

PASMINCO EXPLORATION

MT SALE EL 14/98

**PARTIAL RELINQUISHMENT REPORT FOR THE PERIOD
ENDING 11TH AUGUST 2001**

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CONTENTS

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1. SUMMARY.....	1
2. INTRODUCTION	2
3. LAND TENURE	2
4. GEOLOGY	2
5. PREVIOUS EXPLORATION.....	4
6. WORK COMPLETED 1998-2001.....	5
7. CONCLUSIONS AND RECOMMENDATIONS	5
8. EXPENDITURE.....	5
9. KEYWORDS AND LOCALITY	5
10. REFERENCES.....	6

LIST OF TABLES

Table 1	Summary of Previous Exploration
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LIST OF FIGURES

<i>1498_200107_03_Fig1.pdf</i>	Tenement Location Map - EL 14/98
<i>1498_200107_04_Fig2.pdf</i>	EL 14/98 Mt Sale, relinquishment diagram
<i>1498_200107_05_Fig3.pdf</i>	Mt Sale EL 14/98 Regional geology

1. SUMMARY

This report details exploration completed on the 21 sq km (as shown on Fig. 2) of the Mt Sale licence (EL 14/98) relinquished in August 2001.

Work completed by Previous explorers is summarised. No exploration was completed by Pasminco on the area of EL 14/98 to be relinquished.

2. INTRODUCTION

This report details previous exploration activities on the 21 sq km of the Mt Sale (EL14/98) tenement proposed for relinquishment in August 2001 (see Figure 2 for location of area). No exploration work has been completed by Pasminco on this area during the life of the current licence.

3. LAND TENURE

Mt Sale EL 14/98 covers an area of approximately 39 square kilometres immediately to the east and north of the Rosebery Mine Lease (28M/93), Figure 1. The tenement was granted to Pasminco Australia Ltd. on 10th October 1998 for a period of five years and due to expire in September 2003. The Mt Sale tenement area has been previously held under a number of other exploration licences which include Mt Black EL 1/62 and EL 12/88. The western boundary of the tenement overlaps with the Rosebery Mine Lease Extension (28M/93) and the eastern margin abuts Goldfield's EL 3/2001 (previously Pasminco's Tullah EL [22/90]).

The area proposed for relinquishment is shown in Figure 2 and is defined by the following coordinates (in AGD66):

Commencing at 5381000mN, 380,000mE then south to 5379000mN, 380,000mE, then east to 5379000mN, 382000mE, then south to 5373000mN, 382000mE, then east to 5373000mN, 383000mE, then north to 5375000mN, 383000mE, then east to 5375000mN, 384000mE, then north to 5378000mN, 384000mE, then east to 5378000mN, 385000mE, then north to 5381000mN, 385000mE then grid west to the point of commencement.

4. GEOLOGY

The Mt Sale tenement covers an area of lower Cambrian Central Volcanic Sequence rocks, which form part of the central north-south trending axis of the Mt Read Volcanic belt (MRV), Figure 3. The western edge of the tenement is situated to the east the Rosebery mine sequence, while the eastern margin of the licence lies west of the NNE trending Henty Fault. The Mt Sale licence is centred on the Mt Black Volcanics which form the central axis of the MRV in the Rosebery area. The Henty Fault separates the Mt Black Volcanics from a sequence of west-dipping and facing fine interbedded sediments and black shales - the Farrell Slates which outcrop to the east of the fault. Stratigraphically below and east of the Farrell Slates are the rhyolitic to dacitic Murchison Volcanics, which form part of the Eastern Quartz-Phyric Sequence of McNeill & Corbett (1992). These rocks are comprised of felsic/intermediate lavas, sills and volcanoclastics and are intruded by the chemically similar Cambrian Murchison

Granite. Unconformably overlying this Cambrian volcanic succession is the Ordovician Owen Conglomerate.

Geology of the Mt Sale licence is dominated by the Mt Black Volcanics, a thick sequence of mafic to intermediate dacite and andesite lavas, lava breccias and related intrusions which are separated by relatively minor horizons of fine to coarse grained volcanoclastic sediments. Lying along the eastern flank of Mt Black, in the Sterling Valley/Lake Rosebery area, there is an enigmatic wedge of west facing basaltic lavas, mass flow breccias, minor clastic sediments and basaltic to dacitic sills - collectively referred to as the Sterling Valley Volcanics (Allen 1995). This sequence is at least 500m to 1km thick and consists of medium to high K, high alumina arc suite mafic volcanics (Allen 1995). Allen interprets this succession of intrusive basaltic sills and transported volcanic debris flows which make up the Sterling Valley Volcanics to be deposited sub-aqueously, as part of either a major mafic volcano or series of mafic volcanoes. The Sterling Valley Volcanics comprise a relatively minor portion of the Mt Sale Licence.

The Sterling Valley Volcanics and Mt Black Volcanics are interpreted to be in primary stratigraphic position, with the Sterling Valley Volcanics dipping and younging to the west under the Mt Black Volcanics Allen (1995). The regional significance of this relationship is that the Sterling Valley Volcanics probably represent a structural relic of a large marine mafic volcano which was active in the early volcanic history of the MRV and is probably the lowest exposed stratigraphic level in this area.

The Mt Black Volcanics structurally overlie the Rosebery mine sequence, east of the Rosebery orebody. They have strong chemical similarities to the feldspar-phyric pumice breccias in the Rosebery Footwall sequence and have therefore have been correlated with them by a number of authors. The most significant difference between the Mt Black Volcanics/Rosebery mine Footwall sequence and Host/Hangingwall sequence is the absence of volcanic quartz in both the Footwall or Mt Black Volcanic sequences. The contact between the Rosebery Hangingwall and Mt Black Volcanics dips to the east at 45 degrees sub parallel to the Rosebery Fault. This contact is interpreted to be a thrust fault (the Mt Black Fault) which has placed the Mt Black Volcanics west over the Rosebery Mine sequence.

5. PREVIOUS EXPLORATION

The area of the Mt Sale tenement to be relinquished has previously been explored under the Mt Black EL 1/62 held by the Electrolytic Zinc Co. of Australasia and various JV partners between 1962-1988, and Mt Black EL 12/88 between 1988-1995 (Austmin Resources/Climax Mining JV and Austmin Resources/Pasminco Australia Ltd JV). Table 1 provides a summary of important work undertaken specifically within the area to be relinquished.

Table 1: Summary of Previous Exploration

YEAR	COMPANY	WORK COMPLETED
1979 Mill (1979)	EZ-Getty	<ul style="list-style-type: none"> Griding, geological mapping, soil and stream sed. geochemistry magnetics and Gradient array IP; anomalies located not high order, but, recommended follow-up.
1979 (Howland-Rose (1979)	EZ-Getty	<ul style="list-style-type: none"> Dipole-dipole IP - Mt Black, Mt Sale areas
1979-1980 Mill et al. (1980)	EZ-Getty	<ul style="list-style-type: none"> Geological mapping - Mt Sale area
1980-1981 McDonald (1982)	EZ-Getty	<ul style="list-style-type: none"> Pitting and geochemical sampling over IP anomalies; confirm low tenor of original soil geochemistry.
1983-1984 Fitzgerald et al (1984)	EZ-Getty	<ul style="list-style-type: none"> DIGHEM III and magnetic survey over entire area; weak anomalism in Mt Sale area.
1985-1986 Randell et al (1986)	EZ-Billiton	<ul style="list-style-type: none"> Griding, BCL stream seds., blanket UTEM; located UTEM anomalies in Mt Sale area; followed-up by mapping and rock chip and soil sampling; one sample with 6.6 g/t Au in a dyke; follow-up failed to provide encouragement and no further work recommended. In Mt Black area follow-up included rock and soil sampling and mapping, again without encouraging results.
1990-1991 Purvis (1991)	Pasminco- Austmin JV	<ul style="list-style-type: none"> Heli-borne magnetic and semi-regional gravity surveys and initial interpretation
1991-1992 Purvis (1992)	Pasminco- Austmin JV	<ul style="list-style-type: none"> 3 additional gravity traverses on the east flank of Mt Black

6. WORK COMPLETED 1998-2001.

No work, apart from the digital compilation of some previous exploration data, has been completed by Pasminco Exploration on the area proposed for relinquishment.

7. CONCLUSIONS AND RECOMMENDATIONS

A review of the eastern part of EL 14/98 Mt Sale has indicated that:

- there are no known historical base metal workings or prospects
- previous exploration, including UTEM, airborne EM, mapping and total digest soil sampling, have failed to locate any anomalies worthy of follow-up
- the geological setting, largely massive lava and intrusives, with lesser monomict breccias and minor fine grained volcanogenic sediments of the Central Volcanic Complex (Gifkins, 2001), is not conducive to the formation of large tonnage VHMS deposits of the Rosebery or Hercules type.

In view of these considerations it is recommended that the eastern part of EL 14/98 Mt Sale (as shown on Figure 2) be relinquished.

8. EXPENDITURE

No Expenditure has been attributed to the 21 sq km of the Mt Sale Licence (EL 14/98) proposed for relinquishment.

9. KEYWORDS AND LOCALITY

Keywords

Mt Sale, previous exploration

Locality

1:250K SK55-NW-SW

1:100K Sophia 8014

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