Shale Gas Prospectivity

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL
www.bgs.ac.uk

The British Geological Survey (BGS) has been running a shale gas project for the last year. We have collected as much of the relevant data we possess from subsurface exploration of all kinds and also from publications to make a GIS of the main shale formations. This poster and the paper submitted represent a selection of the data being assembled.

The US has been a model repeatedly followed in UK hydrocarbon exploration and we anticipate that exploration will begin in Carboniferous shales. But older and younger shales will eventually be tested too.

We look forward to seeing a new surge in subsurface geological knowledge of the UK from shale gas exploration.

Poster design by Nigel Smith (njps@bgs.ac.uk) and Paul Turner (ptu@bgs.ac.uk), BGS, Keyworth

BARNETT SHALE FORT WORTH BASIN USA

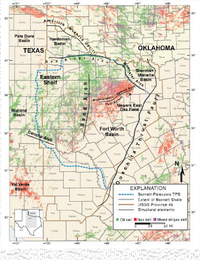
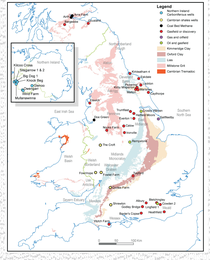


Figure 1. Fort Worth Basin, USA: The Lower Carboniferous Barnett Shale is a source rock for conventional hydrocarbons and the most important shale gas reservoir in America at the moment. It lies unconformably on Ordovician strata and thickens northwards against the Muenster Arch. This uplift is part of the Southern Oklahoma Aulacogen system which formed a triple junction with the Ouachita fold belt (=Variscides).

UK SHALE FORMATIONS AND GASFIELDS


Legend
Carboniferous
Devonian
Silurian
Ordovician
Cambrian
Precambrian
Igneous
Fault
Thrust
Fold
Inferred
Concealed
Offshore
Onshore
Stanlow
Ellesmere Port
Hamilton
Preston
Lancaster
Burton
Keuper
Rhaetic
Lias
Bunter
Permian
Zechstein
Coal Measures
Millstone Grit
Namurian
Dinantian
Visean
Tournaisian
Devonian
Old Red Sandstone
Silurian
Ordovician
Cambrian
Precambrian
Igneous
Fault
Thrust
Fold
Inferred
Concealed
Offshore
Onshore
Hornsea
Bridlington
Scarborough
Whitby
Redcar
Teesside
Hartlepool
Sunderland
Durham
Newcastle
Morpeth
Berwick
Edinburgh
Dalkeith
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