
Investigations for the Tawau Dam, Sabah

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A case study for the investigations of the proposed Tawau damsite and its vicinity is presented. The proposed damsite is located on Sg. Tawau some 10 km upstream from Tawau. The damsite area is underlain by Tertiary and Quaternary volcanics such as andesites, basalts and pyroclastics. These rocks are weathered to various degrees, ranging from grades II to VI. Sub-horizontal fissures are common features of the volcanic rocks, thus resulting in high permeability values of as much as 10^{-3} cm/sec. Possible construction materials include fresh basalt located about 2 km upstream from the damsite (limited quantity) and fresh microdiorite from the Kukusan Hill located some 8 km south of the damsite (enormous supply). Other geological constraints of relevance to the proposed project include: seismicity, recent or active faults and mineral clearance. There is cause for concern from seismicity and faulting as the proposed damsite appears to be located close to two faults, and the Tawau area has experienced earthquakes in recent times, the latest event occurring at the end of 1991.

May-Jun 1992