

ANALISIS ZONA LEMAH (AMBLESAN) DI KAWASAN JALAN RAYA GUNUNG TUGEL KABUPATEN BANYUMAS BERDASARKAN SURVEI GEOLISTRIK KONFIGURASI WENNER

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Author Order	3 of 3
Accreditation	
Abstract	<p>The geo-electrical survey with wenner configuration has been done in the Gunung Tugel street area, Village of Kedungrandu, District of Patikraja, Regency of Banyumas. The purposes of the research is to interpret the subsurface rocks lithology based on the resistivity values, analyze the existence of the weak zone that spread beneath of the subsidence zone surface on the highway, explore the existence of others weak zones that located outside of the existing subsidence zone, and explain the causes of the subsidence happened in this area. Modeling and interpretation of the subsurface rock resistivity values is done using the Res2dinv 3.54 and Surfer 10 software. The results of the modeling and interpretation on the resistivity values at line GT-L01 and GT-L02 shows subsurface rocks structure model in the form of the finely sand with a resistivity values of 0.90 to 3.00 $\Omega\cdot m$, marl rock with a resistivity values of 3.00 - 10.00 $\Omega\cdot m$, and calcareous sandstones with a resistivity values of 10.00 to 26.00 $\Omega\cdot m$. Beside the results of the research also show a weak zone beneath of the subsidence zone surface and found some others weak zones outside of the subsidence zone. The weak zone in this area is interpreted as fine sandstone that softly and not compactly. While the others weak zones that located outside of the subsidence zone are indicated potentially to be the cause of a new subsidence on the highway. The subsidence that happened on the highway is estimated because the rocks blocks in the weak zone are unable to support changes in the layer structure above it, in the form of marl, as a result of weight force and pressure resulted by most heavy-weighed vehicle which always going through on this highway.</p>
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