

Induced Seismicity on the Territory of Kazakhstan

Starting from 1994, the monitoring network of the RSE IGR mainly consisting of sensitive seismic arrays of different configuration has been operating on the territory of Kazakhstan. Seismicity monitoring of Kazakhstan has revealed a significant number of earthquakes at regions that were traditionally considered as aseismic. A range of earthquakes is related to places of active induced effect. The report shows the information on events of induced and man-made nature on the territory of Kazakhstan using contemporary instrumental data from regional monitoring network and data of the International data centers. The man-made earthquakes occurred at solid mineral deposits (Zhezkazgan deposit in Central Kazakhstan, gold ore quarried of Northern Kazakhstan), at raw hydrocarbon deposits (oil and gas Tengiz deposit, gas condensate Zhanazhol deposit), at former Semipalatinsk Test Site, and natural-induced (induced) earthquakes (in Central and Western Kazakhstan) were studied. Possible reasons of its occurrence are considered. The waves pattern of records from sources of different nature from the same region are analyzed for its reliable discrimination.

Primary author: SOKOLOVA, Inna (Institute of Geophysical Researches)

Presenter: SOKOLOVA, Inna (Institute of Geophysical Researches)

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