frequencies 256 Hz and below is in the near field. This means that the intrinsic depth sensitivity of the CSAMT data is lost at these lower frequencies, and the Bostick transform becomes a weaker approximation for the purpose of extracting resistivity and depth data.

The CSAMT data also suffers from significant noise problems particularly (but not only) in the vicinity of a high-tension power line crossing the entire EL (north to south). Such noise sources make it necessary to delete selected frequency points from the data (via the "skip-flag" with Zonge file format). Some time was spent in discussion with Zonge personnel in order to exclude such data prior to EMAP filtering.

In addition to Bostick transformation, the EMAP-filtered data was inverted to resistivity-depth parasections by Zonge, using their proprietary 1D smooth-model inversion algorithm. This process has the advantage of retaining validity for transition-zone and near-field data, and it produces more stable resistivity estimates than the Bostick transformation. However the method appears to be poorer than the Bostick method in imaging up dipping conductors. Thus the optimum interpretation process is to view the data via both Bostick and smooth-model inversions.

Selected profiles (Lines 5358200N to 5359800N) have also been processed by Zonge using a proprietary 2D smooth-model inversion algorithm. The results of 2D inversion are limited by the fact that the 2D algorithm (like the Bostick transform) cannot process near-field data.

Plots of pseudo-sections of Cagniard resistivities, plus parasections of Bostick resistivities,were produced for each surveyed line, at scale 1:5000. These plots, reduced to A3 size, are included in this report as APPENDIX 1. Plots of 1D inversions and 2D inversions produced by the Contractor, are included in APPENDIX 2.

PLOTS PRESENTED

For each survey line, plots of EMAP-filtered resistivities, raw Bostick resistivities and depths, and Bostick resistivities interpolated over depth are presented. These are at scale 1:5000, and are included in this report as a PowerPoint file (Office 97 format). The plots are also included as hardcopy prints, reduced to A3 pages, in APPENDIX 1.

The 1D inversions produced by the contractor are also included at scale 1:5000 (digital files) and reduced to A3 pages in this report, in APPENDIX 2.

Parasections of raw Bostick resistivities show symbols giving depth estimates of resistivity solutions at each frequency. These symbols are colour-coded for resistivity using the same scale as that used for the contoured resistivity in the plots of interpolated Bostick resistivity. Some Bostick resistivities have poor confidence due to the apparent resistivity-frequency curve violating alowable slopes (+-1). This