

**Lottah Mining Pty Ltd**

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**Annual Report**

**on**

**Exploration Licence 23/2014**

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For the period

04/03/2015 – 04/03/2016

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# 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 within Exploration Licence EL 23/2007 during April 2015 - April 2016.

## 1.2 Role in the Regulation Process

This document fulfils the role of an Annual Report on EL 23/2014 for the period April 2015 – April 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 EL23/2014 – West Pine. The EL forms part of a tenement package prospective for Magnetite and Tungsten mineralisation as well as the potential for various industrial minerals around the House Top Granite in NW Tasmania.

Exploration completed on the West Pine EL over the last 12 months includes compilation of historic exploration data, geological reconnaissance and the commencement of a feasibility study.

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## 2 INTRODUCTION

The Blythe River Iron Project (BRIP) consists of a number of small to medium size magnetite skarn deposits located in NW Tasmania. 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.

EL23/2014 is 11 square kilometres and located approximately 3km NE of Camena. Previous work on EL23/2014 identified the potential for favourable geological conditions for the formation of a magnetite skarn deposit as well as the potential for various industrial minerals.

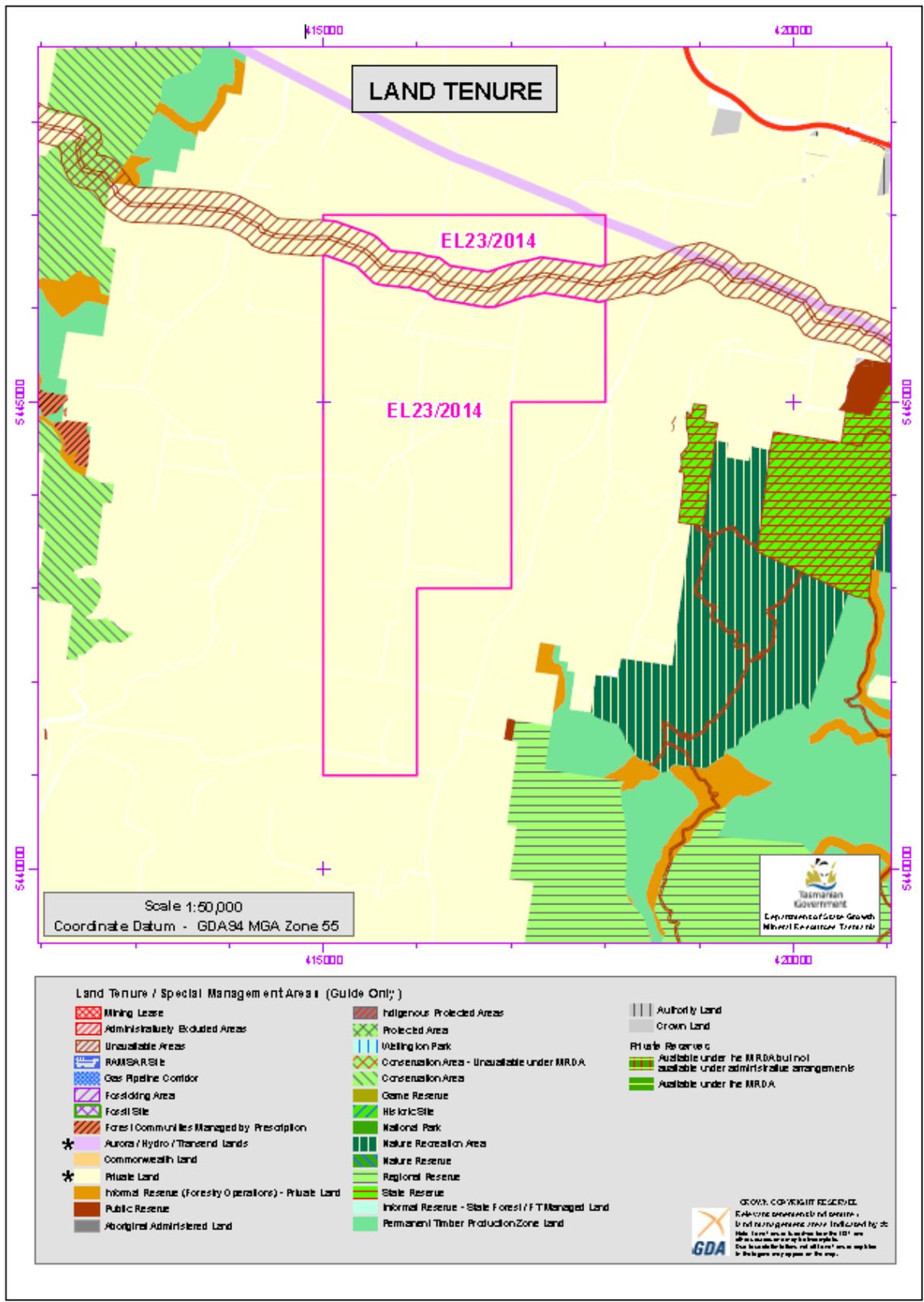


Figure 1. EL23/2014 Land Tenure.

### 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.



## 4 WORK COMPLETED

Work completed on EL23/2014 included compilation of previous data, reconnaissance and commencement of geological surveys/mapping. Early in the 2015 Lottah Mining contacted GHD to undertake a feasibility study of all possible iron deposits across their nine tenements. This includes areas on EL23/2014. The Feasibility study is still ongoing.

## 5 DISCUSSION

EL23/2014 is characterised by a prominent and extensive high intensity magnetic anomaly. The size of the anomaly is intriguing and there is a chance it may represent a medium sized magnetite skarn deposit. Given the geology of the area it is likely that the coincident anomalies represent the thick basalt cover. However, EL23/2014 is difficult to explore given the thick basalt coverage.

## 6 PROPOSED WORK PROGRAM

Proposed work for EL23/2014 in the next year will consist of geological mapping, ground reconnaissance and potential geophysics surveys. Geophysics surveys may include detailed gravity, magnetic and/or seismic surveys. The surveys will better the understanding of the nature of the deposit and future work will depend on their results.

## 7 EXPENDITURE

2015	Q1	\$22,000.00
	Q2	\$2,500.00
	Q3	\$1,742.00
	Q4	\$5,022.00

Table 1. Table of Expenditure on EL23/2014.

A total of \$31,264 was spent on EL23/2014 for the year.

The proposed work program for 2016 - 2017 includes: reconnaissance, geological ground mapping and the potential for geophysical surveys. Proposed expenditure for the 2016-2017 year is \$43,736.

## 8 ENVIRONMENTAL

No Rehabilitation required.

## 9 REFERENCES

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.

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