

## **Reconstructing the Trace of Mesozoic Subduction and Its Implication on Stratigraphy Correlation between Deep Marine Sediment and Granite: Case Study of Garba Complex, South Sumatera**

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**Abstract :** Garba Hill, located in Tekana Village, South Sumatera Province is comprised to South Sumatera Basin and classified as back arc basin. This area is entered as an active margin of Sundaland which experiences subduction several times since Mesozoic to recent time. The traces of Mesozoic subduction in the southern part of Sumatra island are exposed in Garba Hill area. The aim of this investigation is to study the tectonic changes in the first phase in Mesozoic era at the active margin of Sundaland which causes the rocks assemblage in Garba hill consist of continental and oceanic plate rocks which the correlation between those rocks show indistinct relation. This investigation is conducted by field observation in Tekana village and Lubar Village, Muara Dua, South Sumatera along with laboratory analysis included fossil and geochemistry analysis of radiolarian chert, petrography analysis of granite and basalt, and structural modelling. Fossil and geochemistry analysis of radiolarian chert and geochemistry of granite rocks shown the relation between the two rocks and Mesozoic subduction of Woyla terrane on western margin of Sundaland. Petrography analysis from granite and basalt depict the tectonic affinity of rocks. Moreover, structural analysis showed the changes of lineation direction from N-S to WNW-ESE.

**Keywords :** granite, mesozoic, radiolarian, subduction traces

**Conference Title :** ICSGT 2017 : International Conference on Structural Geology and Tectonics

**Conference Location :** Amsterdam, Netherlands

**Conference Dates :** December 04-05, 2017