

**Pre-conference Short Course Monday 14<sup>th</sup> November**

**Unconventional Reservoirs**

**Shale gas & CBM, heavy oil, HP-HT, advanced well construction, stimulation**

This course will provide an introduction to a series of topics that are very much related to modern reservoir development and are at the forefront of technology for many leading operating and well services companies.

**Suitable for:** Engineers and technical support staff who wish to broaden their knowledge and position themselves to take advantage of the unusual opportunities that become available in a high oil price environment.

**Session 1: Unconventional oil and gas reservoirs**

Tight gas; shale gas and shale oil; coal bed methane  
Methane hydrates; stranded gas; FLNG; GTL; syngas  
CO2 capture & storage / CO2 flooding  
Heavy oil and tar sands

**Session 2: High pressure and high temperature reservoirs**

Definitions and key issues  
Well design, completion and intervention  
Well production  
Material selection

**Session 3: Complex reservoirs and advanced well construction**

Horizontal, multi-lateral and maximum reservoir contact wells  
Advanced completion tools and technology  
Distributed temperature sensing and inflow control devices  
CHOPS; SAGD and ESPs

**Session 4: The role of stimulation in developing unconventional reservoirs**

Diagnosis, design and execution  
Perforation  
Hydraulic fracturing  
Acid treatment and chemical solvents

Course leader: Cameron Laing of Laing Engineering & Training Services ([www.letstrain.co.uk](http://www.letstrain.co.uk)), a petroleum engineer with over 35 years experience in well design and production technology in the UK North Sea and internationally. He also contributed to the development of the MSc in Petroleum Engineering degree at the Robert Gordon University.

**Cost**

**Members £130.00 plus VAT (£156.00)**

**Non-members £155.00 plus VAT (£186.00)**

**All refreshments, lunch and documentation are included.**

**Book on [www.rodgerandco.com](http://www.rodgerandco.com)**