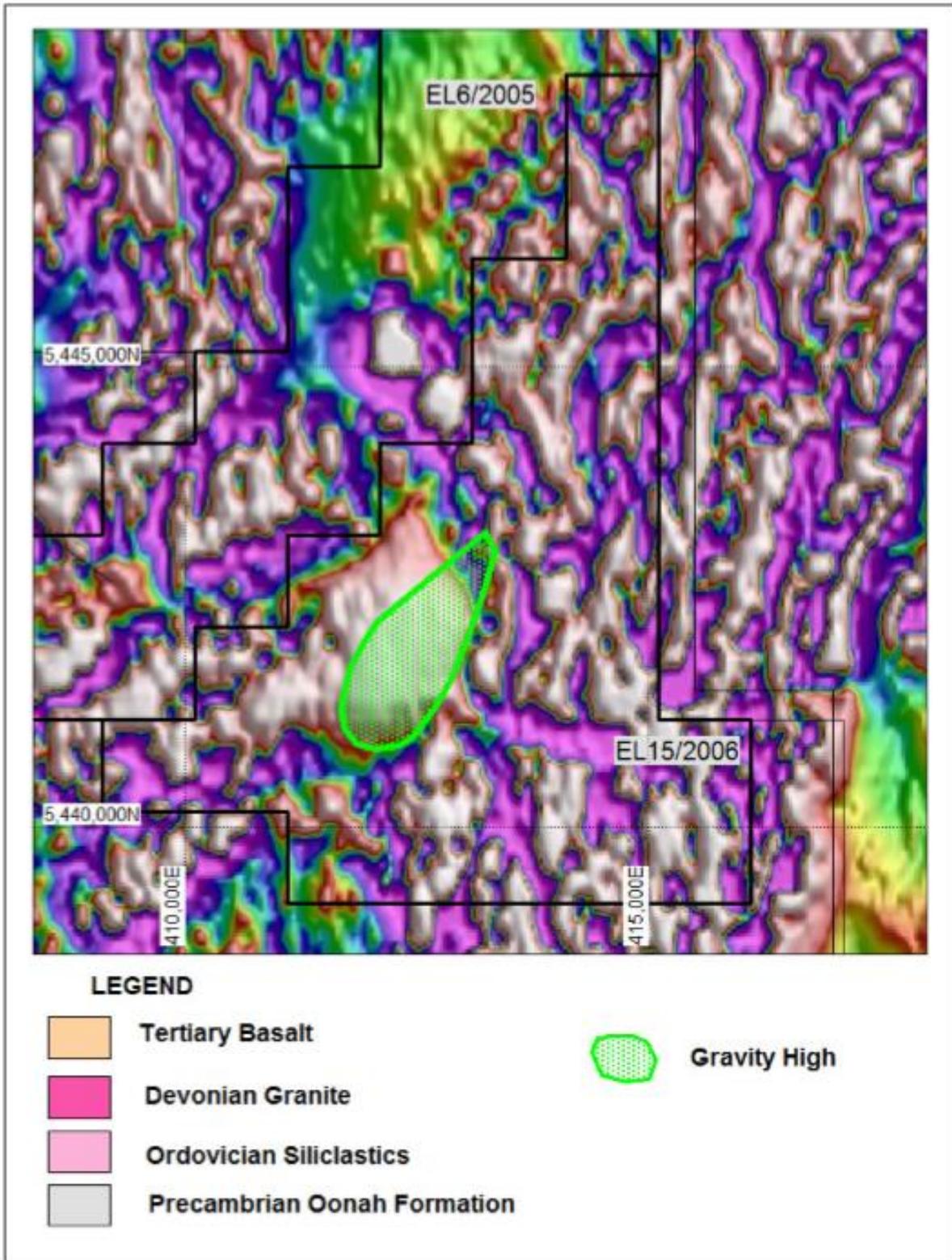


Figure 4. Camena 1VD\_TMI and gravity high.

## 4 WORK COMPLETED

Work completed on EL11/2014 included detailed compilation of historic data, site visits and geological reconnaissance.

## 5 DISCUSSION

EL11/2014 is characterised by a prominent and extensive high intensity magnetic anomaly. A broad, low order gravity anomaly is associated with the magnetic high (figure 4). The anomaly could be a deep seated (> 250m depth) rock unit with slightly increased density. Given the geology of the area it is likely that the coincident anomalies represent the thick basalt cover.

The size of the anomaly is intriguing and there is a chance it may represent buried iron rich mineralisation, perhaps even an iron-oxide copper gold target. However, EL11/2014 is difficult to explore given the thick basalt coverage.

Recent work conducted on EL6/2005 (Cuprona) suggests that there is a similar type of sedimentary/hematite hosted deposit in the Camena region as that of the Natone region. warrants future investigation.

## 6 PROPOSED WORK PROGRAM

Proposed work for EL11/2014 in the next year will consist of further geological ground reconnaissance and the potential for drilling program. The drilling program will most likely consist of a deep (1000m) vertical drill hole located in the centre of the TMI and gravity high (figure 4) located at Camena. It is currently proposed (dependent of results) that a downhole electromagnetic (EM) survey will then be conducted. The EM survey will greatly increase the understanding the nature of the deposit and future work will depend on the results.

## 7 EXPENDITURE

2015	Q3	\$927.00
	Q4	\$20,042.00
2016	Q1	\$4,400.00
	Q2	\$4,750.00
	Q3	\$5,300.00

Table 1. Table of expenditure on EL11/2014.

A total of \$35,419.00 was spent on EL11/2014 for the year.

A proposed expenditure of \$35,000 for EL11/2014 is predicted for the 2016-2017 year.

## 8 ENVIRONMENTAL

No Rehabilitation required.

## 9 REFERENCES

Anderson, M., 2015, G.H.D: Report for Lottah Mining Pty. Ltd. – Potential Field Geophysical Modelling.

Callaghan, T J, 2011. Combined Annual Report for Blythe River Project EL6/2005, EL15/2006, EL37/2006, EL18/2007, EL53/2007 AND EL25/2009. Unpublished company report for Forward Mining Limited.

Callaghan, T J, 2012. Combined Annual Report for Blythe River Project EL6/2005, EL15/2006, EL37/2006, EL18/2007, EL53/2007 AND EL25/2009. Unpublished company report for Forward Mining Limited

Callaghan, T J, 2013. RELINQUISHMENT REPORT for EL15/2006 CAMENA NW TASMANIA. . Unpublished company report for Forward Mining Limited

Turnbull, C. 2006. Highclere project Tasmania, EL4/2005. Annual Progress Report August 2005 – August 2006. Unpublished company report for Bass Metals Ltd.