or whether these sources are part of, or off-shoots from, a larger deeper seated magnetic body which is causing the rise in general magnetic signature from 60,000 nT to 67,000nT.

4. E.M. (refer to Appendix 11 - Vertical Loop E.M. Profiles Colebrook Hill)

E.M. techniques were tried in an attempt to overcome the conductivity problems experienced by electrical methods. A horizontal loop E.M. survey, using McPhar V.H.E.M. equipment was started but abandoned when it was discovered that the equipment was malfunctioning. On return of the equipment, the advice from the hire contractor, Geoex, was that a vertical loop system would suffer less slope effects in the very steep terrain of Colebrook Hill. Also, because of the dense rain-forest cover, an in-line configuration was the only one possible. Orientation was run on line 5,371,600N using transmitter-receiver separations of 20m, 40m and 60m and reading on both low (600 hz) and high (2400 hz) frequencies. As a result the entire grid was covered by in-line vertical loop E.M. with a transmitter-receiver separation of 40m using low frequency. The profiles appear very noisy and identification of truely anomalous zones is difficult. Coincident anomalous features detected in the E.I.P. and magnetic surveys appear to be reflected in the E.M. However, these are not necessarily the most prominant E.M. features and could easily be interpreted as background noise. Overall the E.M. results seem to confirm the magnetic picture of numerous near surface sources. In view of the highly active magnetic signature of the grid, it is quite possible that a large component of the E.M. response could be due to high magnetic permeabilities in the underlying rocks. In rocks of high magnetic permeability the E.M. primary field, as well as inducing secondary currents in any conductor, also induces an oscillating magnetisation intensity