

Stacking Noisy Data

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The Gathers

When using the equivalent offset method (EOM) of prestack migration, common scatterpoint (CSP) gathers are formed for every migrated trace. All input traces within the migration aperture are summed into the offset bins of each CSP gather. The fold is recorded for each sample in every trace and can be quite high. It has become standard practice to divide by this time varying fold. In noisy data, it may be more effective to divide by the square-root of the fold.

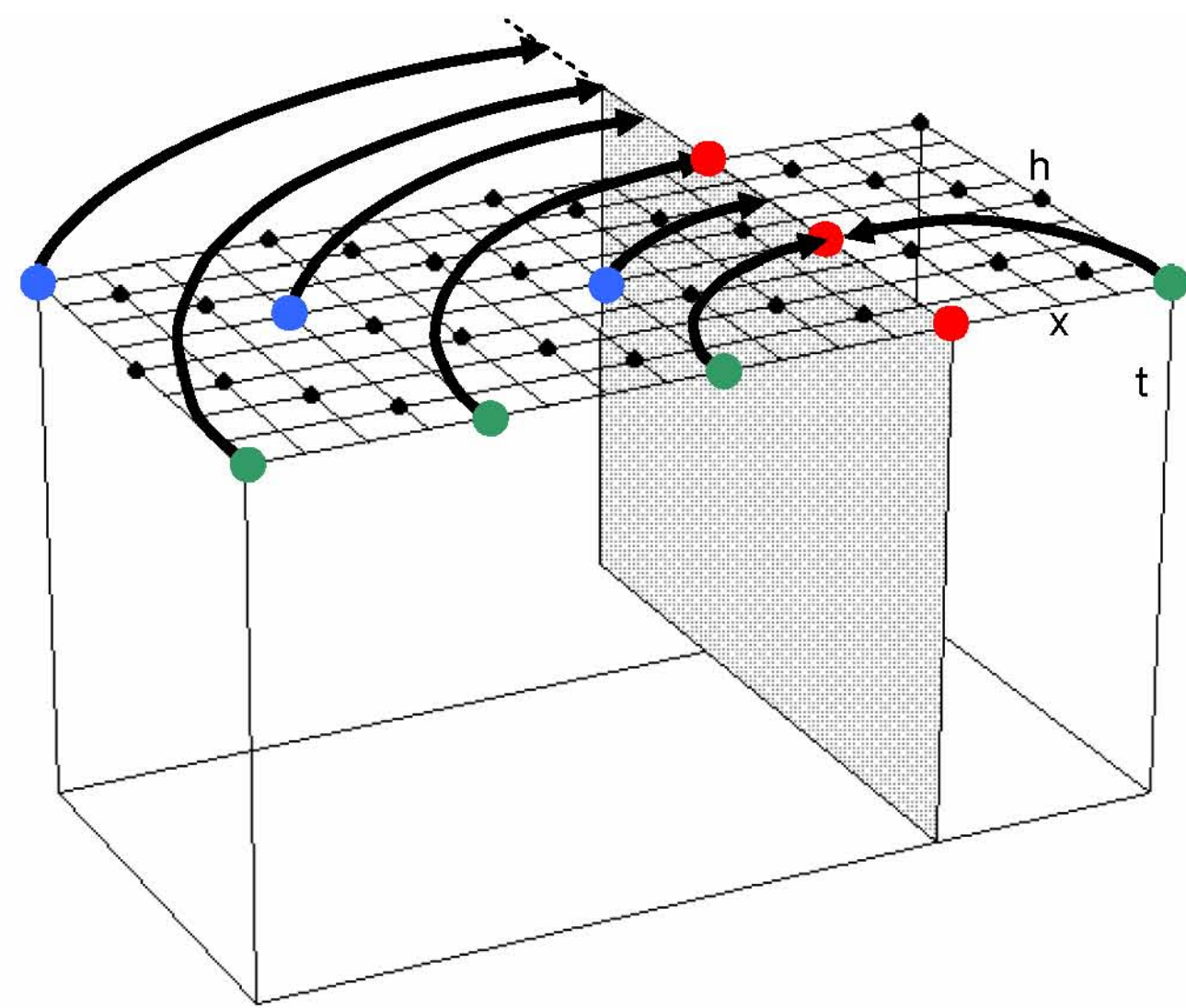


FIG 1 Moving traces into a CSP gather.

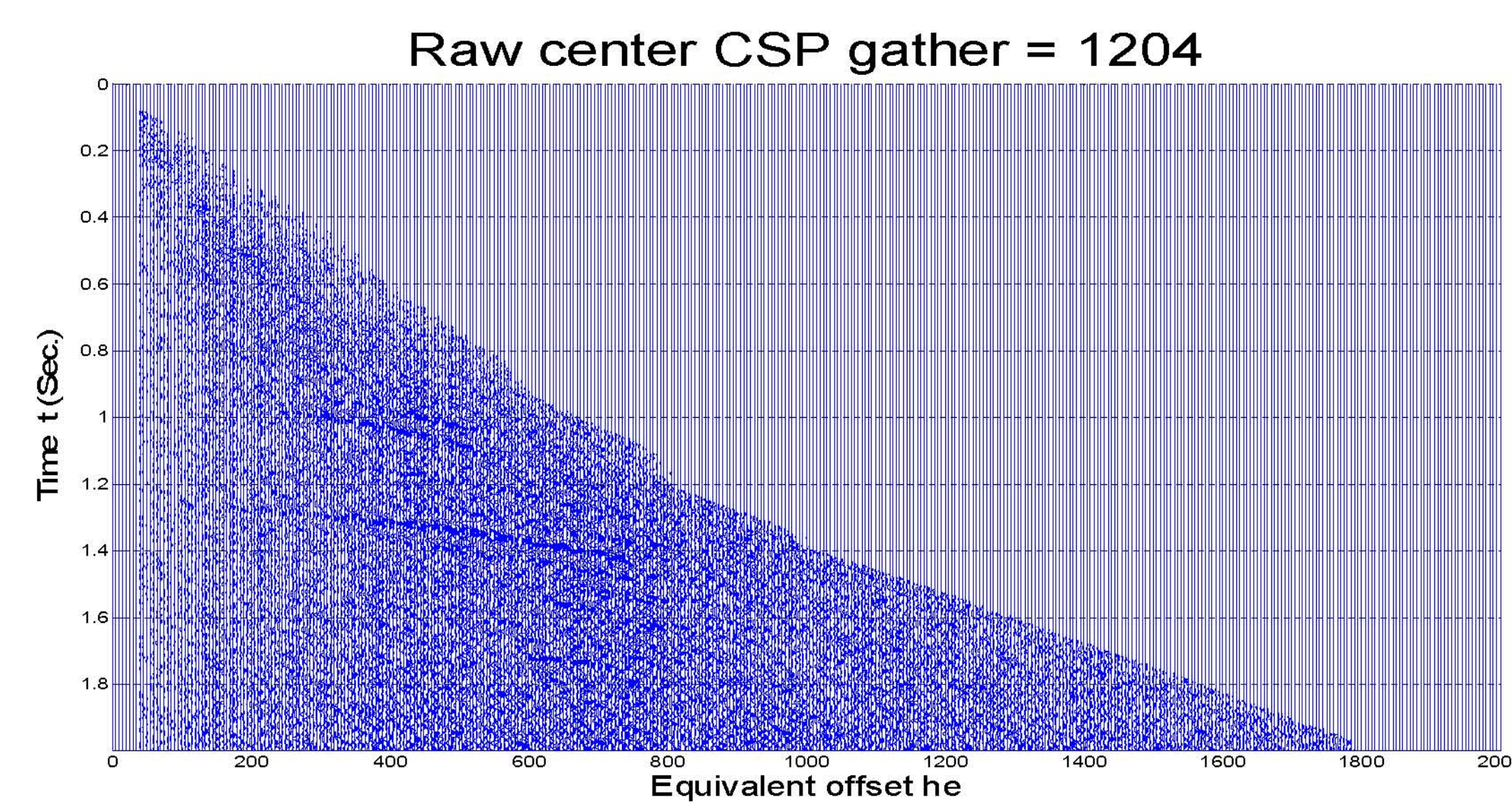


FIG 2 A CSP gather.

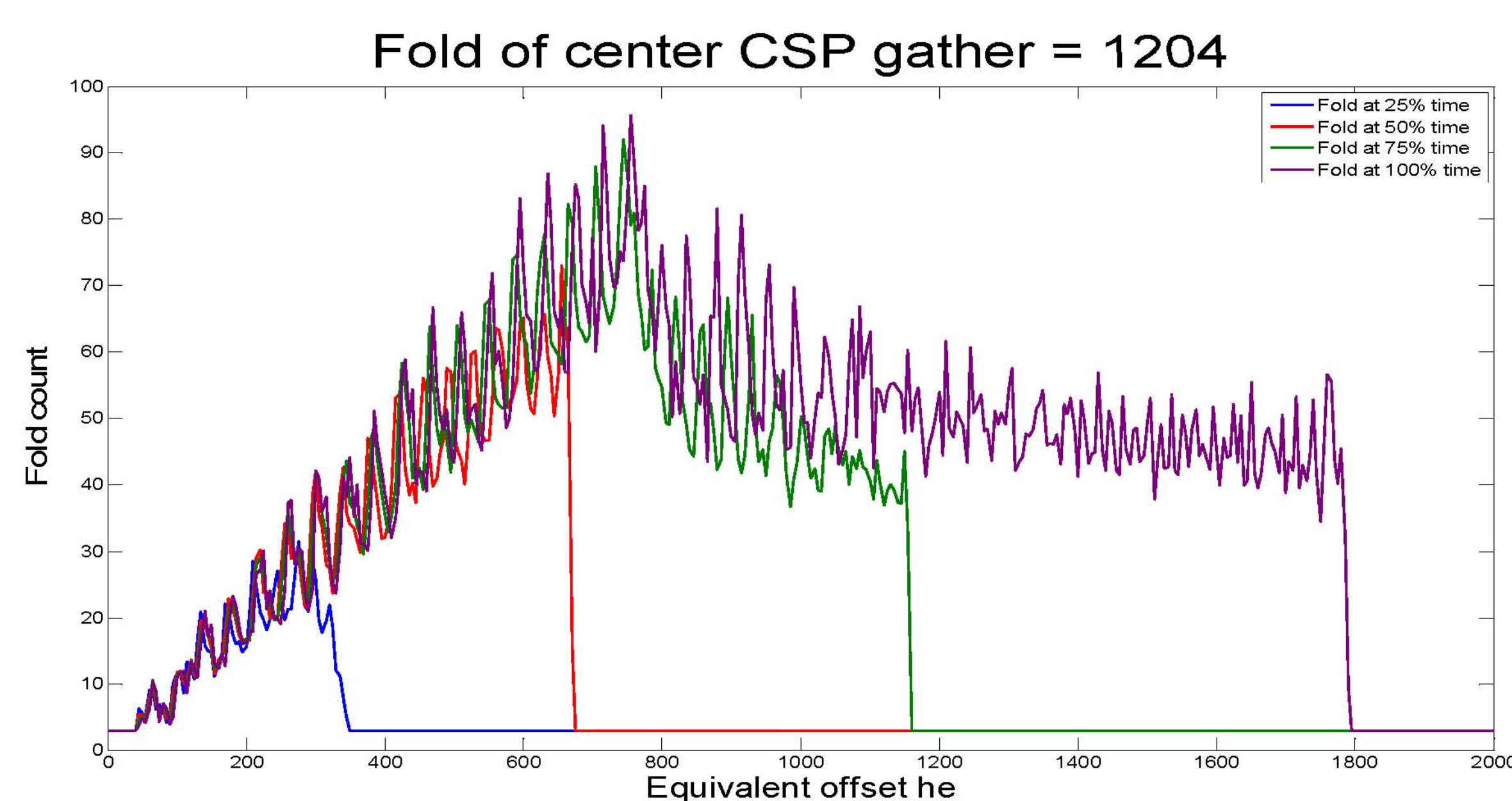


FIG 3 Fold in a CSP gather..

The Data

The data is from north east British Columbia and recorded with multicomponent receivers. We chose the radial component to process converted wave data. The quality of the data is quite poor as illustrated by a central shot record in Figure 4. The data in this figure has been preprocessed up to the point prior to prestack migration.

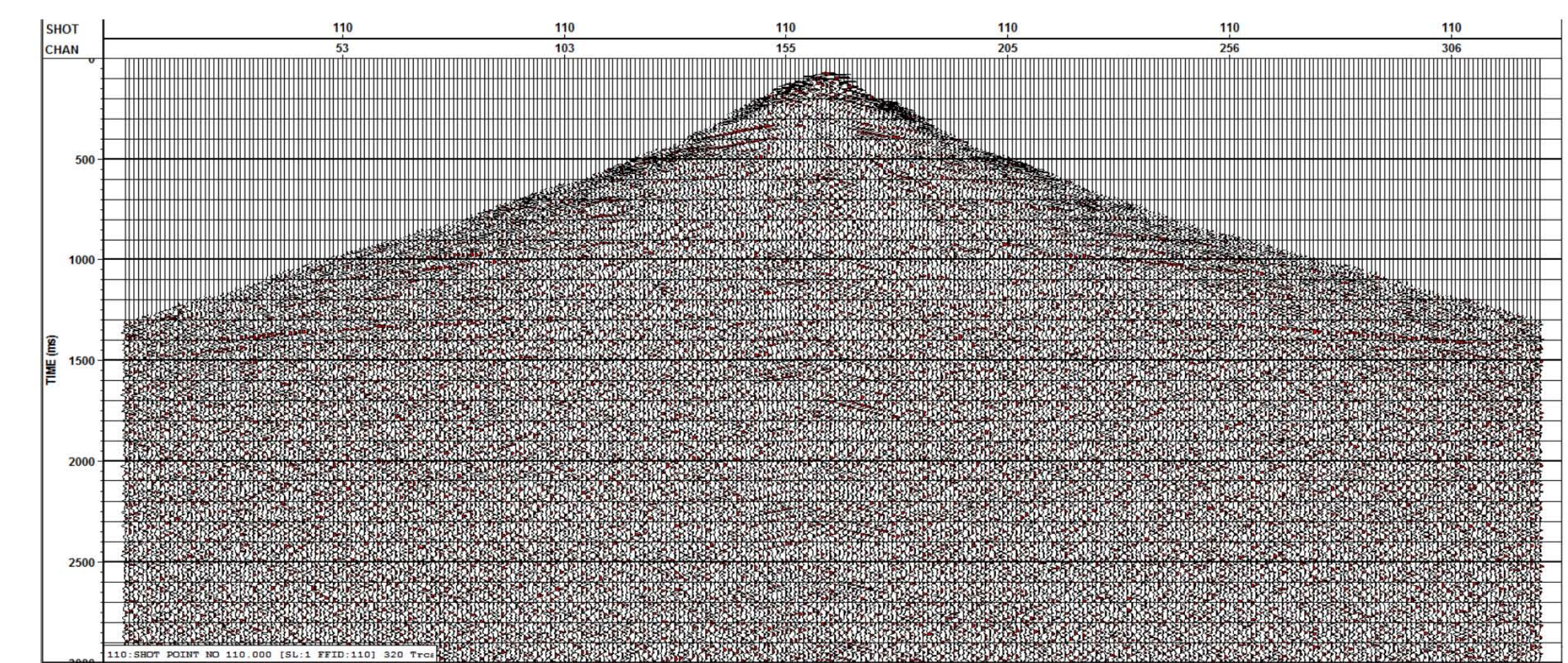


FIG 4 Shot record of preprocessed converted wave data.

The Results

