Superimposed Deformations and Vergence of Lower Tertiary Sediments near Tatau, Sarawak.

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Good quality outcrops along a 9-km stretch of the trunk road passing near Tatau, in the southern part of the Balingian province, provide the following information. The stratigraphic succession becomes younger from west to east and in that order consists of dm-dm thick sandstone-shale intercalations, followed by a dominantly dark grey shale part, then metre-thick sandstone banks, succeeded by thicker dm-dm sandstone-shale turbidites, and capped by cross-bedded sandstone and polymict conglomerate. Flat shale clasts in the latter and its argillaceous groundmass suggest large-scale disturbance during its deposition. This entire section is considered to represent the lower part of the Tatau formation of Central Sarawak and is of Eocene age. Locally, metres-wide zones of chaotically folded sandstone-shale interbeds and sandstone banks deformed in ductile-brittle manner represent slump horizons in the sequence. Slickensiding and incipient crystallisation of gouge upon surfaces of competent rock fragments plus phyllitic character of the argillaceous groundmass indicate that most, if not all, of these slump horizons were also shear zones during subsequent tectonic events.

The structural style is that of large recumbent folds with north vergence upon which was superimposed northwest-verging, medium scale overturned folds. The larger structure was probably developed in the late Eocene that in Central Sarawak represented a major orogenic event. The second structure

was probably the result of the Pre-Liang and Post-Liang folding phases of the Pliocene-Pleistocene.

The regional geological map of Sarawak indicates that in the vicinity of Tatau, structures trend east-west, but change towards east and west into ENE and WNW strikes, respectively. In the section that we studied, the WNW trend is only vaguely represented.

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