

ABSTRACT OF THE DISCLOSURE

METHOD FOR ELIMINATING SPECTRAL CONSTRAINTS OF ACQUISITION SYSTEM AND EARTH FILTERING EFFECTS

Recorded seismic data are represented as a convolution of operators representing a reflectivity series of the earth and a seismic wavelet. The recorded seismic wavelet is represented as a convolution of operators representing a receiver ghost, a source ghost, a ghost-free source system response, an earth filter response, and a receiver system response. The operator representing the receiver ghost is removed from the convolution representing the seismic wavelet. The operator representing the source ghost is removed from the convolution representing the seismic wavelet. The operator representing the ghost-free source response is removed from the convolution representing the seismic wavelet. The operator representing the earth filter response is removed from the convolution representing the seismic wavelet. The operator representing the seismic wavelet is removed from the convolution representing the recorded seismic data.

FIG. 2



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