Bass Metals Ltd.

ABN 31 109 933 995

NORTH ROSEBERY PROJECT
(NORTH ROSEBERY GROUP)
TASMANIA
EL54/2004

FINAL REPORT
10TH AUGUST 2009 TO 17TH MARCH 2010

Tenement Manager/Holder 75%
Bass Metals Ltd.
16Thelma Street
West Perth, WA, 6005

Tenement Holder 25%
Clancy Exploration Ltd.
57 Havelock Street
West Perth, WA, 6005

Geologist:
Kim Denwer
Exploration Manager
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
Clancy Exploration

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.

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

ABSTRACT

Bass Metals Ltd (BSM) commenced management of the North Rosebery exploration licence (EL54/2004) on 10 August 2005. There has only been minimal work conducted on the licence for this final reporting period.

Expenditure – Reporting period $13,982.67

Total to date $201,233 (MRT required expenditure = $139,866)

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

This report is a summary of the exploration activities conducted on the North Rosebery exploration licence, EL54/2004 (Figure 1), for the period 10 August 2009 to 16 March 2010. The North Rosebery licence is subject to an exploration joint venture agreement between Bass Metals Ltd (BSM) and Clancy Exploration Ltd. BSM has managed this licence for the past 4 ½ years from a base at the Hellyer Mine site.

The tenement is located in western Tasmania and is dominated geologically by the Cambrian Mt Read Volcanics (MRV) with minor Cambro-Ordovician Owen Group sediments.

The MRV belt is host to a number of large volcanic-hosted massive sulphide deposits (VHMS) in Tasmania, including the Rosebery, Hercules, Hellyer and Que River deposits. The North Rosebery licence is located approximately 5km along strike from Zinifex Ltd's operating Rosebery Mine.

Exploration at North Rosebery is targeted at Cambrian (VHMS) deposits.

1.1 Location and Access

The North Rosebery tenement covers a total area of 56 km^2. The townships of Rosebery and Tullah are just outside the tenement area. The licence is located on the Sophia 1:100,000 scale LTIS map sheets.

The exploration licence area can be accessed via the Murchison Highway and the Pieman Road and encompasses parts of Lake Rosebery, includes the Bastyan Dam and the Farrell Tramway. A network of largely unsealed Hydro Electric Commission roads run off the Pieman Road providing further access throughout the area.

Topographically the area is rugged containing river gorges and steep rainforest covered mountain slopes (including Mt Black).

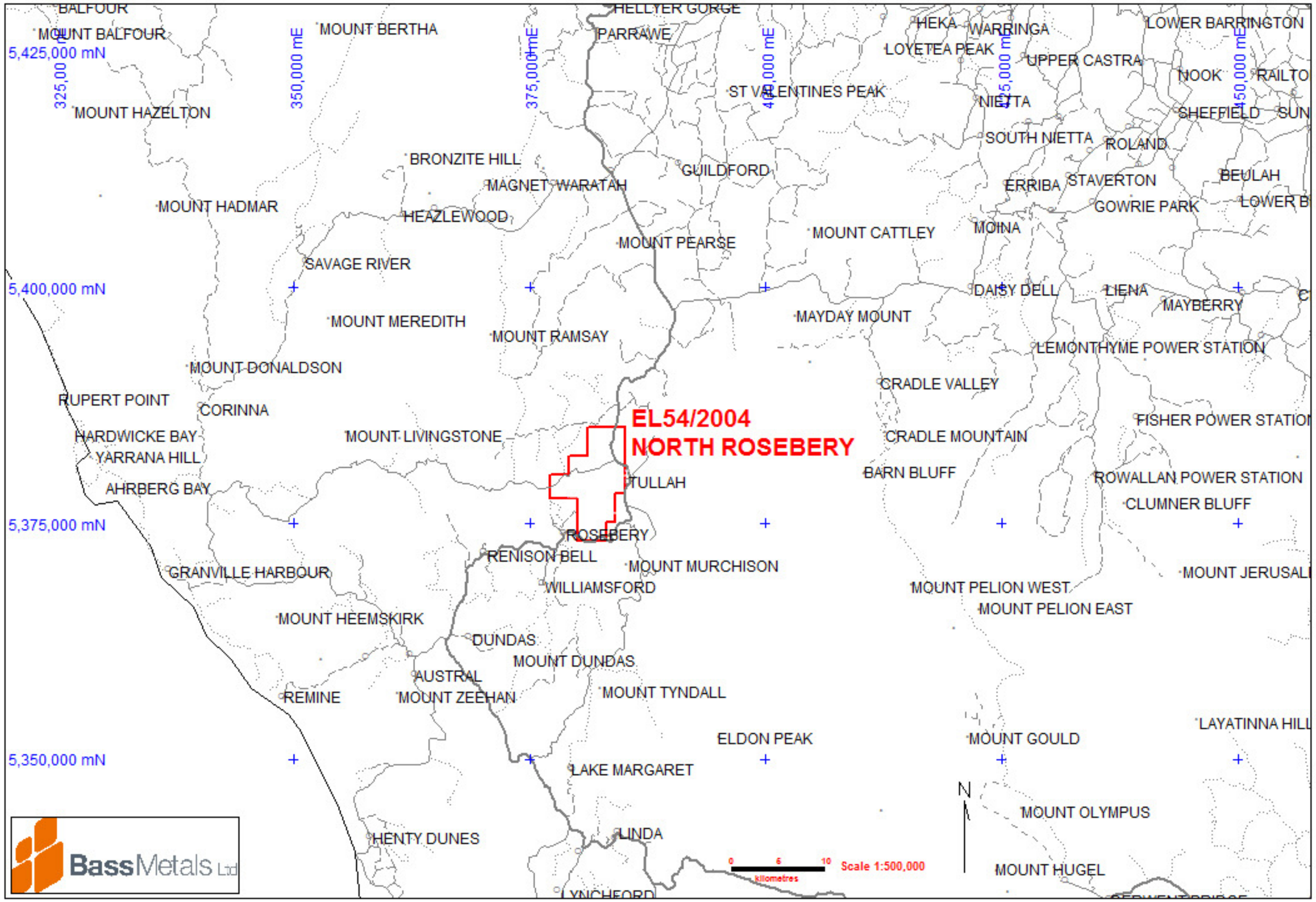


Figure 1. North Rosebery Exploration Licence (EL54/2004) is located in western Tasmania.

1.2 Geology Overview

Geologically the licence covers a portion of the central Cambrian (MRV) belt between the Henty Fault to the east and the Rosebery Fault to the west. A small portion of the tenement contains sediments of the Cambro-Ordovician Owen Group. Refer to the Regional Geology Map in Figure 2.

1.2.1 The Mount Read Volcanics

The MRV are a belt of volcanic, volcaniclastic and sedimentary rocks of Mid-Cambrian age. The belt hosts Tasmania's world-class polymetallic VHMS deposits (ie. Rosebery, Hercules, Hellyer & Que River). The North Rosebery licence occurs along strike to the north from the Rosebery deposit and is mapped as containing the northern continuation of the Rosebery stratigraphy. The Central Volcanic Complex (CVC) is host to the Rosebery and Hercules mineral deposits and in the mine areas is subdivided into four units: the footwall pyroclastics, the host rocks, the hangingwall epiclastics and the upper lava-rich sequence (Mt Black Volcanics). Major N-S trending fault zones including the Rosebery Fault, Mt Black Fault and Henty Fault, cut the MRV in the licence area.

Central Volcanic Complex

The CVC is dominated by proximal volcanic rocks (rhyolite and dacite flows, domes and cryptodomes and massive pumice breccias) and andesite and rare basalt (lavas, hyaloclastites and intrusive rocks) deposited in a marine environment (Seymour et al., 2006).

The Footwall Pyroclastics

The Footwall Pyroclastics consist of a uniform sequence of feldspar porphyritic, vitric-crystal lapilli tuffs which lie below the ore horizon at both the Rosebery and Hercules deposits (Smith & Huston, 1992).

The Host Rocks

The Host Rocks unit at Rosebery and Hercules consists predominantly of sericitic siltstone with minor crystal tuffs, bedded carbonates and up to 30m of pyritic black shale. The Host Rocks and black shale represent a period of quiet sedimentation (Smith & Huston, 1992).

The Hangingwall Epiclastics

This unit disconformably overlies base metal mineralisation and the black shale of the host rocks unit. It contains some inclusions of black shale.

The Mt Black Volcanics (lava-rich sequence)

The overlying Mt Black Volcanics predominantly consist of massive lavas of dacitic to andesitic composition with volcaniclastic units throughout.

Western Volcano-Sedimentary Sequence (Dundas Group)

This unit is coeval with the CVC 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).

1.2.2 The Owen Group

The Owen Group is Cambrian to Ordovician in age and sits unconformably on the MRV. The unit typically includes large volumes of coarse siliclastic conglomerate composed dominantly of metaquartzite clasts derived from the Tyennan Metamorphics. It also includes turbidite and shallow marine sandstone units (Seymour *et.al.,* 2006). It is not likely to host any exhalative styles of mineralisation such as Taylor and Mathison (1990) report for the younger Gordon Group. However, it could potentially host mineralisation associated with intrusion of Late Devonian–Early Carboniferous granitoids.

1.3 Exploration Rationale

EL54/2004 is along strike from the Rosebery Mine; previous and recent exploration on the licence has identified base metal soil anomalism and encouraging base metal drill intercepts.

Target generation by Geoinformatics has highlighted VHMS style targets within the licence that had not been adequately tested.

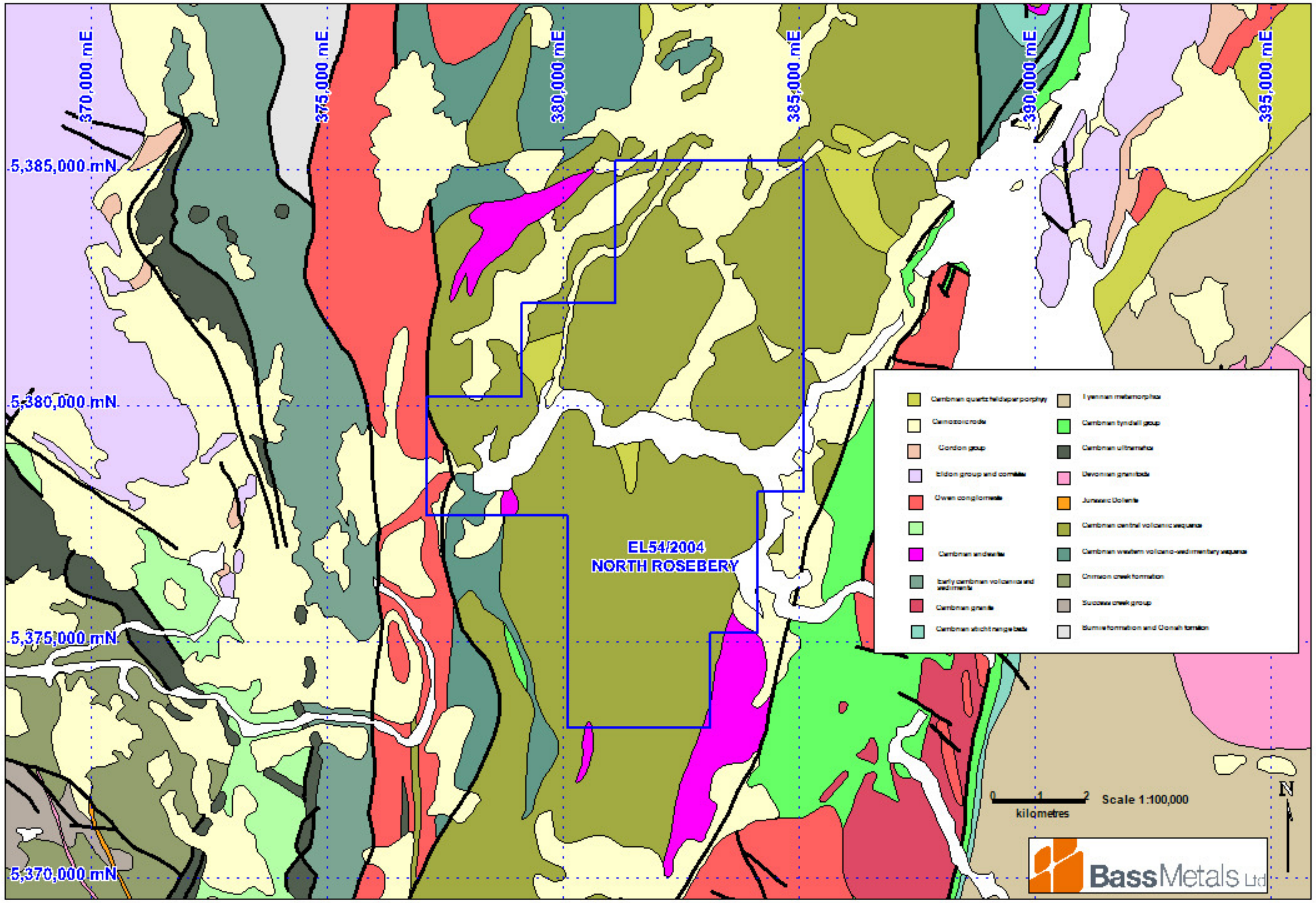


Figure 2. Regional geology showing licence area boundary

2. REVIEW OF PREVIOUS WORK - Prior to current tenement;

2.1 Historical Mining

Only small scale historic mine workings are recorded within EL54/2004 North Rosebery but the licence area lies 5km to the northeast of the Rosebery Mine and less than 5km south of the historic Chester Pyrite Mine. Historic workings on the tenement include Langdons Mine, Hawkesbury Mine, Cutty Sark and Cutty Sark Consols.

Pre-mining resources of base metal deposits at:
Rosebery (32.7Mt @ 14.5% Zn, 4.4% Pb, 0.58% Cu, 145g/t Ag & 2.2g/t Au),
Hercules (3.33Mt @ 17.3% Zn, 5.5% Pb, 0.4% Cu, 171g/t Ag & 2.8g/t Au) and
South Hercules (0.56Mt @ 3.7% Zn, 1.9% Pb, 0.1% Cu, 157g/t Ag & 3g/t Au; Seymour et al., 2006).

2.2 Previous Exploration

The Rosebery Zn-Pb-Ag-Au deposit was discovered in 1893 by prospector Tom McDonald and the area surrounding it has been explored since that time. Modern exploration of the North Rosebery EL54/2004 licence area commenced in the 1970's.

Although numerous historical exploration licences have covered the current area of EL54/2004 the majority of historic exploration has focused on Hercules, Rosebery, and Chester. A summarised version of the exploration history on the licence is given below and for a more detailed summary the reader is referred to Kirsner (1992), McNeill & Wallace (1988) & Parfrey & McNeill (2000):

Date: 1972-1975
Company: Electrolytic Zinc Company of Australasia Ltd
Exploration Philosophy: Targeting VHMS deposits and exploring Rosebery & Hercules mine trends.
Work Completed: Licence along strike both north and south from the Rosebery mine. Geochemistry, geophysics, geological mapping & diamond drilling.
Results and Conclusions: Concluded that the mine stratigraphy continues several kilometres north and south of Rosebery.
Report: Reinhardt, 1972. Williams, 1975.

Date: 1986
Company: Billiton Australia
Exploration Philosophy: Targeting base metal deposits.
Work Completed: Geological mapping, ground geophysics, rock chip samping & auger soil geochemistry. Work at Langdons and Cutty Sark and Mt Black.
Results and Conclusions: Auger Pb-Zn anomalies defined at Langdons.
Report: Randell, J.P., Purvis, J.G. & Hungerford, N., 1986.

Date: 1988
Company: Aberfoyle Resources Ltd
Exploration Philosophy: Targeting VHMS deposits
Work Completed: Diamond drilling of hole M02 to test a deep CSAMT and UTEM conductor.
Results and Conclusions: No significant results.
Report: McNeill & Wallace, 1988.

Date: 1988- 1989
Company: Climax Mining Ltd
Exploration Philosophy: Targeting base metal deposits.
Work Completed: Auger soil sampling, minor ground magnetics & four diamond drill holes (MBD1-MBD4) to test Billiton UTEM anomalies.
Results and Conclusions: No significant mineralisation intersected but continued exploration around Cutty Sark recommended.
Report: Hine & Scott, 1989.

Date: 1987- 2000
Company: Pasminco Exploration
Exploration Philosophy: Targeting base metal deposits.
Work Completed: Auger soil sampling, geological mapping, downhole geophysics, surface geophysics & diamond drilling.
Results and Conclusions: Low grade Zn intersected at Chester and alteration zone interpreted to extend SW from Chester Mine. Results from Pinnacles, Burns Peak and Farrell included. Lots of data presented and numerous anomalies defined.
Report: Lorrigan, 1990. Kirsner, 1992. Fitzgerald, 1993. Parfrey & McNeill, 2000.

3. DURING CURRENT TENEMENT;

3.1 2005 – 2006 (BSM)

This section reports on exploration conducted between 10th August 2005 and the 9th August 2006 by BSM and Geoinformatics. Initial work undertaken has consisted of collating previous exploration information in the area as well as acquiring datasets that may be of assistance in targeting VHMS and intrusion-related mineral deposits. The MRT topographic, geophysical and 1:100,000 scale digital geological map series were used as base maps for presenting other historical company datasets. Previous exploration company reports in PDF format were downloaded from the Mineral Resources Tasmania website.Initial site visits were conducted throughout the tenement area during which time 13 rock chip samples were collected from road cuttings.

Geoinformatics Geological Modelling & Targeting -
BSM utilized Joint Venture partners, Geoinformatics to compile a 3-dimensional spatial database (GIS).

The Geoinformatics process involves the efficient capture of historical data in proprietary Geoinformatics database and software systems (eg IFS & FracSIS). Proprietary software and methods are then used to generate 3-dimensional geological models and targets (Monte Carlo Ranking). The North Rosebery work is part of a larger 'Intervention Project' called the MRVIP (Mount Read Volcanics Intervention Project – Stage 1b). The Stage –1b Project focuses on all of BSM 13 regional licences.

The Stage 1b Project attempts to incorporate Geoinformatics understanding of the three dimensional controls on world class VHMS mineralization to rapidly provide BSM with high-quality targets in the North Rosebery tenement for rapid drill testing and other areas for follow-up field work including soil type geochemistry.
Much of the data for the project was obtained from open file reports. A data audit of 1,300 reports was completed by Dan Core, Graeme Cameron, Neville Panizza and Helen Ly. Work on the Stage 1b Project commenced in early February 2006 and was largely complete by July 2006. A target workshop with alliance personnel was held at Hellyer in July 2006 and final targets were delivered in August 2006. A summary Geoinformatics report was included in the report for the period (10/8/05-9/8/06)

At North Rosebery, Geoinformatics targeting has generated three Rosebery-Hellyer VHMS style targets on the licence (Figure 5). Review of open file data has also identified several historic IP conductors that have not been tested.

Geological Site Visit & Rock Chip Sampling -
An initial site visit to the North Rosebery licence by BSM and Geoinformatics staff occurred in July 2006 with a follow-up visit by BSM staff in August 2006.

During the site visits a cross section through the stratigraphy was traversed from Owen Group sediments in the west, through Rosebery Shale and into variably altered volcaniclastics. The contact between the Rosebery Shale and altered volcaniclastics exposed in road cuttings along the Pieman Road, is considered the equivalent stratigraphic horizon to that of base metal mineralisation at the Rosebery Mine located 5km to the south (the Host Rocks unit).

During these site visits thirteen selective rock chip samples were collected (NR001 – NR013), and sent to the Burnie Assay Laboratory for multi-element assay (Cu, Pb, Zn, Ag, As, Sb, Tl, Fe% & Au.

Two samples returned anomalous results. Sample NR1 of pyritic altered volcaniclastic assayed 1.3% Pb, 0.3% Zn, 136g/t Ag & 0.14g/t Au while sample NR2 of a quartz vein within volcaniclastic assayed 4.2% Zn & 10g/t Ag.

3.2 2006 – 2007 (BSM)

This section reports on exploration conducted between 10 August 2006 and the 9 August 2007 by BSM and Geoinformatics.

Drill program planning -
Work in this area was focussed upon establishing the stratigraphy of the area and designing a drill program to confirm stratigraphic position and test the Rosebery ore position if interpreted within the project area. Two holes may be required, with the first being an orientation hole to establish the stratigraphic position and test the IP anomalies, and the second to hone in on the Rosebery ore-position based on data derived from the 1st hole.

Long Projection preparation -
A long projection was prepared along Rosebery Mine Grid, to show where Zinifex's current deep drilling / new Y Lens are located, with respect to the North Rosebery tenement boundary; determining possible extension of mineralisation within the North Rosebery tenement.

Soil sample program planning -
Following from initial positive rock chip sample results taken in July 2006 and further field checking of the North Rosebery project the following program of work is recommended.

Soil sampling along 200m spaced East – West oriented lines with 50m spacing between the Bastyan Dam and historic 200m spaced Pasminco sampling. Pasminco soil sampling identified only patch Zn anomalism North of the Pieman Road. This soil sampling covered the area of pyrite altered volcaniclastics (anomalous rock chip sample) and the region of IP anomalism. Historic stream sediment sampling does not appear to have been successful in this area. Parts of this area was not accessible due to Hydro infrastructure and Emu Bay Railway infrastructure. Sampling on 6 lines for a total of 115 samples was completed. Refer to appendix 2 for assay results.

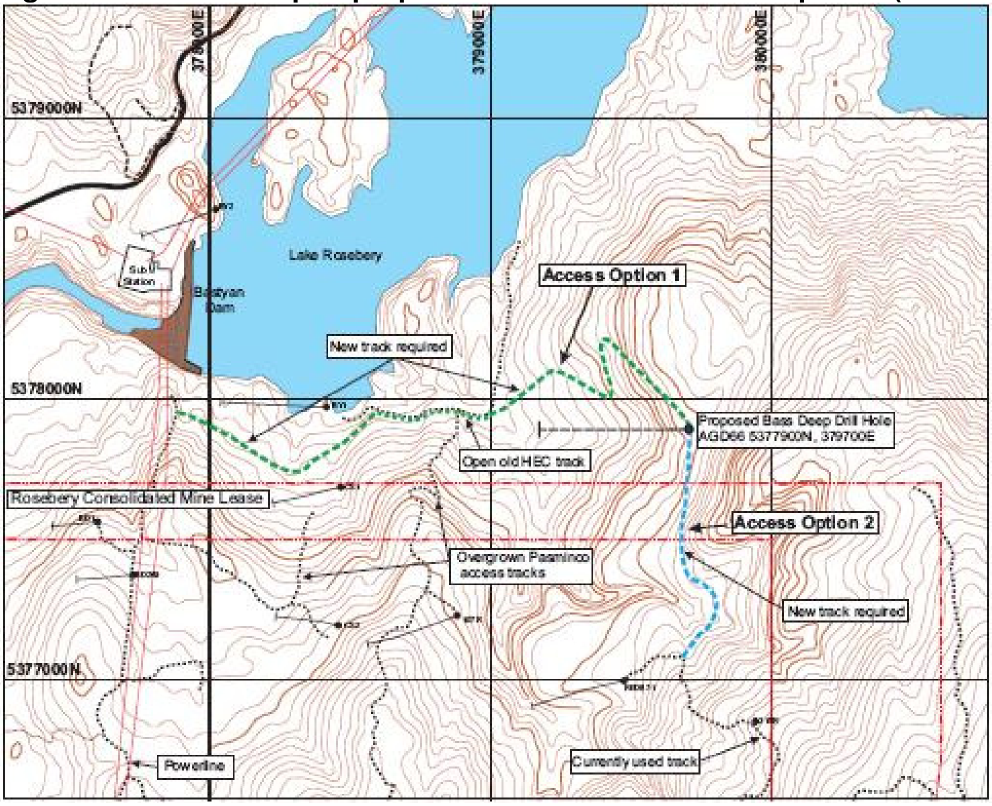
Rock Chip Sampling -
This included continuous rock chip sampling along the Pieman Road from 377200mE through outcropping Rosebery Shale and across the contact with volcanicalstics (area of anomalous rock chip samples NR001 & NR002) and along the road to 377800mE. This provided coverage across the contact between shale and volcaniclastics and thought the area of IP anomalism and pyritic volcaniclastics. Outcrop was not continuous along the road which gave sections of no sampling. A total of 77 samples were collected (NR014 – NR080).

3.3 2007 – 2008 (BSM)

Access visit –
A field visit was made to check access to a possible deep-hole drill site. The drill site is in a difficult to reach area on the southern side of Lake Rosebery and would be for a deep hole aimed to test the Rosebery Host Sequence about 1km along strike from the (publicly announced) northern limit of the orebody (Y Lens). The only available access would be via a 4WD track passing through the Rosebery Mine Lease.

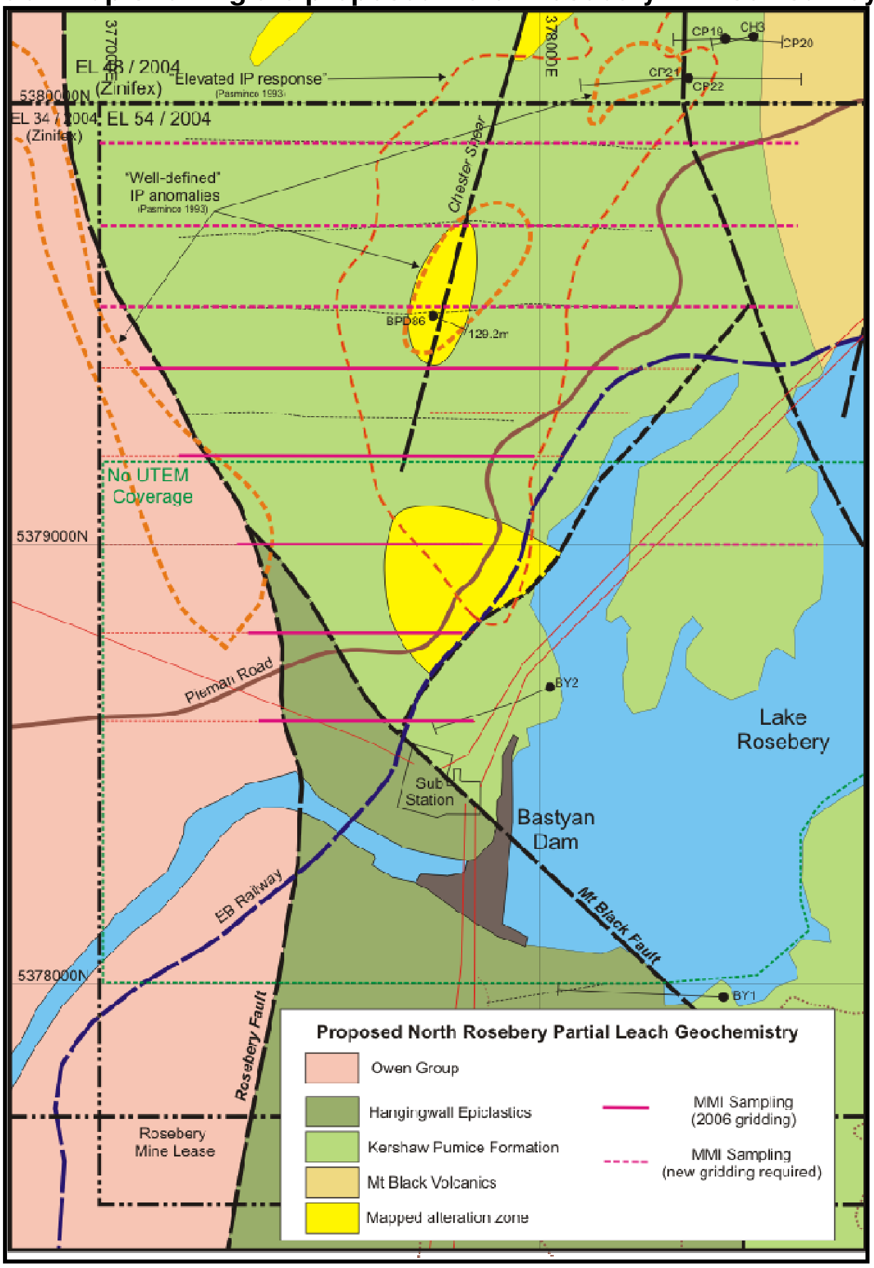
Planning and submittal of a diamond drill-hole program –
Work continued on compiling available data and preparing plans and sections to enable planning and the best possible estimate of potential depth for the proposed drill hole of 1400m. This drillhole is proposed to test the Rosebery Orebody, about 200m north of the Rosebery Consolidated Mine Lease. (See figure 3 below)

Figure 3. Location map of proposed drill-hole and access options (AGD 66)



Mobile Metal Ion (MMI) Survey –
4.35km of gridding was required for the collection of 375 shallow B horizon samples for partial digest. Initially standards were collected over prospective rocks along strike from the Rosebery Mine up to the northern EL boundary. The survey in part was carried out over an existing grid, which was cut and sampled with total-digest during late 2006. Assay results were still awaited at reporting date. Refer to figure 4 for sample location map.

Figure 4. Location map showing the proposed North Rosebery MMI soil survey (AGD 66)



3.4 2008 – 2009 (BSM)

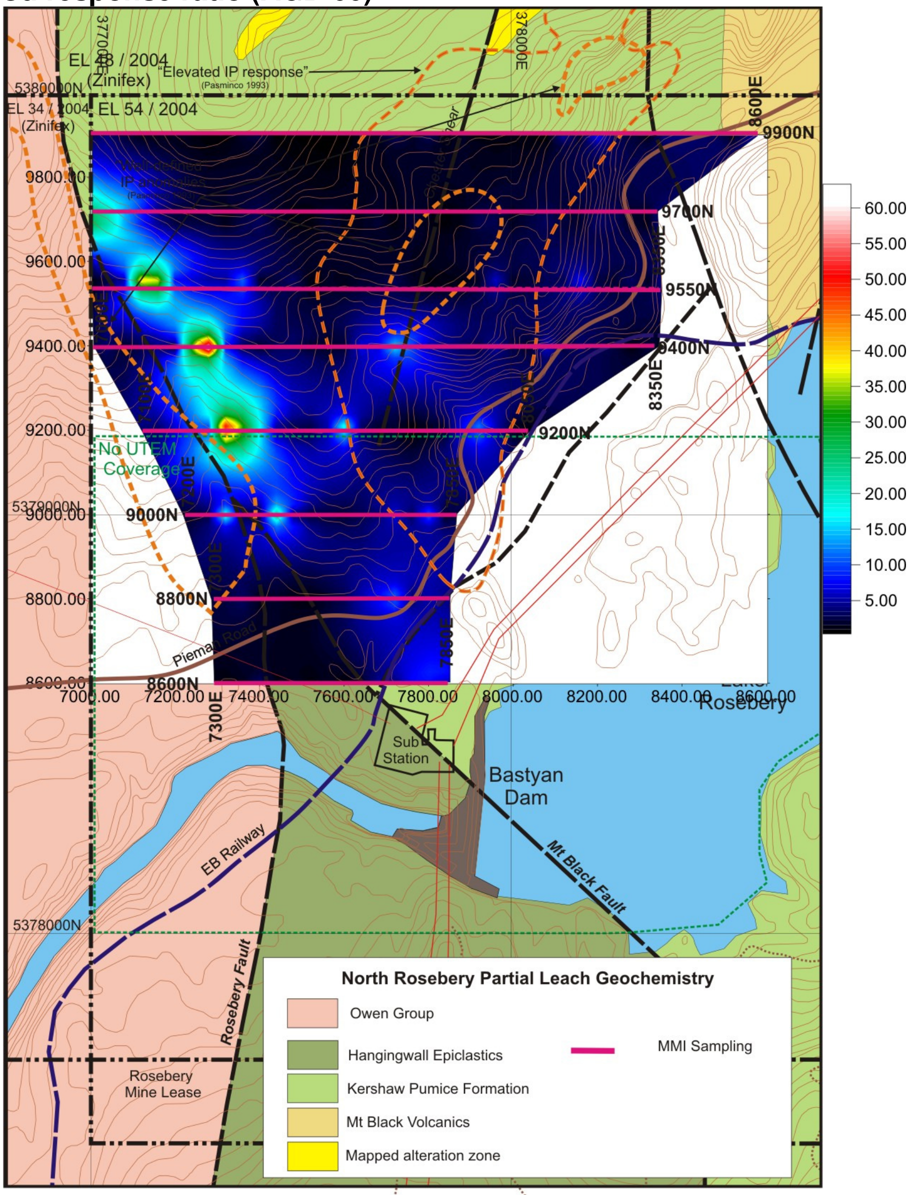
MMI Sample Interpretation

Assay results were received and interpretation was carried out on the 375 MMI samples collected during last reporting period. Refer to appendix 1 for assay results.

Bass Metals interpreted this data as only single line or single element anomalies. However, Figure 5 below shows gridded copper values normalised to the entire population background (response ratio). An anomaly lies approximately 150m east of the mapped location of the Rosebery Fault (hangingwall). The area is also anomalous in Pb, Zn, As and Tl (but more sporadically). This position relative to the Rosebery Fault is similar to the structural position of Rosebery
It was decided that the full significance of these features cannot be determined until:

- a more rigorous interpretation is undertaken by normalising response ratios to soil type and
- field checking determines their true relationship to the Rosebery Fault, as an anomaly in the hangingwall of the fault will be more significant (reflective of buried mineralisation) than an anomaly located on the fault.

Figure 5. Location map showing the North Rosebery partial digest soil geochemical survey and gridded Cu response ratio (AGD 66)



Wally Herrmann was contracted to undertake a study of the exploration history and prospectivity in relation to the MMI sampling anomalies of the North Rosebery licence by evaluating the existing historic and recent data, evaluate the prospectivity, and outline future exploration possibilities.

During this study Wally exposed three related, partly empirical and partly conceptual, approaches to exploring that zone –

a. *Exploring the lithostratigraphy and structure of the possible northward extension of the Rosebery host unit*

J.G.Purvis carried out by far the most comprehensive interpretation and testing of this concept for the EZ-Getty-Billiton and Pasminco-Austmin joint ventures in the mid 1980s to early 1990s. There has been no drilling, and little (published) progress in geologic interpretation of this zone since then. However, at the district scale, there is now common acceptance that the Mount Black Volcanics are more or less equivalent to (perhaps stratigraphically lower than?) the compositionally similar Rosebery footwall pumice breccia unit, and were thrust westwards over the Rosebery mine sequence and Hangingwall Volcaniclastics along the Mount Black Fault. That relationship was merely suspected in the early 1990s when Purvis was testing the North Rosebery concept.

Despite previous interpretations by Corbett & Lees (1987) the above-mentioned joint ventures pursued the Rosebery host unit northwards because of a well argued concept that it was not truncated by the easterly dipping Rosebery Fault but that it extended parallel to the fault in an anticlinal axis plunging at about 20° to the north (Randell et al., 1986).

Drill hole BY1 (562.5 m) was designed to test this anticlinal concept on section 5378000N, as well as the volcaniclastic unit hosting massive sulfide clasts near the southern shore of Lake Rosebery. It intersected an easterly dipping and facing succession comprised of volcaniclastics, rhyolite and black shale units in the upper half, and a mixed sequence of volcaniclastic sandstones, calcareous sandstones, siltstones and impure limestones beneath an east dipping subsidiary thrust, before passing through the Rosebery Fault at about 400 m below surface. This succession is probably equivalent to the Rosebery Hangingwall Volcaniclastics interlayered in the lower section with non-volcanogenic sedimentary rocks of Dundas Group affinity. The hole encountered traces of Zn and As in black shale and limestone bands (e.g. 0.5 m @ 2.1% Zn, 0.1% As and 13.5 m @ 0.5% Zn) but did not intersect an anticlinal axis, nor equivalents of the Rosebery host unit (Purvis, 1991). A downhole EM survey failed to obtain any significant responses (Purvis, 1992).

b. *Exploring for the source of Bastyan Dam massive sulfide clasts*

During construction of the Pieman hydroelectric scheme in 1979, the Hydroelectric Commission 'uncovered an 8.5 x 1 m raft of basemetal massive sulfide within reworked volcaniclastics while excavating the foundations of the Bastyan Dam' (Randell et al., 1986). The EZ-Getty JV exploration program on EL 1/62 in the early 1980s subsequently discovered additional 'large boulders of basemetal massive sulfide in a volcanic mass debris flow on the banks of the Pieman River' a little east of the dam

Randell et al. (1986) assigned the clast-containing rocks to the Rosebery Hangingwall Volcaniclastics, which at Bastyan Dam are poorly sorted and bedded, sub-aqueously deposited, volcaniclastic breccias containing deformed rafts of 'tuffaceous sediments' up to 'at least 20 m long and a cluster of at least five rafted lenses of pyritic and basemetal massive sulfides'. The original sulfide clast samples assayed up to 35.5% Zn, 0.8% Pb, 20 g/t Ag, 0.25 g/t Au 0.1% Sn and 0.07% As. Randell et al. hypothesized that the sulfide clasts had been transported southwards, originating from a massive sulfide deposit that formed at about the same time and stratigraphic level as Rosebery, but in a separate system further north.

Purvis (1991) referred to 'HEC photographs and descriptions' of the large sulfide rafts in the Bastyan Dam foundations that clearly showed that the rafts were 'only semi-lithified at the time of incorporation into the HW Epiclastics'. He described the eastern occurrence about 350 m east of the Dam as a 'group of massive sulfide boulders up to 2 m diameter, some of which are deformed' suggesting they also were only partly lithified at the time of emplacement. Purvis also noted that the high Zn/Pb ratio and Sn content of the samples (reported by Randell et al., 1986) were 'not representative of normal Cambrian volcanogenic mineralization in West Tasmania'.

The observation of coarse grainsizes in the Hangingwall Volcaniclastics at Bastyan Dam, where they apparently include bouldery debris flows and rafts of shale and siltstone up to 50 m long, compared to much finer volcaniclastics at Rosebery, supported an interpretation of southward transport. Also, that the sulfide boulders had probably travelled only a few hundred metres from their source. This propped up speculation that the source 'could perhaps' lie to the north, at depth along the 20° interpreted structural plunge. However, Purvis (1991) concluded that the structural complexity around the dam made it an extremely difficult target.

G.R.Green subsequently produced four sulfur isotope analyses from two samples of the eastern sulfide boulders (near 378285E 5378020N) with δS^{34} compositions between 7.3 and 10.5 ‰, which are at the lower extreme of the Rosebery sulfide δS^{34} values of 7.1 to 19.8 ‰, and also slightly lower than the 9.0 to 12.9 ‰ range in sulfides from the Pinnacles area (Green, 1992, Appendix 4 in Purvis, 1992). He cryptically suggested that these data indicated that the source of the Bastyan sulfide clasts was 'yet to be established'!

In 2002, McNeill reported Pb-isotope analyses of two samples each from Cutty Sark and Langdon's prospects near the southern shore of Lake Rosebery, and a single sample of a 'small Py-Gn-rich clast, from near the Bastyan Dam spillway massive sulfide clasts'. All had Devonian signatures, which downgraded the prospectivity of those prospects (Denton et al., 2001; McNeill, 2002). The Pb-isotope data from Langdon's are consistent with the description and interpretation of it as a Devonian fissure fill deposit similar to Mount Farrell by Randell et al. (1986). The δS^{34} values of 9.3 to 12.6 ‰ at Langdon's are typical of Cambrian VHMS deposits, which led Green (1992) and Solomon et al. (1988) to speculate that the Devonian fluids may have derived most of their sulfur from Cambrian volcanic wall rocks.

In the following January, McNeill attempted to 'relocate the Zn-rich (35.5%) Bastyan Dam massive sulphide clasts, previously described by Purvis (1991). These clasts were not found (still probably underwater) but a 4m wide zone with abundant (1-10 modal%) massive pyrite clasts was located and sampled [1]. The massive pyrite clasts, up to 60cm x 20cm but generally <10 cm diameter, were hosted by a coarse quartz (to 5-8mm diameter)- feldspar-phyric mass flow unit with, in addition to the sulphide clasts, quartz phyric rhyolite and sericite-chlorite altered shard-rich siltstone clasts to 5 cm diameter' (McNeill, 2003).

He obtained multi element assay data of two samples of the host mass flow unit and four samples of the massive sulfide clasts, which indicated 'significant Zn grades' (2-8% Zn) with anomalous 310-1500 ppm Cu, 380-1800 ppm Pb, and precious metals (0.4-0.9 g/t Au and 11-106 g/t Ag). Additional Pb-isotope analyses on the two most Pb-rich of the clasts, together with the previous one taken in 2001 from the same area, indicate a heterogenous population spanning the Cambrian to Devonian fields, which 'do not preclude' a Cambrian signature but is dominated by a Devonian overprint (Carr and Denton, 2003; McNeill, 2003).

The local metallogenic picture is further confused by a negative δS^{34} value of –2.9 ‰ from 'sooty pyrite' in deformed bands in volcaniclastics at the margin of a coherent quartz porphyritic rhyolite unit, outcropping in the same vicinity as sulfide clasts 180 m east of Bastyan Dam. Rock chip samples of this material apparently contain highly anomalous As, Au, Ag. Green (1992) compared it to low (<5 ‰) sulfur isotope signatures of 'barren' pyritic systems such as Chester and Boco and interpreted it as being due to 'local low temperature hydrothermal processes associated with the intrusion' of the coherent rhyolite. This follows the concept originated by Solomon et al. (1988) that late-stage, relatively cool (<200ºC), oxidized seawater of neutral pH convecting through felsic rocks, from which most of the reducing FeO had previously been exhausted, would not continue to inorganically reduce residual seawater sulfate, nor transport sufficient base metals to form a massive sulfide deposit, but would be capable of leaching primary magmatic sulfur from the volcanic country rocks, hence producing low δS^{34} values in pyrite. That model has been modified by recent advances in recognition of phyllosilicate assemblages in these 'barren' systems which suggest involvement of low pH magmatic derived fluids to account for the low sulfide δS^{34} values (e.g. Herrmann et al., 2004).

The wide range of Pb-isotope ratios, δS^{34} values, and unusual array of anomalous metals in the sulfide clasts and nearby vein style deposits are not easily categorized into a single metallogenic style. It seems that the sulfide clasts derived their sulfur from a Cambrian seawater source, or recycled sulfur from Cambrian VHMS type deposit (?) yet their lead appears to be mainly Devonian. And some of the clasts have anomalous metal compositions such as tin and bismuth, which also suggest a Devonian component. The nearby Langdon's deposit has classic Devonian vein-style features and Devonian Pb-isotope ratios. Likewise, the arsenopyrite vein sampled by Purvis has Devonian characteristics but it occurs in a felsic porphyry unit that has low δS^{34} Cambrian barren-type pyrite mineralized zones at its margin a few metres away. Perhaps the sulfide clasts represent fragments of a typical Cambrian VHMS deposit that were subsequently partly overprinted by a Devonian granitoid related metallogenic event to account for the anomalous Sn and Bi contents and nearby arsenopyrite and Langdon's veins. But in that case one would expect the sulfide clast lead to retain the original Cambrian isotopic ratios – unless the primary VHMS deposit was unusually lead poor and most of the lead was subsequently introduced in the Devonian event.

That makes an interesting academic conundrum but it makes little difference to the exploration challenge if we take the descriptions of re-sedimented sulfide clasts at their face value. In view of the confusing isotopic data we cannot easily dismiss the clasts as small epigenetic deposits of insignificant economic potential, and we should therefore honour the reported field relationships. If the sulfide clasts were transported and emplaced with a Cambrian volcaniclastic debris flow they must be at least Cambrian in age. Hence, it is likely that they originated within a few kilometres distance; from a VHMS deposit that was exposed for erosion at the time the volcaniclastic unit was emplaced, i.e. stratigraphically not far below the base of the volcaniclastic breccia unit that they exist in. A lateral extension of the Rosebery Host Unit would be a likely contender.

However, as discussed in the previous section, the position of the Rosebery Host Unit is unknown in EL54/2004, and the reported structural complexity may make it hard to locate and test. Furthermore, there are no reliable indications of the direction to the source VHMS deposit – along strike to north or south, down dip at great depth, or eroded away from above the present land surface. Overriding all those difficulties is the clear evidence, in the re-sedimented clasts themselves, that the source deposit was at least partly eroded soon after its formation. It may have been entirely eroded and distributed far and wide, as fragments in subaqueous volcaniclastic breccia deposits. Re-sedimented sulfide clasts are old chestnuts in the Mount Read Volcanics; they have been subjects of considerable exploration effort (e.g. near Newton Dam spillway and at Wart Hill) and so far have been only a bane to explorers.

c. Exploration by geophysical and geochemical methods

Perhaps attracted by the historic large, high-intensity zinc anomalies coincident with the Rosebery Fault near Bobadil Plain and Pasminco's report of a significant MMI anomaly extending southwards into the Rosebery Mine lease, Bass Metals has carried out additional conventional and MMI soil geochemical surveys to fill a gap in the previous coverage between Bastyan Dam and Mount Kershaw (Bates, 2009).

The new conventional soil geochemical data (sampled at 50 m intervals on E-W lines spaced about 200 m apart) show spotty weak anomalies in Cu, Pb and Zn up to a few hundred parts per million, and low order anomalies in Au, Ag, As, Sb, Mo, Bi and Tl. The most consistent anomalous zone is on line 5379200N where there are weak coincident anomalies in Zn, Au, Ag, As, Sb and Tl at about 377250E, and similarly weak coincident anomalies in Cu, Bi, Mo, Au, and Tl between 377400 and 377600E. Peak Pb and Ag values (of only 387 and 0.64 ppm, respectively) exist at a single point anomaly at 377650E on line 53778600N.

The MMI geochemical data (from samples 25 m apart on the same E-W lines spaced about 200 m apart) appear to have high intrinsic variability. That is highlighted by the poor repeatability of 17 duplicate paired samples. The precious metal data Ag and Au, are even less repeatable with average absolute differences of 96% and 1060%. The most repeatable common metal element in the data is Co, which *averages* only 19% absolute deviation, with a maximum difference of 57%.

Nevertheless, the MMI response ratios are broadly comparable to the conventional soil data in that the most coherent MMI anomalies in Cu, As, Mo and Tl are also centred on line 5379200N, between about 377350 and 377600E. This anomalous zone has a crude north-northwest trend, which extends between about 5378800N and 5379900N (i.e. a strike length of almost one kilometre) and is best defined by Cu, Ag and Mo, but also evident in the Bi As and Cd MMI data. It lies in a 100-200 metre wide corridor immediately east of and parallel to the Rosebery Fault, which marks the western edge of the felsic volcanic group possibly including extensions of the Rosebery host unit. Thus the MMI anomaly is in the immediate hangingwall of the Rosebery Fault. Assuming the fault dips between 30 and 50° east, that implies a depth of 100-150 metres between surface and fault below the eastern edge of the MMI anomaly. If the source of the MMI anomaly is vertically below it, then the potential tonnage is depth-limited by the shallow proximity of the Rosebery Fault. On the other hand, if the MMI anomaly reflects a stratabound-mineralized zone then the probable east-dipping volcanic sequence would allow for greater down-dip continuity and tonnage, notwithstanding the slightly overturned anticline interpreted in BY2 near Bastyan Dam (Purvis, 1992).

There is an outlying As, Mo, Tl, Bi, Cd MMI anomaly near 537700E 5378800N, which is possibly a southeastern extension of the fault parallel zone mentioned above. It approximately coincides with western segment of a rock-chip traverse sampled by Bass Metals in October 2006, between sample locations NR016 and NR027. However, the geochemical data for those rock chip samples are unremarkable, except for a single sample (NR023) that assayed 0.38 g/t Au.

There is another MMI anomaly near the northeastern corner of the survey area, which has moderate to strong response ratios for As, Mo, Tl and Pb. This anomaly at the edge of the survey is 'open ended' to the north and south because of the EL boundary to the north, and the Chester Rivulet arm of Lake Rosebery to the south. BHP's 1987 UTEM surveys detected a number of weak shallow conductors in this zone but none were considered worthy of follow up.

The MMI anomalous responses are generally rather patchy, partly because of the broad ~200 metre line spacing, but the western one adjacent to the Rosebery Fault is more coherent and certainly more strike extensive than the very spotty mostly single point anomalies detected by the conventional soil geochemical survey. Even so, the approximate coincidence of anomalies in the two data sets supports suspicion that the MMI responses are related to a minor near surface mineralized zone – not necessarily to a deeper zone buried beyond the detection ability of conventional soil geochemistry.

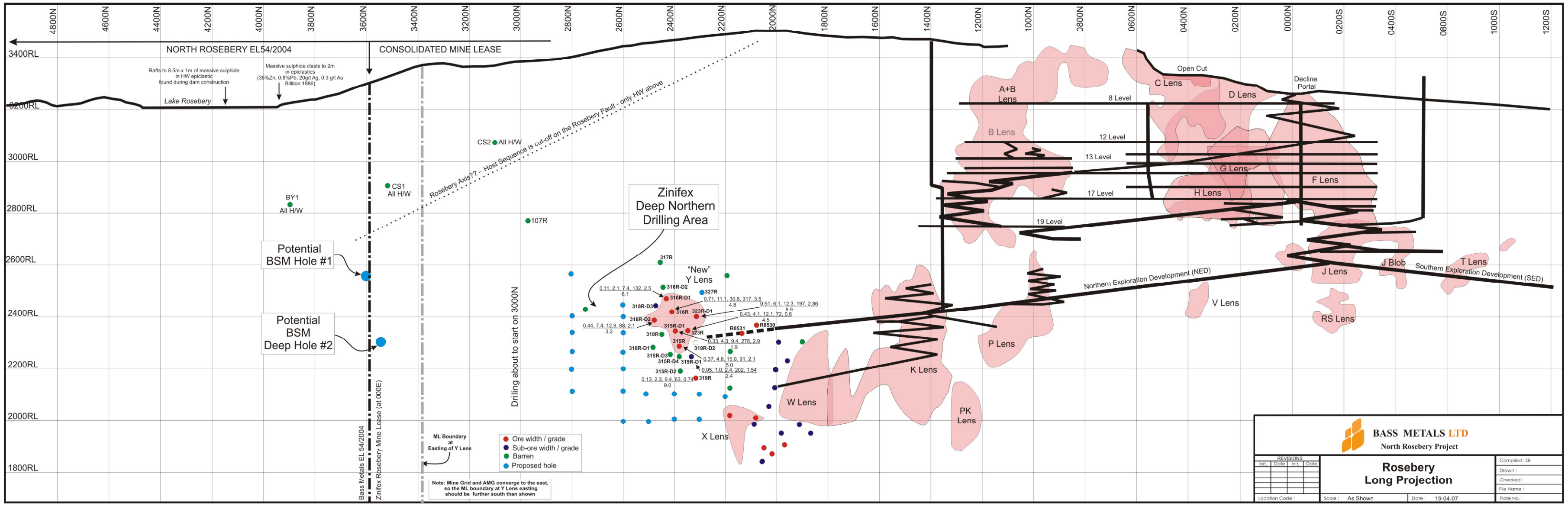
The nature of that mineralized zone is largely speculative at present. Reasonable speculations are that it could be related to:
Minor mineralized zones associated with a hanging wall fault splays akin to Purvis' (1991) 'Subsidiary Fault'. Saxon's (1995) report on exploration of EL 44/88 (which overlapped EL 54/2004 by one kilometre south of Mount Kershaw) contains an interpretative geologic plan (TCR 95-3803) that shows two east dipping faults on the west flank of Mt Kershaw that approximately align with Bass' MMI anomaly.
Stratabound minor vein-style or disseminated Zn-Pb-Ag-As mineralization, similar to several short intervals hosted in calcareous black shale and limestone-pebble beds intersected by drill hole BY1; e.g. 2 m @ 0.7% Zn and 0.5 m @ 2.1% Zn, 0.1% Pb, 5 g/t Ag and 0.1% As (Purvis, 1991).

Wally Hermann was also contracted to undertake a study of the anomalies identified by the MMI sampling, and their relationship to the Rosebery Fault. In summary, Wally states that the location of the fault is 100m further east than previously mapped and that the prospectivity of this MMI anomalous zone is low as it is within the Rosebery fault. Refer to Appendix 1 & 2 for full reports.

4. CURRENT WORK - Exploration completed during the report period (10th August 2009 – 16th March 2010)

The proposed drilling for this year over the coherent MMI geochemical anomalies was reviewed. The previously reported MMI anomaly is situated over the Rosebery Fault and is not associated with the Rosebery stratigraphic position. There is no MMI response over the Rosebery stratigraphic position. If this drill program was undertaken the drill hole would be +1000m deep, due to the northern plunge of the Rosebery ore position. It was decided to fully relinquish this tenement. Figure 6 below indicates the proposed drill hole locations and current Rosebery Mine workings.

Figure 6. North Rosebery Long Projection



5. ENVIRONMENT

The company has environmental policies in place that minimize 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 6) shows the location of the Exploration Licence relative to conservation areas. It is a condition of the Licence that the Company observe the request by the Tarkine National Coalition Inc. to adopt strict entry protocols to prevent the spread of *Phytophora Cinamomi* and/or Myrtle Wilt. BSM have appropriate hygiene measures in place to comply with these requests as outlined in the Mineral Exploration Code of Practice.

Land Tenure -
The Rosebery tenement comprises:

- State/Multiple use forest
- MDC Informal Reserves
- HEC Land
- Crown Land – DPIWE Approval Required
- Part of Boco Creek Forest Reserve
- Part of Mackintosh Forest Reserve
- Part of Mount Kershaw Forest Reserve

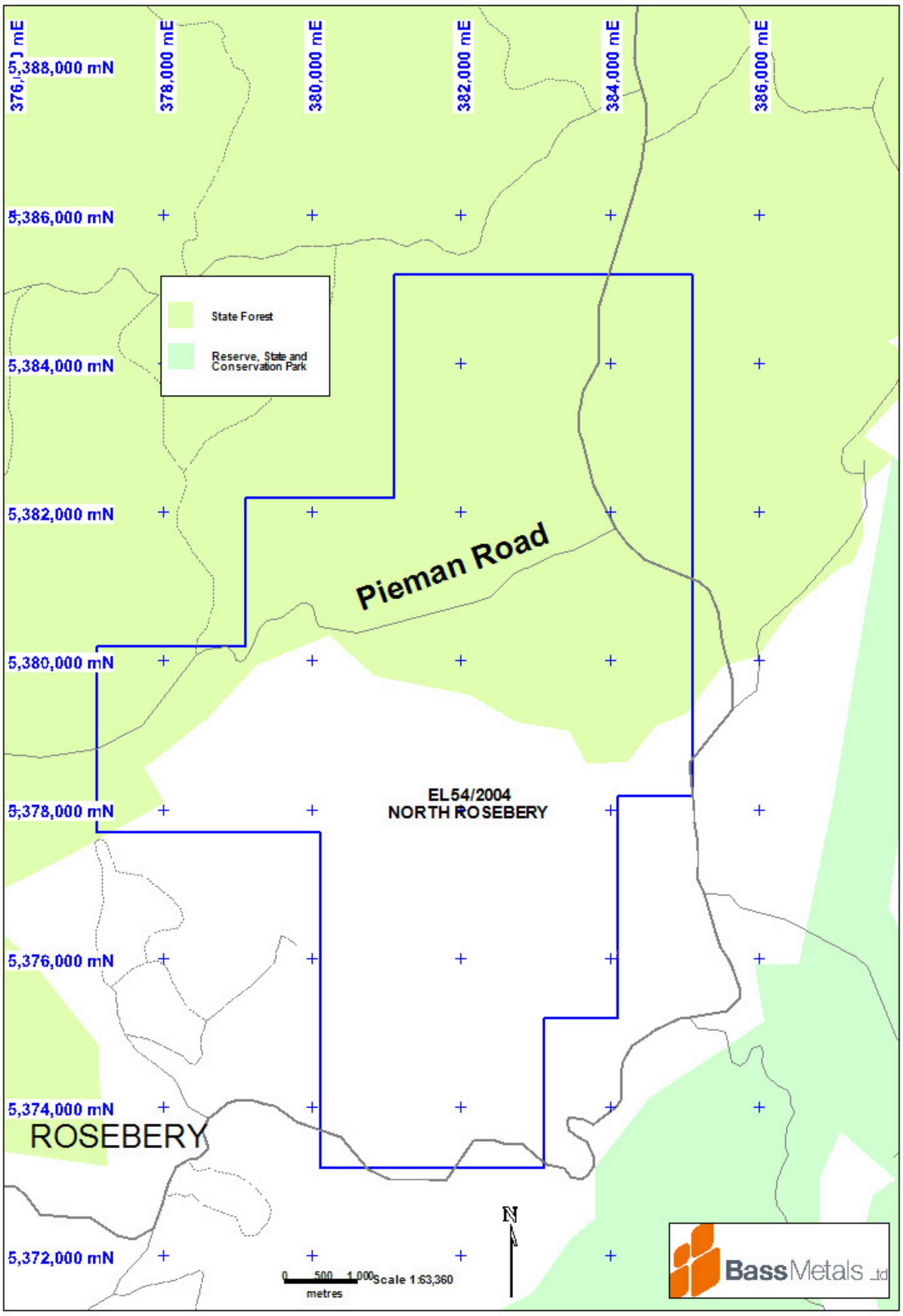


Figure 6. Environmental Activity Map

No ground disturbing exploration activities have taken place during this reporting period therefore no rehabilitation was required.

6. EXPENDITURE

August 2009 – March 2010		
Geoscientific Costs	Geology	11,325.87
	Geochemistry	
	Geophysics	
	Remote Sensing	
Drilling & Gridding Costs	Gridding	
	Drilling	
	Land Access Costs	
	Rehabilitation Costs	
	Feasibility Study Costs	
	Other Costs	2,592.80
	Admin Costs	64.00
	Total - eligible	**$13,982.67**

Table 1. Expenditure August 2009 to March 2010
**Includes expenditure to 28st Feb 2010*

The North Rosebery tenement is part of the North Rosebery Group; the total expenditure up to the 31st May 2009 for this group is $212,222 against a required group expenditure of $221,886.

8. REFERENCES

Bates, S., 2009, Exploration undertaken to 310109: Bass Metals Limited, 12 p.

Carr, G. R., and Denton, G. J., 2003, Pb isotope analysis of sulfide clasts from near Bastyan Dam: CSIRO report to Pasminco, 1 p.

Denton, G. J., Carr, G. R., Korsch, M. J., and Gardner, B. L., 2001, Pb isotope analysis and interpretation of samples from Bastyan Dam, Langdons Mine, Ring River and Cutty Sark prospect: CSIRO report to Pasminco Limited, 5 p., Exploration and Mining Report 863C.

Fitzgerald, F.G., 1993. EL12/88 Mt Black, Partial Relinquishment report September 1988 – July 1993. Pasminco Exploration. Report to the Tasmanian Mines Department.

Green, G. R., 1992, Oxygen and sulphur isotope compositions of samples from the Bastyan Dam area and their implications for mineral exploration: Tasmania Department of Mines, 9 p.

Herrmann, W., Green, G. R., and Barton, M. D., 2004, Boco Prospect: mineralogic and isotopic implications for VHMS exploration, *in* McPhie, J., and McGoldrick, P. J., eds., Dynamic Earth: past, present and future, Abstracts 73: 17th AGC, Hobart, Geological Society of Australia.

Hine, R. & Scott, G., 1989. Annual Report on Exploration of EL12/88 Mount Black, Tasmania, for the period September 1988 to August 1989. Climax Mining Ltd. Report to the Tasmanian Mines Department. **(89_3000)**

Kirsner, L.W., 1992. Burns Peak EL44/88. Annual Report, November 1991-October 1992. Pasminco Exploration. Report to the Tasmanian Mines Department. **(92_3406)**

Lorrigan, A., 1990. Annual Report for EL44/88 – Burns Peak, 1990. Pasminco Exploration. Report to the Tasmanian Mines Department. **(00_4418)**

McNeill, A.W. & Wallace, D.B., 1988. Exploration Licence 22/74. Marionoak, Tasmania. Final Report on Exploration Activity to January 1988. Aberfoyle Resources Ltd. Report to the Tasmanian Mines Department. **(88_2773)**

McNeill, A., 2002, Mt Sale EL 14/98, Annual Report for the period ending 11/08/2002: Pasminco Exploration, 13 p., TCR 02-4760.

McNeill, A., 2003, Mt Sale EL 14/98, Final Report for the period ending 11/08/2003: Pasminco Exploration, 13 p., TCR 03-4947.

Parfrey, O. & McNeill, A.W., 2000. Tullah EL22/90. Annual Report for the period ending 19th September 1999. Pasminco Exploration. Report to the Tasmanian Mines Department. **(00_4418)**

Purvis, J. G., 1991, Mt Black EL 12/88 Western Tasmania Pasminco-Austmin Joint Venture Annual Report August 1990 - August 1991: Pasminco Exploration, 141 p., TCR 91-3286.

Purvis, J. G., 1992, Mt Black EL 12/88 Western Tasmania Pasminco-Austmin Joint Venture Annual Report August 1991 - August 1992: Pasminco Exploration, 167 p., TCR 92-3375.

Randell, J.P., Purvis, J.G. & Hungerford, N., 1986. Rosebery East Joint Venture, EL 1/62, West Tasmania. Progress Report on Exploration for the period ending 22nd December 1986. Billiton Australia. Report to the Tasmanian Mines Department. **(86_2622)**

Reinhardt, D.H., 1972. Report on Exploration in EL1/62 Mt Black carried out in 1971-72. Electrolytic Zinc Company of Australasia Ltd. Report to the Tasmanian Mines Department. **(72_0864)**

Seymour, D.B., Green,G.R., Calver,C.R., 2006. The Geology and Mineral Deposits of Tasmania. Bulletin 72 Tasmanian Mines Department.

Solomon, M., Eastoe, C. J., Walshe, J. L., and Green, G. R., 1988, Mineral deposits and sulfur isotope abundances in the Mount Read Volcanics between Que River and Mount Darwin, Tasmania: Economic Geology, v. 83, p. 1307-1328.

Smith, R.N. & Huston, D.L., 1992. Distribution and association of selected trace elements at the Rosebery deposit, Tasmania. *Economic Geology, Vol 87, pages 706-719.*

Williams, R.E., 1975. Progress Report on Exploration of Exploration Licence 1/62 Mt Black during 1974/75. Electrolytic Zinc Company of Australasia Ltd. Report to the Tasmanian Mines Department. **(75_1126)**

APPENDIX 1

MMI Sample Assay Results

APPENDIX 2

Soil Sampling Assay Results