



PASMINCO ROSEBERY MINE

PARADISE EL 13/2000

**FINAL REPORT
FOR THE PERIOD ENDING 31ST JULY 2002**

Author: A.W. McNeill

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Submitted By:

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1. SUMMARY

This report documents work undertaken within Exploration Licence 13/2000 Paradise, Northern Tasmania, in the period 8th November 2000 to 31st July 2002, the second year of this licence.

No fieldwork was completed during the current reporting period and the follow-up work recommended after the first years exploration has also not been completed. Given the lack of obvious targets, the decreased exploration resources available and a change in strategy, to exploring for targets near existing mine infrastructure, it has been decided to relinquish EL 13/2000 Paradise (Claude Road).

2. INTRODUCTION

This report documents work undertaken within Exploration Licence 13/2000 Paradise, in the period 8th November 2001 to 31st July 2002, the second year of this licence.

The tenement covers the northern extension of the Cambrian Mt Read Volcanics (MRV), and is located just to the south of the township of Sheffield (Figure 1). The principal target for exploration on the licence is Rosebery or Hellyer type Zn-Pb-Cu-Au-rich VHMS mineralisation.

Access to the tenement is straightforward with a network of sealed and un-sealed minor roads radiating from Sheffield and an extensive network of forestry tracks in the central and southern part of the tenement.

Exploration on the Paradise EL is managed and operated by Pasminco Rosebery Mine, a division of Pasminco Australia Limited (Pasminco).

2.1 Attribution

The following personnel were responsible for the work carried out within the Paradise licence area during the reporting period:

Senior Geologist Andrew McNeill – Pasminco Rosebery Mine

3. LAND TENURE

EL 13/2000 Paradise (180 sq km) was granted to Pasminco on 8th December 2000 for a period of 5 years. The location of the tenement is shown on Figure 1. EL 13/2000 covers land that fell vacant on the relinquishment of RGC's EL 15/92 in September 1995 and Plutonic's EL 10/88 in July 1993.

The land covered by EL 13/2000 is predominantly private land with scattered areas of Crown Land with a range of classifications including; state/multiple use forest, Conservation Area (Mt Roland and Dasher Falls), Regional Reserve (Mt Roland), Forest Reserve (Lizard Hill and Promised Land), Nature Recreation Area (Lake Barrington) and HEC Land. All these tenures are available for mineral exploration under the Mineral Resources Development Act 1995.

Land unavailable for exploration comprises 3 gravel and stone mining leases (ML's 1657P/M, 1202P/M and 24M/2000) and totalling some 38 ha in area.

4. GEOLOGY

The regional geology of EL 13/2000 is described on the Sheffield 1:63,360 geological map sheet and explanatory report (Jennings et al., 1959; Jennings, 1979). Although establishing the overall regional geology, the description and sub-division of the Cambrian – Ordovician sequences is now dated and new geological coverage at 1:25,000 has been initiated by MRT. At the time of writing the Wilmot and Gog sheets (McClenaghan and Green, 1999; McClenaghan et al., 2001) covering the western and southern parts of the tenement, respectively, have been completed.

The regional geology of the Mt Read Belt (MRB) can be subdivided, from an exploration perspective, into three elements; the central MRB, covering the area of outcrop from south of Queenstown to north of Hellyer, the northern MRB covering the area from Back Bluff eastwards through Gowrie Park and Mole Creek, and the Southern MRB comprising areas west and south of Macquarie Harbour. EL 13/2000 is in the central and eastern part of the northern MRB.

Basement in the Central and Northern MRB is of Precambrian age, comprising predominantly greenschist facies meta-sediments with minor basalts and dolerites. Higher-grade amphibolite and eclogite facies meta-sediments and meta-basalts are also present within the Precambrian. This Precambrian basement, termed the Tyennan Block, lies to the south of the Paradise licence.

Cambrian volcanism and sedimentation developed on the Precambrian continental crust and, in the Central MRB, is subdivided into the Eo-Cambrian tholeiitic Crimson Creek Formation (CCF), the mid to late Cambrian Dundas Group and the predominantly calc-alkaline, Mt Read Volcanics (MRV).

The CCF was deposited in shallow but rapidly subsiding basins comprising basaltic lavas and volcanoclastics, turbidites, carbonates, chert and minor evaporites. This formation is not exposed in the licence area. Ultramafic cumulates and volcanic equivalents were thrust onto the CCF in the mid Cambrian. They are also absent from the licence area.

The MRV, in the Central MRB, form a 200 km long by 20 km wide north-south trending belt along the eastern side of the Dundas Trough, adjacent to and in some areas overlapping and intruding the Precambrian basement. The northern extension of the MRV swings eastwards around the northern margin of the Precambrian Tyennan block. The volcanics include intermediate to felsic lavas, sub-volcanic porphyries, volcanoclastics and basement-derived sedimentary rocks. The MRV host five economically significant volcanic hosted massive sulphide deposits all of which lie in the Central MRB.

During late MRV time Cambrian granitoids intruded the volcanic pile. The majority of the granitoids occur along the eastern margin of the volcanics and stitch the volcanics to the Tyennan Nucleus.

Cambrian volcanism and sedimentation was followed by predominantly basement derived late Cambrian to Devonian age sedimentation, which includes siliciclastic conglomerate, sandstone and limestone. These sequences occur within and peripheral to

the licence.

At least two phases of regional compression were associated with the mid Devonian Tabberabberan Orogeny. The development of folding, cleavage and regional thrusts in lower Palaeozoic rocks were associated with this event. Fold trends in the licence area are approximately E-W.

Deformation was followed by the extensive intrusion of Devonian to Carboniferous granitoids of batholithic proportions. One such intrusion, the Dalcoath Granite, and associated hornfels aureole, outcrop south west of the licence. Note that the Devonian granitoids near Beulah, shown on Jennings et al (1959), are now considered to be Cambrian. The Devonian granites are associated with carbonate replacement Sn mineralisation at Renison Bell and Mount Bischoff, and the Pb-Zn-Ag vein deposits of Zeehan and possibly the Tullah Fields. A similar setting may be interpreted for the base metal vein deposits in the Round Hill workings on the adjacent EL 3/1998 Lake Barrington.

The Ordovician and older rocks in the eastern part of the licence are unconformably overlain by marine sediments, including tillite, forming the basal units of the Permian Parmeener Supergroup. Small bodies of Jurassic dolerite intrude the Permian sediments and older rocks.

After substantial erosion of this terrane, extensive Tertiary flood basalts and sub-volcanic sediments were deposited. Basalt flows cover much of the northern and central part of the licence. In the Quaternary, talus deposits have developed on the lower slopes of Mt Roland and alluvial deposits have formed in the valley of the Dasher and Minnow Rivers. These Cainozoic deposits cover a considerable area and conceal much of the lower Palaeozoic geology of the Paradise tenement.

5. PREVIOUS EXPLORATION

Seven companies have held the area of EL 13/2000 Paradise over the last 35 years and the majority of their work has concentrated on individual prospects rather than a regional approach (Figure 2). Work has been concentrated on nine prospect areas and has been summarised in detail by Denwer and McNeill (2001).

Work completed by Pasminco in the 1.5 years since the granting of EL 13/2000 has included:

- A review of all previous exploration and digital capture of assay and drill hole data where possible.
- 1:10,000 scale geological mapping of the majority of the tenement.

The review and mapping failed to resolve the key issue of exploration for classic western Tasmanian VHMS; “where is the top of the CVC?” on the Paradise tenement. Further mapping, geochemistry and the interpretation of regional airborne magnetics and radiometrics were recommended to attempt to resolve this problem and define areas for detailed exploration on the licence.

6. WORK COMPLETED 2001-2002 REPORTING PERIOD

No Fieldwork, apart from a 1 day reconnaissance visit with MRT geologists, was completed in the period November 2001 to 31st July 2002. The further mapping, geochemistry and interpretation of regional geophysical datasets, as recommended by Denwer and McNeill (2001), were not completed.

7. CONCLUSIONS & RECOMMENDATIONS

No fieldwork was completed by Pasminco on EL 13/2000, Paradise (Claude Road), in the period November 2001 to 31st July 2002. The lack of fieldwork was a direct result of a severely reduced resources and exploration budget, culminating in August 2001, with the disbanding of the Exploration Division and the transfer of responsibility for district exploration to Rosebery Mine.

Previous exploration has failed to locate any high priority targets for follow-up on EL 13/2000 Paradise and the work completed by Pasminco has not demonstrated that the target “top of the CVC” position is present in the licence area. This, combined with reduced exploration resources and a trend to refocus Pasminco’s exploration effort in Tasmania on targets closer to existing mining infrastructure, has led to a recommendation that the tenement be relinquished.

8. EXPENDITURE

Expenditure on EL 13/2000 during the 9 month period ending 31 July 2002 was \$4,857. A detailed breakdown of this expenditure is presented below.

Personnel	1,393
Travel & Accommodation	0
Consultants & Contractors	0
Geological Consultants	0
Geochemical Consultants & Assays	0
Geophysical Surveys & Contractors	0
Drilling	0
Stores & Supplies	0
Vehicles Plant & Equipment	0
Land	2,836
Computing	0
Office	187
Administration Fee	441
Total Tenement Expenditure	\$4,857

9. KEYWORDS & LOCALITY

Keywords

COPPER, ZINC, LEAD, GOLD, ANDESITE, RHYOLITE, VOLCANICS, FAULT, SHEAR ZONE, FOLD, PYRITE, CHLORITE, SERICITE, GEOCHEM SOIL, GEOL MAPPING DETAILED, GEOPHYS MAGNETICS, ALTERATION, ORE POTENTIAL, NORTHERN MT READ VOLCANICS, BEULAH BARITE, JEDYN, MT ROLAND, STONEBRIDGE.

Locality

1:250,000	BURNIE SK55-3
1:100,000	FORTH 8115
	MERSEY 8114
1:25,000	CETHANA 4240
	WILMOT 4241
	GOG 4440
	SHEFFIELD 4441

10. REFERENCES

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