

**BULGOBAC RIVER  
(LAKE MACKINTOSH GROUP)  
TASMANIA  
EL24/2004**

**ANNUAL PROGRESS REPORT  
30<sup>TH</sup> JULY 2008 TO 29<sup>TH</sup> JULY 2009**

**Tenement Holder/Manager**  
Bass Metals Ltd.  
Suite 5, 2 Richardson St  
West Perth, WA, 6005

**Geologist:**

Travis Murphy, *B.App.Sc (Geol.), PhD*  
Senior Exploration Geologist  
Hellyer Exploration Base, TAS

**Prepared By:**

Sally Bates, *B.App.Sc (Geol)*  
Tenement Geologist  
Hellyer Exploration Base, TAS

**Distribution:**

Mineral Resources Tasmania  
Bass Metals Ltd

**Note: All figures and grids are according to the GDA94, Zone 55 datum.**

**Disclaimer**

The conclusions and recommendations expressed in this report / table represent the opinions of the Authors based upon the data available and provided to them. The opinions and recommendations provided from this information are in response to a request from the client and no liability is accepted for commercial decisions or actions resulting from them.

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**ABSTRACT**

Bass Metals Ltd (BSM) commenced management of the Bulgobac River exploration licence (EL24/2004) on 30 July 2004. Work conducted on the licence for the year ended 29<sup>th</sup> June 2009 has included:

- This lease is included in a major study of alteration using a hand held analytical spectral device (ASD).

**Expenditure –** Reporting period \$5,774.94

Total to date \$697,942.28

The Bulgobac tenement is part of the Lake Mackintosh Group; the total expenditure up to the 31<sup>st</sup> March 2009 for this group is \$2,721,436.73 against a required group expenditure of \$464,016.

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## 1. INTRODUCTION

This report is a summary of the exploration activities conducted on the Bulgobac River exploration licence EL24/2004, for the period of 30th June 2008 to 29th June 2009. The licence covers a total area of 32 km<sup>2</sup>.

The licence is situated in the northwest corner of Tasmania and was acquired as part of a package of tenements in the Hellyer-Que River area purchased from Intec Ltd.

### 1.1 Location & 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 or the Cradle Mountain Development road and tracks which access 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 on the Charter 1:25,000 topographic map sheet and the Sophia 1:100,000 LTIS map sheet.

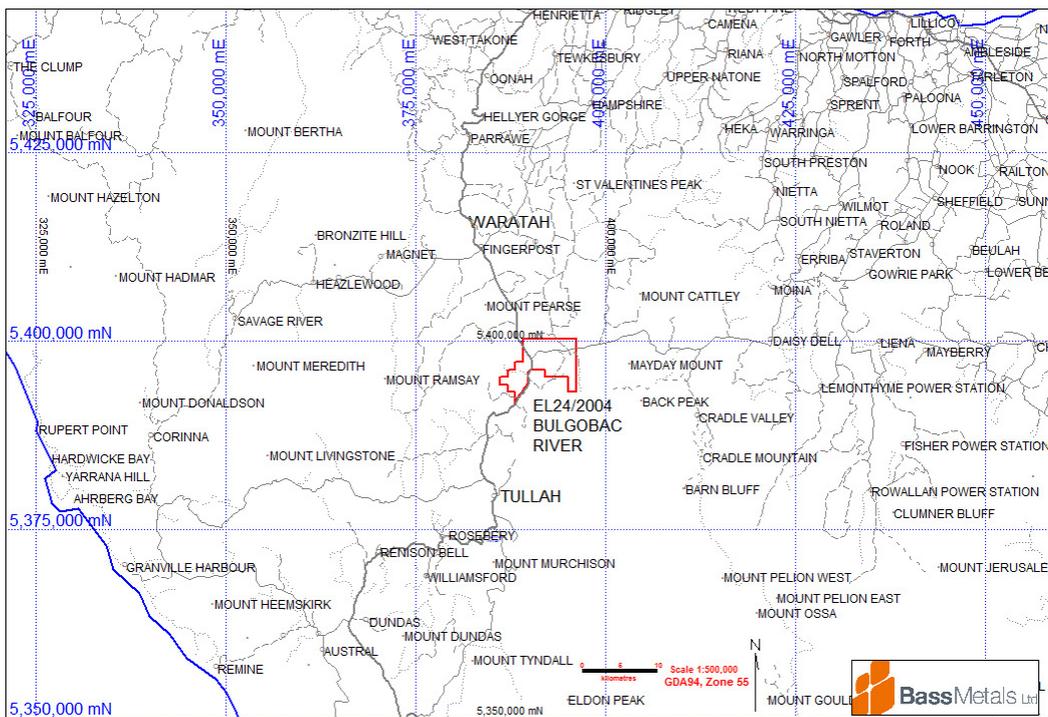


Figure 1. Bulgobac River Exploration Licence (EL24/2004) location map

## 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 as it passes into a sequence of volcanics and sediments, which near Hellyer and Que River 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 volcanics and sediments (Figure 2). Que River, Hellyer 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.

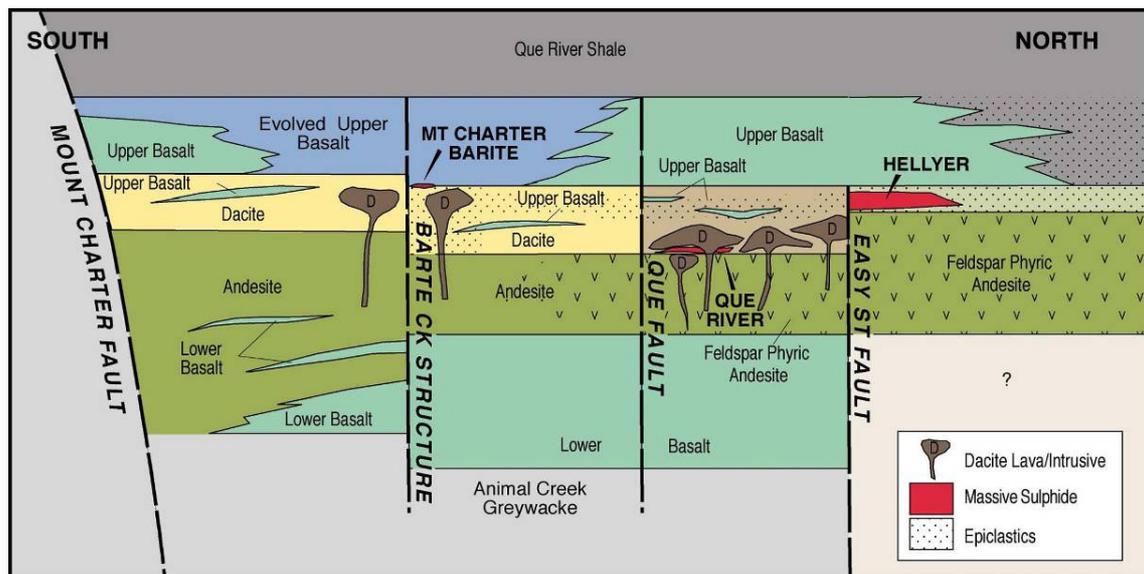
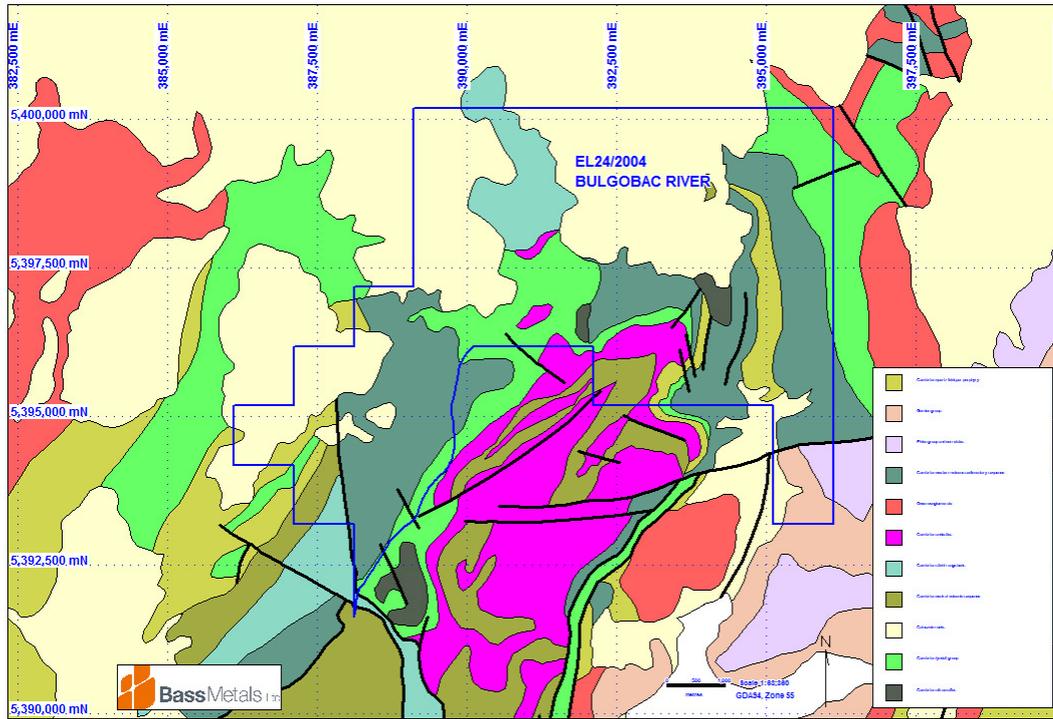


Figure 2. Schematic stratigraphic long-section of the Mt Charter - Hellyer area

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 Phyrlic 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 (Figure 2), 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.



**Figure 3. Regional Geology showing Licence Area boundary**

Beneath the QHV are the Animal Creek Greywacke and Black Harry Beds (Figure 3), a sequence of sediments defining the base of the Mt Charter Group.

### 1.3 Exploration Rationale

The tenement is underlain, at an approximate depth of between 100-300m, by the highly prospective Que-Hellyer Volcanics, and associated sequences of the Mount Read Volcanics being host to the Hellyer, Que River and Mt Charter VHMS bodies contained within mining leases over the Bulgobac lease currently held by Bass Metals Ltd.

Work during this reporting period has focussed on the 'High-Point' prospect which comprises Hellyer-style fuchsitic alteration, anomalous Zn in the hangingwall sequence, and close proximity to the basin-bounding Mt Charter Fault. The area has been drilled in the past but uncertainty exists as to whether the previous drilling has adequately tested the host sequence. Deep drill-holes are required and the first of which for this program extended to ca. 1600m to provide a thorough understanding of the stratigraphy as well as testing the prospective ore position.

## 2. WORK COMPLETED

### 2.1 Historic Mining

The earliest known exploration in the Hellyer area was prospecting carried out around 1920 leading to the discovery of alluvial gold and boulders containing zinc and lead sulphides in a creek draining the area of Que River S lens.

Modern exploration of the Que Hellyer Volcanics (QHV) was carried out almost exclusively by Aberfoyle Resources Ltd (Aberfoyle). Only deep QHV beneath Southwell Subgroup cover, west of the Murchison Highway, have been explored by other companies (CSR, Placer, BHP, Pasminco).

### 2.2 Exploration Prior to Current Licence Area

The presence of high mineralisation in the area led to an extensive exploration program by Aberfoyle Resources over a 27 year period 1970 – 1997. Results for this period have been summarised in detail by McNeill et al. (1997) and Anon (1986). Encompassing 2 exploration licences (EL19/1994 & EL10/1998) below is 2 summary tables of exploration completed from 1994 to 2003.

Period	Tenement	Company	Work Completed
1994-95	EL19/1994	Pasminco	Lithogeochemical study to define depth at which the Mixed Sequence occurs in drill holes on eastern side of Mt Charter Fault (>900m)
1995-96	EL19/1994	Pasminco	Regional aeromagnetic interpretation to try and location large alteration zones associated with Rosebery-style mineralisation
1996-97	EL19/1994	Pasminco	Refurbishment, mapping, rock chip and soil sampling of Bulgobac River grid; major data compilation as part of Western Tasmania Prospectivity Review; results from both the Bulgobac sampling and data review identified both soil and stream sediment Zn-Pb anomalies within the NW part of the grid (peripheral to and within the Tertiary Basalt areas)
1997-98	EL19/1994	Pasminco	Minor C-horizon soil, stream sediment and rock chip sampling.
1998-99	EL19/1994	Pasminco	Partial leach soil sampling over the Mt Charter

			Fault from High Point to Que Road. Results not encouraging – although there is a multi-element anomaly on line 6400N, this target does not warrant further follow-up on Pasminco's current criteria.
1999-00	EL19/1994	Pasminco	734 partial leach soil samples were collected on three grids – High Point, Que Road and North Sock Creek. This work necessitated clearing of 14.1 line-km of surveying with differential GPS (DGPS). No significant anomalies were located on the High Point or Que Road grids; the North Sock Creek data remained to be interpreted. A 50% reduction of the tenement was completed.

**Table 1. Historic Exploration EL19/1994**

EL10/98 (17km<sup>2</sup>) was granted to Pasminco Exploration for a period of 5 years as a result of a competitive tender for the former EL106/87, which was relinquished by Aberfoyle Resources on 5 February 1998. Refer to table 2 below for exploration completed during this time. The area granted to Pasminco was partially overlain by CML106M/87 (Hellyer) and 68M/84 (Que River) and access easement 10W/80; all of which at the time were held by Western Metals Resources and now held by Bass Metals Ltd.

Period	Tenement	Company	Work Completed
1998-99	EL10/1998	Pasminco	Compilation of previous exploration data, and review of potential targets based largely on structural targets defined by Aberfoyle.
1999-00	EL10/1998	Pasminco	3.6 line-km of grid cutting over the Bronco area and subsequent DGPS surveying. 133 partial leach soil samples were collected on 25m spacings.
2000-01	EL10/1998	Pasminco	Gridding and DGPS surveying of 4.6 line-km, and 175 partial leach soil samples were collected on 25m spacings.
2001-02	EL10/1998	Pasminco	It was reported that no field work was undertaken during this period.
2002-03	EL10/1998	Pasminco	No records found for this reporting period.

**Table 2. Historic Exploration EL10/1998**

### 2.3 June 2006 to June 2007 (BSM)

During 2007 Zinifex Limited selected the High Point area as Special Project Joint venture Area (SPJVA) as part of the 'Hellyer Exploration Alliance Joint Venture'. They immediately started drilling drill hole MS-1 to test for a deep Hellyer target position (Figure 4). The drill hole passed through the prospective host sequence, albeit deeper than anticipated with no significant base metal mineralisation. This drill hole was completed at 1603.6m and recorded the full geological sequence being drilled through the base of the sequence to resolve the stratigraphic framework for future targeting work. A down-hole electromagnetic survey was also completed on the hole with ongoing review of this for target generation.

## 2.4 June 2007 to June 2008 (BSM)

Zinifex Australia Limited has selected a further 3 areas, bringing the total to 4, to fill its agreed number of SPJV areas under the Hellyer Exploration Alliance (HEA) agreement. The areas are shown schematically in Figure 5. They all cover prospective portions of the Hellyer-Que River stratigraphy and include the promising early stage Switchback prospect where strong alteration and anomalous base metal sulphides were intersected during the HEA phase of exploration drilling.

Recent work has focussed on further drill-targeting in the High Point area where room exists for a Hellyer-size deposit.

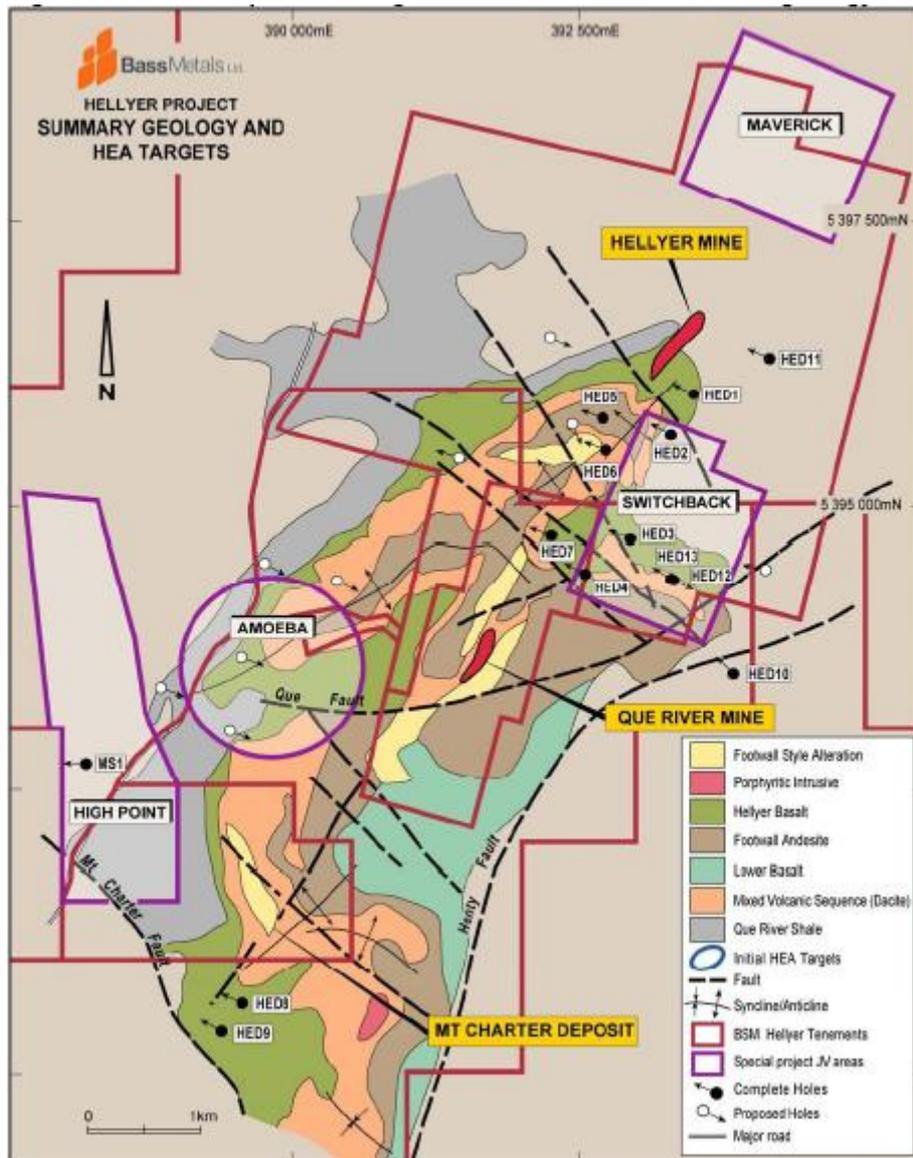


Figure 4. Schematic map of Special Project Joint Venture areas

### SPJVA Termination

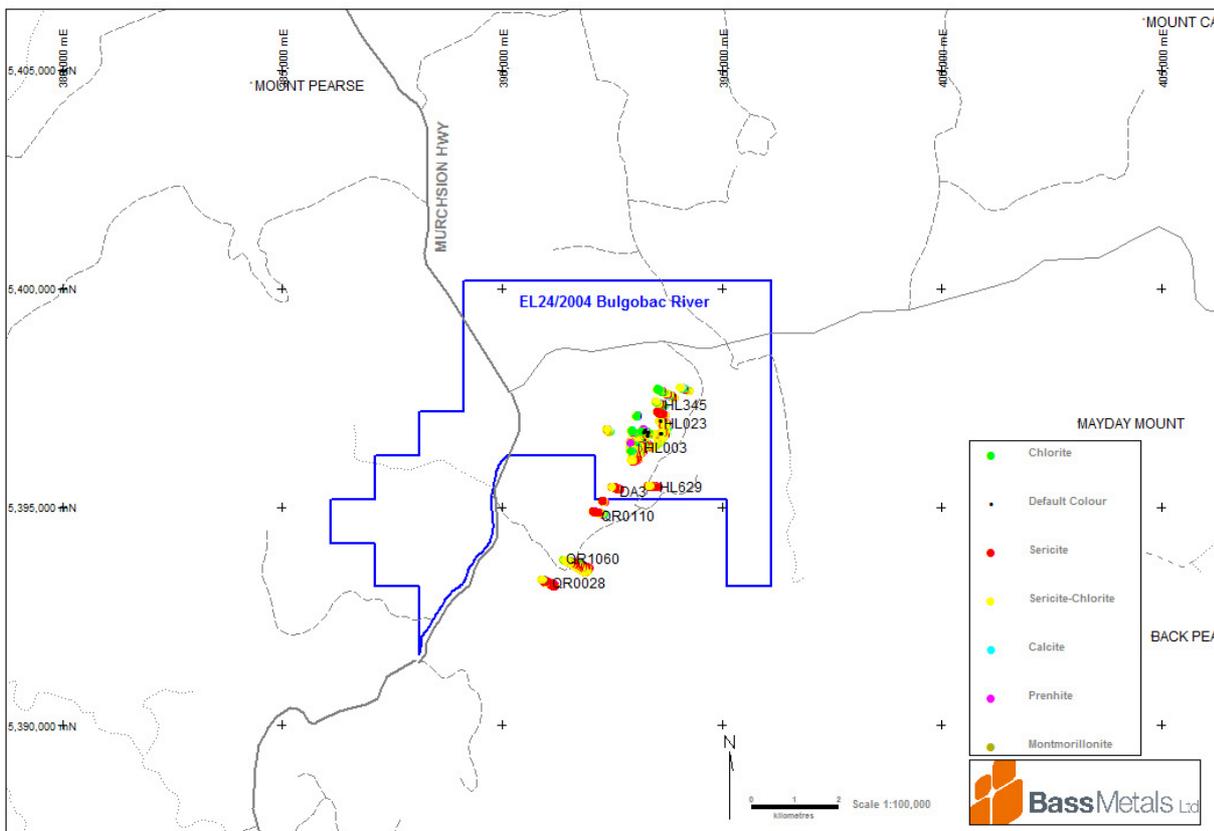
The termination of the alliance and Joint Ventures, which covered prospective targets in the Hellyer region, was by mutual agreement but initiated by OZL due to exploration budget constraints. The target areas will revert to 100% BSM control and ownership with OZL retaining no residual rights of any kind.

The Company is disappointed to lose the exploration partnership with OZL, but is excited

about following up on the target areas identified through the alliance period as it increasingly focuses its exploration and development activities on the Hellyer and Que River Mining leases.

### 2.5 June 2008 to June 2009 (BSM)

Exploration has begun on a major study of alteration along strike from the Que River operation through to Mt Charter and beyond of which the Bulgobac licence is included. A hand held ASD machine is being used on core available from specific areas to detect geochemical signatures, thus enabling the Bass Metals geologist to review the data in association with known mineralisation. To date 277 drill holes have been analysed with the ASD machine. Once all drilling has been analysed in the area the data will be processed accordingly in search of a trend for further mineralisation. (See Figure 5)



**Figure 5. Location of drill holes analysed with ASD machine to date**

### 3. PROPOSED EXPLORATION

Ongoing testing with the ASD machine to complete all drill holes within the Bulgobac River Licence. Also the deep drill hole that Zinifex completed recently will be analysed. Once the data is processed, any targets identified will then be followed up with geochemical sampling and/or drill testing.

## 4. ENVIRONMENT

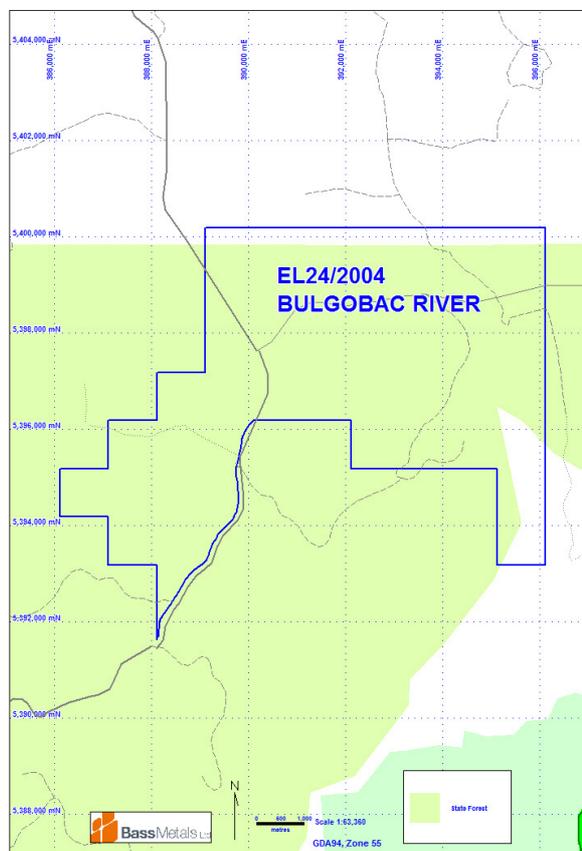
The company has environmental policies in place that minimise the impact that exploration activities have on the environment. The policies include guidelines on how to minimise the impact on the environment during track-development and how to reduce the risk of spreading plant diseases and weeds as a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

### Land Tenure

The Bulgobac Exploration Licence comprises:

- CAR Reserve System Informal Reserve
- Hydro Electric Corporation Land
- Nature Recreation Area
- Private Property
- State/Multiple Use Forest

The Environmental Activity Map in Figure 6 shows the location of the licence relative to conservation areas.



**Figure 5. Environmental Activity Map**

Refer to Appendix 1 for rehabilitation report by Zinifex, due to disturbance incurred during the drilling of diamond drill hole MS1.

## 5. EXPENDITURE

June 2008 - June 2009		
Geoscientific Costs	Geology	5,620.37
	Geochemistry	154.57
	Geophysics	
	Remote Sensing	
Drilling & Gridding Costs	Gridding	
	Drilling	
	Land Access Costs	
	Rehabilitation Costs	
	Feasibility Study Costs	
	Other Costs	
	Admin Costs	
	<b>Total - eligible</b>	<b>\$5,774.94</b>

Table 3. Expenditure 30th June 2008 to 29th June 2009  
*\*Expenditure reported is up to and including 31<sup>st</sup> March 2009*

The Bulgobac tenement is part of the Lake Mackintosh Group; the total expenditure up to the 31<sup>st</sup> March 2009 for this group is \$2,721,436.73 against a required group expenditure of \$464,016.

**Expenditure –** Reporting period \$5,774.94

Total to date \$697,942.28

**APPENDIX 1  
REHABILITATION REPORT (MS1)**