OR/15/065 What the datasets show

From Earthwise


The data are a synthesis of national databases and technical engineering data held by BGS, based primarily on DiGMapGB-50 V6 and the National Geotechnical Properties Database.

The primary source data for the Engineering Properties datasets/GIS are:

1. The DiGMapGB-Plus dataset (Lawley 2009[1]) and DiGMapGB-50 digital geological map;
2. Ground investigation data from the National Geotechnical Properties Database and exploratory hole logs, from the National Geological Records Centre;
3. A series of 'look-up' dictionaries that provide the classification of the individual property of a material for the property in question. The assessment and categorisation is interpreted primarily in accordance with BS5930 (BSI, 2015[2]), Eurocode 7 and other industry documents and references.

The data provides national coverage for England, Scotland and Wales primarily at a scale of 1:50 000.

‘Engineering Properties’ model provides data for the uppermost 2 m of all geological units distributed across Great Britain (including consideration of weathering).

Who would benefit from the datasets

General

It is envisaged that the suite of engineering properties is of interest to a wide range of organisations concerned with development including utility companies, local authorities, developers and civil engineering clients, consultants and contractors.

Properties of earth materials are important in all engineering projects and the classification of the properties provided by this suite of datasets could be used in all ground developments. The information presented in the Engineering Properties datasets (at a 1:50 000 scale) provides a generic assessment informing engineering geologists and ground engineers at the desk study stage of a project, allowing for more efficient tender preparation, planning and execution of subsequent ground investigations. Site specific assessments should be carried out for design purposes.

Corrosivity

The corrosivity dataset is aimed at asset managers responsible for underground iron and other assets. These include water pipelines, oil and gas pipelines, earthing rods, cabling, sewers and steel building foundations that are at risk from different types of corrosion. It can be used to identify the likely reason for failure, to inform maintenance scheduling and suitable materials to use for replacement or new build to help meet leakage reduction targets in a cost effective manner. In particular, the data might be used by water companies. In addition, the data might be useful at the desk study stage for selecting pipeline routes or to identify appropriate construction materials.
Some underground infrastructure is, or will be, constructed in areas where there is little information for instance renewable energy resources including wind, solar and wave in upland or coastal areas.

References


Retrieved from [http://earthwise.bgs.ac.uk/index.php?title=OR/15/065_What_the_datasets_show&oldid=29546](http://earthwise.bgs.ac.uk/index.php?title=OR/15/065_What_the_datasets_show&oldid=29546)

Category: OR/15/065 User guide for 'BGS Civils' - a suite of engineering properties datasets