

Estimation of topographic slope, topographic gradient and Moho deepening gradient for transects A-A' and B-B', as shown in Figure 4

The 50.0-km-long transect A-A' exhibits a topographic relief of 923 m (from 1339 m to 2262 m), with an average topographic slope of 1.06° and a topographic gradient of $\sim 1.2\%$. Its Moho deepens by ~ 7 km (from 50 km to 57 km, with a deepening gradient of $\sim 14\%$) from the basin to the orogen (Fig. 4A). The ~ 43.0 -km-long transect B-B' displays a topographic relief of 546 m (from 1307 m to 1853 m) with an average topographic slope of 0.73° and a topographic gradient of $\sim 1.2\%$. Its Moho deepens by 5 km (from 49 km to 54 km with a deepening gradient of $\sim 11\%$) from the basin to the orogeny (Fig. 4B).

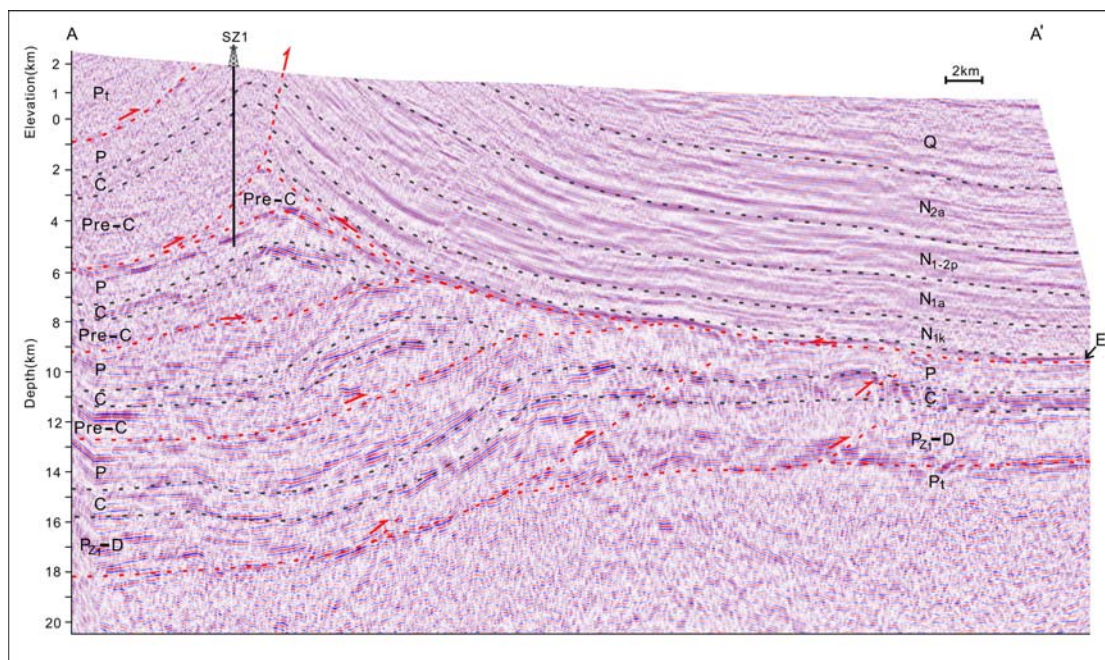


Figure DR1 Seismic reflection profiles along transect A-A' (Fig. 1). Black lines show the depths and locations of wells SZ1 and HC1. Dotted lines are interpreted stratigraphic boundaries. Letters show the stratigraphic ages as in Figure 2. Vertical exaggeration = 1.5.

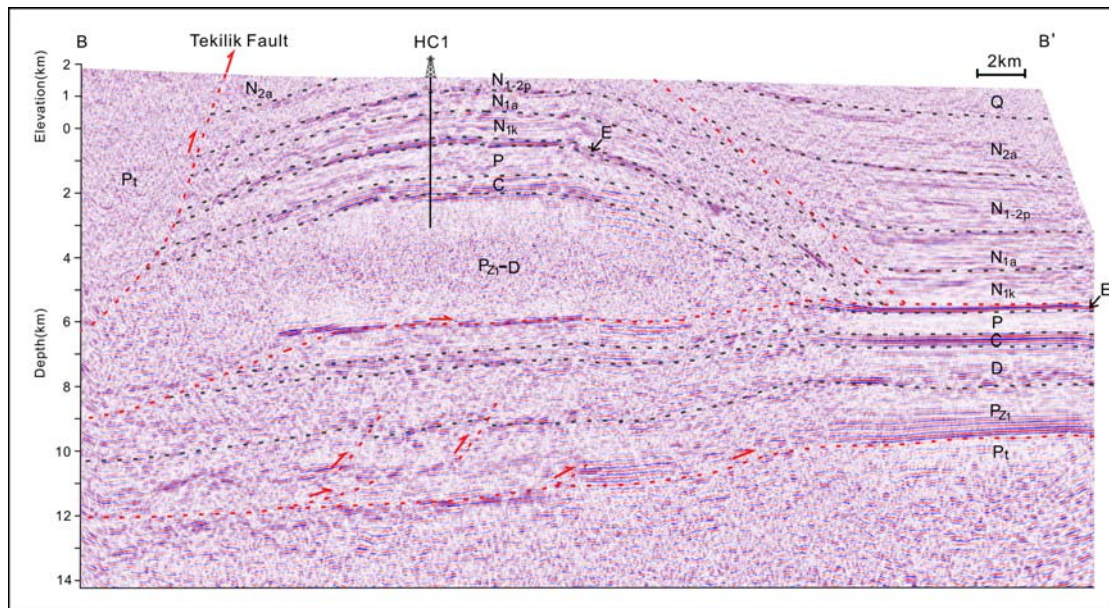


Figure DR2 Same as Fig. DR1 but for transect B-B'.

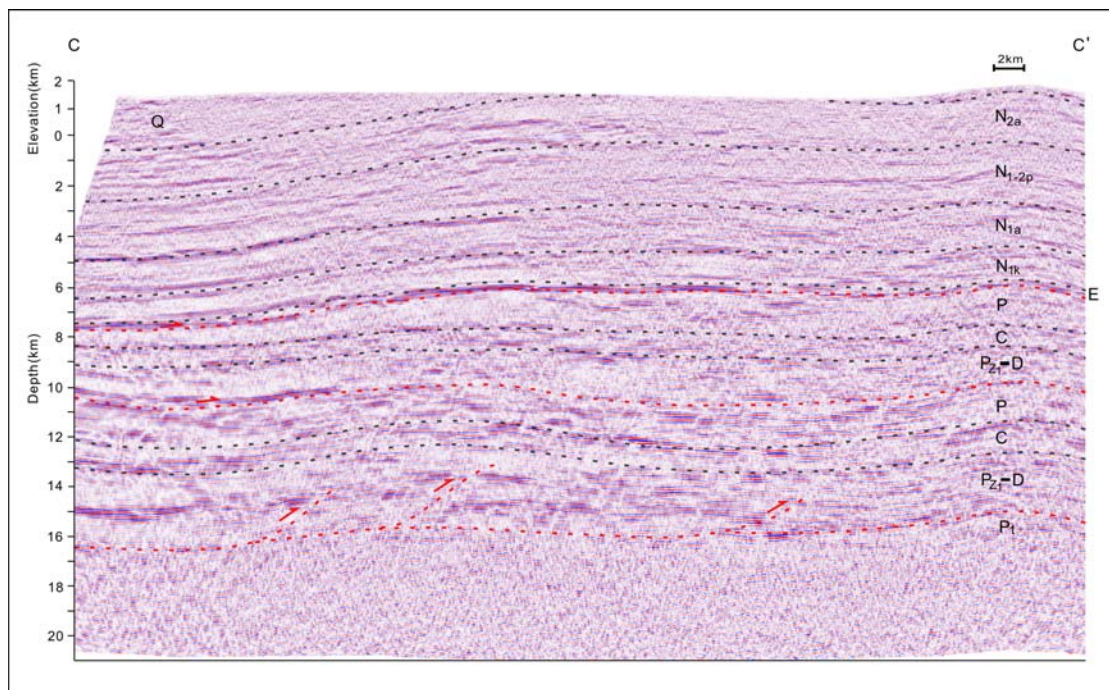


Figure DR3 Same as Fig. DR1 but for transect C-C'.

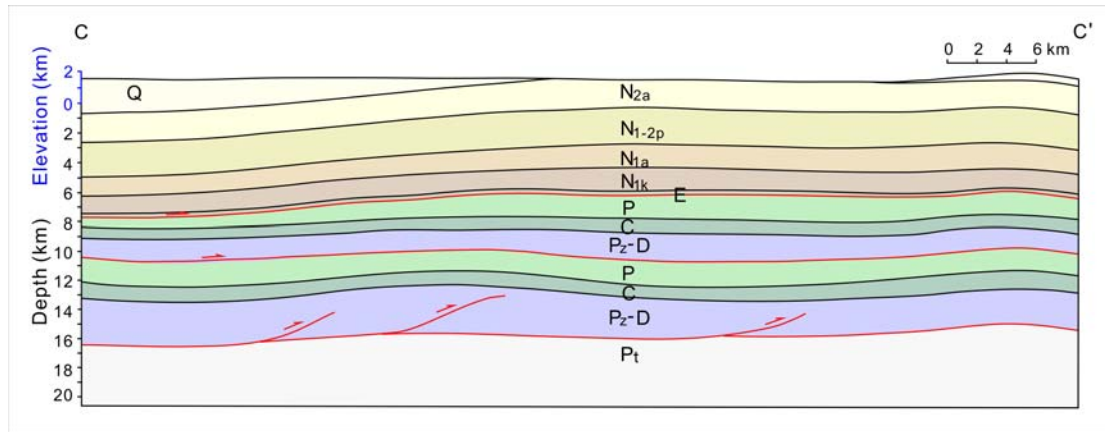


Figure DR4 Structural cross-sections for transects C-C based on interpretation of the seismic reflection results and dill well data from SZ1 and HC1. Vertical exaggeration = 1.5.

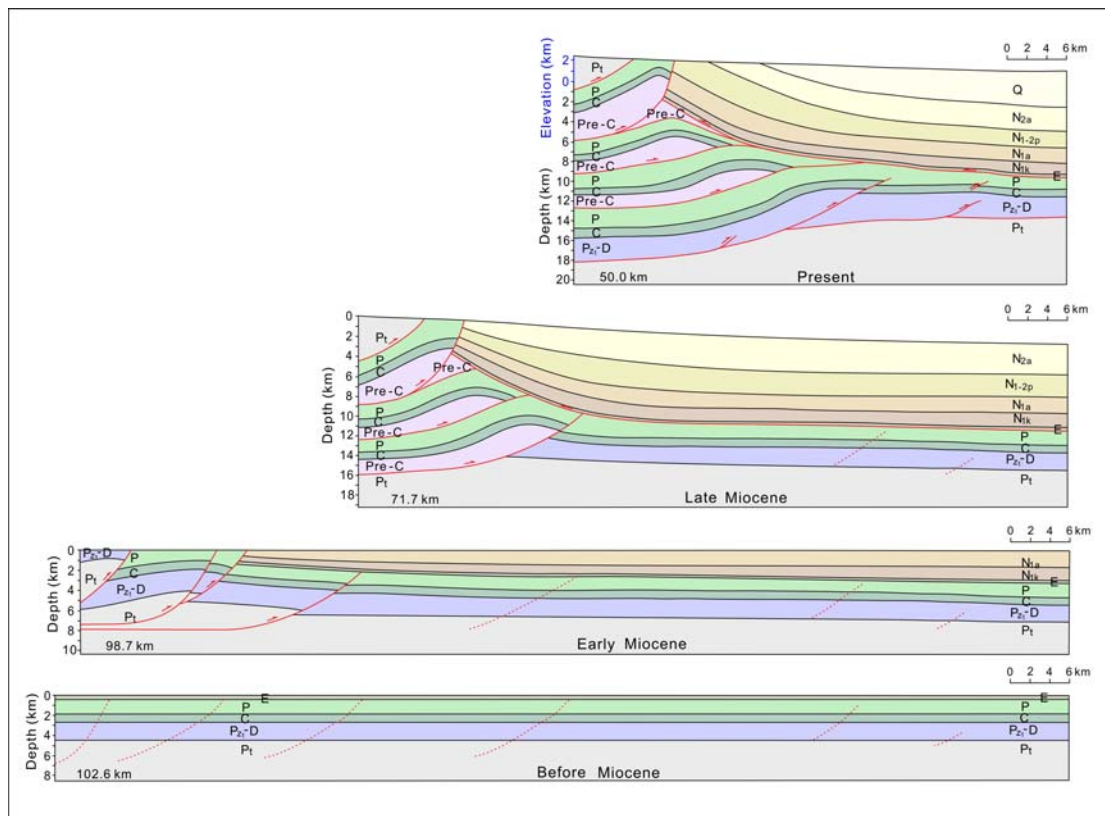


Figure DR5 Deformation history of transect A-A' established using the balanced-cross-sections method. Vertical exaggeration = 1.

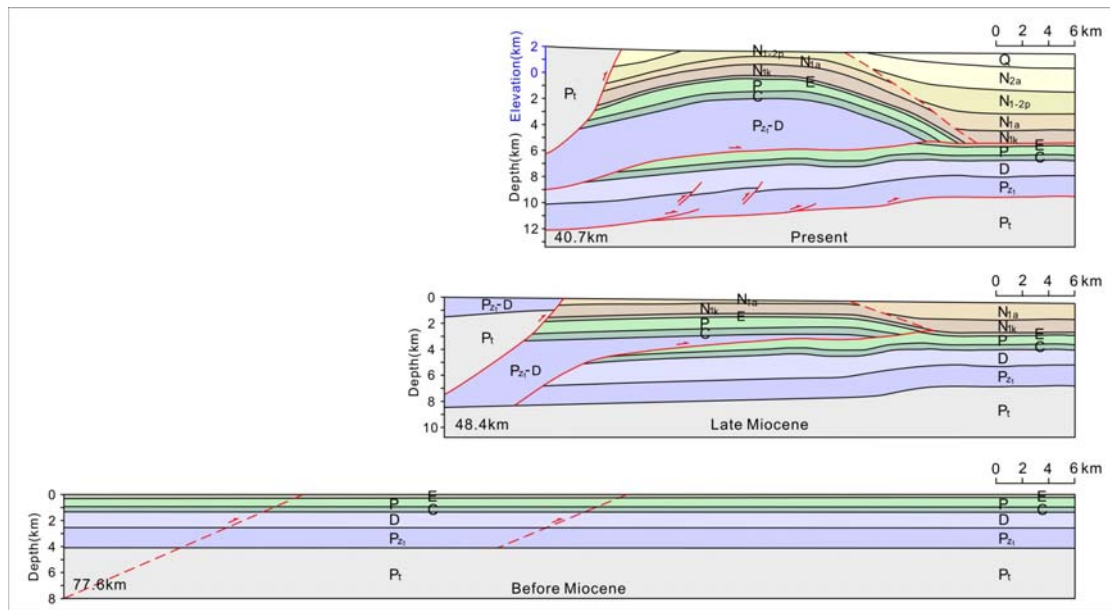


Figure DR6 Same as Fig. DR5 but for transect B-B'.