



# 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 can 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.