

profiles may be due to shallow stratigraphic sources, but there may also be a residual field due to a buried source which is responsible for the total amplitude of the magnetic response. If a residual deeper source exists it would require lower susceptibility-thickness parameters than the bodies modelled by L.G. It may be possible that the weakly magnetic Crimson Creek rocks of UNIT IV could satisfy the requirements of a residual deeper magnetic source. If the geological interpretation is correct the Crimson Creek rocks should form a buried anticlinal core under the anomaly. A solution along these lines would best fit the data from DDH RRP 239. It is probably still equally possible that the source of the anomaly could be a deeper ultra-mafic intrusive. Further modelling is probably the only means by which one solution will emerge as more likely than the other. Specifically the deep source model of L.G. would have to demonstrate that the high frequency responses on the field profile can be caused entirely by topographic distortion of the calculated profile. Likewise, the multiple source model of G.E.C. would have to be mathematically modelled using measured susceptibility data to demonstrate that it is quantitatively as well as qualitatively feasible. It is important to resolve the validity of the magnetic interpretations as they have very different implications for the remaining economic potential of the area.

B. RECOMMENDATIONS

Further magnetic interpretation and modelling should be undertaken to try and quantitatively confirm or refute one of the two radically different interpretations so far presented for the Ring River Magnetic Anomaly.

A downhole E.M. survey should be undertaken on DDH RRP 239 to test the remaining possibility that a Renison style pyrrhotite body could be the source of the magnetic anomaly.

A study should be undertaken into the tonnage and grade parameters for an economic Ag-As mine in the Ring River Area.