

# Open File Envelope

## No. 9622

**EL 2072 AND EL 3379**

**BEN LOMOND**

### **ANNUAL REPORTS AND FINAL REPORT TO LICENCE SURRENDER FOR THE PERIOD 2/3/2000 TO 17/11/2007**

Submitted by  
Perilya Ltd  
2008

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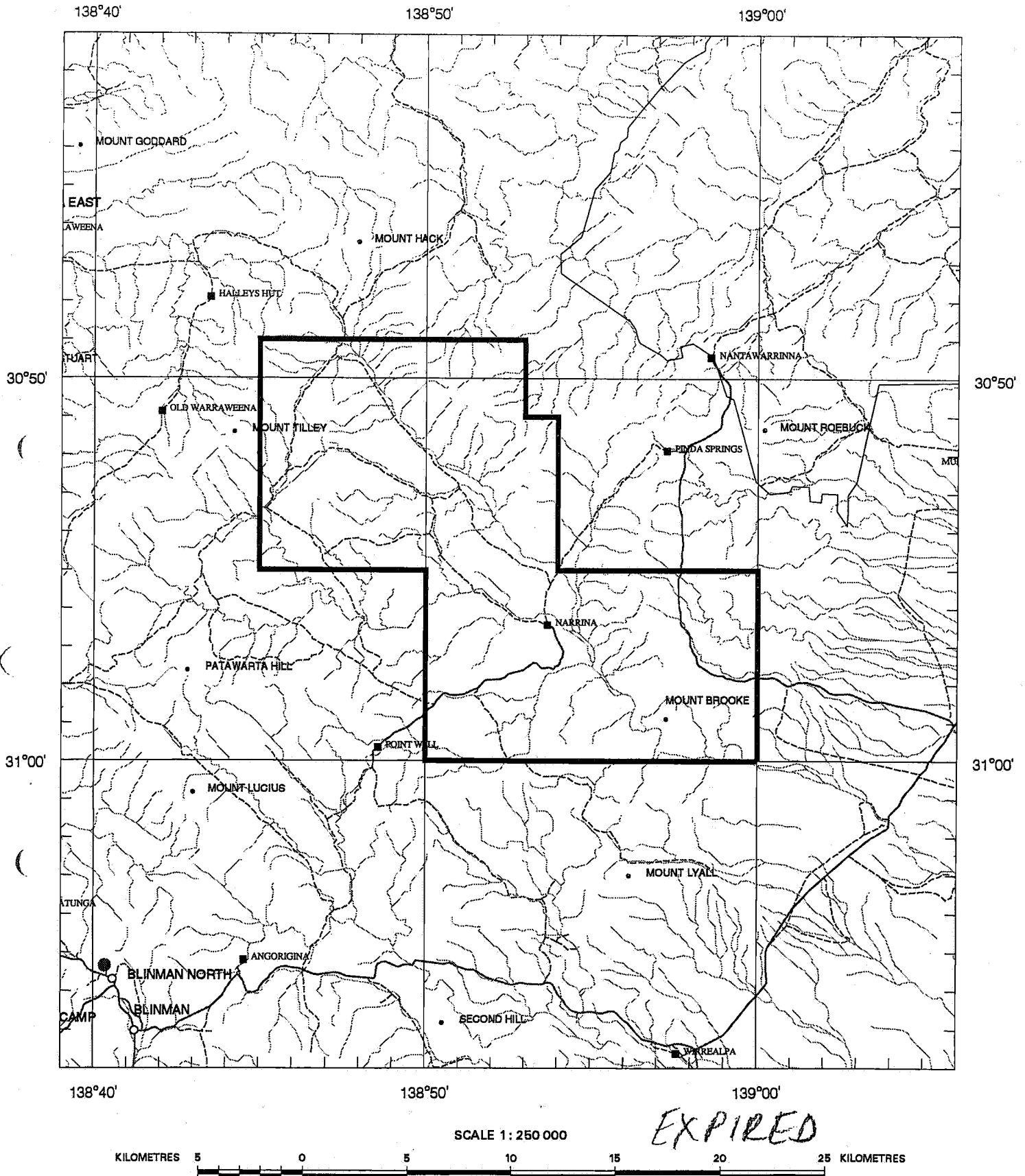
**Enquiries:** Customer Services Branch  
Minerals and Energy Resources  
7th Floor  
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000  
Facsimile: (08) 8204 1880



**Government of South Australia**  
**Primary Industries and Resources SA**

# SCHEDULE A



APPLICANT : **PERILYA MINES NL LTD**

FILE REF : **139/99** TYPE : **MINERAL ONLY**

AREA : **301 km<sup>2</sup> (approx.)**

1:250000 MAPSHEETS : **COPLEY**

LOCALITY : **BEN LOMOND AREA - Approximately 50 km southeast of Leigh Creek**

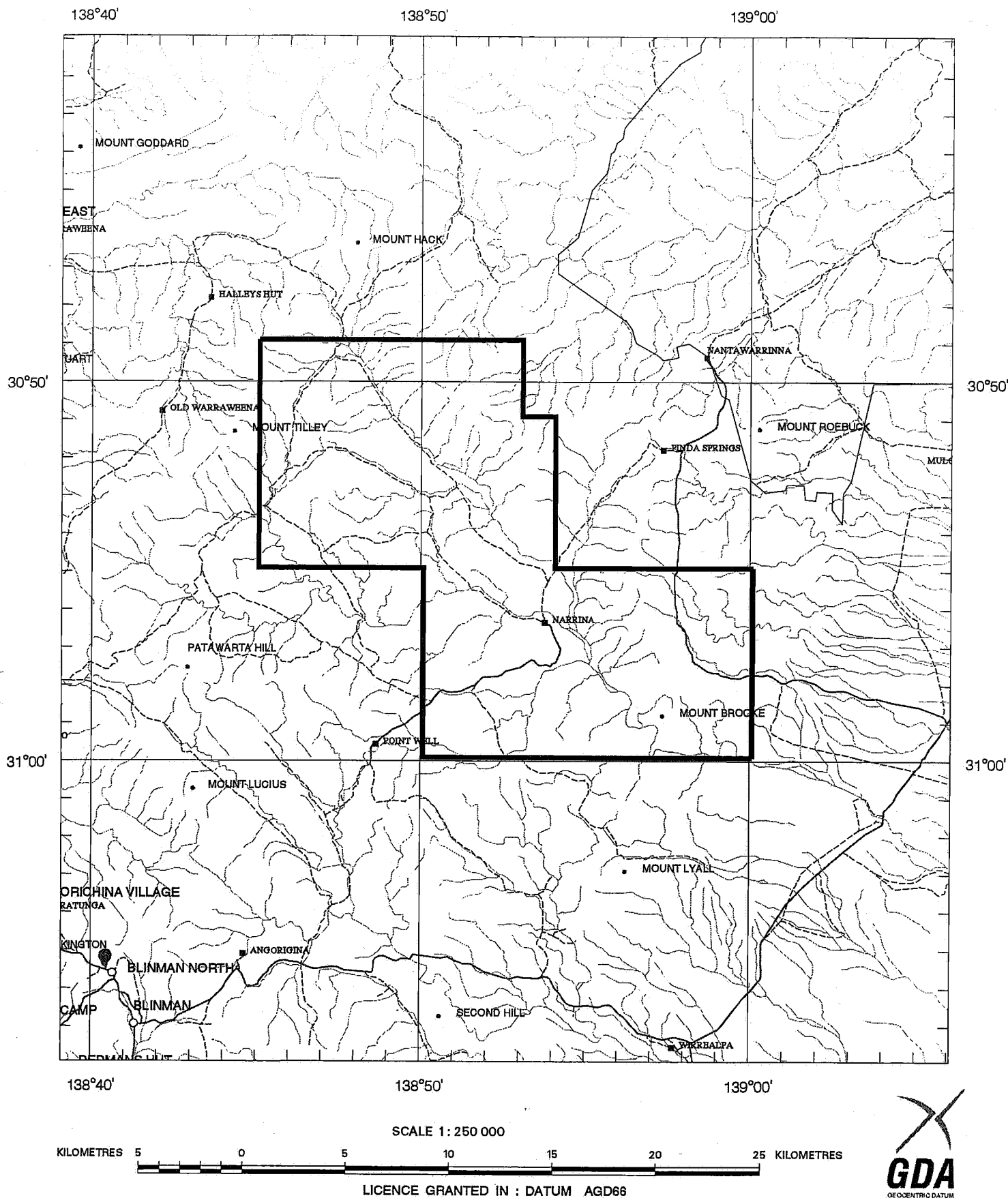
DATE GRANTED : **2 MAR 2000**

DATE EXPIRED : **1 MAR 2004**

**EL No : 2702**

*2002  
2003 2004 2005*

# SCHEDULE A



APPLICANT : **PERILYA LTD**

FILE REF : **41/05**

TYPE : **MINERAL ONLY**

AREA : **301 km<sup>2</sup> (approx.)**

1:250000 MAPSHEETS : **COPLEY**

LOCALITY : **BEN LOMOND AREA - Approximately 50 km southeast of Leigh Creek**

DATE GRANTED : **21-Jul-2005**

DATE EXPIRED : **20-Jul-2006**

EL NO : **3379**



**PERILYA LIMITED**  
**ABN 85 009 193 695**

**ANNUAL REPORT FOR  
BEN LOMOND  
FLINDERS RANGES PROJECT  
SOUTH AUSTRALIA**

**For The Period  
02/03/2000 – 01/03/2001**

**Project Number  
EL 2702**

**VOLUME 1 OF 1**

**Distribution:**

- |                          |                                   |            |
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| <input type="checkbox"/> | <b>PIRSA</b>                      | <b>(1)</b> |
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**Author: Iain Groves**

**March 2001**

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## **1. INTRODUCTION**

This report describes the first year of exploration by Perilya Limited on Exploration Licence 2702 'Ben Lomond', ending 2<sup>nd</sup> March, 2001. The licence area is located 500km north of Adelaide in the Central North Flinders Ranges, South Australia (Figure 1).

During the year, the licence area was examined as part of larger regional exploration programme targeting known mineral occurrences for zinc mineralisation.

## **2. TENURE**

The licence area covers 301km<sup>2</sup> and was granted to Perilya Limited on the 1st March, 2000.

## **3. GEOLOGY AND MINERALISATION**

The licence area lies in the northern part of the Adelaide Geosyncline, a deformed sedimentary basin of Late Proterozoic to Middle Cambrian age, flanked by crystalline basement complexes of the Gawler and Curnamona Cratons.

Zinc, lead and copper mineralisation are found throughout the geosyncline and are often associated with lithologies of Cambrian marine self-carbonate environments and dipiric rocks of the Callana beds. Base metal deposits were localised in particular stratigraphic and structural settings, probably during the Delemarian Orogen.

The Ben Lomond Licence area covers a large area of synclinal Cambrian carbonate sediments truncated by the NE trending Narina Fault. These sediments were formed in a deep water environment proximal to the shelf margin.

## **4. WORK COMPLETED IN THE FIRST YEAR**

Following the granting of the licence area, Perilya Limited has completed a regional evaluation as part of a large land package in the North Flinders.

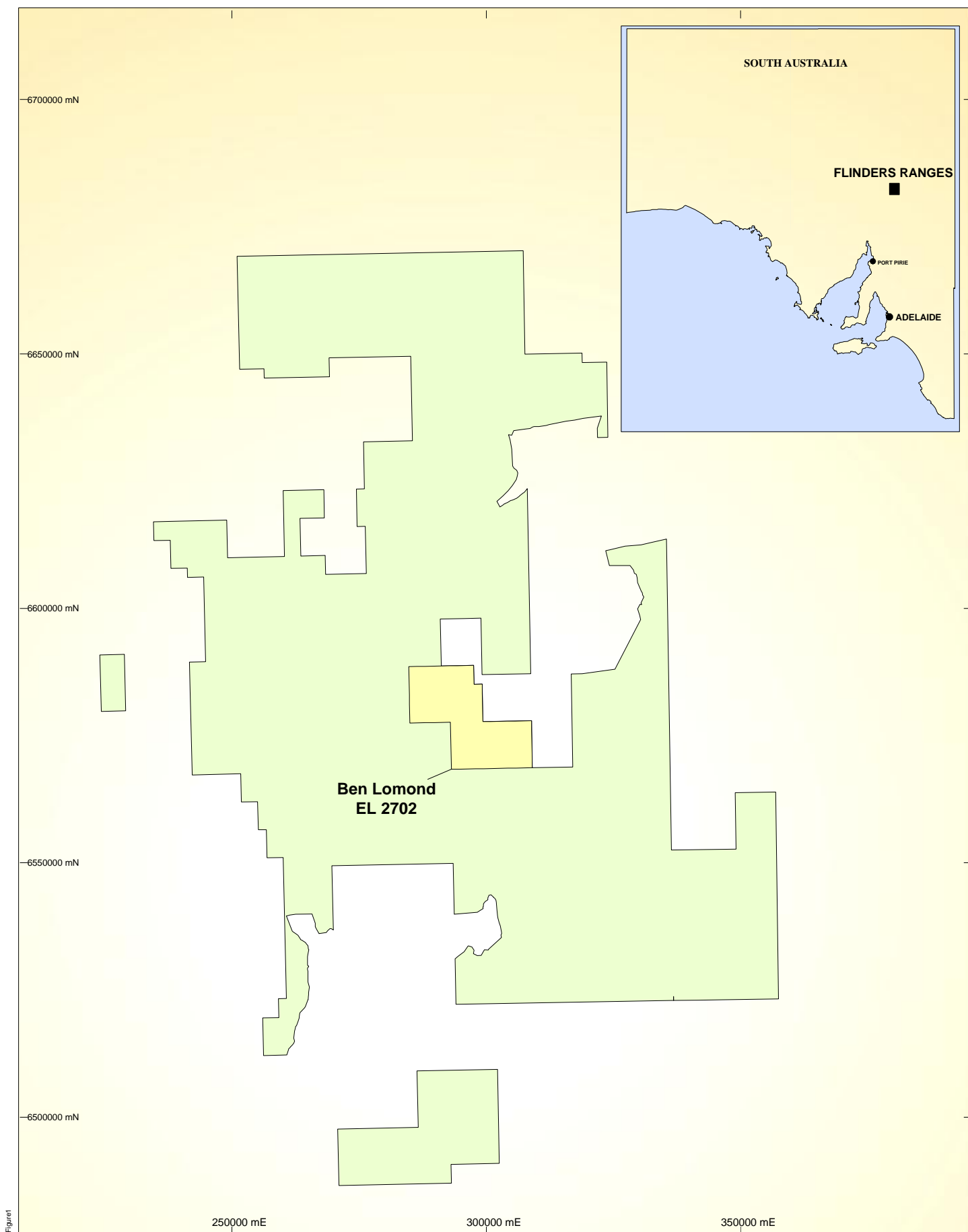
Research on mineralisation in the licence area was obtained from open file reports obtained from the PIRSA Library, resulting in the compilation of a Regional Prospect Database. Two areas of significant zinc stream anomalism were identified in the licence area, at Wirrapowie Creek and Point Well. Figure 2 shows the prospects identified at this time with Appendix I being a listing of data collected.

Acquiring, processing and interpreting AGSO geophysical data from the North Flinders was completed. A Landsat image of the entire North Flinders region was acquired to assist in prospect generation. Interpretation of this image is on-going and will assist with the evaluation of the licence area. Several areas of interest have been identified using spectra 1, 4 and 7 which delineates Fe – rich areas in the carbonate stratigraphy, which may be related to base metal mineralisation.

This regional data set will be examined further and in greater detail on specific target areas as the exploration program continues.

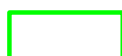
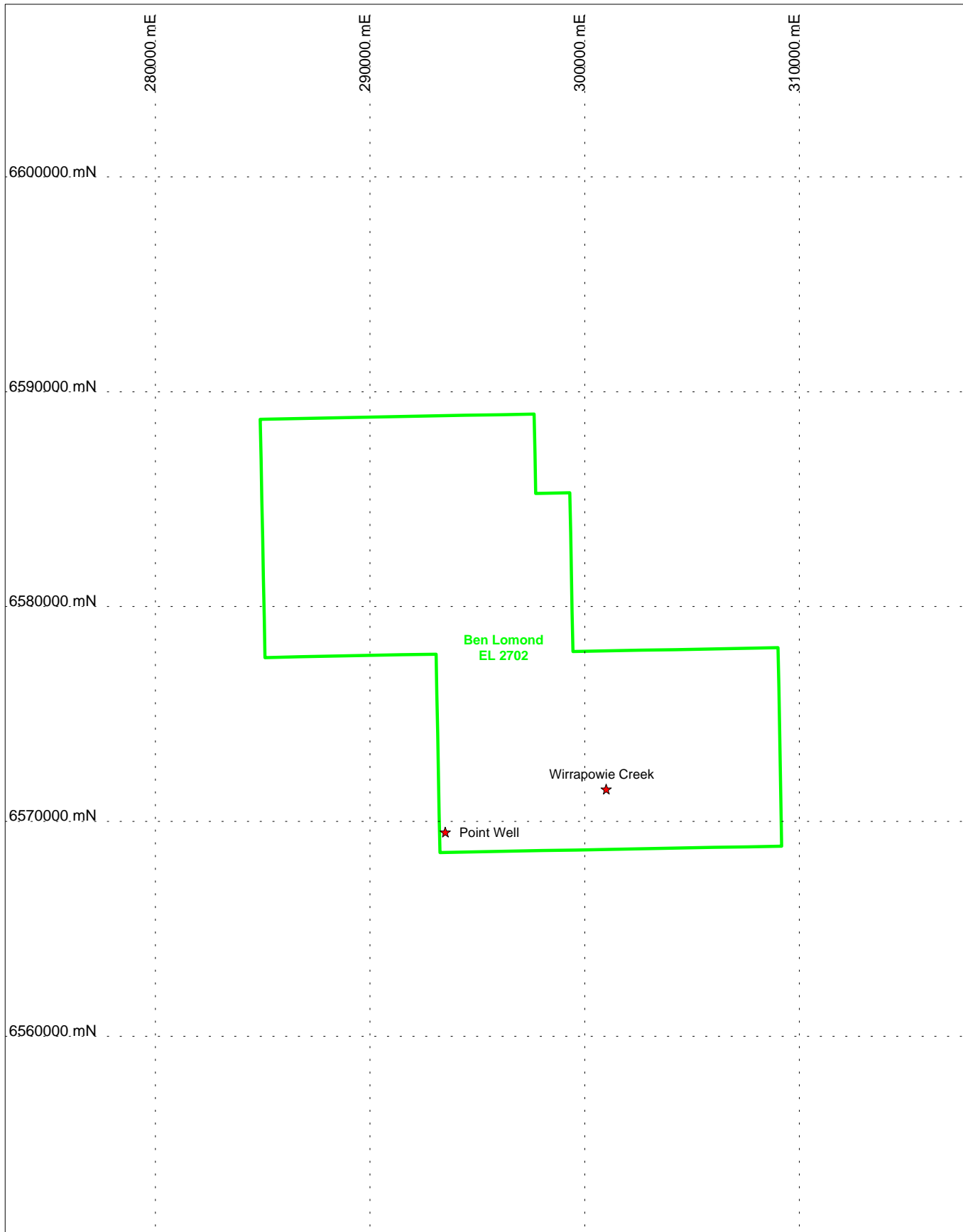
The regional exploration undertaken by Perilya has been held up in the last few months due to Negotiations with Aboriginal People over a low impact exploration agreement.

# FLINDERS RANGES PROJECT



Location





Tenement Outline



Prospect Location



**PERILYA**  
LIMITED

**FLINDERS RANGES PROJECT  
BEN LOMOND PROSPECT  
EL2702  
TENEMENT OUTLINE AND  
PROSPECT LOCATION PLAN**

Compiled :	Date : 01 April 2001	Scale : 1 : 250,000
Drawn : N.T.	Revision Date :	A.M.G. Map Zone : WGS84, Zone 54
Drawing Path : P:\NthFlinders\Reports\BenLomondReport		<b>Figure 2</b>

## **5. PROGRAMME FOR THE SECOND YEAR**

It is anticipated that in the next reporting period, Perilya's exploration focus on prospect evaluation will move into the more distal licence areas such as Ben Lomond. Ranked target areas will require ground evaluation and reconnaissance, followed by geochemical sampling programmes to outline their potential.

## **APPENDIX I**

### **Regional Prospect Database Ledger**

**APPENDIX I****Regional Prospect Database Ledger**

<b>Prospect Name</b>	Wirrapowie Creek
<b>Province</b>	SA North Flinders Ranges
<b>Map Sheet (1:100000)</b>	Angepena
<b>Tenement:</b>	Ben Lomond
<b>Tenement Holder:</b>	PEM
<b>Tenement Management:</b>	PEM
<b>AMG Northing:</b>	6571500
<b>AMG Easting:</b>	301000
<b>Access:</b>	4 km SE of Narrina
<b>Pastoral Lease:</b>	
<b>Host Lithology:</b>	
<b>Associated Rocks:</b>	
<b>Alteration:</b>	
<b>Structure:</b>	
<b>Mineralogy:</b>	
<b>Mineralisation Style:</b>	
<b>Regolith Profile:</b>	
<b>Historical Mining:</b>	
<b>Exploration Summary:</b>	
<b>Geochemistry:</b>	Stream sediments >100ppm Zn with peak of 220ppm Zn.
<b>Geophysics:</b>	
<b>Drilling:</b>	
<b>Current Resource/Reserve:</b>	
<b>Target:</b>	
<b>Proposed Work Status</b>	1-Pending
<b>Proposed Work Program</b>	
<b>Further Actions:</b>	
<b>Prospect Rank:</b>	3
<b>Comments:</b>	

<b>Prospect Name</b>	Point Well
<b>Province</b>	SA North Flinders Ranges
<b>Map Sheet (1:100000)</b>	Angepena
<b>Tenement:</b>	Ben Lomond
<b>Tenement Holder:</b>	PEM
<b>Tenement Management:</b>	PEM
<b>AMG Northing:</b>	6569500
<b>AMG Easting:</b>	293500
<b>Access:</b>	
<b>Pastoral Lease:</b>	

**Host Lithology:**  
**Associated Rocks:**  
**Alteration:**  
**Structure:**  
**Mineralogy:**  
**Mineralisation Style:**  
**Regolith Profile:**

**Historical Mining:**  
**Exploration Summary:**  
**Geochemistry:**

Stream sediment anomaly 500\*500m >100ppm Zn with peak of 290ppm Zn.

**Geophysics:**  
**Drilling:**  
**Current Resource/Reserve:**

**Target:**

**Proposed Work Status**  
**Proposed Work Program**  
**Further Actions:**

1-Pending

**Prospect Rank:**

3

**Comments:**



**PERILYA LIMITED**  
**ABN 85 009 193 695**

**ANNUAL REPORT FOR**  
**BEN LOMOND**  
**FLINDERS RANGES PROJECT**  
**SOUTH AUSTRALIA**

**For The Period**  
**02/03/2001 – 01/03/2002**

**Project Number**  
**EL 2702**

**VOLUME 1 OF 1**

**Distribution:**

- ☐ **PIRSA (1)**
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- ☐ **Perilya Limited – SA (1)**

**Author: Iain Groves**

**March 2002**

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## **1. INTRODUCTION**

This report describes the second year of exploration by Perilya Limited on Exploration Licence 2702 'Ben Lomond', ending 2 March, 2002. The licence area is located 500km north of Adelaide in the Central North Flinders Ranges, South Australia (Figure 1).

During the year, the licence area was examined as part of larger regional exploration programme targeting known mineral occurrences for zinc mineralisation.

## **2. TENURE**

The licence area covers 301km<sup>2</sup> and was granted to Perilya Limited on the 1 March, 2000.

## **3. GEOLOGY AND MINERALISATION**

The licence area lies in the northern part of the Adelaide Geosyncline, a deformed sedimentary basin of Late Proterozoic to Middle Cambrian age, flanked by crystalline basement complexes of the Gawler and Curnamona Cratons.

Zinc, lead and copper mineralisation are found throughout the geosyncline and are often associated with lithologies of Cambrian marine self-carbonate environments and dipiric rocks of the Callana beds. Base metal deposits were localised in particular stratigraphic and structural settings, probably during the Delemarian Orogen.

The Ben Lomond Licence area covers a large area of synclinal Cambrian carbonate sediments truncated by the NE trending Narina Fault. These sediments were formed in a deep water environment proximal to the shelf margin.

## **4. WORK COMPLETED IN THE FIRST YEAR**

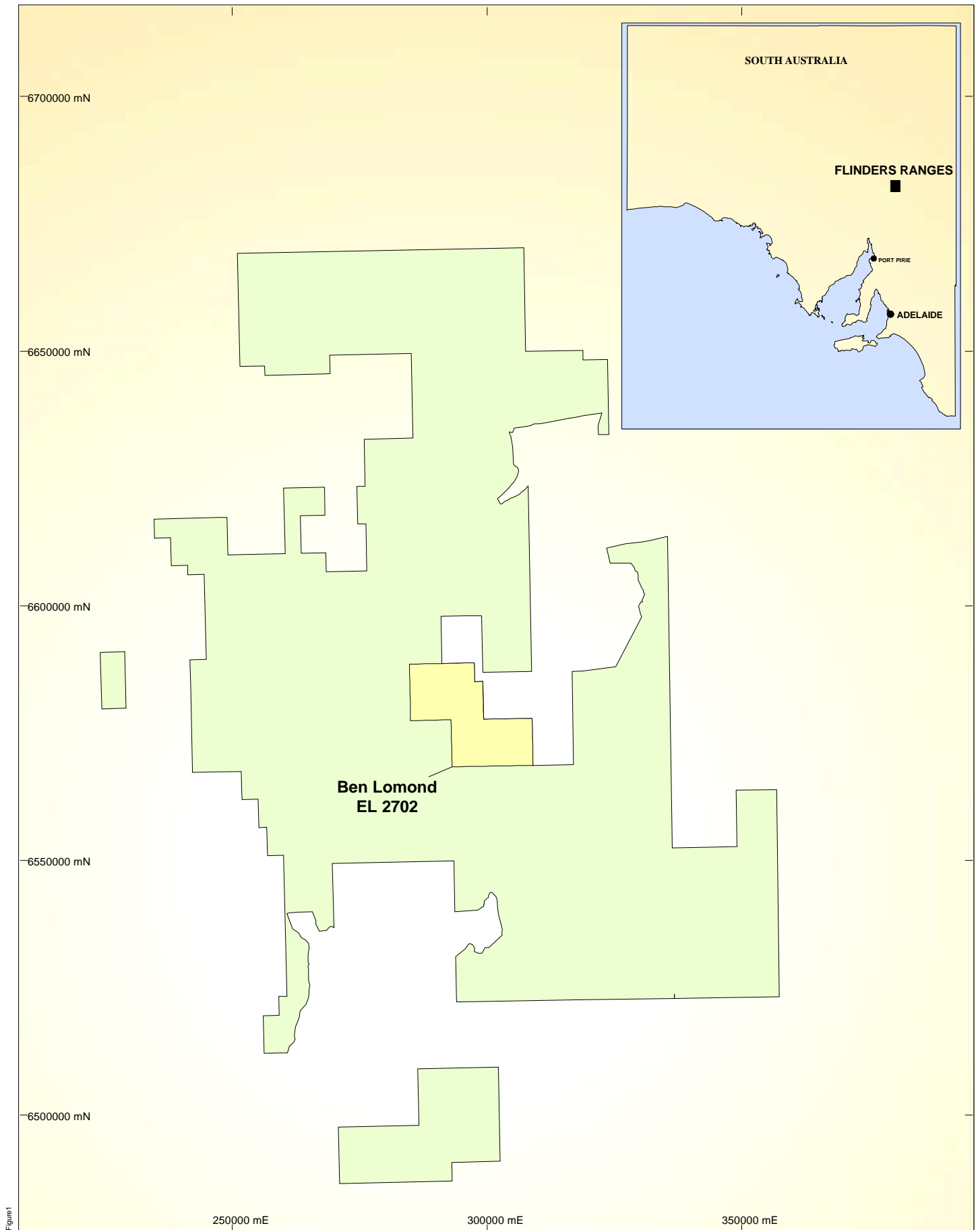
Following the granting of the licence area, Perilya Limited has completed a regional evaluation as part of a large land package in the North Flinders.

Research on mineralisation in the licence area was obtained from open file reports obtained from the PIRSA Library, resulting in the compilation of a Regional Prospect Database. Two areas of significant zinc stream anomalism were identified in the licence area, at Wirrapowie Creek and Point Well. Figure 2 shows the prospects identified at this time. Follow-up and ground evaluation is still required.

A Landsat image of the entire North Flinders region was acquired to assist in prospect generation. Interpretation of this image is on-going and will assist with the evaluation of the licence area. Several areas of interest have been identified using spectra 1, 4 and 7 which delineates Fe-rich areas in the carbonate stratigraphy, which may be related to base metal mineralisation.

No other work was undertaken during the period. Exploration work has largely ceased until Native Title issues have been resolved and agreements signed, including production agreements for the Beltana/Aroona Region.

# FLINDERS RANGES PROJECT

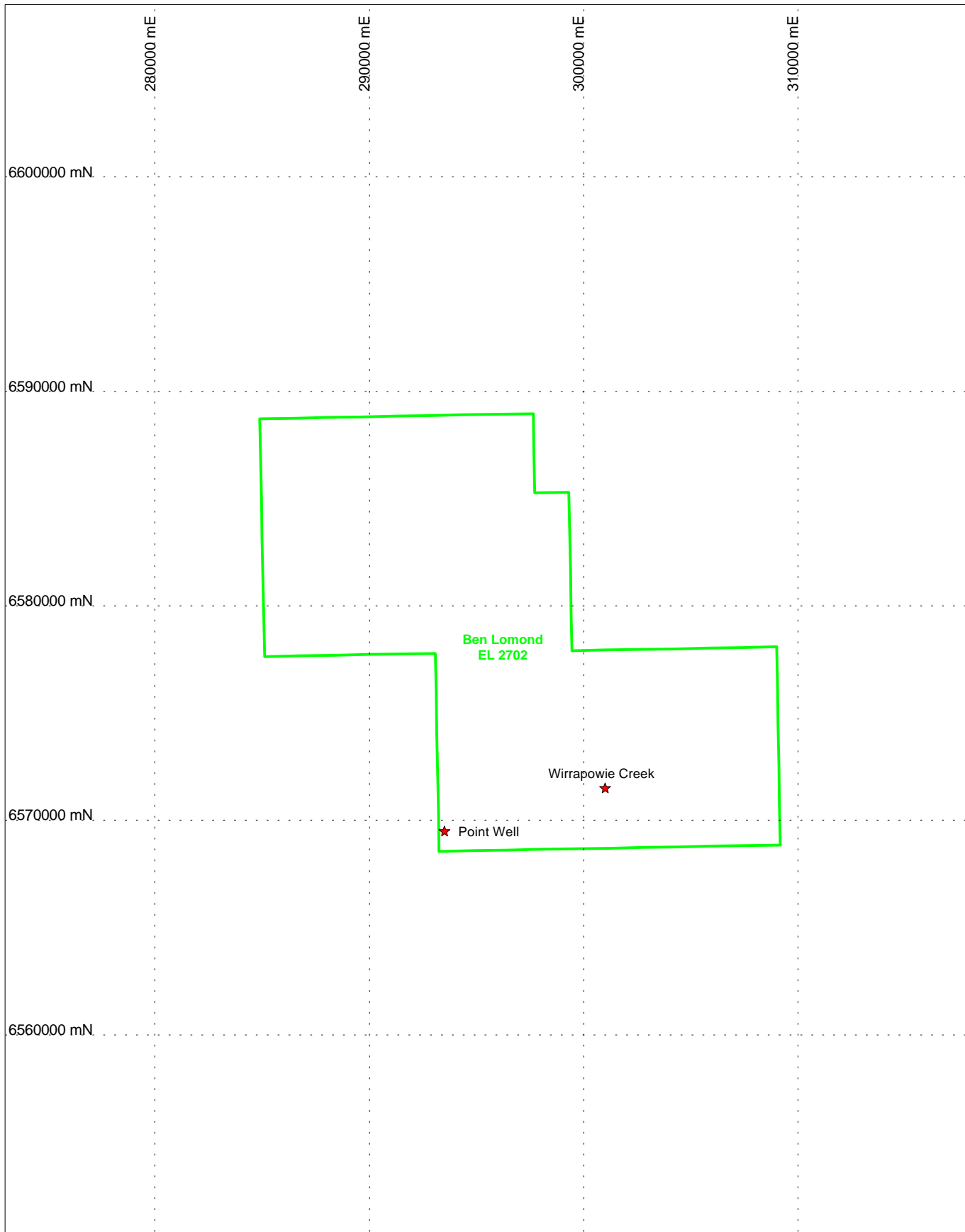


Location

May 2002



Figure 1



Tenement Outline



Prospect Location



**PERILYA**  
LIMITED

**FLINDERS RANGES PROJECT  
BEN LOMOND PROSPECT  
EL2702  
TENEMENT OUTLINE AND  
PROSPECT LOCATION PLAN**

Compiled :	Date : 15 May 2002	Scale : 1 : 250,000
Drawn : E.B.	Revision Date :	A.M.G. Map Zone : WGS84, Zone 54
Drawing Path : P:\NthFlinders\Reports\BenLomondReport		Figure 2

## **5. WORK PROGRAM**

It is anticipated that in the next reporting period, Perilya's exploration focus on prospect evaluation will move into the more distal licence areas such as Ben Lomond. Ranked target areas will require ground evaluation and reconnaissance, followed by geochemical sampling programmes to outline their potential. Re-interpretation of Landsat will be required.

## **APPENDIX I**

### **Regional Prospect Database Ledger**

## Regional Prospect Database Ledger

**Prospect Name** Wirrapowie Creek  
**Province** SA North Flinders Ranges  
**Map Sheet (1:100000)** Angepena  
**Tenement:** Ben Lomond  
**Tenement Holder:** PEM  
**Tenement Management:** PEM  
**AMG Northing:** 6571500  
**AMG Easting:** 301000  
**Access:** 4 km SE of Narrina  
**Pastoral Lease:**

**Host Lithology:**  
**Associated Rocks:**  
**Alteration:**  
**Structure:**  
**Mineralogy:**  
**Mineralisation Style:**  
**Regolith Profile:**

**Historical Mining:**  
**Exploration Summary:**  
**Geochemistry:** Stream sediments >100ppm Zn with peak of 220ppm Zn.  
**Geophysics:**  
**Drilling:**  
**Current Resource/Reserve:**

**Target:**

**Proposed Work Status** 1-Pending  
**Proposed Work Program**  
**Further Actions:**

**Prospect Rank:** 3

**Comments:**

<b>Prospect Name</b>	Point Well
<b>Province</b>	SA North Flinders Ranges
<b>Map Sheet (1:100000)</b>	Angepena
<b>Tenement:</b>	Ben Lomond
<b>Tenement Holder:</b>	PEM
<b>Tenement Management:</b>	PEM
<b>AMG Northing:</b>	6569500
<b>AMG Easting:</b>	293500
<b>Access:</b>	
<b>Pastoral Lease:</b>	

**Host Lithology:**  
**Associated Rocks:**  
**Alteration:**  
**Structure:**  
**Mineralogy:**  
**Mineralisation Style:**  
**Regolith Profile:**

<b>Historical Mining:</b>	
<b>Exploration Summary:</b>	
<b>Geochemistry:</b>	Stream sediment anomaly 500*500m >100ppm Zn with peak of 290ppm Zn.
<b>Geophysics:</b>	
<b>Drilling:</b>	
<b>Current Resource/Reserve:</b>	

**Target:**

<b>Proposed Work Status</b>	1-Pending
<b>Proposed Work Program</b>	
<b>Further Actions:</b>	

<b>Prospect Rank:</b>	3
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**Comments:**

# Final Technical report

for

EL2702 "Ben Lomond"

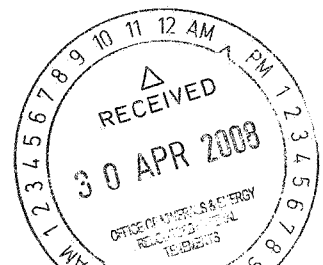
Flinders Ranges Project, South Australia

## DETAILS OF LICENSES

<b>Licence No's:</b>	EL2702
<b>Location:</b>	Flinders Ranges
<b>Licence Holder:</b>	Perilya Limited
<b>Operator/Manager:</b>	Perilya Limited
<b>Reporting Period:</b>	1 <sup>st</sup> March 2000 – 1 <sup>st</sup> March 2005

**Author:** René Sterk

**Date:** 23<sup>rd</sup> April 2008



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## 1. INTRODUCTION

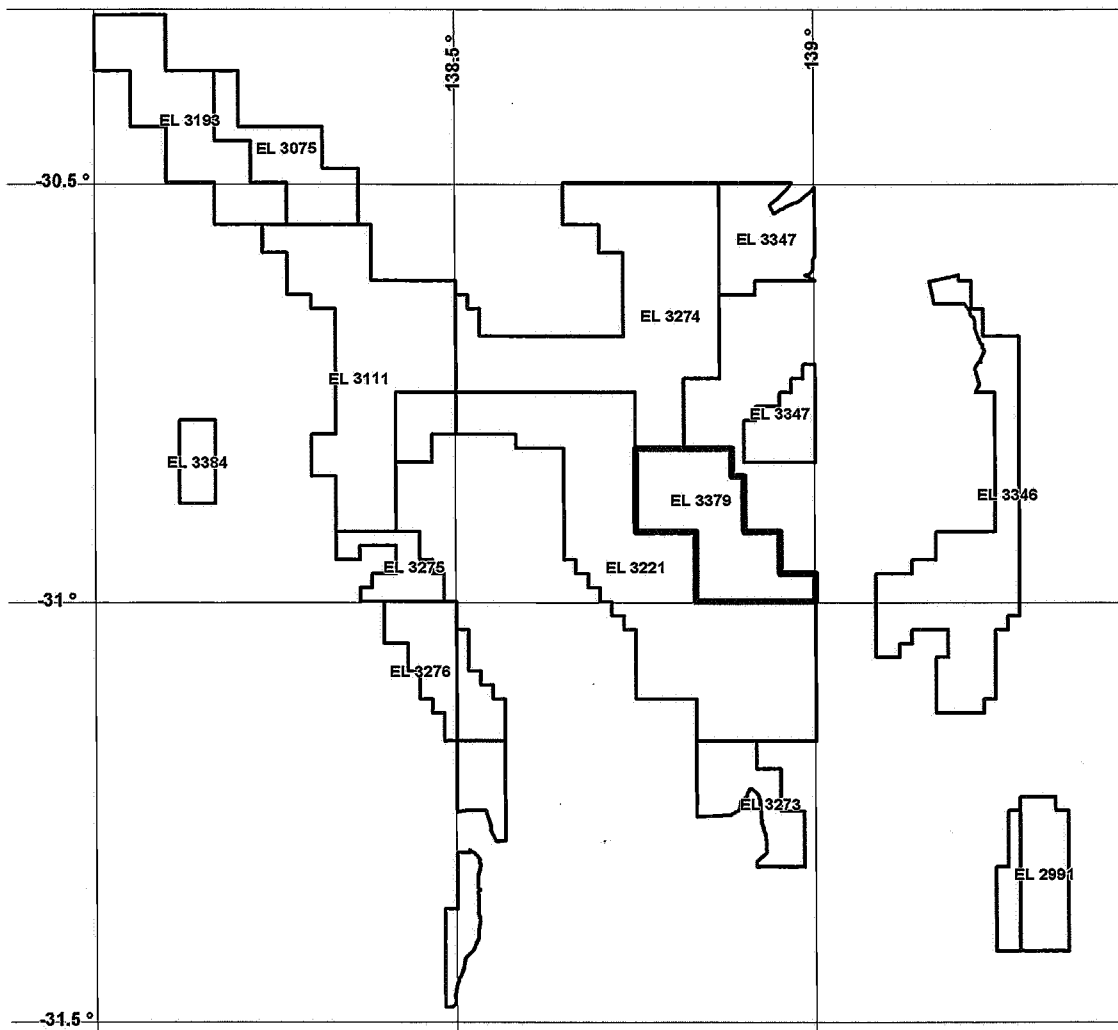
This report is the final technical report for exploration on Exploration Licence EL 2702 "Ben Lomond", from 1 March 2000 to 1<sup>st</sup> March 2005.

The licence area is located 400km north of Adelaide in the North Flinders Ranges, South Australia (Figure 1).

No exploration was conducted on the tenement. The focus of exploration was on other tenements which were included in the Flinders Ranges Project Amalgamated Expenditure agreement dated 5 March 2003.

## 2. TENURE

The Ben Lomond licence area (EL 2702) covers 274.1 km<sup>2</sup> and was granted to Perilya Limited on 1<sup>st</sup> March 2000. The land is located 50km ESE of the Beltana area. The licence area was renewed by PIRSA at various 1 year intervals until its 5 year term expired on 1<sup>st</sup> March 2005. The licence area was subsequently applied for as replacement EL 3379.



**Figure 1:** Location of Perilya's Flinders Tenements (black), with Ben Lomond tenement outlined in red coordinate system MGA94

### **3. GEOLOGY AND MINERALISATION**

The Exploration Licence is located in the Northern Flinders Ranges, South Australia. The North Flinders Ranges is Late Proterozoic to Middle Cambrian age. Sediments have accumulated in a continental rift zone, between the Gawler and Curnamona Cratons.

Zinc, lead and copper mineralisation is found throughout the Geosyncline generally associated with lithologies of Cambrian marine shelf-carbonate environments. Following the Delamerian Orogeny, diapirism and metasomatism were active which resulted in base metal deposits becoming localised in particular stratigraphic and structural settings.

The Ben Lomond Licence covers a large area of synclinal Cambrian carbonate sediments truncated by the NE trending Narina Fault. These sediments were formed in a deep-water environment proximal to the shelf margin.

### **4. WORK COMPLETED**

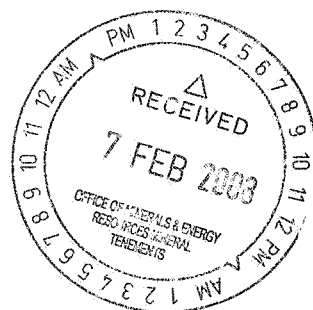
Apart from regional assessment and field reconnaissance, no detailed exploration was conducted or data compiled for EL 2702. .

# Final Technical report

for

EL3379 "Ben Lomond"

Flinders Ranges Project, South Australia



## DETAILS OF LICENSES

<b>Licence No's:</b>	EL3379
<b>Location:</b>	Flinders Ranges
<b>Licence Holder:</b>	Perilya Limited
<b>Operator/Manager:</b>	Perilya Limited
<b>Reporting Period:</b>	1 <sup>st</sup> March 2000 – 17 <sup>th</sup> November 2007

**Author:** René Sterk

**Date:** 22<sup>nd</sup> January 2007



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## 1. INTRODUCTION

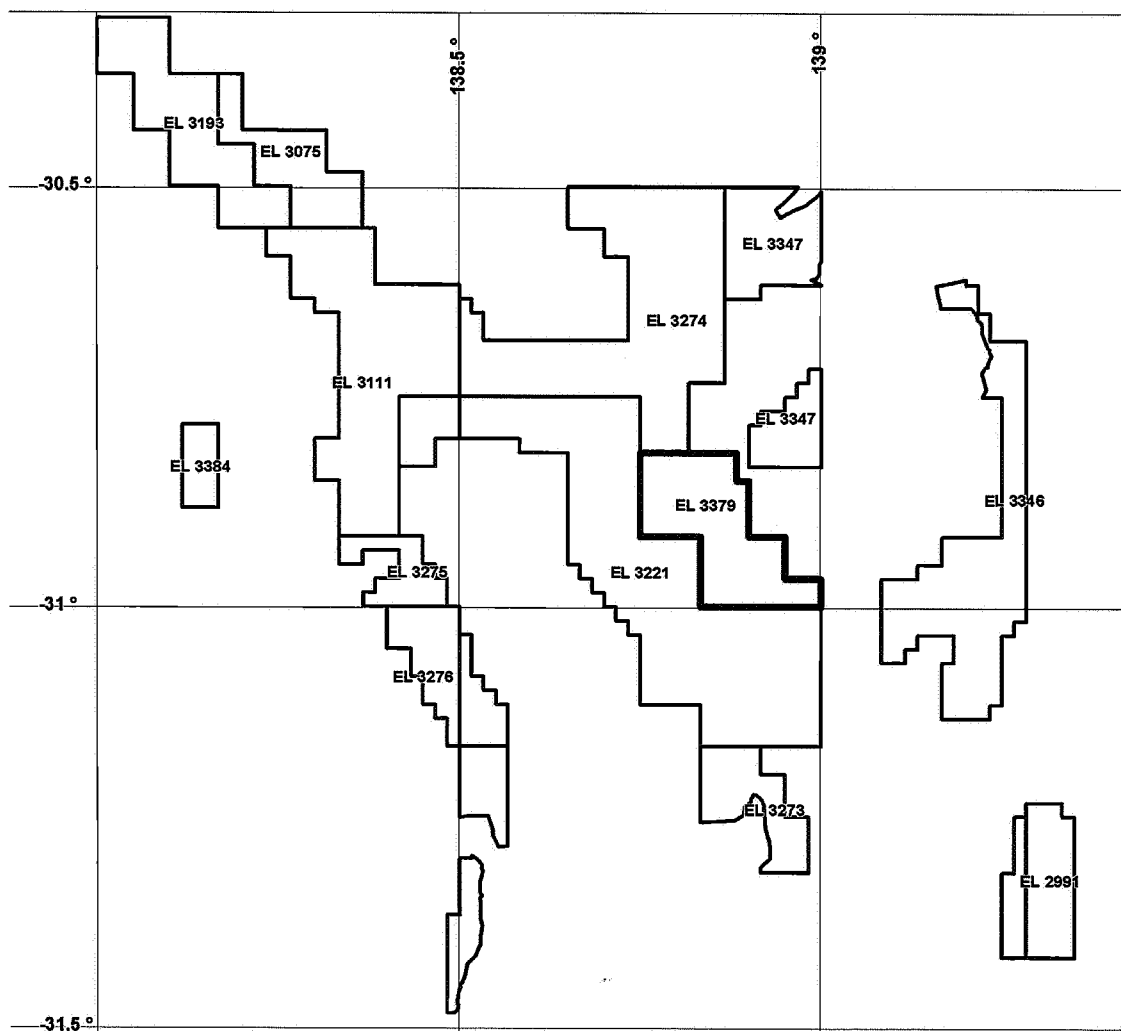
This report is the final technical report for exploration on Exploration Licence EL3379 "Ben Lomond", from 1 March 2000 to 17 November 2007.

The licence area is located 400km north of Adelaide in the North Flinders Ranges, South Australia (Figure 1).

No exploration was conducted on the tenement. The focus of exploration was on other tenements which were included in the Flinders Ranges Project Amalgamated Expenditure agreement dated 5 March 2003.

## 2. TENURE

The Ben Lomond licence area (EL 3379) covers 274.1 km<sup>2</sup> and was granted to Perilya Limited on 1<sup>st</sup> March 2000. The land package is located 50km ESE of the Beltana area. The licence area was renewed by PIRSA for a further one year term expiring 20<sup>th</sup> August 2007.



**Figure 1:** Location of Perilya's Flinders Tenements (black), with Ben Lomond tenement outlined in red coordinate system MGA94



FINAL TECHNICAL REPORT BEN LOMOND EL3379  
FLINDERS RANGES

**3. GEOLOGY AND MINERALISATION**

The Exploration Licence is located in the Northern Flinders Ranges, South Australia. The North Flinders Ranges is Late Proterozoic to Middle Cambrian age. Sediments have accumulated in a continental rift zone, between the Gawler and Curnamona Cratons.

Zinc, lead and copper mineralisation is found throughout the Geosyncline generally associated with lithologies of Cambrian marine shelf-carbonate environments. Following the Delamerian Orogeny, diapirism and metasomatism were active which resulted in base metal deposits becoming localised in particular stratigraphic and structural settings.

The Ben Lomond Licence covers a large area of synclinal Cambrian carbonate sediments truncated by the NE trending Narina Fault. These sediments were formed in a deep-water environment proximal to the shelf margin.

**4. WORK COMPLETED**

No exploration was conducted on the reporting tenements.