



## DECEMBER 2006 QUARTERLY REPORT

22 January 2007

### LEGEND MINING LIMITED

ASX Symbol: **LEG**

ABN 22 060 966 145

Level 2, 640 Murray Street  
West Perth  
Western Australia 6005

P.O. Box 626  
West Perth  
Western Australia 6872

Phone: +61 8 9212 0600  
Facsimile: +61 8 9212 0611

Email:  
legend@legendmining.com.au

[www.legendmining.com.au](http://www.legendmining.com.au)

### CONTACTS

Mr Mark Wilson  
Managing Director

Mr Bob Perring  
Technical Director

### PROJECTS

**Pilbara:** nickel-copper & zinc-copper

**Gidjee:** gold

**Mt. Gibson:** zinc-copper-gold

### LOCATION OF PROJECTS



### HIGHLIGHTS

- **Six new VTEM base metal targets discovered in the Pilbara.**
- **Further VTEM survey scheduled for March 2007.**
- **62,500,000 ordinary shares issued at 8 cents per share raises \$5,000,000.**
- **New base metal drill targets identified at Mt Gibson.**

### OVERVIEW

*The December quarter saw the completion of the first of our VTEM surveys in the Pilbara. Through the survey we identified six promising base metal targets, which we will be following up in this current quarter with field work and the planning of drill holes.*

*On the strength of the VTEM survey we were able to raise an additional \$5 million to expand the survey areas, to progress the testing of the identified VTEM targets, and to progress other exploration initiatives.*

*Further geological assessment on our Mt Gibson project has allowed us to identify new base metal drill targets, which we anticipate will be drilled later in 2007.*

*Further details on our projects and operations for the Quarter are provided below.*



## **1. Pilbara Project**

The Versatile Time Domain Electro Magnetic survey (VTEM-1) flown in November 2006 discovered six new base metal targets consistent with the possible presence of sulphide. Given the favourable geology, these sulphide bodies could contain copper and nickel (ASX Announcement: 4 December 2006).

All targets fall within Legend's 100%-owned exploration licence application areas located within 50km of Karratha (Figure 1). This is the first phase of new work on the Pilbara Project and only 25% of Legend's total Pilbara land holding has been covered by VTEM-1. A second survey (VTEM-2) of similar size (180km<sup>2</sup>) has already been booked for early 2007.

An overview of planned work programs for the first half of 2007, including the follow-up of the six new base metal targets, is outlined below:-

### First Quarter - 2007

- geological mapping and gossan search
- ground electromagnetic (EM) surveys to improve resolution of the six VTEM-1 targets
- planning of drill holes to test the six VTEM-1 targets
- flying of VTEM-2 survey, weather permitting.

### Second Quarter – 2007

- drill testing of the six VTEM-1 targets subject to the grant of exploration licences
- ground electromagnetic (EM) surveys over new VTEM-2 anomalies.

## **2. Gidgee Project**

Reconnaissance exploration drilling during the December Quarter continued in the Castor, Helios, and North Splay target areas located towards the northern end of the Gum Creek Greenstone Belt (Figure 2). A further 7,887m of aircore drilling was completed to bring the total for 2006 to 45,887m. All assay results for drill samples have now been received.

The results from this broad-spaced drilling were generally disappointing, although a number of zones of low-order gold anomalism were identified in structures that refract around the cluster of elliptical diorite-granodiorite intrusions throughout the area. No follow-up is planned at this stage because any new gold resource in this area is unlikely to have a positive impact on the recommissioning of the Gidgee Mill.

Legend is absolutely committed to a disciplined approach to gold exploration in the Gum Creek Greenstone Belt and will only follow-up anomalies that have a reasonable probability of delivering gold resource that may convert into reserve at current gold prices.

Exploration drilling in 2006 was restricted to targets within the exploration licences granted in August 2006, which represent only 27% of the total 2,850km<sup>2</sup> of land held by Legend in the Gum Creek Greenstone Belt. Access to other target areas (e.g. Victory Splay, see Figure 2) is expected in April 2007, when drilling is set to continue to test a number of new discovery opportunities.



### 3. Mt Gibson Project

No additional holes were drilled in the December 2006 Quarter and the total for the year remains at 8 diamond holes for a total of 5978.3m as reported in the September 2006 Quarterly Report.

Geological assessment of the drill core continued with the aim of further developing the predictive geological model (ASX Announcement: 24 October 2006). There have been three significant geological breakthroughs made during the December Quarter which further elevate the base metal prospectivity and improve the capacity to focus on specific target zones. For the technically minded, the three breakthroughs are:-

- there is a much higher proportion of sedimentary rocks in the volcanic sequence than previously recognized. Work is now focusing on defining variations in the true thickness of these sedimentary units as a method of identifying depressions or sub-basins on the sea floor where sulphide could have accumulated (i.e. new drill targets)
- the stronger zinc sulphide mineralization (4m @ 13.4% Zn), which is associated with boron-rich, sea-floor exhalite (rock-type commonly associated with volcanic-hosted base metal deposits), is interpreted to lie on or near a basin-margin structure (reactivated as a thrust during basin inversion) – a favourable environment in which to find sulphide accumulations and increasing confidence that the base metal system has the potential to deliver an orebody (Hornet Target, see Figure 3)
- a new target area has also been identified to the north of the section covered by the broad-spaced drilling in 2006. Another basin-margin structure has been interpreted which could have focused sulphide mineralization (Atlanta Target, see Figure 3). Drilling to test this conceptual target is being considered.

### 4. Operations

Both the mining and processing operations at the Mt Gibson and Gidgee Projects remain on care and maintenance.

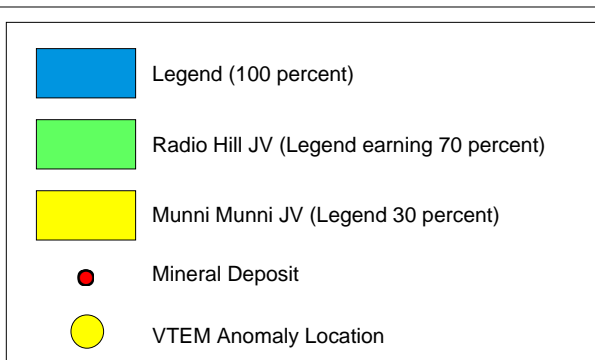
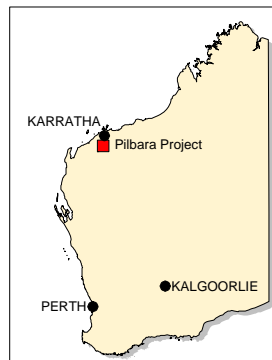
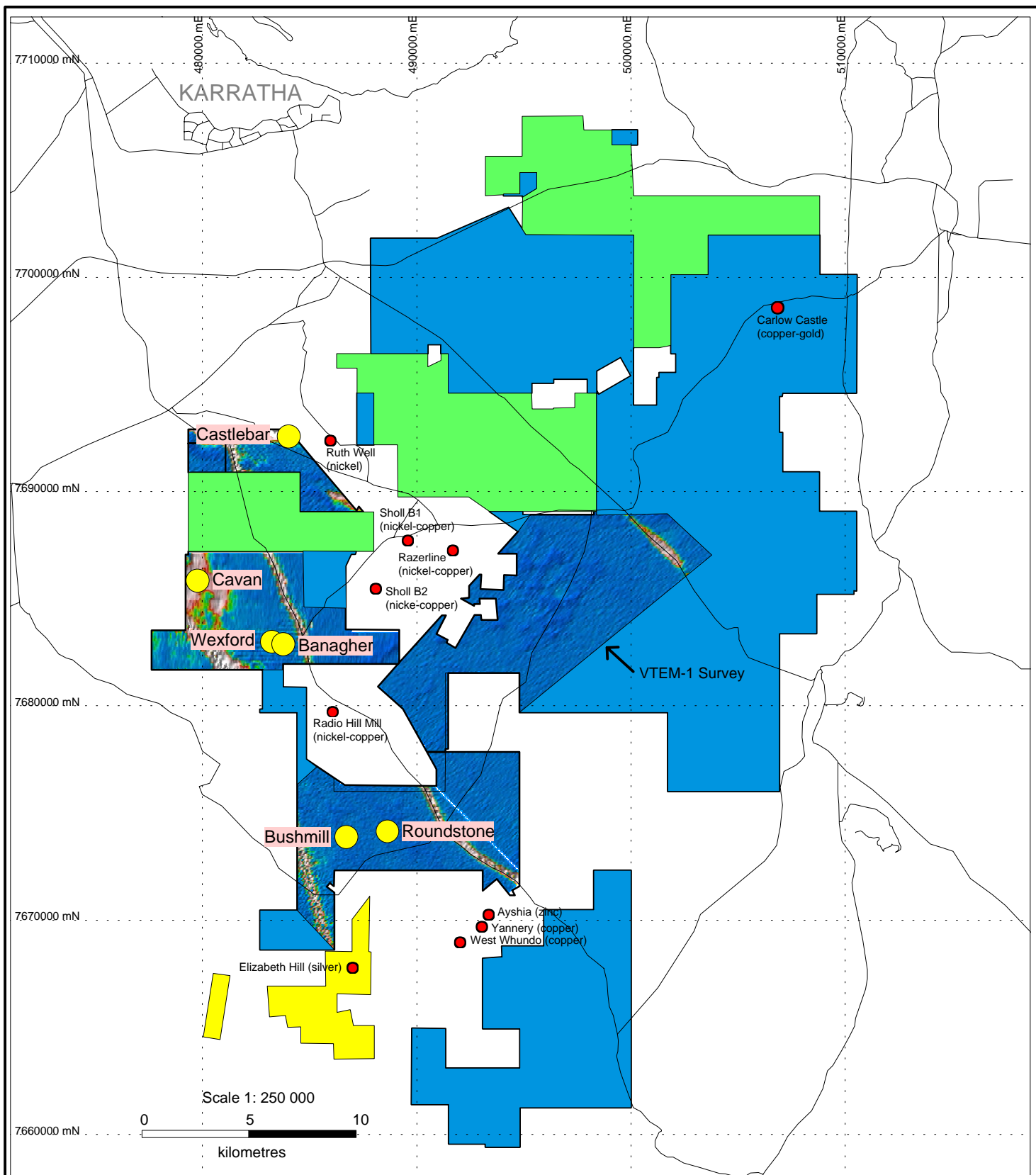
### 5. Corporate

On the 27 December 2006, Legend completed the issue of 62,500,000 ordinary shares at an issue price of 8 cents per share to raise \$5,000,000. The shares were issued to sophisticated and professional investor clients of Bell Potter Securities Limited and Findlay & Co. Stockbrokers Limited.

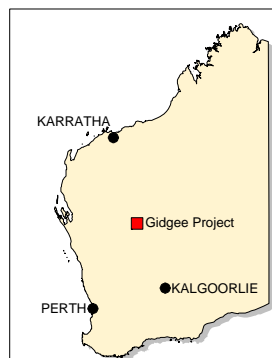
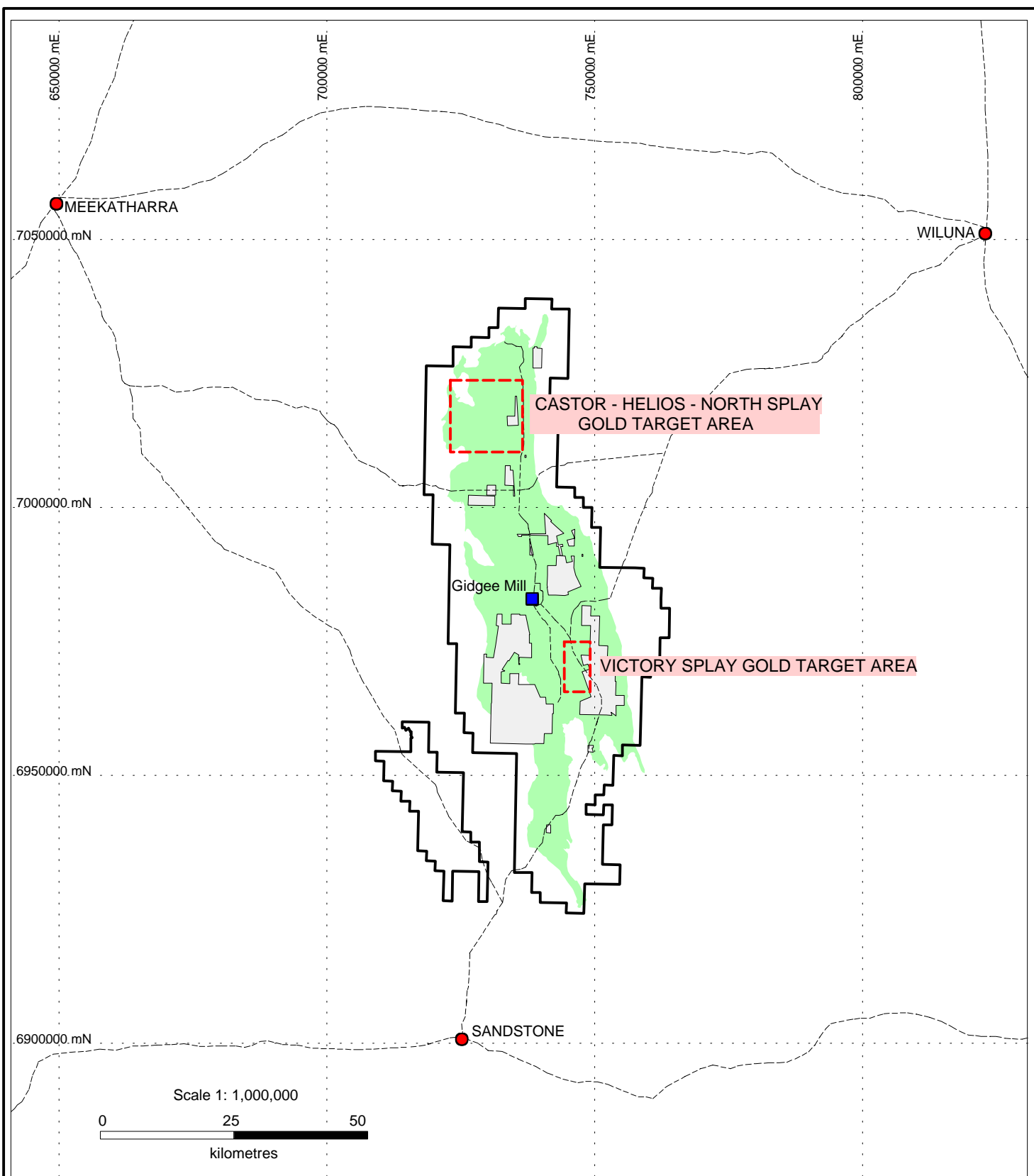
The completion of the capital raising significantly contributed to Legend's healthy cash balance of \$8,925,000 as at 31 December 2006, which will more than adequately fund all planned exploration initiatives for 2007.

**Mark Wilson**  
Managing Director  
22 January 2007

*The information in this announcement that relates to Exploration Results has been reviewed by Mr Robert Perring, a Member of the Australian Institute of Geoscientists, whose services are provided by Quadramin. Mr Perring has sufficient relevant experience in the styles of mineralisation and types of deposit under consideration, and in the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code), and consents to the inclusion of the information in the form and context in which it appears.*



LEGEND MINING LIMITED	
PILBARA PROJECT	
Figure 1	
<b>VTEM-1 Anomaly Location</b>	
Author: RJP	Scale: 1:250,000
Date: 16 January 2007	Revised:
GDA 94 MGA Zone 50	



- |  |                           |
|--|---------------------------|
|  | Legend (100 percent)      |
|  | Land Held by Others       |
|  | Gum Creek Greenstone Belt |

**LEGEND**  
MINING LIMITED

**GIDGEE PROJECT**

Figure 2

**Gold Target Areas**

Author: RJP

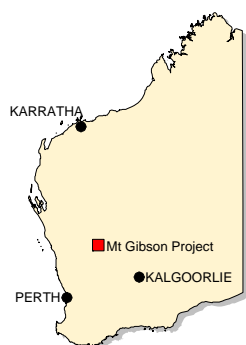
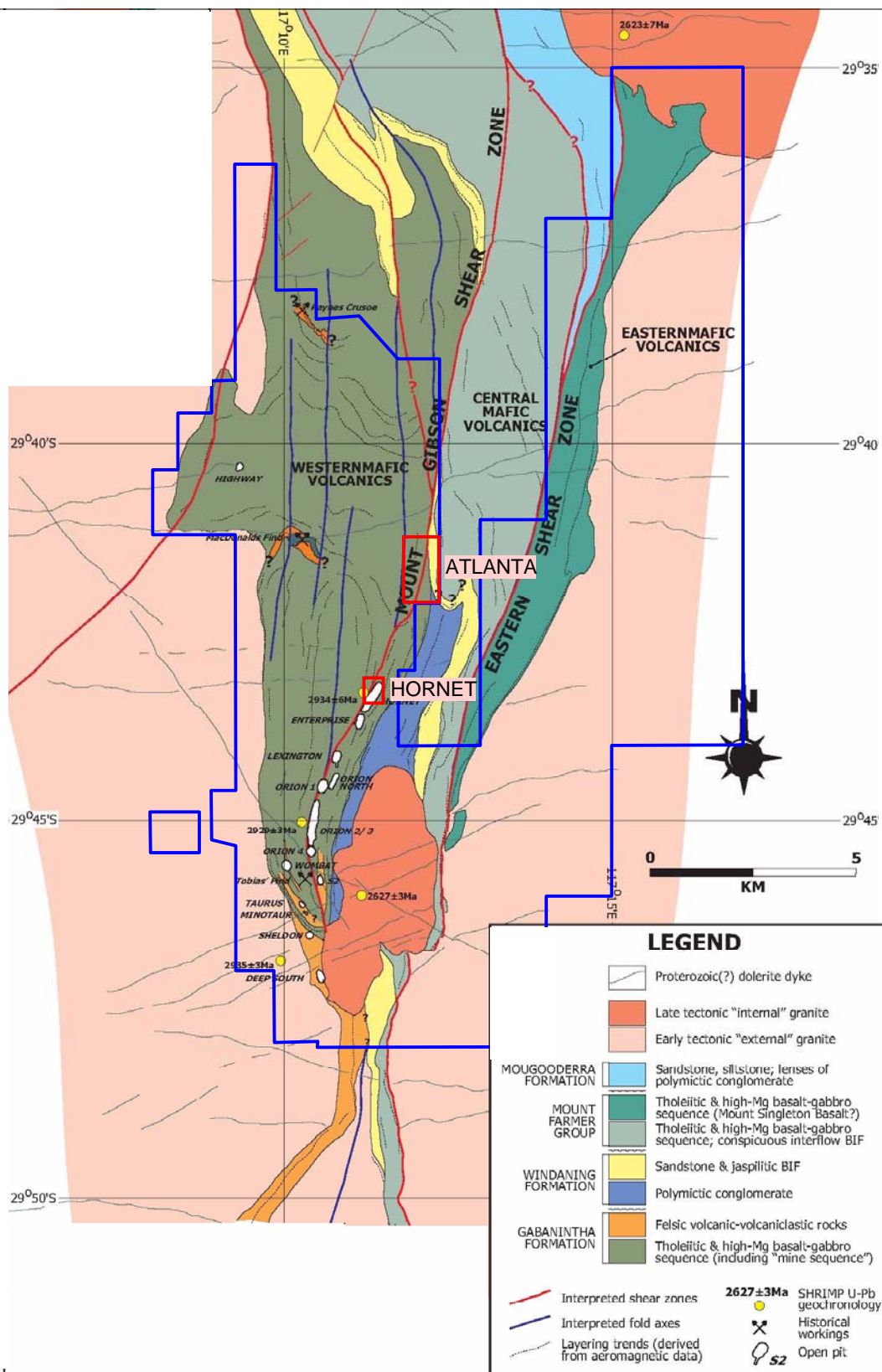
Date: 16 January 2007

Scale: 1:1,000,000

Revised:

GDA 94 MGA Zone 50





- Base Metal Target
- Project Area External Boundary

**LEGEND**  
MINING LIMITED

### MT GIBSON PROJECT

Figure 3  
**Base Metal Targets  
on District Geology**

Author:	Scale:
Date: 16 January 2007	Revised:
Fig No.:	