

IV.3 PRODUCTION PROCESSING

The processing flow chart is shown in Figure 5.2. The 120 trace demultiplexed, array formed data was resampled from 2 ms to 4 ms. The LRS-16 10ms time delay in the array formed data was removed. A synthetic air gun signature, including LRS-16 array channel response, was used for derivation of the signature deconvolution operator (figure 5.1). All data was convolved with the operator prior to the application of a conventional predictive deconvolution.

To correct for spherical spreading, the inverse of the amplitude decay factor (A) was applied to the data where $A=1/TV^2$, T being 2 way time and V being RMS velocity.

A predictive deconvolution algorithm was applied before stack. Each trace was divided into two windows. Window 1 from 200 ms to 3000 ms and window two from 2500 to 5000 ms. A minimum prediction distance of 12 ms and the operator length of 240 ms was used.

The extended VELAN (velocity analysis programme, figure 5.4) was used to determine velocity function for each seismic line. VELAN was run at the average of 1 km and at every intersection point. The normal moveout corrections for the final section were computed from the velocity functions generated for each line.