

Regional, Field & Reservoir Studies

Blackbourn Geoconsulting, established in 1989, has a team of experienced staff offering a high-quality geological consultancy and analytical service to the hydrocarbon industry. The company, based near Edinburgh in Scotland, specialises in all aspects of petroleum geology, from regional and basin studies, through prospect and acreage evaluation to reservoir description and modelling.

Work can be undertaken at the scale of an entire basin, down to the microscopic level, and is frequently undertaken in collaboration with specialists from other geoscience disciplines, including petrophysicists and reservoir or production engineers. Clients have included many of the major oil and gas companies in Europe, Asia, the United States and elsewhere, in addition to numerous smaller companies.

The company offers a range of analytical techniques to support its geological services. In addition to geological and analytical work and general consultancy, the company undertakes sedimentological studies, core logging and field work, and offers training courses to clients (described in greater detail in our “Sedimentological Services & Training Courses” brochure).

Blackbourn Geoconsulting has specialised in the NW European continental shelf, Russia and Central Asia, but also applies its skills world-wide.

The company has a wide range of contacts within the hydrocarbon industry, and where a particular specialised knowledge is required, or for larger projects, the company can (with the client's consent) undertake work in association with others.

Please contact Dr Graham Blackbourn for further details of the services we provide, or for information on costs. We would be very pleased to discuss work requirements with potential clients, without obligation, and to tender for projects.

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Blackbourn Geoconsulting

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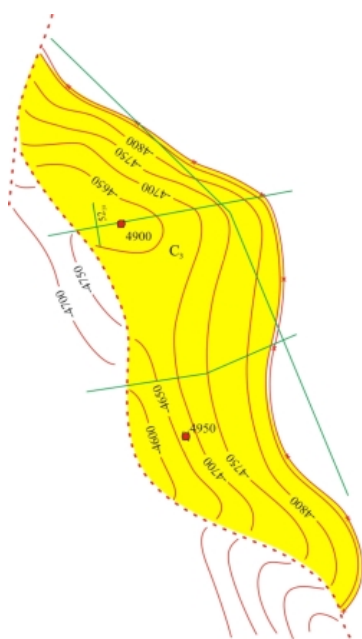
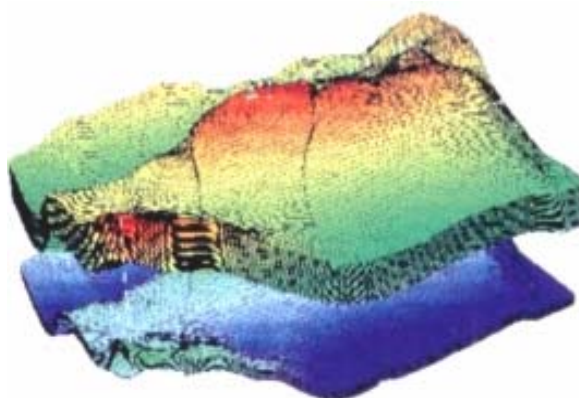
Services

Blackbourn Geoconsulting offers a high-quality geological and sedimentological consultancy and analytical service to the hydrocarbon industry. Major services provided are:

Well Appraisal and Reservoir Evaluation & Modelling

The thorough geological evaluation of exploration and appraisal wells is essential both for extracting the maximum information on the nature, distribution and productivity of any hydrocarbons that may be present, and in making decisions on the location of future wells.

The efficient appraisal and development of a hydrocarbon accumulation begins with a thorough understanding of the nature of the reservoir in which it lies. The services provided by **Blackbourn Geoconsulting** provide an essential component in establishing and maintaining the model of a field throughout its life.

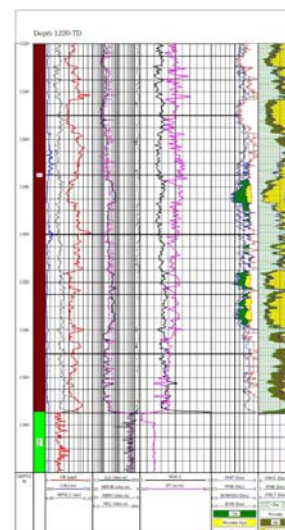


Sedimentological interpretation of any available core, supported by petrographic analysis, is a vital first step. The data obtained are then used to calibrate wireline logs, and to interpret the nature of equivalent horizons in uncored wells using all available well, seismic, test and production data (see our separate brochure on Sedimentological Services).

A detailed depositional and geometric model of the geological environment is built up, populated by porosity and permeability data obtained from core analysis, in order to understand the flow characteristics and controls on productivity of the reservoir.

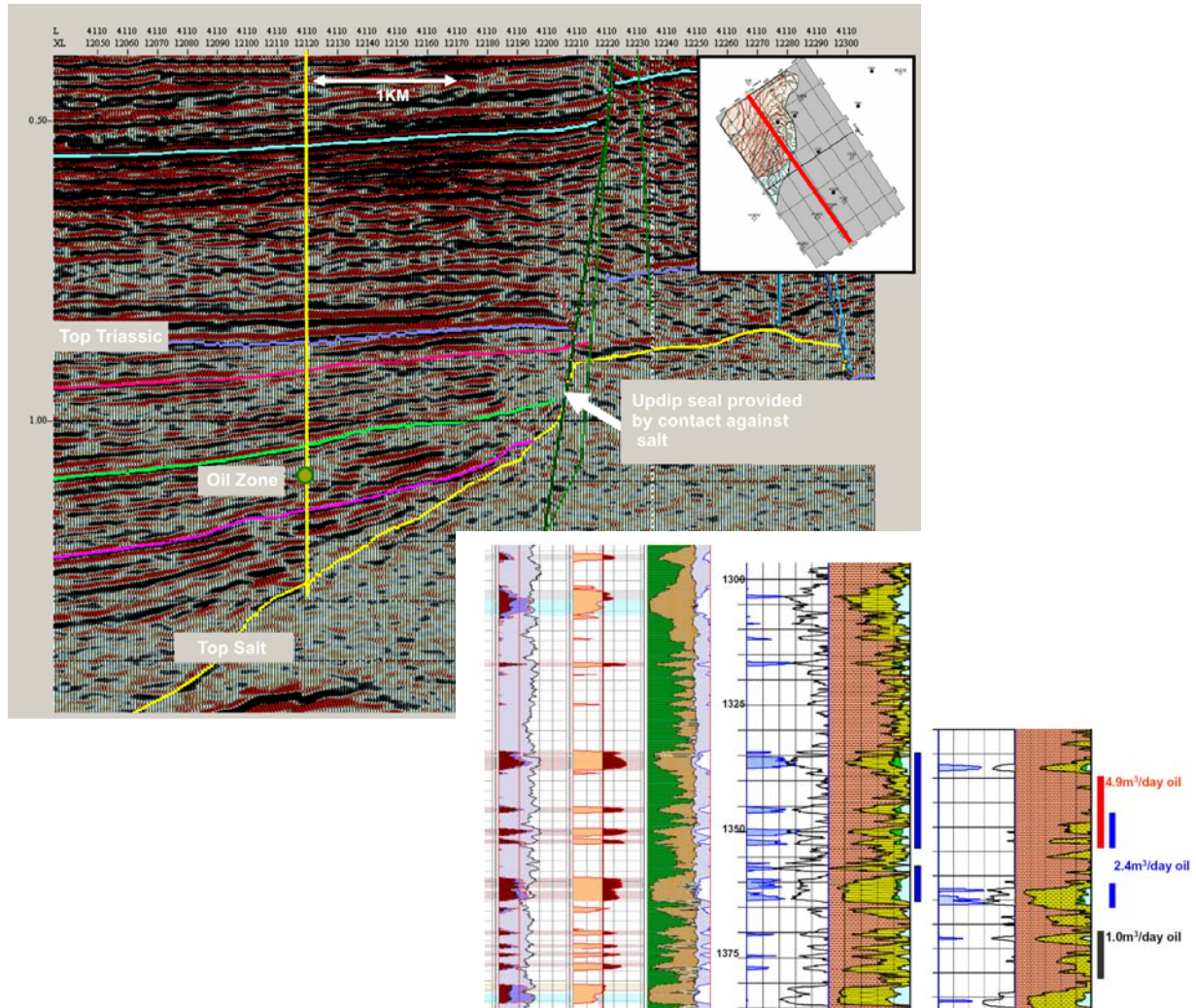
Working with reservoir engineers, the geological model can be used as the basis for constructing and maintaining field development models used in production planning, and production data in turn are used for the constant refinement of the geological model.

Blackbourn Geoconsulting provides its geological expertise at all of these stages, from initial evaluation of geological data prior to drilling the first exploration well, to provision of the detailed information on the reservoir needed to stimulate a poorly-producing reservoir, and to maximise hydrocarbon production from a depleting field.



Basin Analysis

Predicting where in a basin hydrocarbons may be found, and their likely volumes and types, depends on understanding the detailed history of the basin, and the relationships between potential source rocks, migration pathways and timing, reservoirs and seals, and the timing of trap formation.



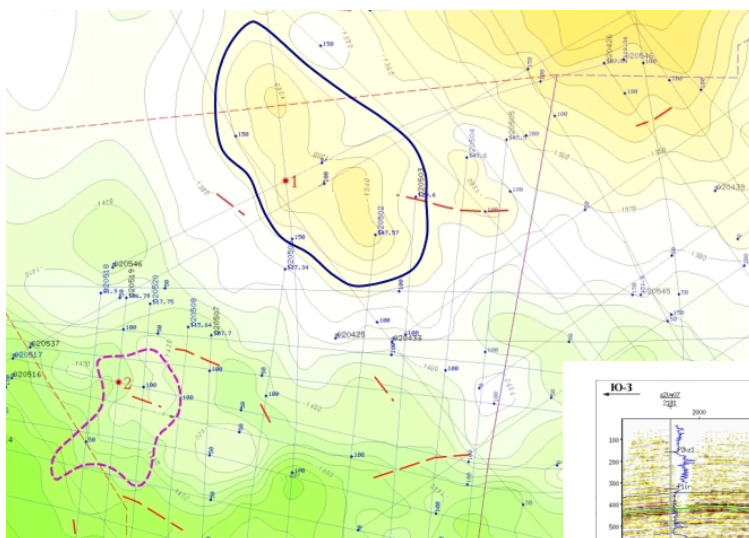
Basin analysis involves utilising a range of geological disciplines to understand the basin's structure, subsidence (or uplift) rate and heat flow through time; the nature of its stratigraphic infill, and diagenetic or other changes which might have occurred to the sediments.

The results are used both to evaluate the likely prospectivity of a basin, and to determine the drilling locations and stratigraphic intervals most likely to provide exploration success.

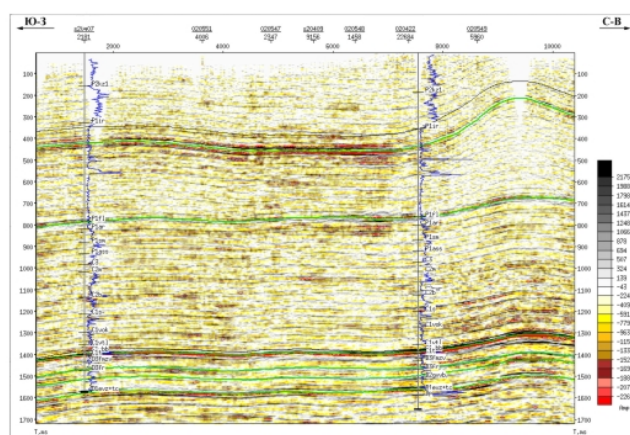
Working together with associated companies or a client's specialists, **Blackbourn Geoconsulting** can bring together teams of experts in all of the required disciplines, in order to develop an integrated model of a basin's history which will form the foundations for its subsequent exploration.

Regional Resource Evaluation, Field and Prospect Analysis

Blackbourn Geoconsulting provides the expertise for the assessment of reservoir, seal, trap and source-rock characteristics as part of risk assessment and chance-of-success calculations, and for the stochastic calculation of potential reserves. Due diligence is carried out on third-party reserve calculations.



These studies may be undertaken in our own or clients' offices, or in data rooms in any part of the world.



Evaluations can be provided of the likely prospectivity of countries, regions, basins and licence areas.

This may include research into and analysis of exploration history, existing discoveries, remaining and yet-to-find reserves and ultimate recovery.

Multidisciplinary Studies

Blackbourn Geoconsulting maintains professional contacts with consultants working in various disciplines, including:

- Biostratigraphy
- Geochemistry
- Structural geology
- Petrophysics
- Reservoir engineering

A team of consultants may be brought together to serve precisely the needs of any particular project. Members of the team may be nominated by **Blackbourn Geoconsulting**, or chosen by the client.

We are also happy to provide general geological and sedimentological consultancy services and advice to clients.



Recent Clients

- Bayfield Energy
- BG International Ltd
- BNG Ltd
- Britannia Operator Ltd
- Buried Hill Ltd
- Chevron North Sea Ltd
- CMOC Caspi Meruerty Operating Company B.V.
- Dansa Energy Resources Ltd
- DEO Petroleum
- E.ON E&P UK
- EnQuest
- Fugro
- Halliburton
- INPEX Corporation
- Korea National Oil Corporation
- Maersk Olie og Gas AS
- Max Petroleum Plc
- National Grid Carbon
- Neftekhim Petroleum Consultants
- Parkmead Group
- PetroChina Company Limited
- Petrofac Energy Developments
- Premier Oil & Gas
- Shell International E&P B.V.
- Statoil ASA
- Sterling Resources
- TAQA Bratani Ltd
- Tethys Petroleum Ltd
- Weatherford Laboratories