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## 7. MOUNT CHARTER DOLERITE

### 7.1 Introduction

Previous drilling at the Mount Charter Dolerite prospect (DDH MC-14 [McNeill, 1989a]), designed to test soil geochemical anomalies, intersected a sequence of intercalated andesite and basalt that were interpreted to represent both hangingwall and footwall with no intervening potential ore horizon. However, sphalerite rich disseminated and vein style mineralisation, immediately below the Que River shale, averaged 0.52% Zn over 94.7m.

A similar style of mineralisation has also been recorded from drilling by BHP on EL 5/63, immediately west of the Mount Charter Dolerite prospect, where DDH HP-1 (anon, 1988) intersected 235m @ 0.21% Zn and DDH HP-4 (Wilde and Kerr, 1989) intersected 125m of sphalerite rich mineralisation (no assay values reported). In both HP-1 and HP-4 zones of calcite-fuchsite ± pyrite hangingwall style alteration have been described. This coupled with exposure of fuchsite altered basalt at 4500N, 2600E suggested that a substantial hydrothermal system was active in this area and, although generally unfocussed, the potential for localised economic accumulations of BMS existed.

### 7.2 Diamond Drilling

#### 7.2.1 DDH MAC-27

##### Geology

This hole (see Plate MAC 161C for collar locations) was designed to test the Que-Hellyer host horizon, below effective UTEM, in an area of hangingwall style alteration and unusual sphalerite rich mineralisation.

A detailed log and petrographic descriptions are included in Appendix 17 while a section of this hole is presented on Plate MAC 312 (See Plate MAC 115 for legend). A summary log is as follows: