Harness the synergy of borehole data and surface seismic data in seismic data processing: case studies in China

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SUMMARY

A new workflow is used to harness the synergy of borehole data and surface seismic in seismic data processing. It fully utilizes the borehole information in every step of seismic data processing. In this workflow, a model is first constructed from the borehole data and surface seismic data. At each step of data processing, processing parameters are optimized to ensure that the results are consistent with the model.

The advantage of calibrating the seismic processing parameters via the use of borehole data is the significant reduction of many uncertainties for seismic interpretation and to increases the reliability of seismic data for quantitative interpretation. Two case studies in China clearly demonstrate the advantages of this new workflow.

Key words: synergy, seismic data processing, calibration, borehole data