



EDUCATION

B.Sc. (Hons) Geology, London University, 1971-1974

KEY TECHNICAL EXPERTISE

- Over 35 years of solid, all round experience as an interpretation geophysicist. I have up-to-date working experience with North Sea operators which includes field development drilling and prospect generation. I have a practical understanding of the up-to-date seismic interpretation and rock physics techniques.
- Expertise with the latest visualization and interpretation software, Petrel, RocDoc1D2D, Paleoscan and also Landmark DecisionSpace and Kingdom 2d/3dPAK.
- Specialist depth conversion experience, Petrel and Velocity Manager depth conversion software, analysis using spreadsheets.
- Equity determination experience both as Independent Expert and as Oil Company Geophysical Committee representative.
- Well to seismic ties, synthetic seismogram generation, Syntool and Petrel user.

1999-PRESENT INDEPENDENT CONSULTANT GEOPHYSICIST – STUART FLETCHER LTD

CLIENTS:

Centrica
Energy
Upstream
Division



Shell UK Equity
Group
Shell Expro
HPHT Team



- Development Geophysicist for The Blackbird and Ettrick fields. Providing all geophysical support for the Reservoir Simulation and Geological modelling teams and economic assessment of near field potential as the fields approach CoP. A member of the subsurface team that drilled the final, successful producer well on the Blackbird field.
- Geophysicist covering the client's non-operated activities in UK Quads 28 and 29, reviewing AVO and Frequency Decomposition work to de-risk 3 prospects in the Lower Tertiary, regarded as Catcher Field analogues. Nearby prospects with seemingly good amplitude anomaly expression have been unsuccessfully tested, so seismic anomalies have to be analysed with caution.
- Review of the mature Annabel and Audrey Fields. A depth image error caused by a velocity anomaly associated with a 3km high wall of Permian Salt was recognised and corrected using the latest Reverse Time Migration Technology. The correction to the image revealed a drillable target (See Technical Paper).
- Development Geophysics for the Grove Field. Detailed analysis, including seismic reprocessing, proved a Carboniferous aged reservoir (as opposed to the previously thought Permian age). 3 development wells and 1 offset exploration well were drilled successfully. (See Technical Paper)
- Maturation of 24th licencing round, Faraday, prospect on the western HPHT flank of the J-Ridge, up to sanction for drilling. The Upper Jurassic Fulmar prospect was delineated by a Relative Acoustic Impedance anomaly.
- Structural interpretation and mapping for a continuous-model vertical depth conversion strategy in a reverse-faulted, basin margin setting in the Netherlands offshore for a major North Sea operator. Horizon provision for velocity model building and pre and post-stack parameter consultation for Pre-SDM processing. Prospect delineation within the Permian, Jurassic and Cretaceous stratigraphy.
- Pre Tertiary mapping in the Faroe-Shetland Basin and Corona Ridge using multiple 3D volumes.
- Technical Due Diligence and Acreage evaluation; Cambay Basin, India and Deep Water Nile Delta, Egypt, providing the client with an independent risk assessment of STOOIP and GIIP for proven developments, drilled prospects and exploration leads.
- Prospect mapping and maturation up to recommendation accepted for drilling around the HTHP fields of Shearwater and Elgin-Franklin and the very deep grabens eastwards of the J-Ridge. Depositional uncertainties of the Middle Jurassic reservoir still cloud the development of Kessog while the adjacent

Jade field, with its Triassic reservoir, is a success. Greatest risk still lies with structural uncertainty caused by difficulty in mapping the Permian salt layer, and understanding its affect on Triassic and Jurassic deposition. A simple 2D gravity modelling study allowed the Top Salt to be mapped with more confidence mitigating some of these problems.

- Seismic mapping and regional compilation for Pre-stack Depth Migration velocity modelling. 10 overlapping 3D surveys were interpreted and the horizons were combined to give highly accurate, wavelet hugging, regional horizons suitable for velocity estimation via seismic tomography.
The work:
 - 1) provided a valuable database for other project geophysicists.
 - 2) considerably reduced the time taken to map other detailed prospect mapping.
- Depth conversion study as a part of a Southern North Sea Equity Determination involving a detailed study of the effects of the overburden's velocity variations and the design of an appropriate depth conversion methodology. The study allowed the client to enter partner negotiations with a risked assessment of the equity split.

TECHNICAL PAPERS

Fletcher, S. [2013] The Impact of Reverse Time Migration on the Evaluation of Mature Southern North Sea Assets. *EAGE Conference Workshop, Interpreting the Imperfect Image.*

Sugrue, M., Goodall, C., Fletcher, S., King, D. and Gasiorowski, T. [2010] Careful Processing Leads to Cheaper Wells: Grove, An SNS Case History, *PETEX Conference.*

REFERENCES

The following are the contacts for my most recent work.

Fran Ray Blackbird & Etrick Subsurface Manager
01895 555104, francesca.ray@nexencnoocld.com

Mark Quine, Production Advisor, Sasol Ltd (past Grove Field Subsurface Manager, Centrica Energy).
020 7499 9925, mark.quine@eu.sasol.com

Jonathan Chapman, Subsurface Manager, MOL Energy UK Ltd (past Centrica Energy Subsurface Manager)
01224 224590,

Andy Spencer, Subsurface Manager, GDF Suez E&P UK Ltd.
020 3122 1562, andy.spencer@gdfsuezep.co.uk

PROFESSIONAL AFFILIATIONS

Member European Association of Petroleum Geoscientists
Member Petroleum Exploration Society of Great Britain

PREVIOUS PROFESSIONAL EXPERIENCE

1980 - 1999 Exploration Consultants Ltd (ECL) and then ECL Technologies Group
Senior Geophysicist and from 1995 Head of Geophysics
1977 - 1980 Processing "Party Chief" - Geophysical Services International (GSI)
1974 - 1977 Seismic Interpreter - V.C. Illing and Partners, Geological Consultants

FULL CONTACT DETAILS

Stuart Fletcher
Little Hill
Blind Lane
Bourne End
Bucks SL8 5TN

Telephone: +44 (0)7867 557534
+44 (0)1628 529296
E-mail: stuart.fletcher@littlehill.net
Website: www.smfletcher.com