Project 3

Imaging near-surface structures in Iran by using multiple methods

This project is going to process a 2D seismic dataset acquired in Iran. The first arrivals of the data are fairly good. However, the near-surface structures are complex due to upper-mantle intrusion in the area. Resolving the near-surface velocity structures in the area accurately can help to solve the statics problem, which is one of the major issues in seismic exploration over there.

The project includes the following steps using TomoPlus: 1) pick the first breaks; 2) derive a 2D delay-time solution; 3) perform traveltime tomography with the delay-time solution as the initial model (convert from .mlay to .mdl model format); 4) Calculate TomoStatics and residual statics; 5) Apply to shot gathers and observe any improvement.

Data Offered:
omv_line26.sgy

Document Offered:
TomoPlus v4.2 training manual
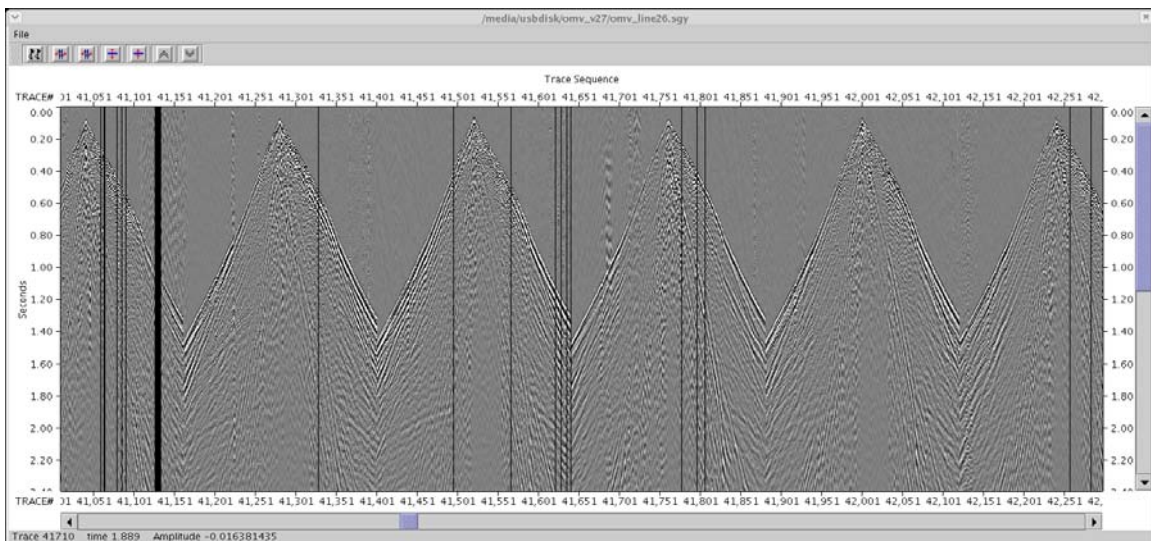
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