

Integration of Resistivity and Seismic Refraction Using Combine Inversion for Ancient River Findings at Sungai Batu, Lembah Bujang, Malaysia

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Abstract : Resistivity and seismic refraction profiling have become a common method in pre-investigations for visualizing subsurface structure. The integration of the methods could reduce an interpretation ambiguity. Both methods have their individual software packages for data inversion, but potential to combine certain geophysical methods are restricted; however, the research algorithms that have this functionality was existed and are evaluated personally. The interpretation of subsurface were improve by combining inversion data from both methods by influence each other models using closure coupling; thus, by implementing both methods to support each other which could improve the subsurface interpretation. These methods were applied on a field dataset from a pre-investigation for archeology in finding the ancient river. There were no major changes in the inverted model by combining data inversion for this archetype which probably due to complex geology. The combine data analysis provides an additional technique for interpretation such as an alluvium, which can have strong influence on the ancient river findings.

Keywords : ancient river, combine inversion, resistivity, seismic refraction

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