

The kinematics of deformation of the Kenerong Leucogranite and its enclaves at Renyok waterfall, Jeli, Kelantan

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The Late Cretaceous Kenerong Leucogranite, a component of the Stong Complex exposed near TNB mini power station, at Renyok waterfall, Jeli, Kelantan consists of a sequence of leucogranite vein and metasedimentary enclaves. Here, varieties of structures developed in both rock types. Structural studies indicate the rocks here had undergone at least four phase of deformation. It is interpreted that the first deformation (D_1) with the compression from ESE, which was responsible in the development of foliation and reverse faults was related to the regional stress system during the Late Cretaceous time. The second and third deformation (D_2 and D_3) with the compression from NE sector, that was related to the formation of lateral faults system, pinch-and-swell, boudinage, drag folds and small-scale kink folds might be related to the stress system that were generated by the emplacement of the younger granite in the vicinity. The fourth deformation (D_4), which was responsible for the normal faulting by the reactivation of the preexisting faults, was probably related to the relaxation period after the granite intrusion of the area.

Leukogranit Kenerong yang berusia Kapur Lewat, satu komponen daripada Kompleks Stong yang tersingkap berhampiran stesen kuasa mini TNB di Air Terjun Sungai Renyok, Jeli Kelantan terdiri daripada satu turutan telentang leukogranit dan metasidimen. Di sini terdapat kepelbagaian structure telah terbentuk dalam kedua-dua jenis batuan, Kajian struktur menunjukkan batuan telah mengalami sekurang-kurangnya empat fasa canggan. Ditafsirkan bahawa canggaan pertama (D_1) dengan arah mampatan dari UTL yang bertanggung jawab dalam pembentukan foliasi dan sesar songsang adalah

berkaitan dengan system tegasan rantau semasa Kapur Lewat. Canggaaan kedua dan ketiga (D_2 dan D_3) dengan mampatan daripada sector timur laut (TL) yang berkaitan dengan pembentukan system sesar mendatar, ramping-dan-ampul, boudinag, lipatan seret dan lipatan kercau berskala kecil boleh dikaitkan dengan system tegasan yang diakibatkan oleh penempatan granit yang lebih muda di kawasan berhampiran. Canggaaan ke-empat (D_4) yang bertanggung jawab dalam pembentukan sesar normal secara pengaktifan semula satah sesar yang sudah sedia ada mungkin berkaitan dengan tempoh pelepasan selepas rejahan granit di kawasan ini.