Data for in-situ Industrial Site characterization with the applications of combined subsurface and surface mapping

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Data article

Title Data for in-situ Industrial Site characterization with the applications of combined subsurface and surface mapping

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Abstract

The paper presents the data from the surface and subsurface mapping of this area for the purpose of siting industrial city in the area. The field data collected combine with the borehole data was to successfully apply these to solving geological, environmental and engineering complications posed by the complexity of the subsurface geological structures underlain this area. The Electrical Resistivity, (ER) and Induced Polarization, (IP) data were initially processed using RES2DINV software model to generate the depth to the lithological units together with topographic correction. The 2-D ER and IP data were collected from 23rd April 2017 up until 7th May 2017 covering a total of about 17.6 km along 44 survey lines using ABEM Terrameter SAS4000 for the field measurement. A total of 20 Borehole logs data were recorded to better characterized in-situ, the subsurface geological formations emplaced in the study area. The study area is located at Bagan Datuk, Perak Darul Ridzuan situated on Latitude 2° 44.653′N and Longitudes 104° 28.79′ E along the west coast Peninsula Malaysia. The topography of the area is generally flat low–laying and elevation range from about 0 m to 32 m above mean sea level (MSL).

Specifications Table *[please fill in right-hand column of the table below]*

Subject area	*Engineering, Geophysics and Geology*
More specific subject area	*Electrical Resistivity and Borehole Engineering*
Type of data	*Table, image, text file, figure*
How data was acquired	*The 2D ER and IP data were acquired using Land imaging system by Survey with ABEM Terrameter SAS4000, and Rig YWE D-90R using Rotary wash method to bore and auto record the borehole logs.*
Data format	*Raw, filtered, analyzed*
Experimental factors	*The 2D ER and IP data were originally processed using RES2DINV software model. The borehole data directly characterized the subsurface geologic formations in-situ.*
Experimental features	*Very brief experimental description*
Data source location	*Bagan Datuk, Perak Darul Ridzuan, Malaysia, Latitudes 2° 44.653′N and Longitudes 104° 28.79′ E*
Data accessibility	*The data is with this article.*

Value of the data