taken to absorb and scatter any waves transmitted at the oil-crystal interface by means of steel wool pads.

A typical plot of the resulting pressure data for two longitudinal wave runs is shown in Fig. 1. The fractional shift in arrival time of the nth echo,  $\Delta T_{\rm n}/T_{\rm n}$ , is plotted as a function of the change in pressure gauge resistance,  $\Delta Rg$ . In the 3.5 kbar range of the measurements, all least square slopes were linear, reproducible and showed no hysteresis. Different seals between transducer and crystal were used to ensure that the consistency was indeed physical and independent of end effects.