OR/14/030 Technical information


Scale

The *DiGMapPlus Near Surface ‘Electrical resistivity Model of Great Britain’* dataset is produced for use at 1:50k scale providing 50 m ground resolution.

The data are released in ESRI shapefile formats. Other formats such as MapInfo TAB are available on request. The standard data supplied to customers has polygons or areas in a single layer or theme.

Coverage

Data is provided to indicate the resistivity of rocks and soils across Great Britain (excluding the Isle of Man) as shown below. The scales of map data available to create this dataset are shown in Appendix 2.
Data history

This is the first version of the dataset to be published (released 2014): It is derived from BGS Parent Material Map version 6. More details on this product can be found at this website http://www.bgs.ac.uk/products/onshore/soilPMM.html.

Limitations

- The DiGMapPlus datasets have been developed at 1:50k scale and must not be used at larger scales. All spatial searches against the data should be done with a minimum 50 m buffer.
- The distribution of the input data from the National Geotechnical Properties Database is shown in Appendix 1 and digital geological map data scales are in Appendix 1. Although the National Geotechnical Properties Database, BGS Physical Laboratories Properties Database and BRE Stone list (BRE) are the main sources for data, their limited coverage means that data from BGS reports and other resources have been used.
- Local conditions may vary and this dataset should not replace site assessment. Further detail of the geology may be available on more detailed 1:10k scale geological maps.
- The spatial distribution of the data is limited by the spatial accuracy and resolution of the digital geological map data (DiGMapGB-50) (Appendix 2). Spatial mismatches of resistivity
values relate to mismatches in lithology type (i.e. variation in LEX-RCS across map-sheet boundaries) do occur, and require resolution by reference to higher resolution map information where available. Further detail of the geology may be available on more detailed 1:10k scale geological maps.

- The various resistivity values presented are created as vector polygons and are available in a range of GIS formats, including ArcGIS (.shp), ArcInfo Coverages and MapInfo (.tab). More specialised formats may be available but may incur additional processing costs.
- Resistivity dataset is concerned with the properties and potential use of NATURAL geological deposits and conditions only. It does NOT cover any man-made constructions or materials.
- The resistivity values are based on, and limited to, an interpretation of the records in the possession of or available to The British Geological Survey at the time the dataset was created.
- The values of resistivity given are the statistical simulation derived from the parameter value of a rock or soil and do not necessarily represent the distribution that will be found on site which will depend on the local variability of the ground and climatic conditions. Such an assessment can only be made by inspection of the area by a qualified professional.
- An indication of the typical variability of resistivity of a rock or soil does not necessarily imply the resistivity of laminated or interbedded soil of rock are as the in situ values might ‘averaging’ of the resistivity of the different lithologies and will depend on the material type, the relative thicknesses of the different materials types and the resolution of the resistivity survey.

**Contact information**

For all data and licensing enquiries please contact:

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