

MINERAL HOLDINGS AUSTRALIA PTY LTD

**RETENTION LICENCE 2/2006
CANN CREEK, NW TASMANIA**

**FINAL REPORT
JUNE 2014**

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RL2/2006 CANN CREEK, NW TASMANIA - FINAL REPORT (JUNE 2014)

ABSTRACT

RL2/2006 covers two square kilometres, adjacent to Cann Creek, between Meunna township and the Arthur River in north-west Tasmania.

The licence lies within the Proterozoic Arthur Metamorphic Complex and covers part of a parallel carbonate horizon to the Arthur River – Keith River magnesite horizon. The targets of exploration include high grade magnesite, dolomite, talc and silica resources.

Previous exploration by Mineral Holdings Australia Pty Ltd and its joint venture partners on the preceding title, EL10/2003, has outlined a small but very high grade magnesite resource, a potential talc resource, and a small but poorly defined resource of silica flour. Some infill drilling would be required to raise all these resources to anything like the Indicated Level of the JORC Code.

During the past 12 months, a number of attempts have been made to interest companies in the potential of the magnesite, talc and silica flour resources of the area; however, the limited size of the deposits has made it difficult to make a convincing economic case for their development. In light of this, the licence is to be surrendered in full.

RL2/2006 CANN CREEK, NW TASMANIA – FINAL REPORT (JUNE 2014)

1.0 INTRODUCTION

RL2/2006 was applied for by Mineral Holdings Australia Pty Ltd (MHA) on 10 March 2006, and was granted on 23 May 2007, over an area of two square kilometres for a period of five years to 23 May 2012. The retention licence was subsequently extended for a further two years to 22 May 2014.

RL2/2006 is a flow on title from EL10/2003 and EL43/1970, both of which were held by MHA. The title is for industrial minerals and construction materials (Category 3 and 5(a) Minerals) which reflects the Company's focus on carbonates, particularly magnesite and dolomite, silicas and talc, for a wide range of applications in the chemical, refractory, mineral processing and environmental industries.

The Cann Creek Retention Licence is located along the Pruana Road, about 5km south of the township of Meunna. It is about 40km south-west of Wynyard and 35km south-east of a deep-water harbour at Port Latta. Access is via the Bass Highway, Myalla Road, Meunna Road and finally Pruana road.

Over the past several years, MHA has had discussions with a number of industrial companies, within Australia and overseas, as potential customers or developers of the deposit. There has been some interest in the potential for producing fused magnesia from the site and renewed interest in the area as a source of fine silica sand for glass and specialized silica products. There has also been some interest in the talc potential of the licence area.

Unfortunately, our current estimates of the limited size of the deposits has made it difficult to establish a convincing economic case for their development. In light of this, the licence is to be surrendered in full.

2.0 GEOLOGY

The geology of the district consists of Late Proterozoic sedimentary and igneous rocks, deformed and metamorphosed in the Cambrian to blueschist and amphibolite grades and then retrogressed to greenschist facies.

The tenement covers the boundary or zone between two carbonate-bearing zones of the Arthur River Metamorphic Complex (historically called The Arthur Lineament) from the high grade magnesite outcrops in Cann Creek, south-west to the Champion Road silica flour deposits of MHA.

This NE-SW aligned zone is parallel to, and probably stratigraphically above, the Arthur River–Lyons River trend, which lies 6km to the south and which contains the large magnesite deposits discovered and promoted by MHA and currently held under RL17/1987 and RL18/1987 by Tasmania Magnesite NL.

The local geology of the licence area, from Geological Survey mapping, consists of a lower sedimentary formation (Pac) of chlorite schist and minor phyllite, dolomite and magnesite. Amphibolites are found in the sequence, probably as dykes rather than sills or extrusives. Stratigraphically higher and to the west there occurs another sedimentary formation (Pap) of phyllite and minor schist, quartzite and dolomite and rare siliclastic conglomerate (Plan 2).

Tertiary basalt cover comes in to the north and remnant caps of basalt, silica flour and quartz gravel, sand and clay are found in places.

3.0 EXPLORATION AND EVALUATION

There has been a long history of exploration by MHA and a series of joint venture partners for magnesite, talc and silica sand products at Cann Creek. Details of that work were provided by David Duncan in the 2005 Annual Report on EL10/2003 and in the report for the application for the Retention Licence (Duncan 2006)

CRA Exploration explored the area for high-grade magnesite between 1984 and 1985. The area was mapped at 1:2,000 scale and indicated a limited series of small but high-grade outcroppings. Two diamond drill holes, DD 84CC1 and DD85CC2, were then developed with two thin bands of lower grade magnesite in CC2, below the outcrops in Cann Creek, and a thick dolomite section, 400 metres to the south.

To further investigate the outcrops in Cann Creek, MHA developed an access track and quarry, cut 10m north of the creek bed, exposing some 18m of massive magnesite, flanked by dolomitic talc schist to a distance of 15m to the west and 30m to the east.

A parallel costean, 100m long and running NW-SE some 40m north, encountered only 0.2m of badly weathered carbonate in schist. About 150m north of the creek and 20m uphill, the entire sequence is overlain by Tertiary basalt.

On the basis of this limited data, Dickson (in TCR 87-2716) suggested a possible, and very optimistic, resource of 285,000 tonnes of magnesite at the site. The high-grade material was restricted to the surface and would be considerably less than that total resource figure.

In 1988, Hilmac Pty Ltd developed 20 percussion holes (aggregate 468m) in an effort to define the shape and tonnage of the magnesite body. The program was largely unsuccessful with holes intersecting cavities and several ending while still in magnesite. However, Hilmac noted:

- 10% of the carbonate sequence is high grade magnesite but no tonnage given,
- Down-dip extent and shape of the magnesite is still to be defined,

- Their target of 100,000 tonnes of high-grade magnesite is not obvious from the drilling.

A deposit of silica flour overlies the dolomite and Precambrian schist bedrock to the south of the magnesite area. It is most probably developed from the underlying carbonates by solution collapse and subsequent silicification and replacement, although some rounded quartz pebbles would also suggest some deposition in stream channels.

Previous drilling and pitting by excavator (Threader 1989 and 1991) has established an estimated resource of 75,000 cubic metres in one area. The mean thickness is 3.3m, but sections can reach up to 11m in thickness. Analyses show the Cann Creek silica flour contains slightly higher levels of contaminants than that at Champion Road.

There are still potential resources to the north and south-west

4.0 CONCLUSION

In light of our past exploration and evaluation, and despite the high quality of the magnesite deposit and our invitations to a number of companies, encouraging them to inspect or declare expressions of interest in Cann Creek with a view to developing extractive and processing industries in north-west Tasmania, it has been difficult to establish a business case for their development and we will surrender the licence in full.

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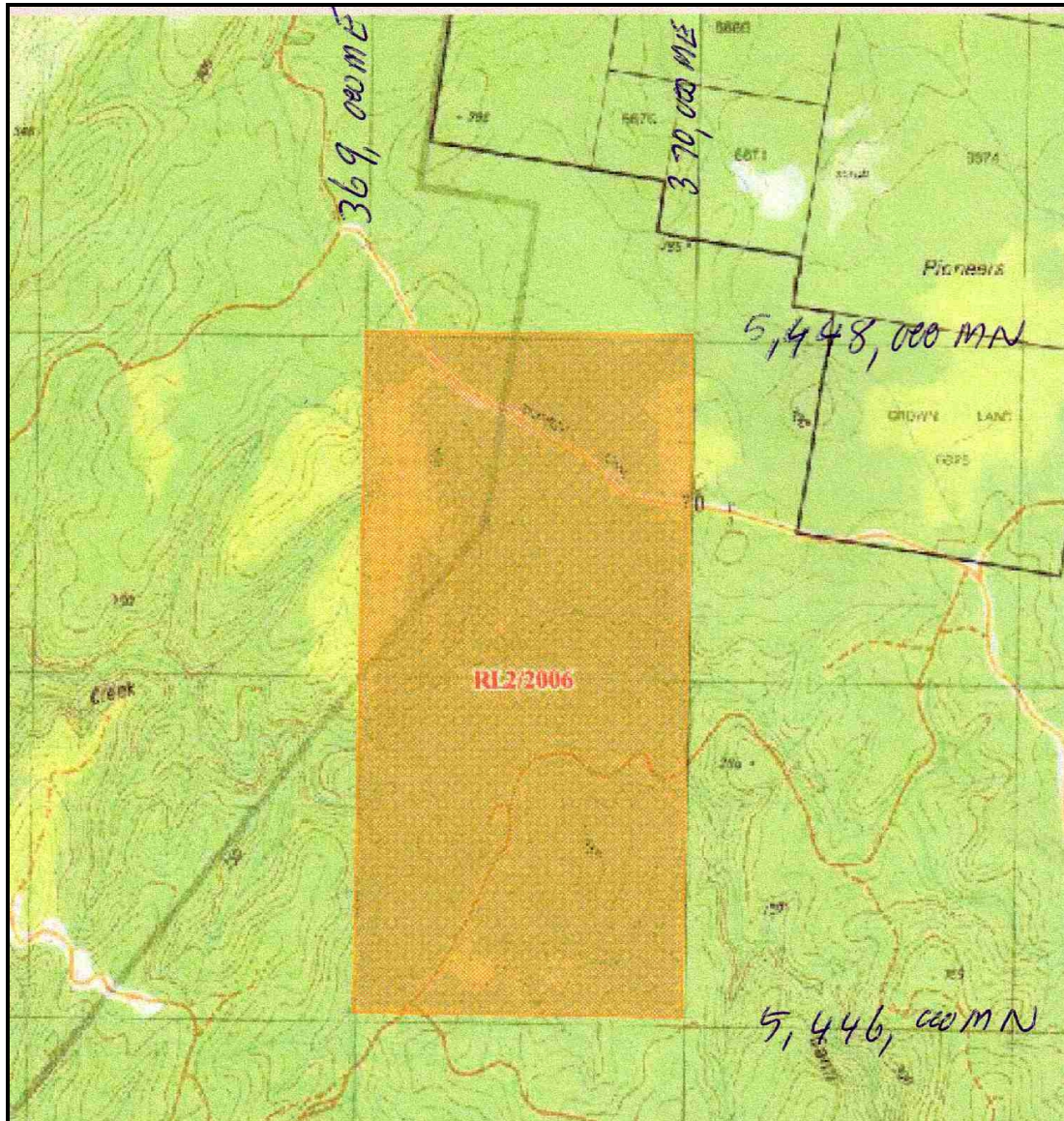
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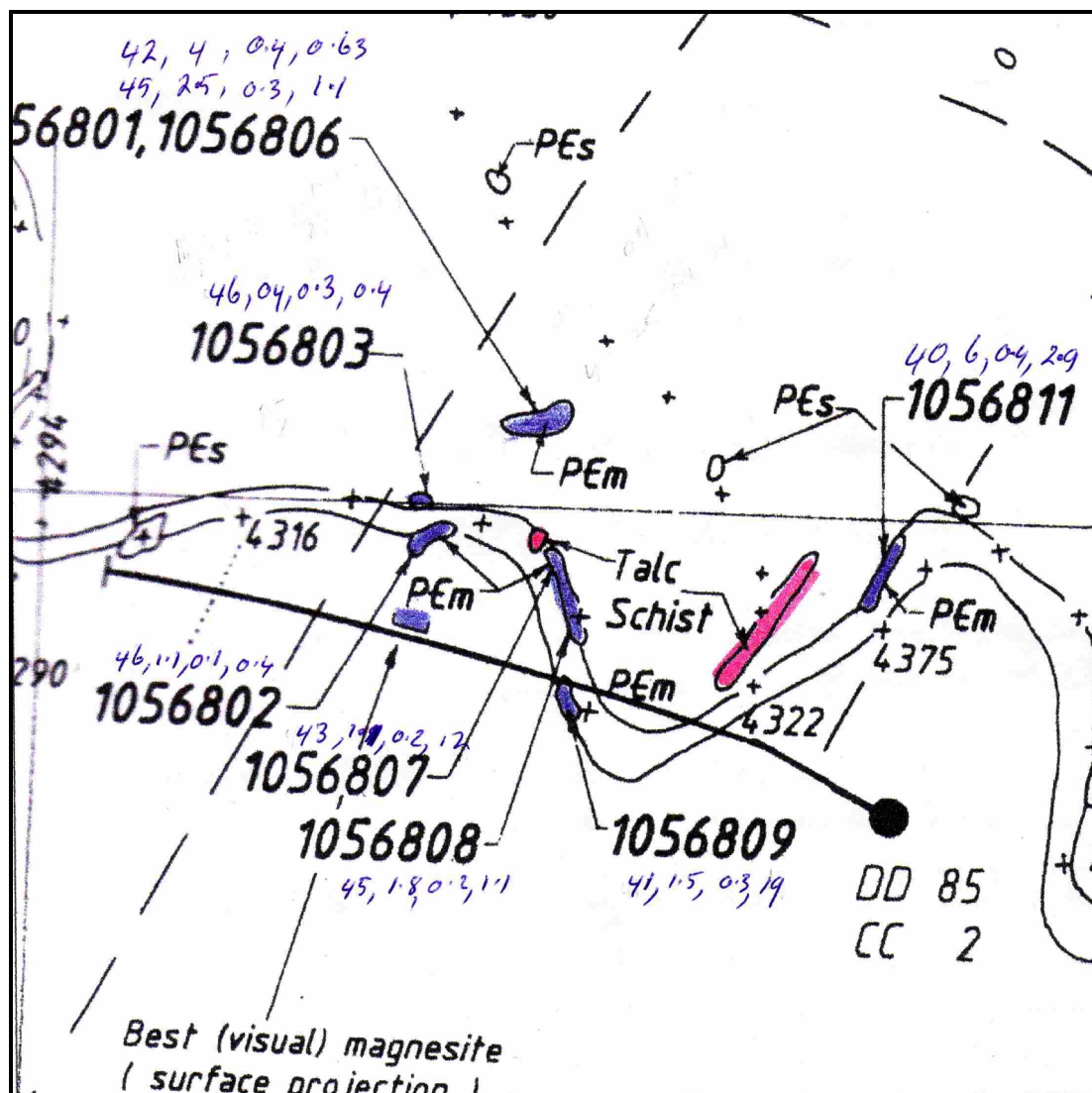
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6.0 KEYWORDS

Cann Creek, Arthur River Metamorphic Complex, Magnesite, Dolomite, Talc, Silica.



PLAN 1: Location Diagram - RL2/2006 (Cann Creek)



PLAN 2: Cann Creek Magnesite Outcrop Geology in relation to DD 85CC2

Blue Magnesite
Pink Talc Schist

Assay number is given and assay results as MgO, CaO, Al₂O₃ + Fe₂O₃, SiO₂

