

**MT BLOCK PROJECT  
(LAKE MACKINTOSH GROUP)  
TASMANIA  
EL48/2003**

**ANNUAL PROGRESS REPORT  
11<sup>th</sup> June 2007 – 10<sup>th</sup> June 2008**

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**Distribution:**

Mineral Resources Tasmania  
Bass Metals Ltd

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**Note: All figures and grids are according to the AGD66 datum and AMG66 grid system.**

## ABSTRACT

Bass Metals Ltd (BSM) commenced management of the Mt Block exploration licence (EL48/2003) on 11 June 2006. For the year ended 10/06/2008 work conducted on the licence has included -

- The drilling of a further diamond hole totalling 299.70 metres (HED14)
- Down hole electromagnetic surveys of HED8, HED9 & HED14
- Consultant analysis of DHEM surveys.
- Field check of HEM target generated by Saracen

**Expenditure –** Reporting period \$290,523.07

Total to date \$474,679.59

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- Appendix 4 – Down hole EM Report, HED14 (Outer-rim Exploration Services)**
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## 1. INTRODUCTION

This report is a summary of the exploration activities conducted on the Mt Block licence EL48/2003, for the period of 11th June 2007 to 10th June 2008. The licence covers a total area of 65 km<sup>2</sup>.

### 1.1 Location and Access

The tenement is located 13 km north-northeast of the township of Tullah, on the west coast of Tasmania (Figure 1). Access to the area is via the Murchison Highway and tracks which access via the 220kv transmission lines which traverse the area. Access within the tenement is via a limited number of 4wd tracks and ATV-only tracks.

The licence area can be found Charter 1:25,000 topographic map sheet and the Sophia 1:100,000 LTIS map sheet.

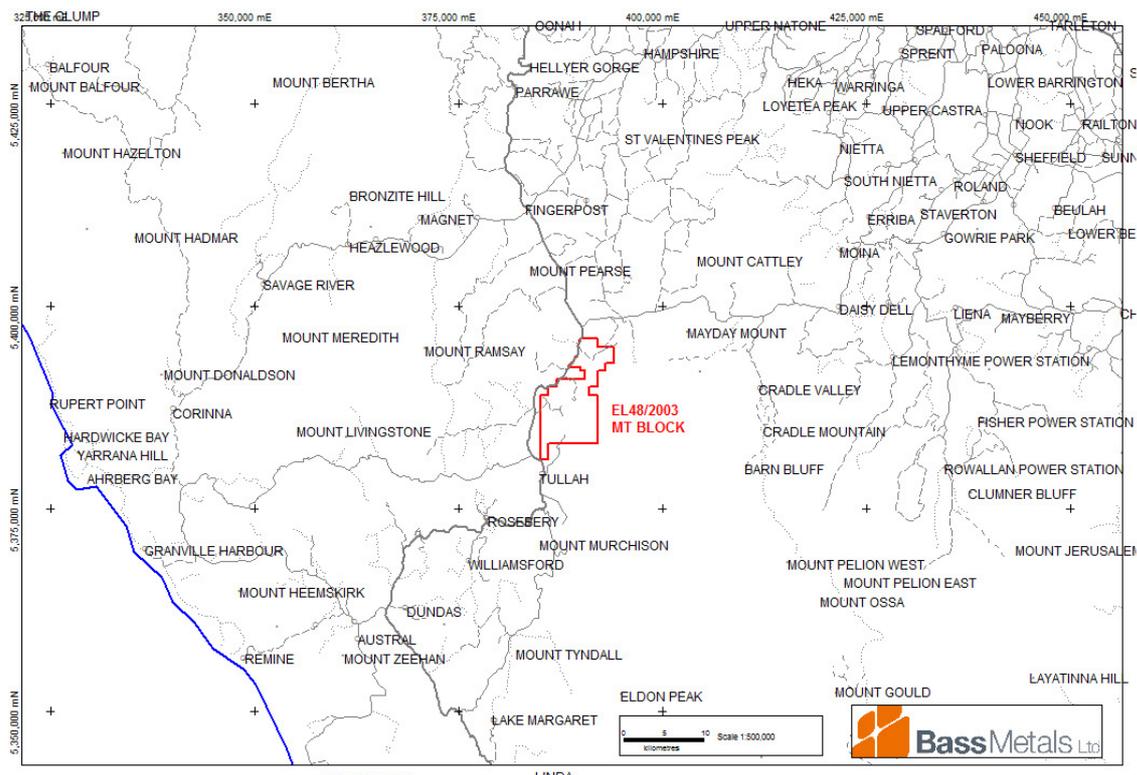


Figure 1. Location Map

### 1.2 Geology Overview

The base and precious metal deposits of the Hellyer-Que River-Mt Charter area lie above the main Central Volcanic Complex of the Mt Read Volcanics (MRV) as it passes into a sequence of volcanic and sediments, which near Hellyer and Que River it is called the Mt

Charter Group. Within the Mt Charter Group is a volcanic package called the Que-Hellyer Volcanics (QHV), comprising a group of andesitic to dacitic volcanic and sediments (Figure 2). Que River and Mt Charter are hosted by the highly variable 'Mixed Sequence', sandwiched between basaltic to andesitic volcanics. Volcanic-related and marine sediments cover the volcanics.

### 1.2.1 Mt Read Volcanics

The area straddles the entire east-west sequence of the MRV. The MRV are a belt of volcanic, volcanoclastic and sedimentary rocks of Mid- Cambrian age. The belt is famous for hosting Tasmania's world-class polymetallic VHMS deposits (eg. Rosebery, Hellyer, Que River).

#### *Western Volcano-Sedimentary Sequence*

The southeastern portion of the licence is mapped as belonging to the Western Volcano-Sedimentary Sequence. This unit is coeval with the Central Volcanic Complex of the MRV though older than the Tyndall Group. It is described as including beds of lithicwacke turbidite, mudstone (commonly rich in shards), siltstone and shale. It also contains subordinate intrusive and volcanic rocks, which are commonly andesitic (Seymour *et.al.*, 2006).

#### *Bonds Range Quartz Feldspar Biotite Porphyry*

The Bonds Range Quartz-Feldspar-Biotite (+/-Hornblende) Porphyry crops out at two localities on the licence. It is recorded as being complex, showing variations in colour, grain size, degree of alteration and deformation, and phenocryst assemblage. At Ten Mile Creek it hosts a quartz-hematite stockwork (containing gold mineralisation).

#### *Tyndall Group*

The Tyndall Group is a unit of quartz-bearing volcanoclastic sandstone and conglomerate. It also contains minor volcanic, intrusive and ignimbritic rocks of mixed felsic and andesitic provenance (Seymour *et.al.*, 2006).

### 1.2.2 Mt Charter Group

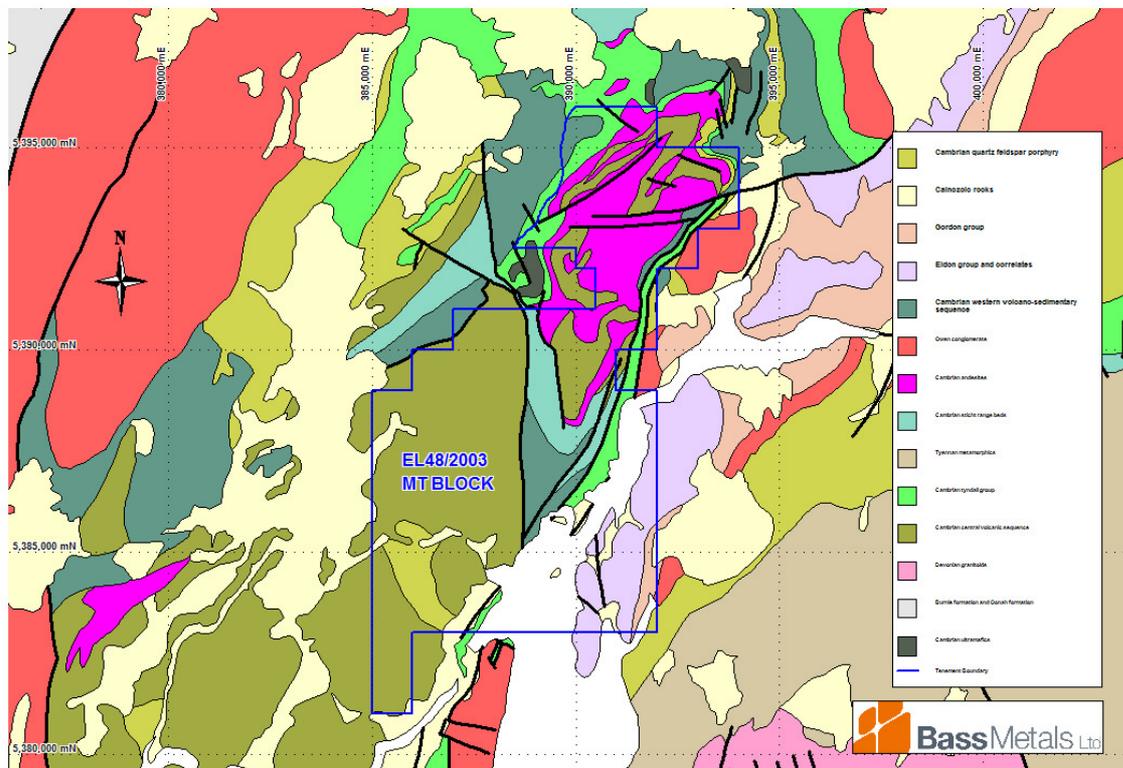
#### *Que Hellyer Volcanics (QHV)*

The QHV is up to 1000m thick near Que and Hellyer, but wedges out to less than 50m to the northwest of Hellyer. The units of the QHV are summarised below:

- The Upper or Hellyer Basalt consists of massive to pillowed amygdaloidal basalt lava and volcanoclastic rocks.
- The mixed Sequence host to the Que River, Hellyer and Mt Charter systems is comprised of epiclastics, dacitic lavas and breccias.
- The Feldspar Pyric Andesite, a porphyritic andesite lava which is the footwall unit to the Hellyer and Que River deposits and subsequently altered to Silica-Sericite-Pyrite mineralogy at these locations, which in turn is underlain by;
- The Lower Basalt, a sequence of basaltic pillow lavas and volcanoclastics, which form the immediate footwall at Que River and Hellyer.

Overlying the QHV is the Que River shale, which is in turn overlain by rhyolite, felsic volcanoclastics, greywacke and shale of the Southwell subgroup. The Southwell subgroup is overlain by the Mt Cripps subgroup (a correlate of the Tyndall beds at the Henty Mine) which is a sequence of volcanoclastics, siltstones and conglomerates only outcropping along the eastern boundary of the Hellyer area tenements.

Beneath the QHV are the Animal Creek Greywacke and Black Harry Beds, a sequence of sediments defining the base of the Mt Charter Group.



**Figure 2. Regional Geology Map**

## 2. REVIEW OF PREVIOUS WORK – Prior to current tenement

### 2.1 Historic Mining

Minimal historic mining activity in the area is published; the White Hawk Mine located on the White Hawk creek now abandoned was described as a vein lead prospect. Deposit size and mine life was not noted. (Figure 3)



**Figure 3. Location of White Hawk Mine**

## 2.2 Exploration prior to current licence area

The South Mt Charter area has been a focus of exploration since the 1970's due to the extensive Silica-Sericite-Pyrite-(Barite) alteration exposed at surface. This alteration is similar to the footwall alteration associated with the nearby Hellyer and Que River volcanic-hosted massive sulphide (VHMS) Zn-Pb-Ag-Au deposits.

Early work at Mt Block aimed at testing the lower contact of the altered Dacite to test the equivalent of the Hellyer/Que River orebody stratigraphic position. In doing so, significant Au-Ag-Ba mineralization was intersected from surface but not fully evaluated.

Historic exploration for this area is limited due to the fact that before the granting of the EL to Saracen Mineral Holdings in June 2004, the ground was vacant for some time.

**Date:** 1968 – 69

**Company:** Comstaff Pty Ltd

**Exploration Rationale:** Attempting to locate the “barite” as seen at the Rosebery Mine.

**Work Completed:** Reconnaissance sediment sampling. 27,600 feet of creeks were cut and paced out. 78 sediment samples were taken at approx. 500 foot spacings.

**Results and Conclusions:** Samples were analysed for Cu, Pb, Zn, Ag, Sn & Ba. Several anomalies were located mainly in Zn and Ag.

**Date:** 1970

**Company:** Comstaff Pty Ltd

**Exploration Rationale:** Not noted

**Work Completed:** Geochemical stream sediment sampling over 35 miles

**Results and Conclusions:** Not noted.

**Date:** 1971

**Company:** Comstaff Pty Ltd

**Exploration Rationale:** Not noted

**Work Completed:** Geological Mapping and regional sampling

**Results and Conclusions:** Low order results were recorded

**Date:** June 2004

**Company:** Saracen Mineral Holdings

**Work Completed:** Data Assessment. Targeting through electromagnetic dataset interpretation.

**Results and Conclusions:** 28 targets were identified for follow up.

**Date:** 2005

**Company:** Saracen Mineral Holdings

**Work Completed:** The incorporation of data to compile a 3-Dimensional database. East Que magnetic anomalies were of interest and to be followed up.

**Results and Conclusions:** None noted

## 3. CURRENT WORK

### 3.1 2006 – 2007 (BSM)

Diamond holes HED8 and 9 were undertaken during the 2006/07 reporting period. These holes were designed to test the 5<sup>th</sup> ranked target to the south of Mt Charter. The Pb/Zn soil anomaly coincident with this target is one of the more significant in the area and the target is adjacent to the Mt Charter Fault which is implicated in mineralization at High Point and is

interpreted to be a basin-bounding fault active during the Cambrian. The lead soil geochemistry indicates connectivity of the target area with the Mt Charter system.

The two EM anomaly lines interpreted for the area are broadly consistent with the surface projection of the intersection of sub-vertical 'feeder' faults with the base of the mixed sequence. Both drill-holes targeted intersections coincident with EM anomaly lines on two separate interpreted 'feeder' faults.

#### HED 8

This hole was drilled to intersect the target N-S trending interpreted feeder fault and although some faulting and broken ore was present at the interpreted location, no alteration was associated and the hole was completed at 422.7m. A zone of weak silica-pyrite alteration and brecciation was intersected between 308 and 316.5m. This alteration is similar to the Que-Hellyer footwall alteration but at a weaker intensity and is not considered to represent a feeder zone.

#### HED 9

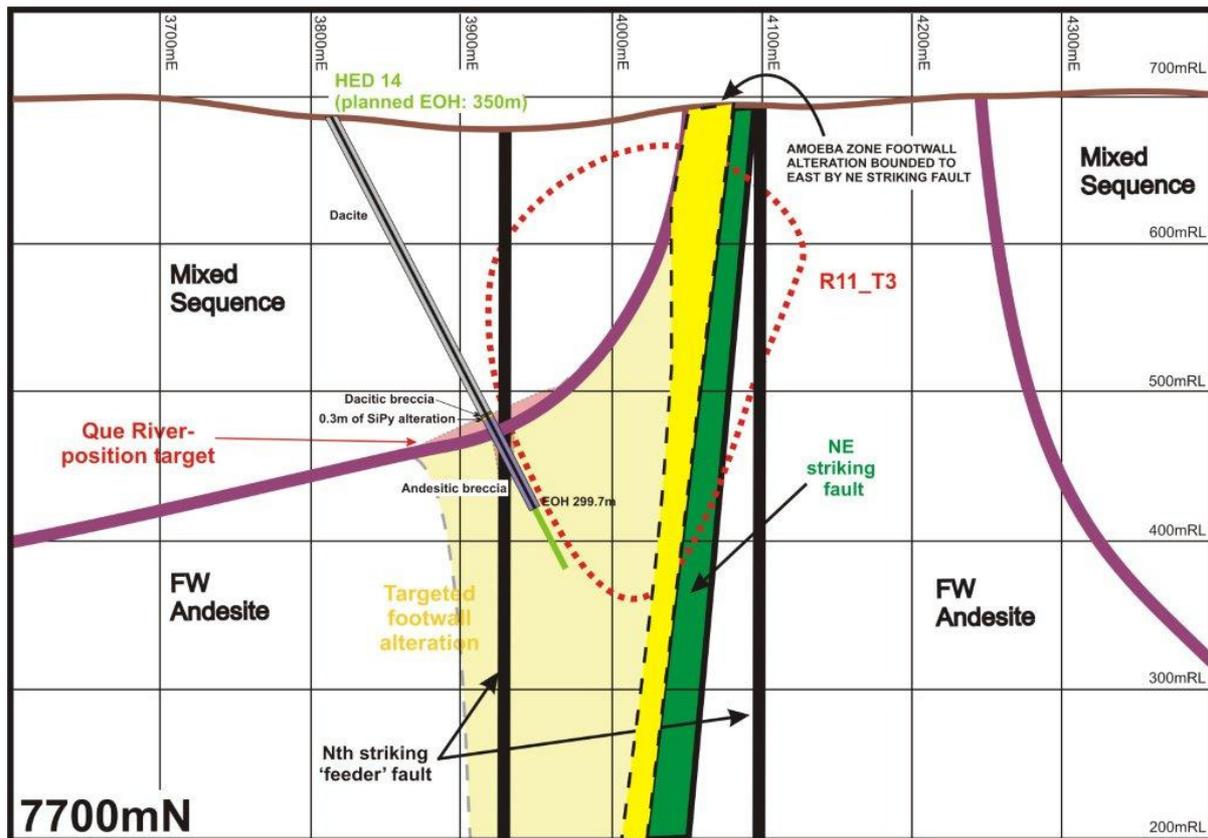
The Pb/Zn soil anomaly coincident with this target is one of the more significant in the area and the target is adjacent to the Mt Charter Fault which is implicated in mineralization at High Point and is interpreted to be a basin-bounding fault active during the Cambrian. This hole was terminated at 481.3m some veining occurred between 150 and 158.5m with disseminated pyrite selvages and patchy Fuchsite alteration of the Hellyer Basalt. No other significant alteration was encountered in this hole.

Both holes underwent a DHEM survey to test the ore-position situated above the hole with the aim of locating a source for the significant Pb and Zn soil anomaly associated with the target area.

HED 10 was also drilled; designed to test the Southwell target situated on the Henty Fault at an intersection with an interpreted North striking feeder-type fault. The geology observed in this drill hole differed significantly from that predicted in the Geoinformatics modeling. Que-Hellyer volcanics including the Hellyer Basalt at the top of the hole and mixed sequence at the bottom was predicted. However the hole started in Gordon Limestone, passed into Owen conglomerate and was still in this unit when the hole was ended. A narrow basalt intrusion was intersected at 287-292m but no significant alteration was associated with this feature.

### **3.2 Exploration completed during the reporting period 2007 – 2008 (BSM)**

A total of 299.70 drilling metres was completed during this period. Drill hole HED14 was designed to test the prospective structure and stratigraphy to the southwest and west of Hellyer and Que River, respectively. Also to test the fertility of the interpreted NNE striking 'feeder' faults running from the Hellyer tailings dam south to the Que River access road. See figure 3.



**Figure 4. HED14 Cross Section 7700mN**

Fibrous Epidote-Carbonate veining occurred from 248m to the end of the hole which contained trace amounts of sphalerite and galena. No significant mineralisation or alteration was intersected.

Down hole electromagnetic surveys were carried out by Outer-rim Exploration Services on holes HED8, HED9 and HED14 with no anomalies relating to massive sulphide bodies detected. Refer to Appendix 4. Jovan Silic was contracted to interpret the down-hole EM data collected for these and other holes in the vicinity. Refer to Appendix 5.

A reconnaissance field visit was undertaken on a HEM target identified by Saracen Mineral Holdings Ltd. Target 18 is situated North-West of Tullarbardine Dam. The vegetation is dense and dominated by horizontal in this area, however observations were made of float and the cliff immediately adjacent to the anomaly area. The rock comprised felsic/intermediate volcanic with no significant alteration. The target may represent quaternary fill or water saturation due to connectivity with the nearby Lake Mackintosh, however the anomaly is also spatially co-incident with a significant NE striking fault and in close proximity to the intersection of this structure with the Henty Fault system so the target area should not be discounted. Refer to Figure 4.

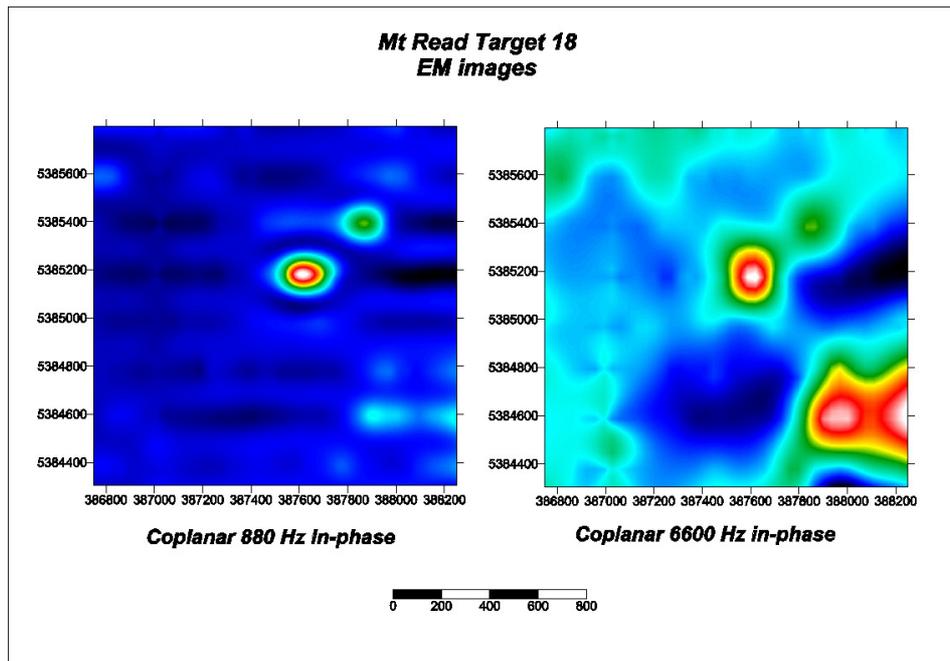


Figure 5. HEM response of the area named Target 18 in the Tullabardine Dam area

#### 4. PROPOSED EXPLORATION

- Trace element geochemical work is still ongoing with the second batch of lithochemical in progress.
- Soils program to test VHMS targets along strike from Farrell and interpreted andesite.
- Follow-up on geophysical targets such as Que East occurring South along strike of the Que River alteration system.

#### 5. ENVIRONMENT

The company has environmental policies in place that minimise the impact that exploration activities have on the environment. The policies include guidelines on how to reduce the risk of spreading plant diseases and weeds as a result of day-to-day exploration tasks.

The attached Environmental Activity Map (Figure 4) shows the location of the Exploration Licence relative to conservation areas.

#### Land Tenure

The Mt Block exploration Licence comprises:

- MDC Informal Reserves
- State/Multiple Use Forest
- HEC Land
- Part of Reynolds Falls Nature Recreation Area
- Part of Mackintosh Forest Reserve
- Part of Granite Tor Conservation Area

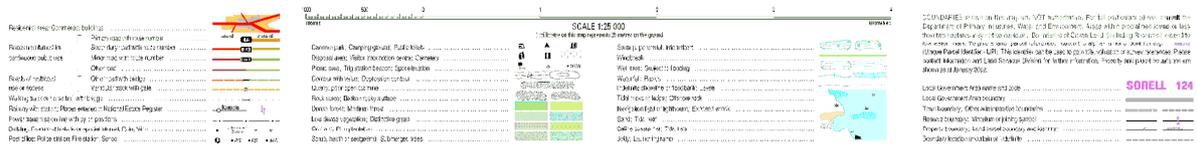
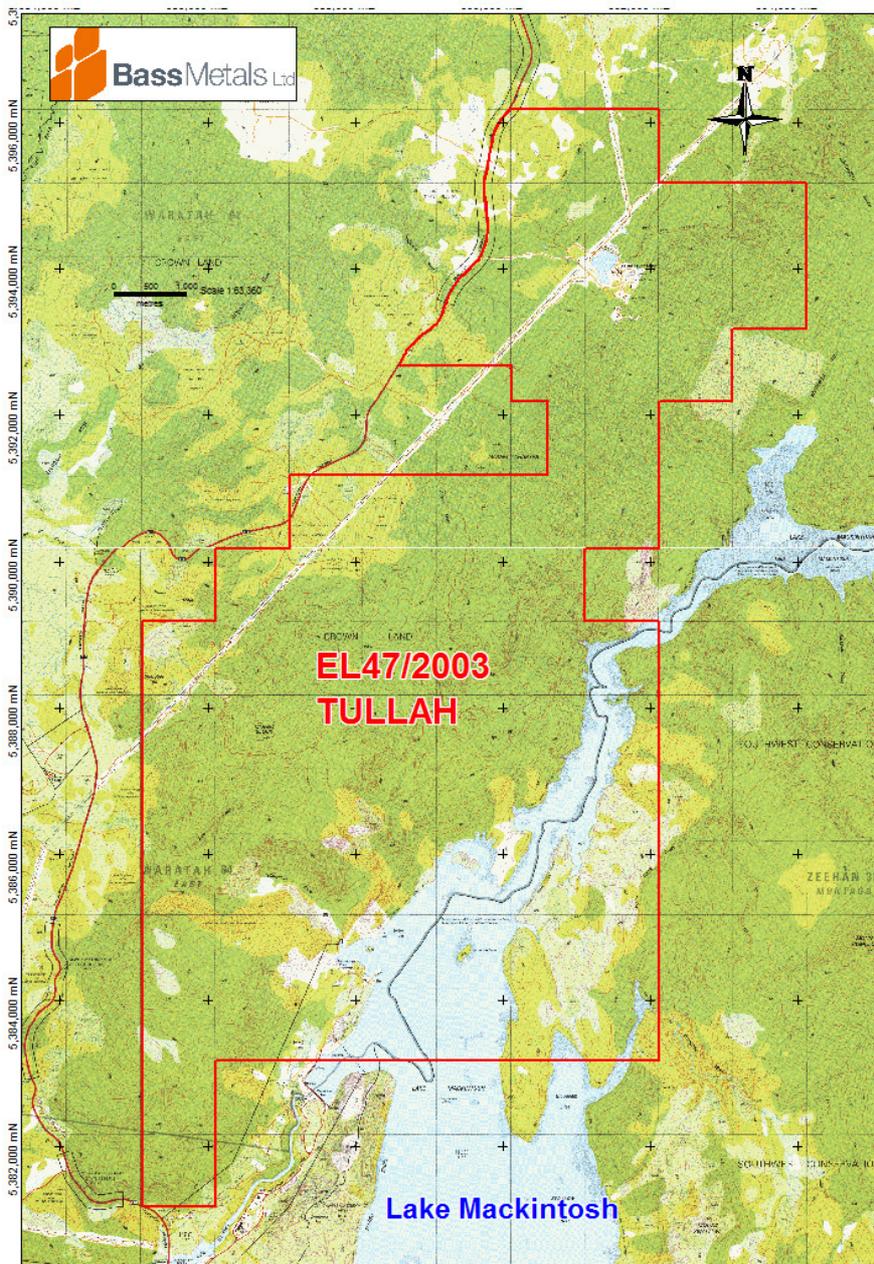


Figure 6. Environmental Activity Map

## 6. EXPENDITURE

June 2007 - June 2008		
Geoscientific Costs	Geology	53,810.59
	Geochemistry	14,459.03
	Geophysics	
	Remote Sensing	
Drilling & Gridding Costs	Gridding	4,779.66
	Drilling	204,160.57
	Land Access Costs	
	Rehabilitation Costs	
	Feasibility Study Costs	
	Other Costs	
	Admin Costs	13,313.22
	<b>Total - eligible</b>	<b>\$290,523.07</b>

**Table 1. Expenditure 11<sup>th</sup> June 2007 to 10<sup>th</sup> June 2008.**

Expenditure, for the twelve months 11<sup>th</sup> June 2007 to 10<sup>th</sup> June 2008, has primarily been taken up with the drilling of 1 diamond hole, down-hole EM and consultant analysis.

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**Appendix 1 - Assay Results  
(HED14)**

**Appendix 2 – Drill Collars  
(HED8, HED9, HED10 & HED14)**

**Appendix 3 – Drill Surveys  
(HED8, HED9, HED10 & HED14)**

**Appendix 4**  
**Down hole EM Report HED8, HED9 & HED14**  
**(Outer-rim Exploration Services)**

**Appendix 5**  
**Interpretation of HED6 to HED13 DHEM Data**  
**(Jovan Silic)**

**Appendix 6**  
**Interpretation of HED14 & HED15 DHEM Data**  
**(Jovan Silic)**