

Thesis Title STUDY AND ANALYSIS SITUATION OF
 OF EARTHQUAKE IN WESTERN OF THAILAND
 (THE CASE OF KANCHANABURI) DURING
 1982-1985

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ABSTRACT

The study of the recent earthquake occurred in Western Thailand has shown that they occurred in 2 areas, Srinakarind and Khao Leam dams and their reservoirs. The tremors were felt not long after the reservoirs impounding. Their epicenters are generally located in the mainly limestones which are easily affected by water. A fault plane solution of the Srinakarind earthquake revealed that is a reverse fault with a small component of left lateral motion. The earthquakes of Srinakarind and Khao Leam are related by a function $\log N = a - bM$, values of b are 0.87 for the Srinakarind earthquake, and 0.89 for Khao Leam earthquake. The b values are also high in the frequency-magnitude relations, the ratio of the largest aftershock magnitude to the main shock magnitude is high. The differences in b values for different earthquake groups in the vicinity area are statistically significant. The foreshock-aftershock

pattern corresponds with Mogi's type II, while the Khao Leam earthquake is swarm type (type III). Due to The Khao Leam earthquake could not been distinguished in form of foreshock, mainshock and aftershock, so some values such as foreshock and aftershock b values, foreshock-aftershock pattern could not been determined. The relations between water level and frequency for both sequences does not show in good correlation, due to the period of examination is rather short.

The result of study is believed that both reservoirs associated with seismic sequences, and were similar to the foreign cases whose have been determined that the reservoir associated seismic activities. However the seismicity of both areas might be caused from active faults running in and around those areas.