Lottah Mining Pty Ltd

Annual Report

on

Exploration Licence 25/2009

For the period

May 2016 – May 2017

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ABSTRACT

Work on EL25/2009 has focussed on the Highclere Iron Deposit with work also done on the Buckby's and Nolan's prospects.

Work has consisted on the compilation of all historical exploration data with the creation of a drilling database for the Highclere Iron Deposit in particular. Some effort has been expended in more accurate determination of historic drillhole collars.

Generation of a JORC compliant resource for the Highclere Iron Deposit has commenced with 3D wireframing underway. The work will be completed and reported in the 2017-18 annual report.

In spite of the more complex mineralogy of the iron (hematite + magnetite and Fe clays) and private landholder issues the Highclere Iron Deposit will add to Lottah Mining Pty Ltd iron resource inventory in Tasmania's northwest.

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1 INTRODUCTION

EL 25/2009 covers an area of 38 km2 in Tasmania's Northwest. The licence was granted to Blythe River Iron Pty Ltd in 2009. EL24/2009 consists of primarily private land and some minor areas of informal reserve. Blythe River Iron Pty Ltd was bought out by Forward Mining and subsequently Lottah Mining Pty Ltd. The tenement remains in the name of Blythe River Iron Pty Ltd but is owned and managed by Lottah Mining Pty Ltd.

Lottah Mining Pty Ltd is progressing its Rogetta North magnetite deposit to the southeast of EL25/2009, as well as its hematite deposit at Cuprona to the east.

Lottah Mining Pty Ltd is targeting further iron deposits to add to its resource inventory. Lottah Mining Pty Ltd is also targeting any commodities of commercial interest including but not limited to W03, Sn, Bi, Mo, Cu, Pb, Zn, Au, Ag, Li, Ni, REE, wollastonite and facing stone.

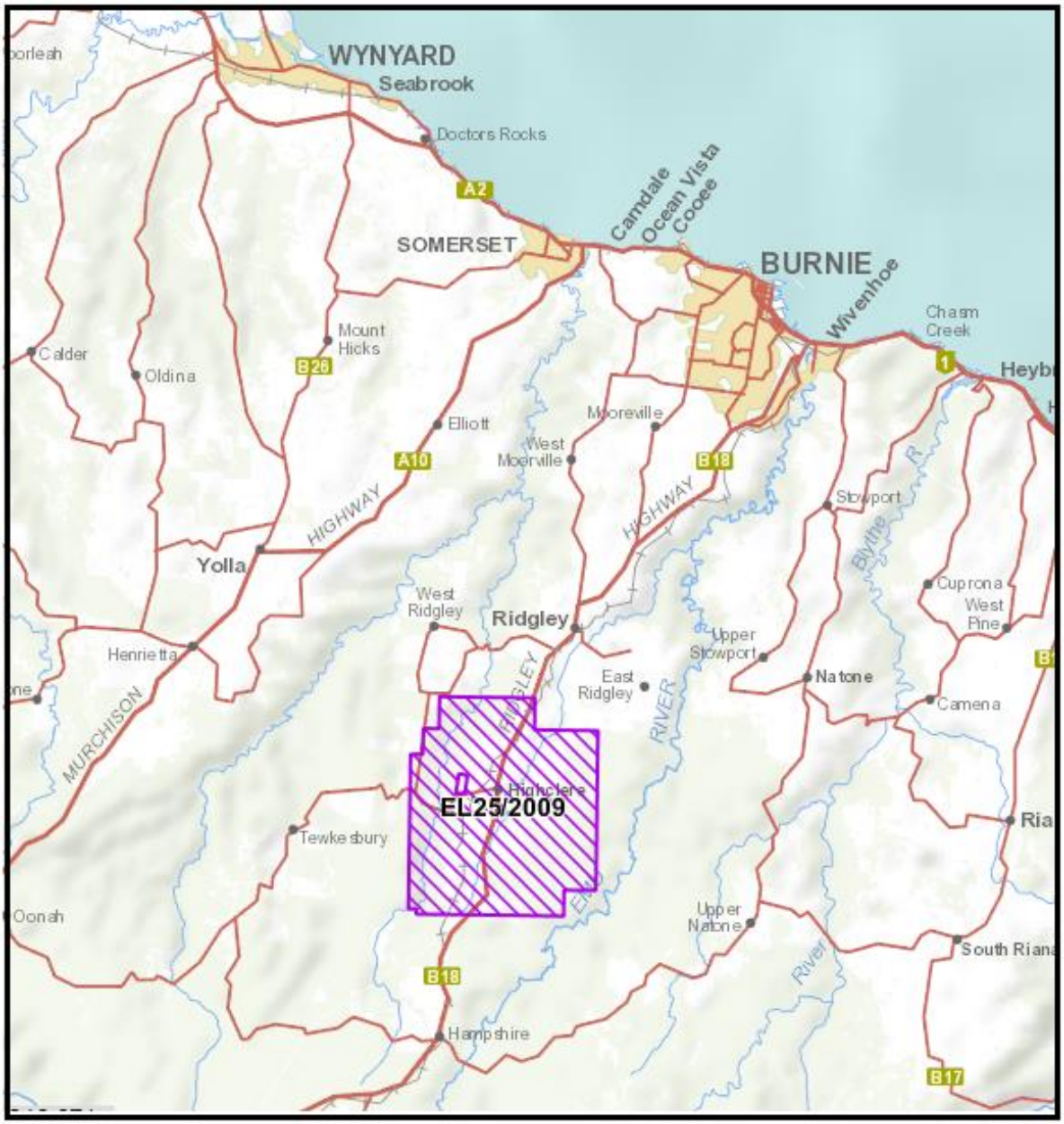

Figure 1: Map showing the location of EL25/2009.

2.1 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 volcaniclastics of the Western Volcano-sedimentary sequence and the Tyndall Group quartz-feldspar phyric volcaniclastics.

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-SnWO3 mineralisation of the Kara District. The association of Tasmanian Devonian granites with Magnetite, Sn-WO3, 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.

2.2 LOCAL GEOLOGY

The geology of EL25/2009 is dominated by Tertiary basalt flows covering most of the Paleozoic geology. Several basement windows expose granite intrusions with adjacent skarn mineralisation associated with metasomatised Ordovician Gordon Group calcareous sediments or Cambrian Dundas Group calcareous volcaniclastics. Two prospective skarns have been identified historically, the Highclere Iron deposit and Buckby's Prospect.

The Highclere prospect occurs as a roof pendant of metasomatised Gordon Limestone above the granite with the skarned limestone occurring as a north east striking and plunging syncline. Skarn bedding reportedly dips approximately 45 degrees to the north (Callaghan, 2013).

The skarned rocks outcrop as hematite and magnetite rubble on low ridges. Drilling has shown the skarn to consist of primary hematite, magnetite with limonite, goethite and iron rich clays. The skarned sequence is weathered to a depth of 50m (approximately).

At Buckby's Prospect a window through the basalt reveals a basement of Cambrian Dundas Group dolomite and dolomitic conglomerate interbedded with acid volcaniclastics intruded by the Devonian Housetop Granite. The geology consists of north striking, moderately west dipping sediments and volcanics intruded by the Housetop Granite on the eastern margin. The dolomites have been variably metasomatised to phlogopite diopside±magnetite±pyrrhotite skarn. The Cambrian carbonate in close proximity to a known tin-tungsten granite encouraged Shell and Comalco to explore the prospect for tin and tungsten mineralisation based on analogies with the Cleveland tin deposit or Dolphin Scheelite mines.

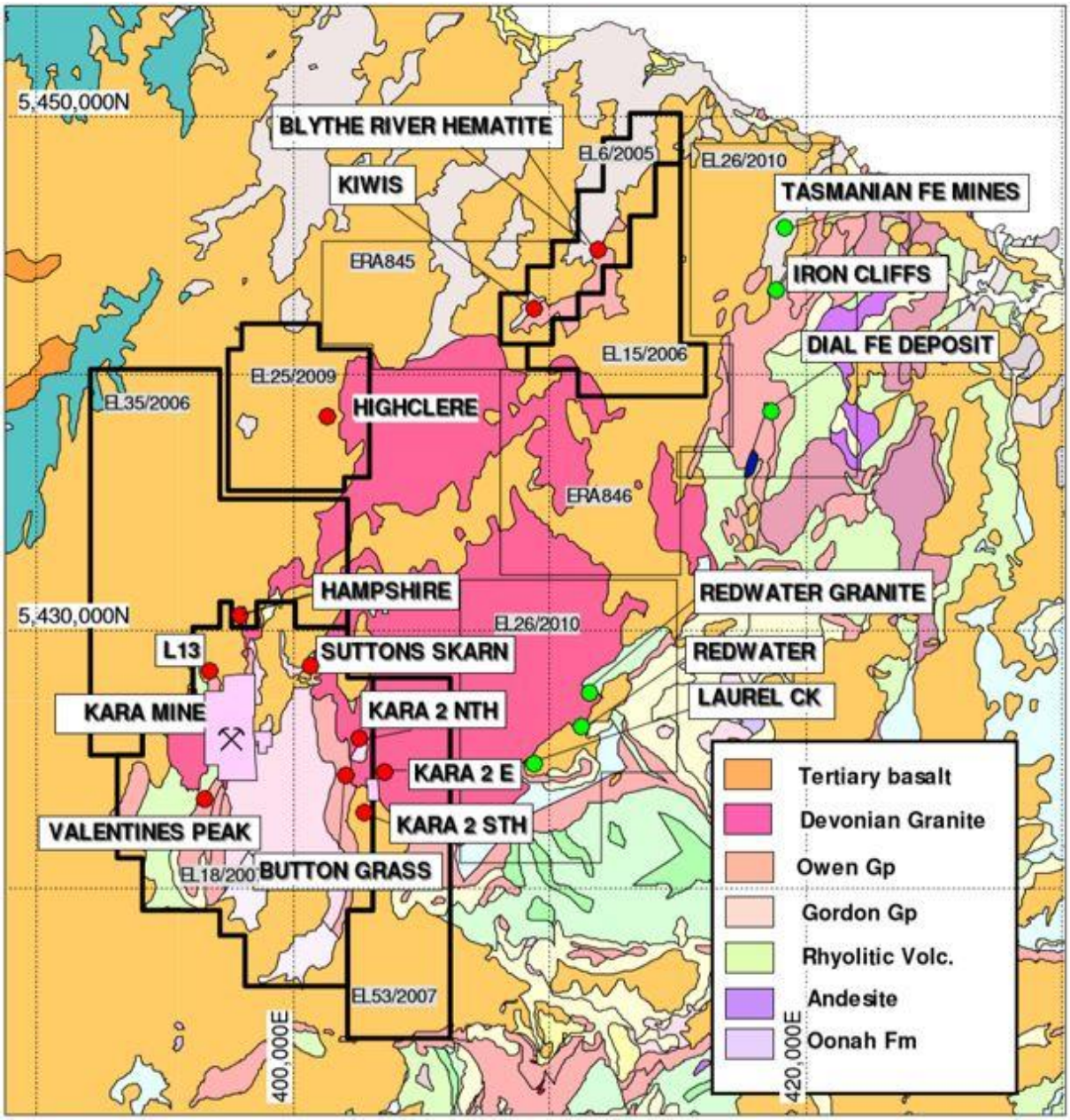

Figure 2. Blythe River Project location, Fe Prospects and MRT 250k Geology. Red dots are Blythe Project Fe prospects, green dots are other regional Fe Prospects.

3 EXPLORATION HISTORY

3.1 PRIOR TO CURRENT TENAMENT

The Tasmanian Mines department assessed the deposit for its iron ore potential in the early 1960's completing an aeromagnetic survey culminating in the drilling of 4 diamond drill holes at the Highclere Prospect in 1964. The drill holes intersected nodules and lenses of hematite-magnetite mineralisation hosted in limonitic clay. The Mines Department holes did not appear to extend to the granite basement, most ending at less than 30m depth. Analysis of the Mines Department core has returned high grade iron from a mixture of hematite and magnetite mineralisation:

Hole ID	**Depth (m)**	**Length (m)**	**Ave Fe %**
HIGHCLERE H1	1.8m to 28.3m	26.5.0m	40.70%
HIGHCLERE H2	13.1m to 26.5.0m	13.4m	62.20%
HIGHCLERE H2B	0.0m to 13.1m	13.1m	53.30%
HIGHCLERE H3	0.0m to 27.7m	27.7m	43.50%
HIGHCLERE H4	0.0m to 21.2m	21.2m	43.10%

Table 1. Iron assays from the Mines Department holes.

Iron assays from the Mines Department holes are encouraging however the recoveries were poor suggesting some of the clay may have washed away, biasing the iron analyses.

The Highclere Prospect was further explored for its Sn-WO3 potential by ANZECO in the 1970's (Brandt, 1973, 1974), Comalco in the late 1970's (Askins, 1978 and 1980) and Shell in the 1980's (Lawton, 1982).

ANZECO completed systematic grid based ground magnetics, and mapping surveys over the prospect and re-assayed the Mines Department core for Sn-WO3 with only minor tungsten mineralisation observed (Brandt, 1974). Most of the drill core was re-logged as limonitic clay. A series of short auger holes were drilled, most intersecting highly weathered granite with only 6 holes intersecting highly weathered calc-silicate skarn with minor hematite-magnetite mineralisation. The holes were assayed for WO3 and Sn but not Fe. Minor localised Scheelite mineralisation has been described at the prospect (Brandt, 1974).

They concluded that the deposit consists of small roof pendants of highly weathered calc-silicate skarn with minor magnetite mineralisation.

Comalco (Askins, 1978) assessed the potential of the northern part of the Highclere Iron deposit magnetic anomaly with ground based gravity, magnetics and IP. They also re-logged the Mines Department core noting the very low recoveries. They concluded that the discontinuous nature of the magnetic and chargeability - resistivity anomalies suggest there is very limited potential for significant mineralisation from the northern part of the Highclere Iron deposit.

Most of Comalco's work concentrated on Buckby's Prospect located several kilometres southwest of the Highclere Iron deposit. They completed a similar program of ground based magnetic, IP, soil sampling and geological mapping follow up by diamond drilling. The drill holes intersected a thick sequence of dolomitic limestone and calcareous sediments, variable metasomatised to diopside skarn with minor magnetite and pyrrhotite skarn. All holes ended in granite basement. No significant Sn-WO3 or Fe mineralisation was observed.

Shell/Billiton re-assessed the magnetics of the district, targeting Kara style magnetite skarn mineralisation. They drilled several percussion holes into magnetic anomalies in basalt and one extra hole into the Highclere Iron deposit. They concluded that the magnetic signature of the basalt cover obstructed the delineation of magnetite skarn and discontinued work in the district.

3.2 DURING CURRENT TENEMENT

Nolan's Hill Prospect was drilled by Iron Mountain Mining Ltd and Red River Resources Ltd in 2008 targeting a magnetic anomaly. The five drill holes intercepted only three rock types: residual soil, saprolite and basalt. In hole NHRC001 the basalt extended to a depth of 100m. Combined with the results of Comalco and Shell's drilling in the 1980's which also intercepted predominately basalt, it is theorised the magnetic high is associated with Nolan's Hill is the result of thick magnetic basalt. There is the potential that a magnetite skarn exists under the basalt cap however the depth required makes the potential body uneconomic.

Blythe River Iron Pty Ltd targeted the iron potential of the Highclere deposit drilling 4 diamond holes totally 220.2m in early 2012. Assays of their drilling is shown below in table 2.

Hole ID	Depth (m)	Length (m)	Ave Fe %
H5	1.4m to 26.0m	24.6m	44.70%
H6	1.5m to 13.0m	11.5m	56.50%
H6	16.0m to 17.0m	1m	51.50%
H6	28.0m to 37.8m	9.8m	48.60%
H6	42.0m to 55.0m	13.0m	47.10%
H7	1.5m to 3.6m	2.1m	59.80%
H8	2.0m to 4.5m	2.5m	16.40%
H8	8.7m to 30.0m	21.3m	43.80%

Table 2. Blythe River Iron Pty assay results.

Lottah Mining Pty Ltd completed four diamond drill holes on the Highclere tenement between June 2014 - July 2014. The drill holes intercepted predominantly weathered lithologies including varying thickness of magnetite, hematite, goethite, limonite and iron rich clays. Locations of the drill holes are displayed in Figure 3 and located in Table 3. Holes were located by hand held GPS.

HOLE ID	Easting	Northing	Depth (m)	DIP	RL	AZM	DATE
DD14HC010	401451.733812	5438382.268309	50.9	-90	385.0	0	20/06/14
DD14HC011	401512.576179	5438377.998759	50.0	-90	386.0	0	26/06/14
DD14HC012	401535.851447	5438405.969915	55.4	-90	385.0	0	01/07/14
DD14HC013	401567.497645	5438427.407662	50.0	-90	373.0	0	04/07/14

Table 3: LMPL 2014 Highclere drilling campaign.

Hole ID	Depth (m)	Length (m)	Ave Fe %
DD14HC010	9.0m to 41.0m	32.0m	49.30%
DD14HC011	1.0m to 50.0m	49.0m	46.20%
DD14HC012	0.0m to 55.0m	55.0m	44.40%
DD14HC013	4.0m to 8.0m	4.0m	18.60%
DD14HC013	15.0m to 50.0m	35.0m	35.90%

Table 4: LMPL 2014 Highclere drilling campaign assay results.

A drill hole summary of LMPL 2014 drilling program is listed below:

DD14HC010 was located 40m east of previous drilling efforts on a magnetic high. The drill hole intercepted hematite between 9.4m-13.3m, 17.8m-32.0m and 34.3m-40.2m. However, the hematite was extremely weathered and consisted of large amounts of oxidised clays. The majority of the drill hole had undergone extreme weathering with clay down to 50m.

DD14HC011 was located 50m east of DD14HC010. The hole intercepted predominately iron oxide rich clays with some areas of highly weathered magnetite and hematite. Magnetite between 4.1m-6.8m, 7.8m-9.3, 16.4m-21.7m, 23.2m-24.1m and 43.8m-44.6m. Hematite between 43.8-44.6m. The majority of the drill hole had undergone extreme weathering with clay down to 50m.

DD14HC012 was located 50m north-east DD14HC011 on the magnetic high. The hole intercepted predominately clay with some extremely weathered hematite and magnetite. The hole intercepted magnetite between 14.6m-32.8m, 40.0m-4.4m and 49.4m-55.4m. Hematite was intercepted between 10.4m-14.6m.

DD14HC013 located 50m north-east DD14HC012 on the magnetic high. The hole intercepted clay from 0-50m. The clay had areas rich in magnetite nodules and hematite. However, the true extent of the Fe levels is still not known due to the wash/loss of core recovery.

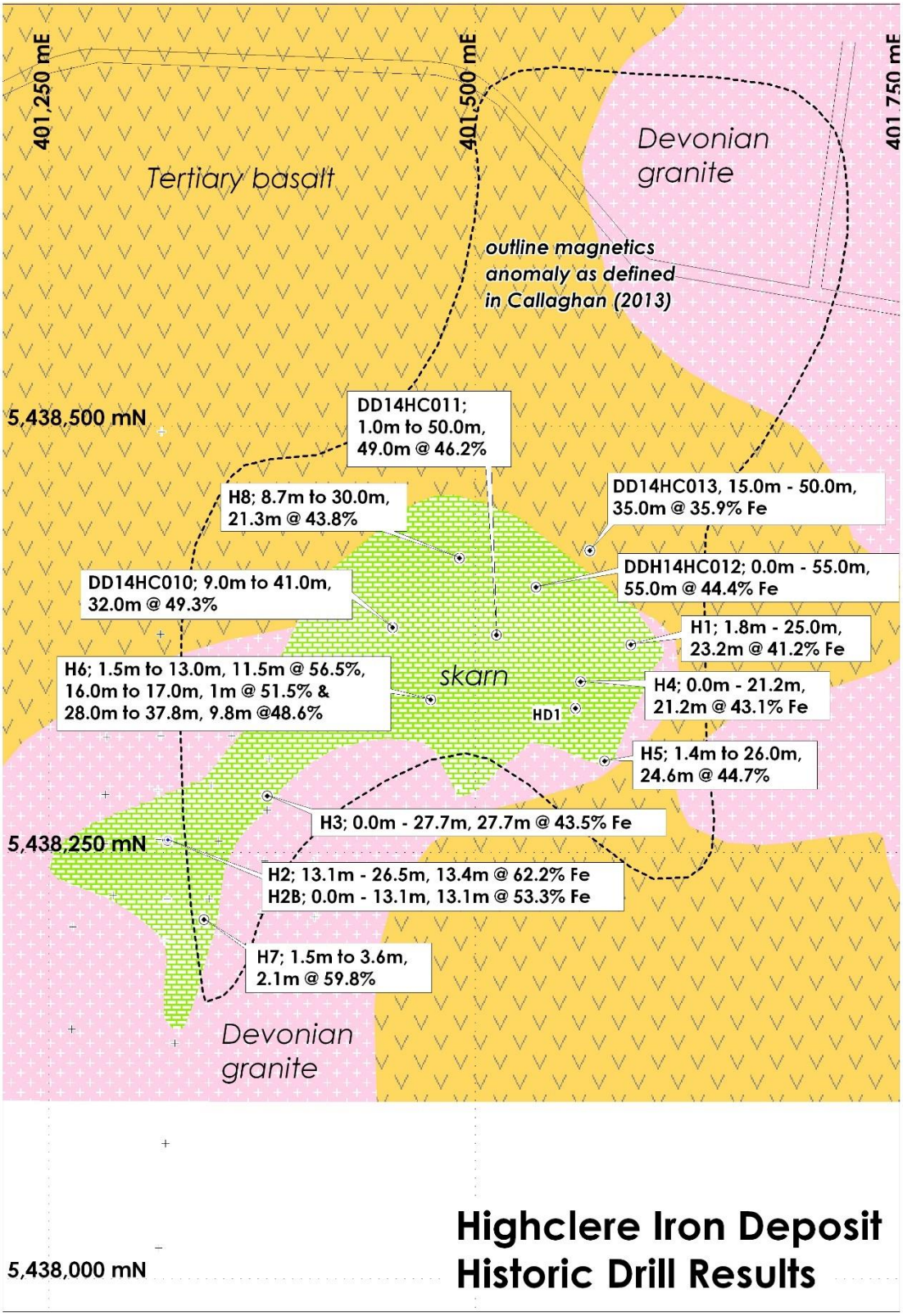

Figure 3. Map of Highclere drill holes with Fe intersection assays (+ are ANZECO auger hole, percussion HD1 not assayed for iron).

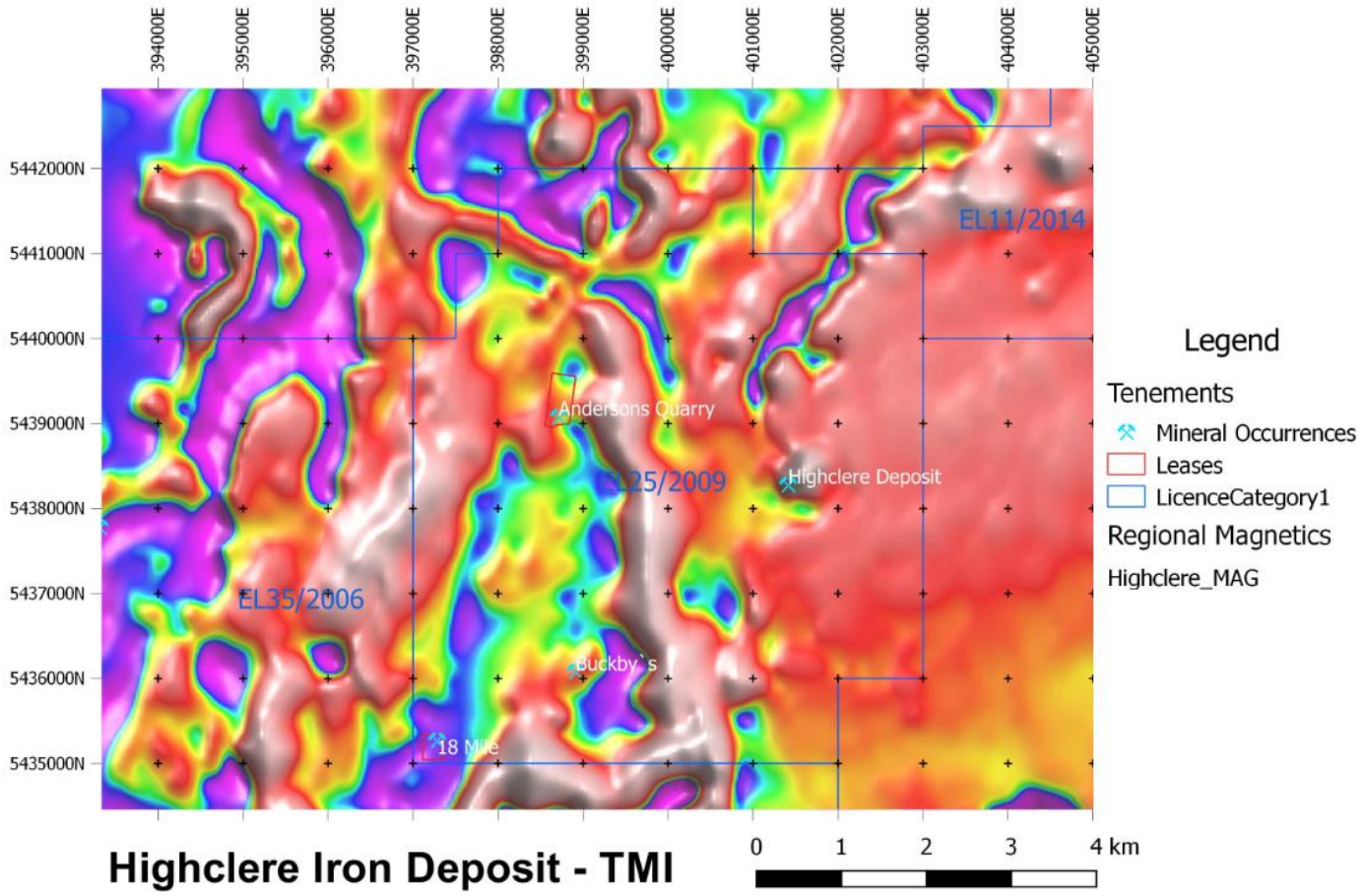

Figure 4. TMI map of EL25/2009 showing the Highclere Iron Deposit and Buckby's Prospect.

4 WORK COMPLETED

Exploration completed on EL25-2009 during the reporting period consisted of:

1. Compilation of all historic exploration data with a focus on the Highclere Deposit.
2. Commencement of the generation of a JORC compliant resource estimate for the Highclere Deposit.

Drilling data (collars, surveys, assays and lithology) from the 1964 DOM drilling programme, 1973-74 auger drilling programme conducted by ANZECO (Brandt 1974), 1982 percussion drillhole HD1 drilled by Shell (Lawton 1982), 2012 diamond drilling programme by Forward Mining (Callaghan 2012) and 2014-15 diamond drilling programme carried out by Lottah Mining Pty Ltd has been compiled into an ACCESS database.

Considerable effort was need in determining as accurate as possible hole collar locations by geo-referencing old plans, in particular:

- Plate 1 from 74_1029 (Brandt 1974) for the ANZECO auger holes and the 1964 DOM diamond holes.
- Figure 8 and plan D/MQ03/022 from 82_1872 (Lawton 1982) to locate HD1.
- Surface geology has been compiled from maps in 74_1029, 82_1878 and Callaghan (2014) with reference to the drillhole geology.

A surface DTM generated from 10m contours was used to assign collar RLs.

3D solids of the skarn body and granite contact have been generated but need refining. These and the block model created and resource generated will be reported in the 2017/18 annual report.

5 DISCUSSION

The Highclere Iron Deposit as exposed is 350m long, up to ~150m wide and from 0m thick at the southwestern end to at least 50m thick at the northeastern corner where it disappears under basalt.

Magnetics, as shown in Callaghan (2013), suggests the deposit continues to the northeast for another 100m or so. Further drilling should target this zone.

The skarned sequence occurs as a roof pendant and has a northeast plunging synclinal form. Weighted Fe grades average ~45% Fe with zones above a 15% Fe cut-off averaging 48% Fe.

The more complex mineralogy, with mixed hematite and magnetite and Fe clays is potentially problematic for the proposed Rogetta North magnetite mill and requires further study from a metallurgical perspective. Certainly magnetite rich zones occur, as do zones with grades around DSO levels.

There have been issues with the private landholder beneath whose land the deposit occurs and these issues will require resolution before further significant expenditure is committed to the project.

Similar issues on another Lottah Mining Pty Ltd project may help establish a precedent for dealing with the landholder issue.

In spite of the metallurgical questions and landowner issues the Highclere Iron Deposit contains significant tonnages of iron at economic grades and will ultimately add to Lottah Mining Pty Ltd's iron inventory in Tasmania's northeast.

6 PROPOSED WORK PROGRAM

Work proposed for 2017-18 consists of the following:

1. Completion of the JORC compliant resource for Highclere Iron Deposit.
2. Further consideration of the geological model for the formation and style of the Highclere Iron Deposit.
3. Metallurgical test work on the Highclere Iron Ore.
4. Further compilation and assessment of Buckby's Prospect.

7 EXPENDITURE

Expenditure for EL25/2009 2016 – 2017 is presented below.

2016	Q2	$3,550.00
	Q3	$7,700.00
	Q4	$0.00
2017	Q1	$6,600.00
	Q2	$7,500.00

Table 5. EL25-2009 2016-2017 quarterly expenditure

Expenditure for EL25/2009 during the 2016-2017 year was $25,350.00. Proposed expenditure for EL25/2009 in the upcoming year is $25,000.00.

8 ENVIRONMENTAL

Environmental disturbance on EL25/2009 during the reporting period was minimal. Existing infrastructure access was utilised when required for site visits.

9 REFERENCES

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