



# Geoscience

## Basin Modelling

EPI Geoscience specialists have a proven track record delivering bespoke thermal maturity and basin models for conventional and unconventional projects around the world. We see basin modelling as a geoscience problem rather than a narrow geochemical problem and integrate in-house expertise across all of the key disciplines in our projects.

### Basin/thermal maturity modelling expertise

- Track record of global exploration success – directly attributable discoveries to basin modelling projects
- All tectonic settings including thrust, strike-slip, rift & passive margins
- Specific expertise in thrust belts and unconventional
- Chronostratigraphic & sequence stratigraphic modelling of basin evolution
- Hydrocarbon generation with focus on kerogen transformation ratios
- 1D/2D/3D/4D basin modelling
- Careful geo-modelling of basin evolution and timing
- Rigorous oil & gas migration modelling – kitchen to trap
- Multi-component volumetric analysis
- Training and mentoring industry professionals

### Geochemistry & laboratory analysis

EPI are able to execute laboratory analyses through existing partnerships with globally recognised specialist labs. Our global modelling experience across all basin settings, combined with careful calibration to sub-surface and the identification of project-specific critical sensitivities (& implications), delivers accurate and geologically realistic models which reveal the true hydrocarbon generation potential of assets.

#### Case Study: Major Field Discovery, UKCS

EPI Charge modelling and migration pathway analysis provided the final technical work which enabled our client and partners to sanction the drilling of a large North Sea oil discovery

#### Training & Software

EPI's team has industry recognised knowledge in basin & thermal modelling – providing courses for industry professionals, state companies and institutions.