

**PASMINCO EXPLORATION**

**BULGOBAC RIVER EL 19/94**

**REPORT ON AREAS TO BE RELINQUISHED  
JANUARY 2001**

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## 1 SUMMARY

Bulgobac River EL 19/94, covering 20.6 km<sup>2</sup>, was granted to Pasminco Australia Limited in January 1995 (Figure 1). The licence is renewable annually on the 6<sup>th</sup> January and is situated on unallocated Crown Land, designated as multiple use forest. A 50% statutory relinquishment is due on 6<sup>th</sup> January 2001.

This report covers details related to the area (10.sq km) of EL 19/94 Bulgobac River that Pasminco has proposed for partial relinquishment.

Two major groups of rocks occur within EL 19/94. The first consists entirely of Tertiary basalt flows which are considered to have low prospectivity to host base metal mineralisation. The second group consists of Cambrian rocks belonging to the Mt Read Volcanics. This group can be divided into distinct packages occurring on either side of the major structure within the EL, the NNW-SSE trending Mt Charter Fault.

No significant base metal prospects are known in the area proposed for relinquishment and the geology is interpreted largely to be Dundas Group sediments and volcanoclastics west of the Mt Charter Fault (where the prospective QueHellyer volcanics are absent or are significantly thinned)

No new exploration data was collected out by Pasminco in the area that is to be relinquished, and the only work done has been the re-interpretation of earlier magnetic datasets.

## 2 INTRODUCTION

This report covers details related to the area of EL 19/94 Bulgobac River, that Pasminco has proposed for partial relinquishment.

The Bulgobac River license covers a portion of the Cambrian Mt Read Volcanics to the west and southwest of the Hellyer Mining lease (CML 103M/87) in Western Tasmania (Figure 2). The principal exploration targets sought within the licence area are Hellyer- or Rosebery-type volcanogenic Pb-Zn-Cu-Ag-Au massive sulphide deposits. The Que-Hellyer Volcanics, which host the Hellyer and Que River mines, extend into the licence area. The terrain is heavily vegetated, rugged and poorly accessible. Access into the area is provided by Forestry's Que Road and associated logging tracks, and along access tracks to drill sites, put in by CSR/Placer.

### 2.1 Attribution

The following personnel were responsible for the work carried out on the Bulgobac River relinquishment area during this reporting period:

Senior Geologist: Andrew McNeill – Pasminco Exploration Rosebery

Report Preparation: Kirsten Simpson – Pasminco Exploration Melbourne

## 3 LAND TENURE

Bulgobac River EL 19/94, covering 21km<sup>2</sup>, was granted to Pasminco Australia Limited in January 1995 (Figure 1). The licence is renewable annually on the 6<sup>th</sup> January and is situated on unallocated Crown Land, designated as multiple use forest. A 50% statutory reduction was due on 6 January 2000, however, a one year deferral of this relinquishment was granted in December 1999, and the partial relinquishment date therefore became 6<sup>th</sup> January 2001.

The area to be relinquished is shown on Figure 2 and is defined by the following coordinates (in AGD66):

Commencing at 385000mE, 5398000mN then south to 385000mE, 5394000mN, then east to 386000mE, 5394000mN, then north to 386000mE, 5395000mN, then east to 387000mE, 5395000mN, then north to 387000mE, 5396000mN, then east to 388000mE, 5396000mN then north to 388000mE, 5397000mN then east to the Murchison Highway and north along the highway to 5398000mN then west to the point of commencement.

## 4 GEOLOGY

Two major groups of rocks occur within EL 19/94 (Fig. 3). The first consists entirely of Tertiary basalt flows which are considered to have low prospectivity to host base metal mineralisation. The second group consists of Cambrian rocks belonging to the Mt Read Volcanics. This group can be divided into distinct packages occurring on either side of the major structure within the EL, the NNW-SSE trending Mt Charter Fault.

The Que and Hellyer ore bodies occur within the Mixed Sequence which is found on the eastern side of the Mt Charter Fault. The fault itself is a highly significant structure, characterised by a zone of shearing, fracture, vein and pug development up to 10m wide in places. The difference in thickness and type of Cambrian units either side of the fault may indicate that it was active as a growth fault during Cambrian times.

The dips on either side of the fault are low angle (5-45°) and are mostly towards the north west. Open folds and considerable faulting disrupt the stratigraphy on the eastern side of the fault. The thickness of the Southwell Subgroup and Que River Shale, coupled with the low angle dips on the eastern side of the fault prevent the Que Hellyer Volcanics from outcropping within the EL. They are observed at surface beyond the eastern boundary.

Volcanic units do outcrop on the western side of the Mt Charter Fault. Although these are believed to be time equivalents of the Que-Hellyer volcanics, they are not thought to be geochemical correlates (A Crawford, pers.comm. to Purvis JG, 1995).

No significant alteration or mineralisation has been identified within the EL boundaries (Lorrigan, 1995).

## 5 PREVIOUS EXPLORATION

Previous work undertaken by other companies on EL 19/94 has included geological mapping, VFL-EM, IP, CSAMT and gravity surveys conducted by CSR and DHEM, UTEM and magnetic surveys conducted by Aberfoyle. Recent work by a Placer-Aberfoyle Joint Venture included the completion of five diamond drill holes, all of which intersected the Que-Hellyer Volcanics at depth (Richardson, 1994). None of these holes contained mineralisation or significant alteration.

Pasminco's exploration on the area to be relinquished is limited to a re-interpretation of the 1985 CSR Que Road aeromagnetic data. Relevant conclusions were (from Murphy, 1997):

“The main features of this are dominated by near surface, high amplitude responses from the Tertiary Basalts, with a regional gradient that gradually builds towards the SW. Figure 4 shows a simple line interpretation of the data. There is a close correspondence between the geological boundaries and signatures and/or discontinuities in the aeromagnetics. There is little to be gleaned from the aeromagnetic signature of the Lower Palaeozoic (Fig. 4) although the southern position of the Mt Charter Fault appears to mark a gradient in the magnetic image”.

## **6 WORK COMPLETED 1999-2000 REPORTING PERIOD**

During the 1999-2000 reporting period Pasminco carried out no exploration work on the area to be relinquished.

## **7 CONCLUSIONS & RECOMMENDATIONS**

The area of EL 19/94 Bulgobac River proposed for relinquishment is considered to have low prospectivity for Rosebery or Que River/Hellyer style VHMS mineralisation. The geology is dominated by tertiary basalt, of variable thickness overlying sediments and minor volcanoclastics of the Dundas Group. No significant mineralisation or alteration is known from the area and current geological interpretations suggest that it is unlikely that any substantial thickness of Que-Hellyer Volcanics, the most likely VHMS host sequence in this area, is present in the area to be relinquished.

## **8 EXPENDITURE**

As no exploration work was carried out within the area that has been put forward for relinquishment, minimal expenditure was incurred.

## **9 KEYWORDS & LOCALITY**

### Keywords

BULGOBAC HILL, BULGOBAC RIVER, QUE RIVER, HELLYER, TULLABARDINE, GEOCHEMISTRY, MAPPING, MMI, IP, ZINC, MAFIC, VOLCANICS

### Locality

BURNIE SK55-3

## **10 REFERENCES**

- Lorrigan, A.N., 1995. Bulgobac River EL 19/94 Annual Report for the Period December 1994 - October 1995. Unpub. Pasminco Exploration Report.
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