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Memorandum

Date:	7 May 2010
Company:	Pitt and Sherry, Tasmanian Magnesite, Beacon Hill Resources
Attention:	Dr Ian Woodward
Copy:	Alan Daley
From:	Dr Lee Evans
Subject:	**Karst cavities and drillhole voids in context.**

1 INTRODUCTION

Coffey Mining were asked to provide comment on the concept of the potential of the physical impacts of a resource drilling program on the rock mass and aquifer at the Arthur River Magnesite Deposit, Tasmania. The deposit is hosted in a karstic magnesite rock mass and aquifer. There are two key aspects to assessing the potential physical impact: (i) the total increase of void volumes of the rock mass; and (ii) the subsequent increase in hydraulic connectivity between void systems that might otherwise not be connected. Previous drilling (presented as the Crest drilling database) and hydraulic testing (Golder, 1999) provide insight into the cavities present and their connectivity.

Potential for contamination and impacts on fauna or values of karst sediment are considered beyond the scope of this memo as it concentrates of the physical impacts. These issue may require further consideration.

2 VOID VOLUMES

With some broad assumptions, previous drilling in the Arthur River Magnesite Deposit can be used to mathematically represent likely conditions in the area of the proposed resource drilling.

1. Length of holes logged as cavity in the Crest drillhole database: 342.85 m
2. Total length of holes logged as magnesite or cavity 3650.75 m
3. Calculated percentage cavity in magnesite karst system 9.3912%
4. Proposed drillhole spacing 100 m by 100 m
5. Proposed drillhole size 96.1 mm
6. Based on area, percentage of local rock mass to be drilled/removed 0.0007%

7. Coarse up-scaling to new total void calculation 9.3913%

8. Percentage increase of total void and cavity spaces 0.0008%

The percent increase in the volume of local void spaces by a resource drilling program is not considered a significant increase.

3 CONNECIVITY

Previous drilling (presented as the Crest drilling database) and subsequent hydraulic testing (Golder, 1999) indicated a high degree of connectivity in the aquifer. It should be noted that the hydraulic testing occurred after the drilling program, as such it is difficult to speculate as to whether the drilling program resulted in significant changes in connectivity. Given that 290 cavities were logged in 26 drillholes of varying orientation, it appears likely that there was significant scope for connectivity between cavities prior to drilling. Karst features are formed by weak meteoric groundwater dissolving carbonates and as such this implies that cavities are formed by water flow. Cavities therefore can be expected to be or have been interconnected. Quantifying any increase in connectivity related to drilling is difficult to predict due to potential for intersection of karst features with complex geometries.

The physical impacts of an increased connectivity through drillholes could potentially include for: (i) a greater flow through resulting in minor variations to groundwater elevations; (ii) waters of a different chemistry being exposed to karst features; (iii) resultant minor alterations to dissolution rates; and (iv) resultant minor alterations to karst sediments.

4 CONCULSION

This memo indicates that there is not a significant increase in the local void volume as a result of the proposed resource drilling.

Adverse affects related to the increased connectivity of increasing the rock mass void volume through further drilling in the Arthur River Magnesite Deposit are more difficult to predict. The adverse affects of increased connectivity in the Arthur River Magnesite Deposit have not as yet been identified. As such, whether there is a significant increase in connectivity through any future resource drilling that would have an adverse impact on the karst system cannot be ascertained as yet with any certainty.

For and on behalf of Coffey Mining Pty Ltd

Dr Lee Evans