



**MOUNT SELINA PROJECT  
EL29/2002, TASMANIA**

**FINAL REPORT  
31<sup>ST</sup> JANUARY 2008**

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**Distribution:**

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**Note: All figures and grids are according to the AGD66 datum and AMG66 grid system.**

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**ABSTRACT**

The following is the final report for Exploration Licence 29/2002, Mt Selina. This tenement has been managed by Bass Metals (BSM) and has been incorporated in a Farm-In Joint Venture partnership with Adamus Resources from 25<sup>th</sup> April 2005 until the expiry of the licence on 31<sup>st</sup> January 2008.

This report will include the following;

- Summarised exploration for the extent of the BSM management period.
- Recent exploration in detail for the current reporting period.
- Logic behind the decision to relinquish this exploration licence.

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## **1. INTRODUCTION**

This final report is a summary of the exploration activities conducted on the Mount Selina exploration licence for the period 25<sup>th</sup> April 2005 to 31<sup>st</sup> January 2008.

The Mt Selina exploration licence EL29/2002 (Figure 1), was granted to Adamus Resources on 31 January 2002 as a 109km<sup>2</sup> area. The licence was reduced in size at the end of the second year (2004) when 51km<sup>2</sup> were relinquished. The licence is now 58km<sup>2</sup> and is due to expire on the 31 January 2008.

In April 2005 Adamus Resources Limited and BSM entered into a Farm-in and Joint Venture Agreement. BSM have acted as managers during the farm-in period from a base at the Hellyer Mine site.

### **1.1 Location and Access:**

The Mount Selina licence is located between Queenstown and Rosebery, on the west coast of Tasmania (Figure 1). The licence is found on the Sophia and Franklin (1:100,000) map sheets. The licence area is topographically bounded to the north by Mount Murchison, south by the Comstock Valley, east by Sticht Ranges and the west by the Tyndall Ranges.

The north-western corner of the licence is crossed by the sealed Anthony Road. Access to the central and southern areas is via gravel tracks maintained by the Hydro-Electric Corporation, Parks and Wildlife Service and Copper Mines of Tasmania. Access to the remainder of the licence is either on foot or by helicopter.

The majority of the licence is covered by the Tyndall Range Regional Reserve and the Lake Beatrice Conservation Area. Topographically the area is rugged and quite variable displaying steep wooded slopes, deeply incised valleys and grassed flat plateaus and broad plains. Numerous lakes and closed catchment basins are located throughout the licence area.

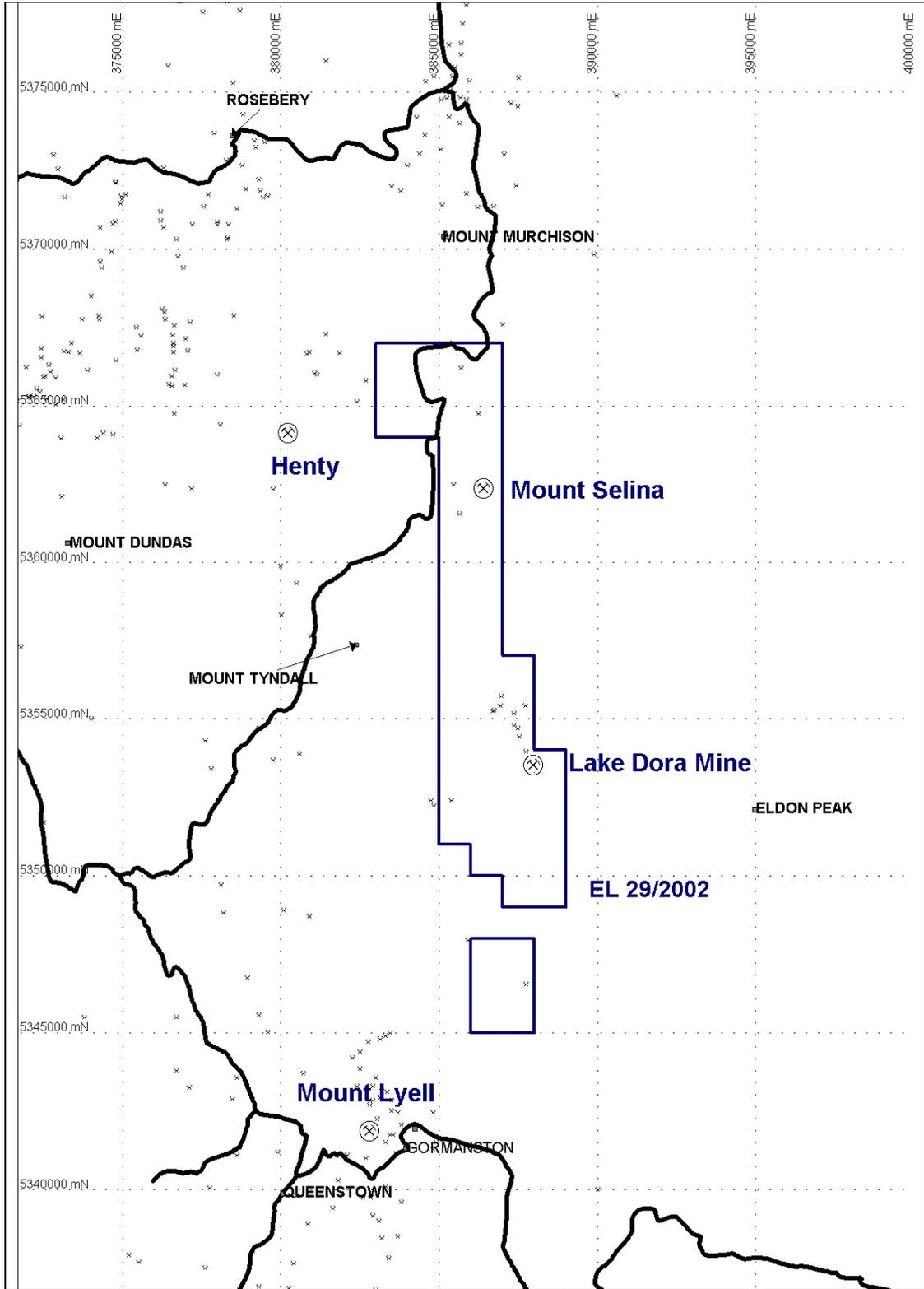


Figure 1. Mount Selina EL29/2002 location plan including towns, roads and mineral deposits.

## 1.2 Geology Overview:

The oldest rocks in the region belong to the Proterozoic Tyennan Metamorphics. The Mt Read Volcanics ("MRV") lie unconformably on top of the Tyennan Metamorphics. The MRV provide the best stratigraphic target for finding polymetallic Volcanogenic Hosted Massive Sulphide ("VHMS") deposits. Owen Group sediments overlay these volcanoclastic units in the central and western licence areas with alluvium and glacial deposits covering a large portion of the central and northern areas. The Murchison Granite, which can be seen in small outcrops within the licence, intrudes and underlies the MRV (Rust, 2004; Figure 2).

### 1.2.1 The Mount Read Volcanics

The MRV are a belt of volcanic, volcanoclastic and sedimentary rocks of Mid- Cambrian age. The belt is famous for hosting Tasmania's world-class polymetallic VHMS deposits (eg Rosebery, Hellyer, Que River).

#### *Western Volcano-Sedimentary Sequence*

A small area in the northernmost licence block is mapped as belonging to the Western Volcano-Sedimentary Sequence. This unit is coeval with the Central Volcanic Complex ("CVC") of the MRV though older than the above Tyndall Group. It is described as including beds of lithicwacke turbidite, mudstone, siltstone and shale. It also contains subordinate intrusive and volcanic rocks, which are commonly andesitic (Seymour *et.al.*, 2006).

#### *Tyndall Group*

The Tyndall Group is a unit of quartz-bearing volcanoclastic sandstone and conglomerate. Though also contains minor volcanic, intrusive and ignimbritic rocks of mixed felsic and andesitic provenance (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, but 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 host mineralisation associated with Late Devonian–Early Carboniferous granitoids.

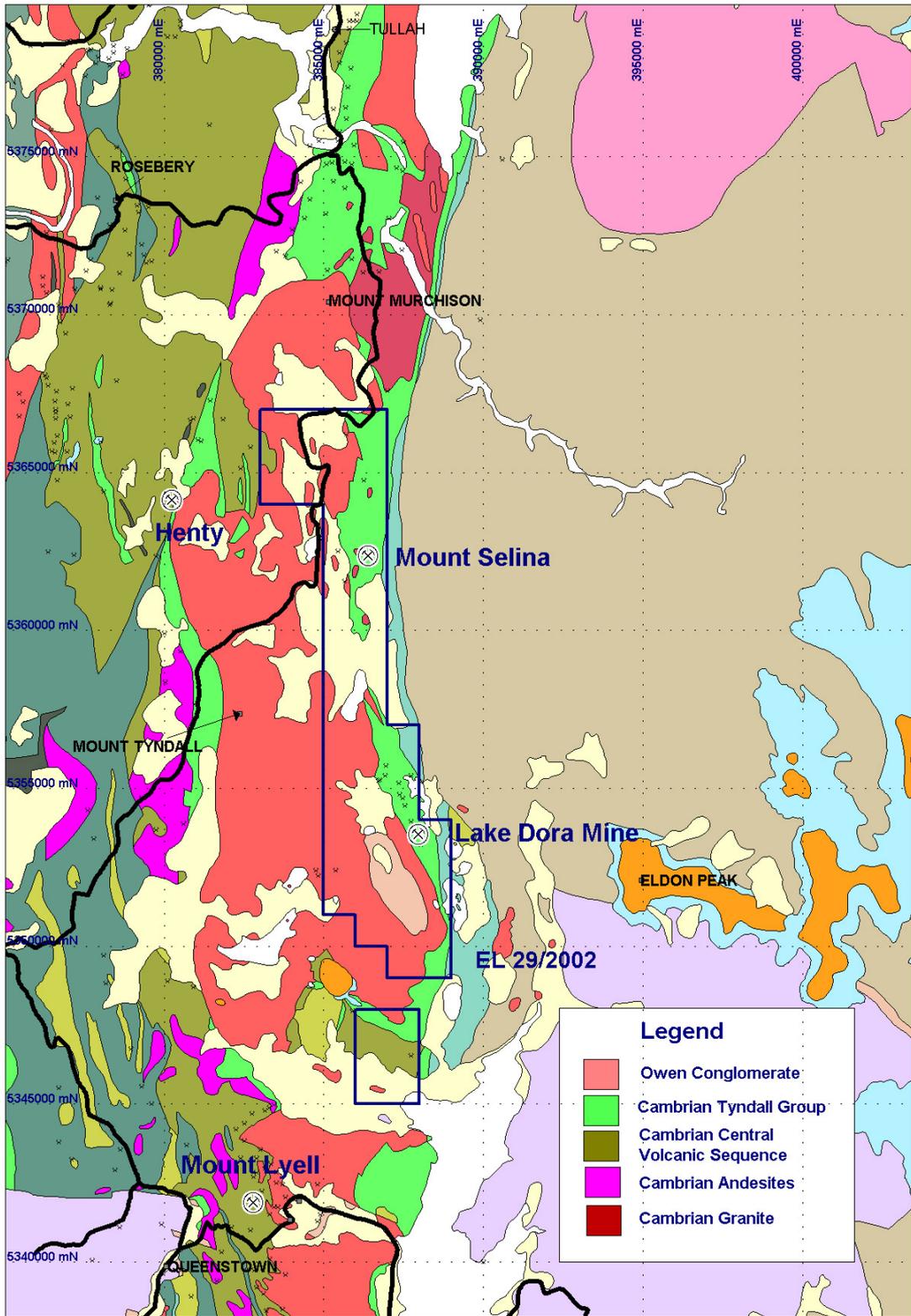


Figure 2. Regional Geology showing licence boundaries, roads and towns.

### 1.3 Exploration Rationale:

The MRV are well known for hosting world-class Cambrian VHMS deposits such as Rosebery (32.7Mt @14.5%Zn, 4.4% Pb, 0.58% Cu, 145g/t Ag, 2.2g/t Au), Hellyer (16.5Mt @13.9% Zn, 7.2% Pb, 0.38% Cu, 169g/t Ag, 2.55g/t Au) and Mt Lyell (311Mt @ 0.97% Cu, 0.31g/t Au). Directly west of the licence is located the Henty Gold mine (2.83Mt @12.5g/t Au). Hosted in MRV, the Henty mineralisation is considered to represent a hybrid deposit related to Cambrian VHMS mineralisation and possible Cambrian granite-related mineralisation.

Acquisition of the Mt Selina licence was motivated primarily by the presence of MRV stratigraphy and hence latent prospectivity to host Cambrian VHMS mineralisation of all styles.

## 2. WORK COMPLETED

### 2.1 Historical Mining:

The discovery of the Lake Dora and Red Hills mineral fields, in 1891, represents the beginning of historical work in the area. Efforts at this time basically consisted of small to moderate scale prospecting and limited mining attempts. Historically copper was the main element of interest.

The Lake Dora area was worked with only moderate success through a series of trenches and prospecting shafts and tunnels. Early workers noted the presence of cobalt in the region and copper and silver were the main elements of economic interest. In 1908 the Lake Dora field was abandoned due to poor copper grades.

There is very little recorded activity in the region from 1908 until the beginning of modern exploration efforts in the late 1950's.

### 2.2 Exploration Prior to Current Licence:

Modern exploration efforts in the Mt Selina region commenced in the late 1950's (Figure 3). Prior to this only limited prospecting and mining took place. The following history of modern exploration in the Mt Selina licence has been taken from Rust (2004):

**Date:** 1957 - 1962

**Company:** Rio Tinto Australian Exploration Pty Ltd

**Exploration Philosophy:** Focus on locating large-scale, economic Cu, Zn, Pb, Sn mineralisation utilising geophysical methods, mapping and stream sediment sampling.

**Work Completed:** Examined the Lake Selina, Lake Dora, Lake Spicer, West Sedgwick, Comstock Valley and Red Hills areas for potential to host large-scale Cu, Zn, Pb, Sn mineralisation.

Aeromagnetic surveys and four diamond drill holes were completed over the Red hills area.

**Results and Conclusions:** No results are recorded.

**Date:** 1966 - 1987

**Company:** MLM&RC and Goldfields Exploration Pty Ltd (both subsidiaries of Renison Goldfields Consolidated Ltd)

**Exploration Philosophy:** Initially targeting Mt Lyell analogous copper mineralisation and later expanded to incorporate VHMS base metals with a more recent focus on gold mineralisation.

**Work Completed:** Assessment and interpretation of previous aeromagnetic surveys (for target generation), stream sediment, soil and rock chip sampling, induced polarization surveys, resistivity and ground magnetics surveys, mapping, diamond drilling, trace element and Ni:Co drill core studies, EM and UTEM ground level geophysical surveys.

**Results and Conclusions:** several targets generated however follow up drilling generally only returned low grade anomalous results. Area shows large anomalous zones of Cu-Pb-Zn-Ag±Au.

**Date:** 1985 - 1995

**Company:** CRA Exploration and Aberfoyle Resources Ltd Joint Venture

**Exploration Philosophy:** Generally focused on base metals, however the southern areas were explored for base metals and gold due to structural and lithological similarities between the area and the Red Hills Pb-Zn-Au deposit.

**Work Completed:** Ground based magnetic surveys, mapping, stream sediment, soil and rock chip sampling, diamond drilling and a downhole EM survey.

**Results and Conclusions:** Limited exploration targets generated, previous anomalies confirmed however further work failed to increase the economic potential of the anomalies. Some interesting anomalous results returned from rock chip samples showing elevated Au, Pb and Zn assays.

**Date:** 1987 - 1998

**Company:** Aberfoyle Resources Ltd

**Exploration Philosophy:** Exploration for VHMS deposits at +200m depth. Main elements of interest were Pb-Zn and gold to a lesser degree.

**Work Completed:** Ground magnetic surveys, mapping, rock chip sampling and drilling.

**Results and Conclusions:** Work returned some anomalous Au, Ag, Cu and Pb grades, however overall Pb, Zn and Au values were poor.

**Date:** 1996 - 1997

**Company:** Copper Mines of Tasmania Pty Ltd

**Exploration Philosophy:** Targeting VHMS base metals, gold or disseminated sulphide deposits. The exploration area was selected as it was considered to be analogous with the Red Hills Rhyolite Dome.

**Work Completed:** Stream sediment and rock chip sampling.

**Results and Conclusions:** Results returned from the programs were variable with some Au, Zn, Cu and Pb point anomalies defined.

**Date:** 1996 - 2001

**Company:** Pasminco Exploration Ltd

**Exploration Philosophy:** exploring for VHMS Pb-Zn-Cu-Au-Ag deposits using the Rosebery/Hellyer deposits as the conceptual model. Also concentrating on large tonnage, intrusive related Cu-Au systems and vent-breccia style "Leyshon" Au.

**Work Completed:** Literature review, helicopter supported reconnaissance, re-assaying of diamond drill holes, mapping, rock chip and soil sampling and Pb isotope studies.

**Results and Conclusions:** Re-assaying of diamond drill holes returned disappointing results. However rock chip sampling showed significant Au, Cu, Pb, Zn, Ag and Co anomalism from narrow veins. Several anomalous (6-37 g/t) Ag assays were returned.

**Date:** 1998 - 2002

**Company:** Goldfields Exploration

**Exploration Philosophy:** Unsure

**Work Completed:** None

**Results and Conclusions:** The Mt Selina ground was held in conjunction with another area. Goldfields concentrated exploration efforts on the other ground. The Mt Selina portion was released due to increasing expense commitments without any work being conducted on it.

The exploration conducted by previous companies had highlighted the following targets: the Eastern Pyrite Zone, Anthony, the Western Pyrite Zone and some geophysical targets at Lake Dora, Lake Spicer and Beatrice Dome.

Previous exploration efforts generally focused on Rosebery/Hellyer style VHMS deposits and Mt Lyell style copper deposits as the conceptual target. As a result the elements of primary interest have been the base metals Pb, Zn and Cu with later limited focus on Au.

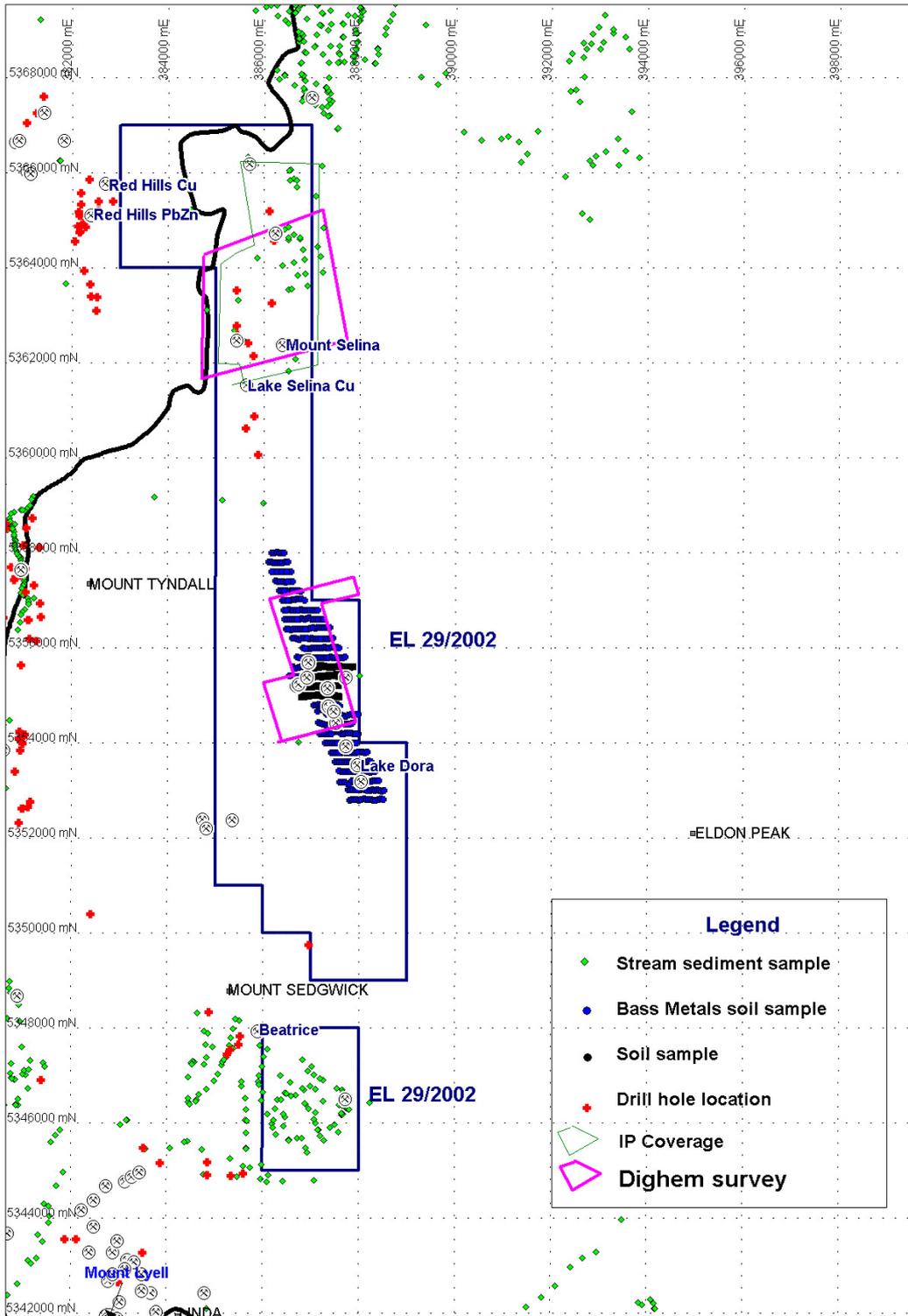


Figure 3. Historical Exploration Activity Map.

### **3. Summarised exploration for the life of the Exploration Licence**

Below is a brief summary of exploration completed on the Mt Selina tenement during the JV farm-in agreement between Bass Metals Ltd and Adamus Resources from April 2005 to the date of expiry 31<sup>st</sup> January 2008. Refer to previous years technical reports for details and results.

#### **25<sup>th</sup> April 2005 to 31<sup>st</sup> January 2006:**

- Adamus conducted gridding and soil sampling over selected targets
- Establishment of exploration base at Hellyer Mine Site.
- Compilation of historical data available from open file sources into a MapInfo database and processing of ASTER satellite data.
- Bass commenced gridding and soil sampling over two prospective areas.

#### **31st January 2006 to 30th January 2007**

- Analysis of soil geochemistry assays received from the programme finished in January 2006
- compilation of data into a proprietary Geoinformatics database to facilitate 3-dimensional modelling of the data and MOCA target generation
- Second phase infill soil sampling over the Dora soil anomaly

### **4. Current reporting period - 31<sup>st</sup> January 2007 to 30 January 2008**

#### **Dora Prospect Drill Program**

A drill program was undertaken to test the Dora Prospect Pb-Zn-Au anomaly at approximately 100-150m below the surface. The soil anomaly has an elongate shape with approximate dimensions of 1km x 200m, and average Pb grade of 474ppm (including one sample at 2755ppm) and Zn grade of 204ppm. Gold values do not contour into a continuous shape but the anomalous samples (max. of 98ppb) are broadly coincident with the Pb-Zn anomalism. The long axis of the soil anomaly is parallel with a NW-striking district-scale fault to the east and is coincident with intensely cleaved quartz-phyric volcanoclastics of the Tyndall Group. The orientation of the sub-vertical cleavage is also parallel to the long-axis of the anomaly.

An intrusive porphyry has been modelled at approximately 3km depth below the anomaly and may have acted as a heat/metal source for any mineralisation that may occur at the Dora Prospect. This, coupled with the abundant structure and Tyndall Group host rocks, the soil anomaly is considered prospective for both base-metal and gold mineralisation.

The 2 holes DPD001 & DPD002 gave best results of 22m @ 0.3% Zn from 68.0m associated with disseminated trace pyrite, and 8m @ 0.4% Zn from 229.0m associated with Qz-Co-CI-Sp veining and fine to medium-grained, disseminated sphalerite and pyrite. Refer to tables 1 & 2 for all results.

#### **DPD001**

This hole moved through the interpreted Fault position at 90m into Tyndall Group schist. Mineralisation was limited to trace quantities of disseminated sphalerite in quartz veins. Bottom of hole alteration was magnetic and may have been of some significance in relation to gold mineralisation at the Dora workings. A down-hole electromagnetic survey was completed on this hole but no anomalous responses were identified. (Refer to Appendix 1)

#### **DPD002**

Mineralisation was associated with disseminated Quartz-Chlorite-Feldspar veins (2-7cm wide) containing trace Pyrite, Galena and Sphalerite.

Proposed drill hole number DPD003 was not drilled due to lack of significant mineralisation in holes DPD001 and DPD002.

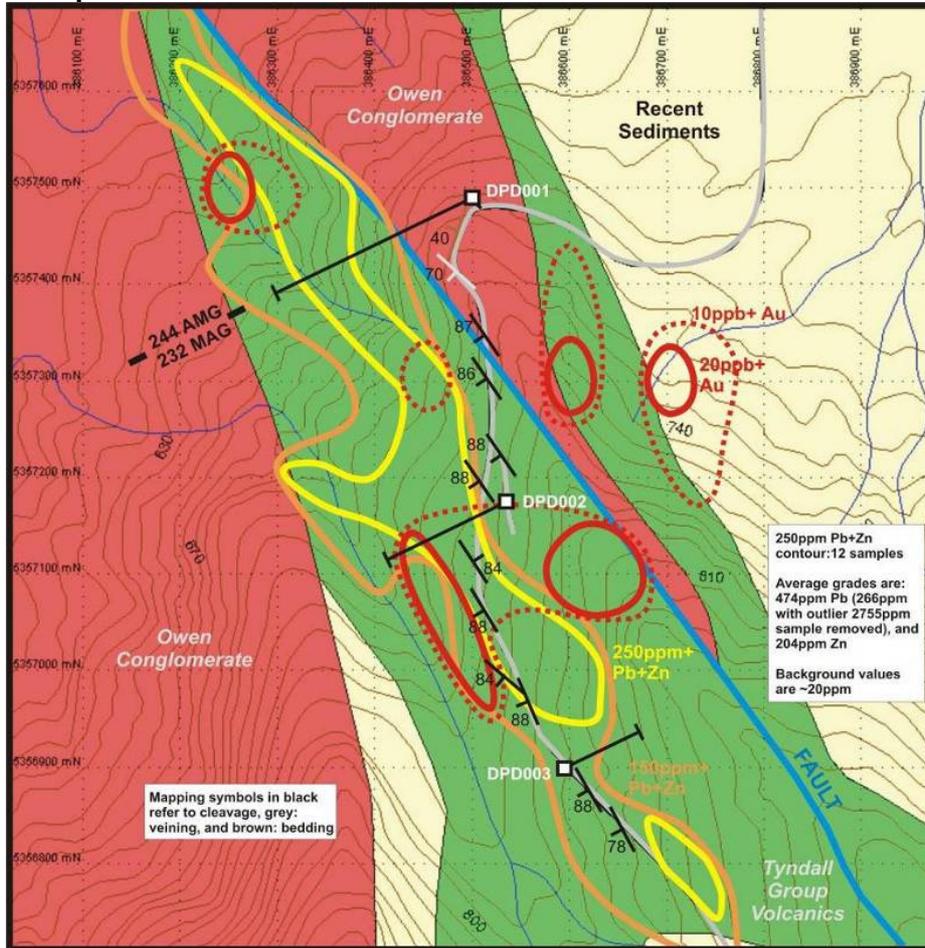
**Table 1. Selina Diamond Drilling Results – DPD001**

Hole ID	From m	To m	Width m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppm
<b>Cu+Pb+Zn &gt;1000ppm cut-off</b>								
DPD001	98.0	100.0	2.0	90	465	2419	1	<0.01
DPD001	116.0	118.0	2.0	35	596	870	1	<0.01
DPD001	122.2	123.0	0.9	529	228	318	12	<0.01
DPD001	133.0	139.0	6.0	283	701	1260	2	<0.01
DPD001	147.0	150.6	3.6	97	481	1589	3	<0.01
DPD001	161.0	163.0	2.0	11	338	898	<1	<0.01
DPD001	173.0	175.0	2.0	11	239	792	<1	<0.01
DPD001	187.0	191.0	4.0	829	115	1364	2	0.02
DPD001	195.0	199.0	4.0	28	279	1012	1	<0.01
DPD001	203.0	207.0	4.0	21	77	1384	<1	<0.01
DPD001	219.0	221.0	2.0	54	159	1261	<1	<0.01
DPD001	229.0	237.0	8.0	51.2	162	4019	<1	<0.01
DPD001	238.0	241.0	4.0	31.5	165	3775	1	<0.01
DPD001	243.0	249.0	6.0	110	262	2204	1	<0.01
DPD001	251.0	256.0	5.0	61.2	149	2787	1	<0.01
DPD001	258.0	260.0	2.0	47	137	1547	1	<0.01
DPD001	272.0	275.0	3.0	44.7	350	1657	1	<0.01
DPD001	286.5	290.0	3.5	30	736	4777	1	0.02
DPD001	291.0	302.0	11.0	37	314	2448	2	<0.01
DPD001	303.0	305.0	2.0	52	560	1305	2	<0.01

**Table 2. Selina Diamond Drilling Results – DPD002**

Hole ID	From m	To m	Width m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppm
<b>Cu+Pb+Zn &gt;1000ppm cut-off</b>								
DPD002	10.0	20.0	10.0	99	583	2803	2	<0.01
DPD002	24.0	25.3	1.3	17	518	1168	1	0.02
DPD002	27.0	29.0	2.0	17	567	1255	1	<0.01
DPD002	46.7	50.0	3.3	30	653	1683	2	<0.01
DPD002	64.0	66.0	2.0	51	470	1806	1	<0.01
DPD002	68.0	90.0	22.0	59	721	2968	1	<0.01
DPD002	96.1	97.1	1.0	27	1597	2681	2	<0.01
DPD002	99.0	100.1	1.0	51	1136	2449	1	<0.01
DPD002	102.0	105.0	3.0	44	1474	2599	2	<0.01
DPD002	106.0	110.0	4.0	55	568	1460	1	<0.01
DPD002	114.0	118.0	4.0	84	671	2416	2	<0.01
DPD002	126.0	130.0	4.0	13	244	851	2	<0.01
DPD002	148.0	150.0	2.0	11	680	1164	1	<0.01
DPD002	158.0	160.0	2.0	24	396	892	1	<0.01
DPD002	164.0	175.0	11.0	48	765	1942	2	<0.01
DPD002	176.0	177.0	1.0	130	1596	3960	2	<0.01
DPD002	181.0	192.0	11.0	88	1996	4452	2	<0.01
DPD002	194.0	198.0	4.0	73	1560	4137	1.5	<0.01
DPD002	202.0	204.0	2.0	8	440	909	<1	<0.01
<b>Au &gt;0.5g/t cut-off</b>								
DPD002	45.0	45.5	0.5	5	44	349	<1	4.36

**Figure 4 . Geological plan and geochemistry summary of the Dora Prospect**



## Conclusion

The executed drill program was targeted at the target considered the most prospective on the tenement. While veining and weak disseminated mineralization explained the soil anomaly, no significant mineralisation was intersected and the down-hole EM survey failed to detect any conductive bodies.

As a result, the BSM/ADU JV has decided to not apply for an extension to the licence and to allow the tenure to expire as of the end of January 2008.

## 5. 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 reduce the risk of spreading plant diseases and weeds as a result of day-to-day exploration tasks.

The attached Environmental Activity Map in Figure 5 shows the location of the licence relative to conservation areas and all grid lines cut during the life of the tenement.

### Land Tenure

The Mt Selina Exploration Licence comprises:

- Conservation Area
- Crown Land
- HEC Land
- Regional Reserve

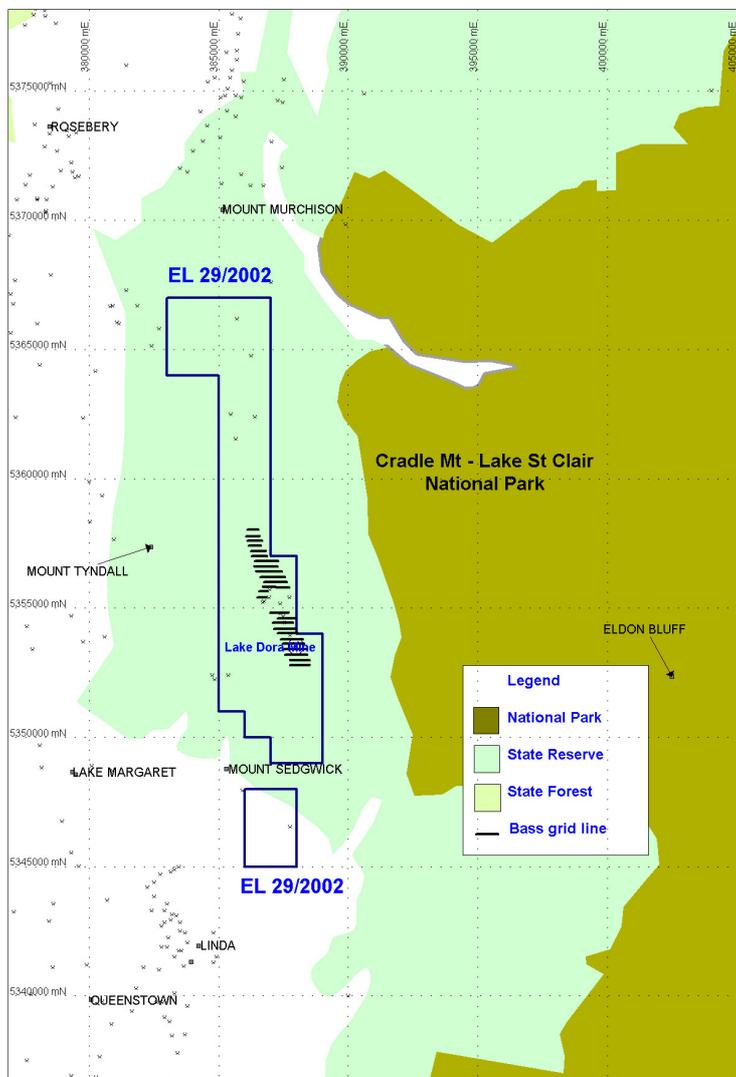


Figure 5. Environmental Activity Map showing all grid lines cut to end of licence expiry.

## 6. EXPENDITURE

	Jan 07 to Jan 08
<b>Administration</b>	
<b>Geology</b>	
<b>Gridding</b>	776.81
<b>Geochemistry</b>	
<b>Geophysics</b>	
<b>Drilling</b>	116.53
<b>Feasibility Studies</b>	
<b>Rehabilitation</b>	
<b>Other – Safety Equip</b>	
<b>Total - Eligible</b>	893.34
<b>Cumulative Total</b>	<b>419,491.80</b>

Table 3. Expenditure 31 January 2007 to 30 November 2007.  
*\*Cumulative total does not include actual figures for the months of December 2007 or January 2008.*

The major part of the expenditure during the period was included in the drilling of 2 diamond holes totalling 554m.

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## **APPENDIX 1**