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Preliminary Geotechnical Properties of Uncemented Sandstone Kati Formation

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Abstract : Assessment of geotechnical properties of the subsoil is necessary for generating relevant input for the design and construction of a foundation. It is significant for the future development in the area. The focus of this research is to investigate the preliminary geotechnical properties of the uncemented sandstone from Kati formation at Puncak Iskandar, Seri Iskandar. A series of basic soil tests, oedometer and direct shear box tests were carried out to obtain the soil parameters. The uncemented sandstone of Kati Formation was found to have well-graded and poorly graded sand distribution, depending on the location where the samples were obtained. The sand grains distribution was in a range of 82%-100% while, the specific gravity of the uncemented sandstone is in the range 2.65-2.86. The preconsolidation pressure for USB3 was 990 kPa indicating that the sandstone at USB3 sample had undergone 990 kPa of overburden pressure. The angle of friction for uncemented sandstone was ranging between 23.34°-32.92°.

Keywords : geotechnical properties, Kati formation, uncemented sandstone, oedometer test; shear box test
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