

**MINERAL HOLDINGS AUSTRALIA PTY LTD**

**EXPLORATION LICENCE 12/2008  
REDPA**

**REPORT ON EXPLORATION  
FEBRUARY 2014 to FEBRUARY 2015**

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## **ABSTRACT**

EL12/2008 was applied for on 17 January 2008 and granted to Mineral Holdings Australia Pty Ltd on 23 February 2009 for a period of 5 years, over an area of 200km<sup>2</sup> in north-west Tasmania. The Licence covers Category 5 Industrial Minerals and Semi-Precious Gemstones.

The Licence, along with EL13/2008 and EL14/2008, was applied to cover potential resources of dolomite, dolomitic limestone and especially limestone in the Smithton Dolomite and the underlying Black River Dolomite within the Smithton Basin of north-western Tasmania. Of particular interest was the possibility of high-grade limestone lenses occurring near the top of the dolomite sequence.

Although the potential extent of the dolomite/limestone horizon is very extensive, the carbonate rocks are generally eroded down to the water table and only occur in large, flat areas with a thin, black soil cover. Detailed mapping and traversing failed to locate any new outcrop areas and thorough evaluation would involve extensive RAB drill hole traversing. The potential for high-grade limestone near the top of the sequence was also downgraded after detailed drilling and costeaning of the limestone horizon at Montagu (EL15/2005) showed the limestone was finely interbedded with shale bands.

As a result, 167km<sup>2</sup> of the Licence area was relinquished at the last renewal in February 2013 and a small area of 33km<sup>2</sup>, covering possible extensions of the tertiary limestone within RL9/1997, was retained to allow further evaluation of that resource.

Mapping around the basalt margin failed to locate any outcrops of limestone extending out from under the basalt as in RL9/1997, but detailed sections from previous drilling indicate a large area of limestone under the northern edge of the basalt. Four drill holes are planned to see whether the limestone does extend below the alluvial cover and to test the southern extent of the limestone under the basalt and to determine if the basalt is sufficiently competent to allow mining beneath it.

## **1.0 INTRODUCTION**

EL12/2008 was applied for on 17 January 2008 and granted to Mineral Holdings Australia Pty Ltd (MHA) on 23 February 2009 for a period of 5 years, over an area of 200km<sup>2</sup> in north-west Tasmania. The Licence covers Category 5 Industrial Minerals and Semi-Precious Gemstones.

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Although the potential extent of the dolomite/limestone horizon is very extensive the carbonate rocks are generally eroded down to the water table and only occur in large flat areas with a thin black soil cover. Detailed mapping and traversing failed to locate any new outcrop areas and thorough evaluation would involve extensive RAB drill hole traversing. The potential for high-grade limestone near the top of the sequence was also downgraded after detailed drilling and costeaning of the limestone horizon at Montagu (EL15/2005) showed the limestone was finely interbedded with shale bands.

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Mapping around the basalt margin failed to locate any outcrops of limestone extending out from under the basalt, as in RL 9/1997, but detailed sections from previous drilling indicate a large area of limestone under the northern edge of the basalt. Four drill holes are planned to see whether the limestone does extend below the alluvial cover and to test the southern extent of the limestone under the basalt and to determine if the basalt is sufficiently competent to allow mining beneath it.

## **2.0 GEOLOGY**

The geological sequence within the retained 33km<sup>2</sup> of the Licence consists of a basement of Proterozoic orthoquartzites of the Rocky Cape Group in the south, overlain unconformably by dolomite and dolomitic limestone of the Smithton dolomite in the area of RL9/1997, and by turbidite rocks and siltstones dipping at about 30 degrees to the north.

A hard, dense Tertiary limestone occurs as an essentially flat sheet from 10 to 30 metres thick, lying unconformably on the basement rocks and immediately below an extensive area of Tertiary aged basalt. The heat from the basalt has case hardened the limestone, converting it from a lime sand to a hard dense marble.

Sections of the limestone within EL12/2008 are shown in figures 1, 2 & 3 and a plan of the possible extent of the limestone is shown in figure 4.

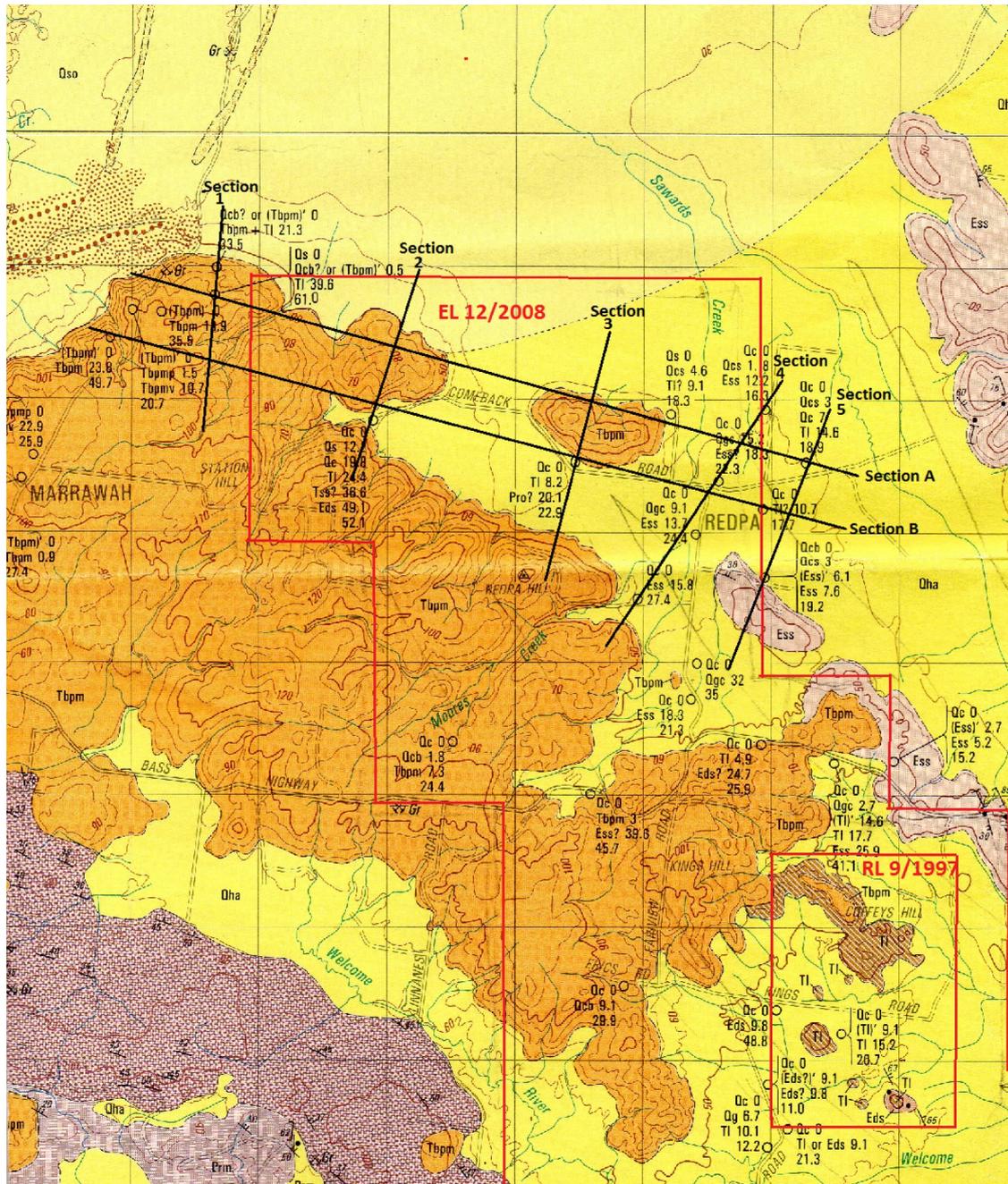


Figure 1: Location of cross sections in the northern section of EL12/2008

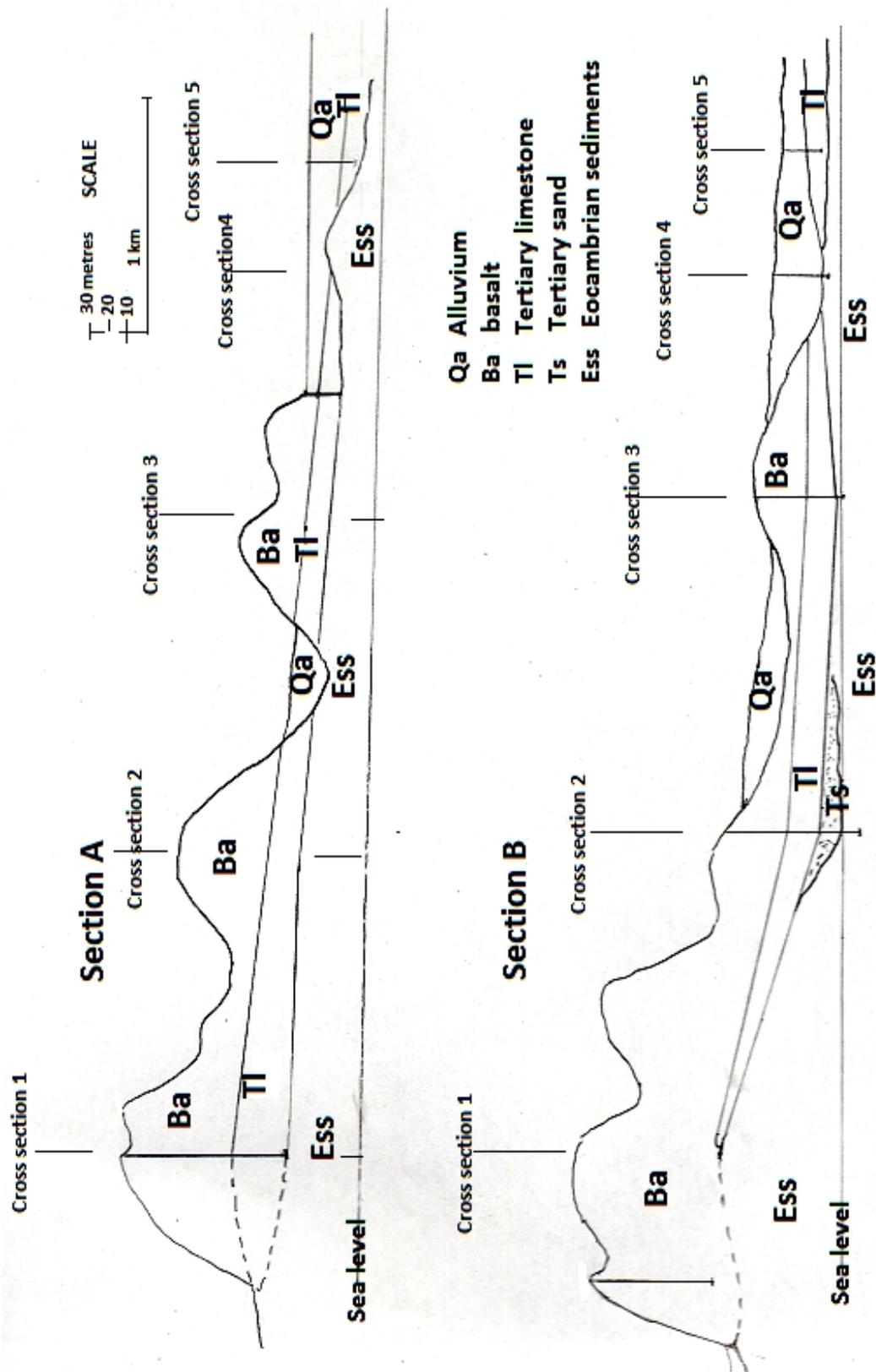


Figure 2: East-west cross sections limestone in northern section of EL12/2008

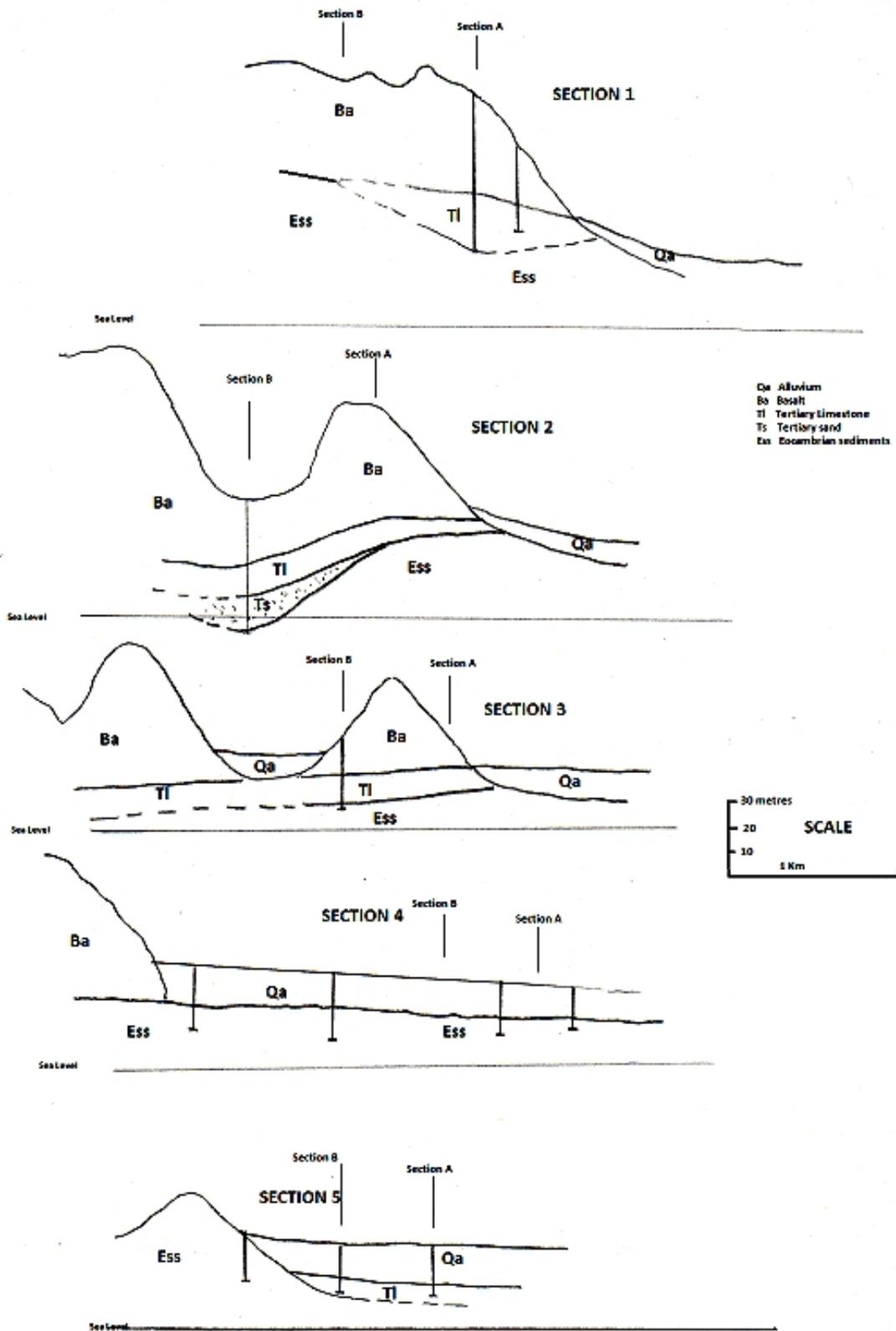


Figure 3: North-south cross sections of EL12/2008

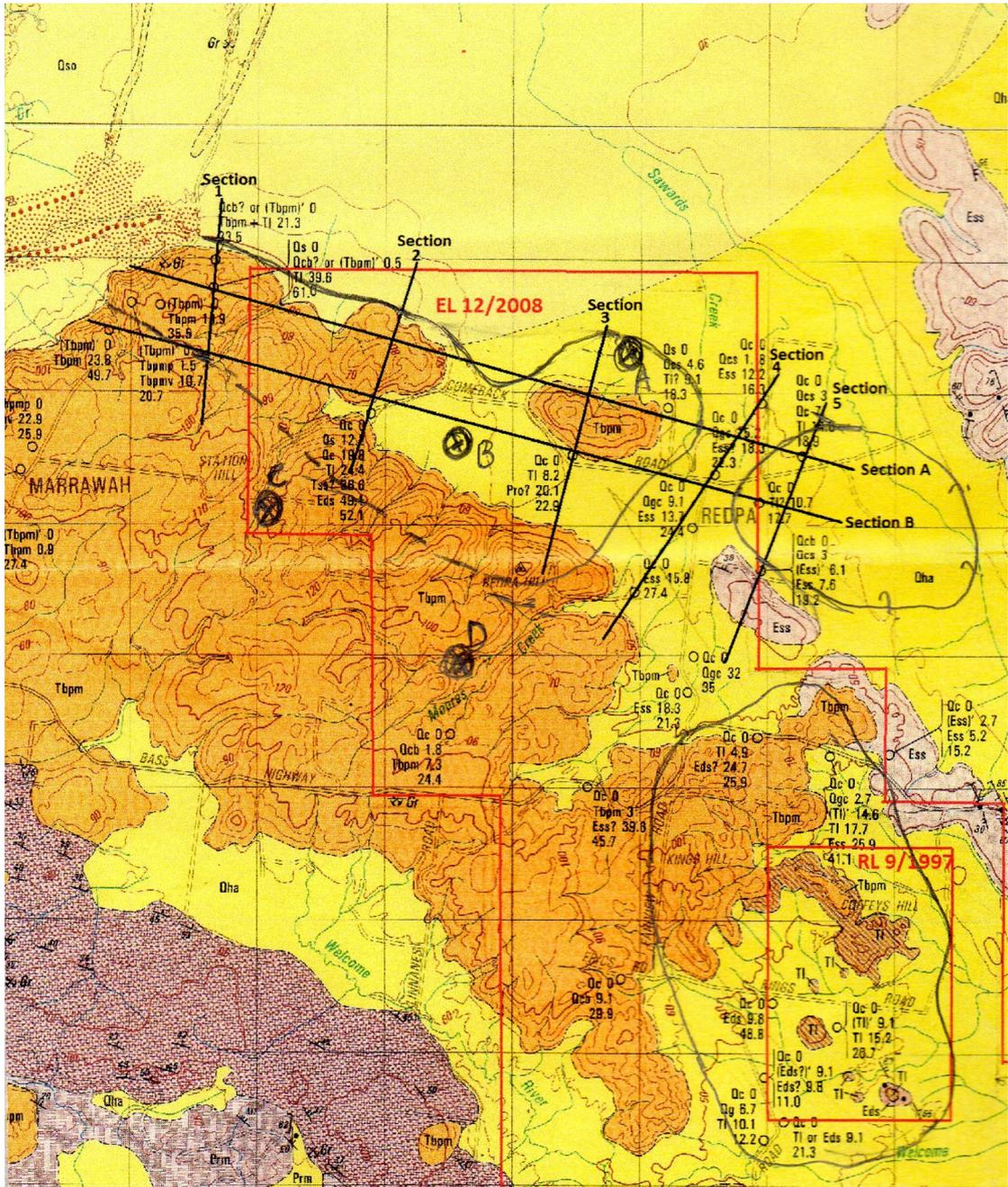


Figure 4: Possible extent of Tertiary limestone under the basalt EL12/2008

### 3.0 EXPLORATION AND EVALUATION

MHA's original aim was to search for potential limestone horizons in the stratigraphic upper part of the Smithton Dolomite, similar to the three horizons located within EL15/2005 at Montagu. However, detailed costeaning and drilling of these horizons at Montagu was disappointing as the limestone was shown to be interbedded with 50 to 60% thin shale interbeds and completely unsalable.

The Pre-Cambrian/Cambrian limestone is therefore no longer a valid target and 167km<sup>2</sup> of the Licence area was relinquished in February 2013. However, high quality Tertiary limestone within RL9/1997 does extend into the Licence area, below soil and basalt cover, and an area of 33km<sup>2</sup> was retained to allow further exploration and evaluation of that target.

### 4.0 ENVIRONMENT

All work to date has consisted of foot and vehicle traversing and no environmental disturbance has been caused.

### 5.0 FUTURE WORK PROGRAM

A large area of potential limestone resource lies under shallow alluvial soil cover, immediately west of the town of Redpa. A program of 5 x 30 metre drill holes was proposed to test this area and submitted to MRT for approval in early September 2014. The program was approved on 17 November 2014 but because of the approach of the Christmas and New Year holiday period it was impossible to book a drill rig to do the job. In fact the first available rig is not available until late March 2015, after the renewal date of the Licence.

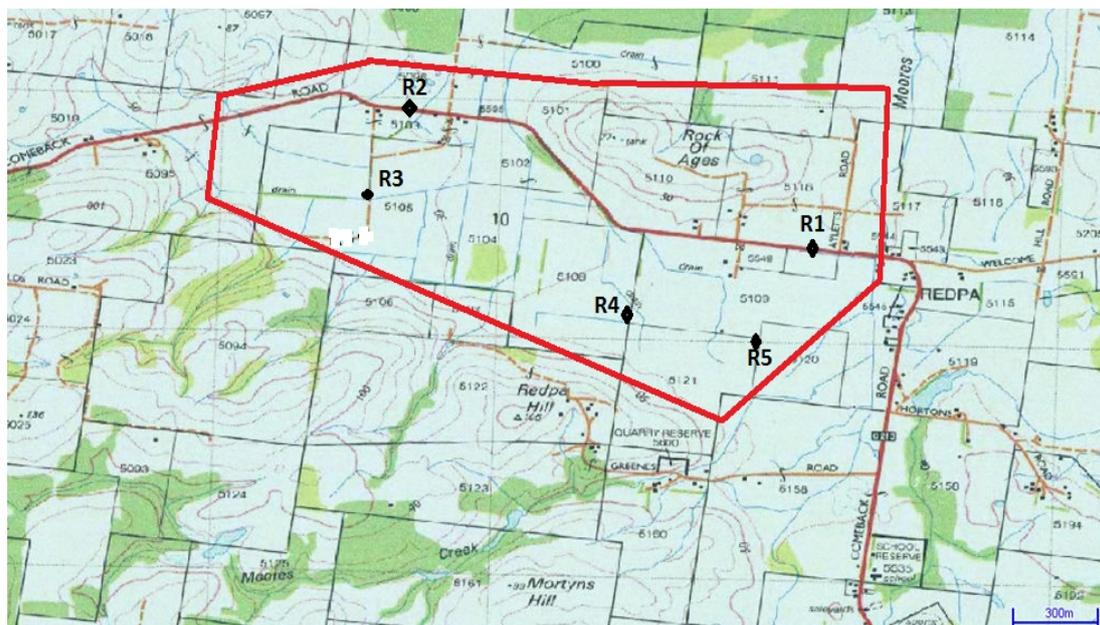


Figure 5: Proposed Drill Hole Locations - EL12/2008 - Redpa

## **6.0 REFERENCES**

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## **7.0 KEYWORDS**

Smithton Dolomite, Black River Dolomite, Redpa, Dolomite resources.

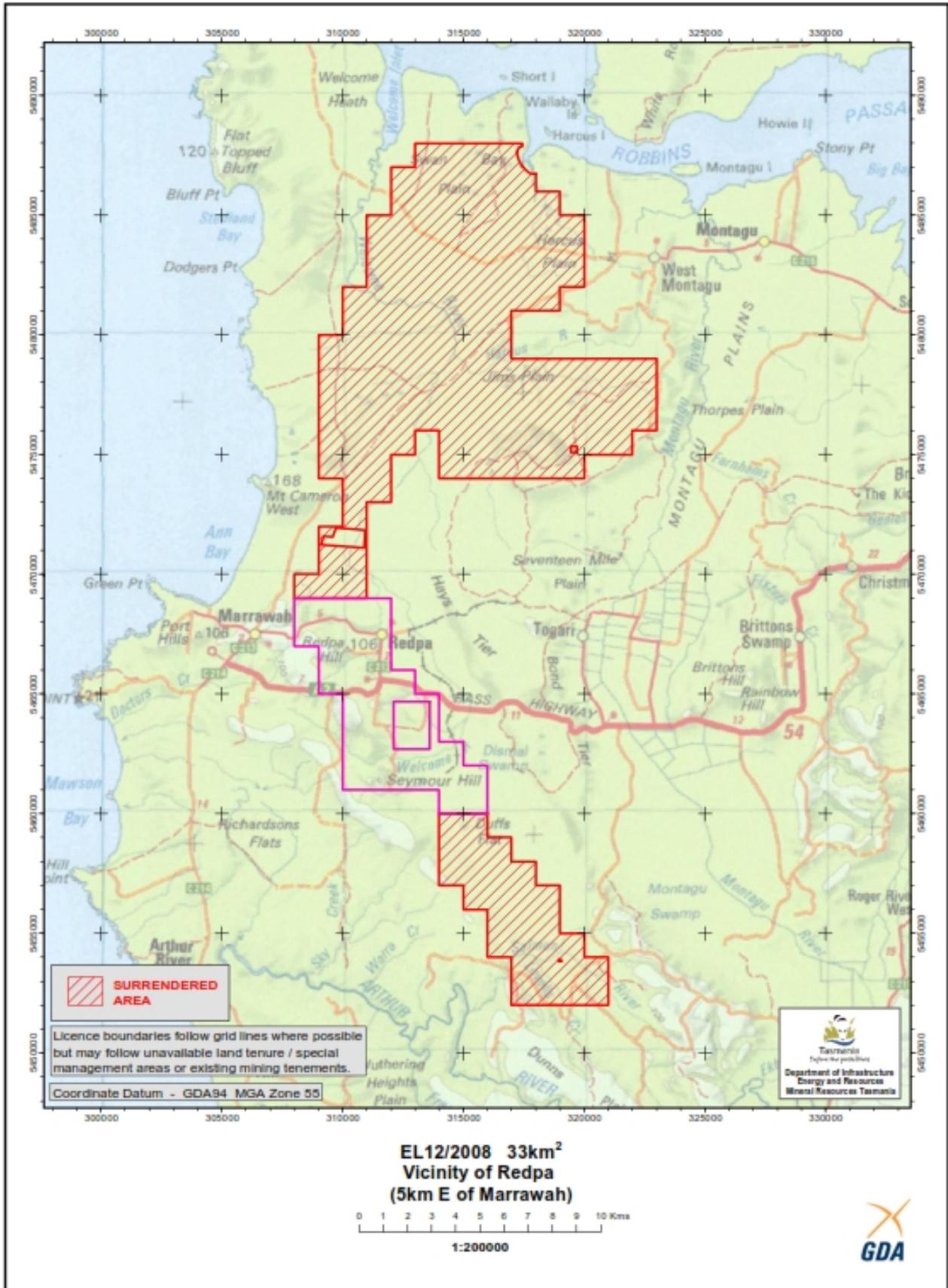


Figure 6: EL12/2008 Redpa Location Diagram