An earthquake with magnitude Ms=4.6, mb=5.0 occurred in the west of Kazakhstan near Shalkar salt lake on April 26, 2008. The depth was 0-5 km. Focal mechanism type is strike-slip. The intensity of the earthquake in epicentral area reached 7 by MSK-64 scale. As a result of the earthquake two settlements were completely destroyed.

The earthquake uniqueness is that first, the place where the earthquake occurred does not relate to seismic dangerous zones according to the available maps of seismic zoning of Kazakhstan, i.e. earthquakes with intensity more than 5 are not expected here. Kazakhstan seismic networks have never recorded even small seismic events in this region.

Second, the earthquake is of unusual nature which was investigated especially. Shalkar earthquake region is located in the north part of Caspian depression where the total thickness of sedimentary cover reaches 15 – 18 km. The section contains salt-bearing stratum of 3-4 km thickness. The focus of Shalkar earthquake coincides with salt dome outcrop. The analysis of set of geological, seismological, tectonic data allowed to conclude that the earthquake occurrence is connected with karst process and active salt diapirism.

The peculiarity of the earthquake is also focal generation of intensive infrasound waves recorded by the CTBTO international infrasound station Aktyubinsk IS31 at a distance of 450 km away from the earthquake.