



THE CENTRAL SCOTLAND REGIONAL GROUP OF THE GEOLOGICAL SOCIETY

Notice of event: Wednesday 21st September 2016

University of Strathclyde - Room 5.09a (Knowledge Exchange Hub), James Weir
Building, Level 5, 75 Montrose Street, Glasgow G1 1XJ

6.00pm for 6:15pm

Shale gas impacts: real-world monitoring

The SHEER project is an EU-funded research project that was established to address the understanding, prevention and mitigation of the potential environmental impacts and risks from shale gas exploration and exploitation. The project team is an international consortium of academic and industry partners from Italy, the UK, Poland, Germany, the Netherlands and the USA. The main targets of the research are development of a probabilistic procedure for assessing the short- and long-term risks from shale gas exploitation associated with groundwater contamination, air pollution and induced seismicity.

The groundwater monitoring and assessment are being led by RSKW Ltd and the University of Glasgow. A series of monitoring wells has been established at a shale gas site in Pomerania, North Poland, with baseline water monitoring undertaken between December 2015 and June 2016. The fracture stimulation was undertaken in late June/early July and monitoring at the site will continue for at least the next two years. Data being collected includes continuous water level, temperature and conductivity measurements, water samples for laboratory analysis and field measurement of physico-chemical parameters during the sampling campaigns. In addition to the site data collected during the project, the study makes use of existing data from the area, including from previously drilled wells and published geological and hydrogeological mapping.

The talk will discuss the challenges involved in the early stages of the project, including establishing a suitable monitoring network around the site, what can be determined from the monitoring to date, and what future challenges may be anticipated.

More information on the Central Scotland Regional Group can be found on our [webpage](#).

Registered Charity Number 210161

The Geological Society, Burlington House, Piccadilly, LONDON, W1V 0JU
Tel: 0207 434 9944 Fax: 0207 439 3470 Website: <http://www.geolsoc.org.uk>



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Presenters

Professor Paul Younger CGeol FGS FEng FICE FRSE Rankine Chair of Engineering, University of Glasgow

Professor Paul Younger FEng was appointed to the Rankine Chair in the School of Engineering in August 2012. Prior to joining the University of Glasgow, Paul held the post of Pro-Vice-Chancellor for Engagement at the University of Newcastle. He has enjoyed a varied career ranging from pure science (principally geology), through water resources and environmental engineering (especially groundwater engineering), on through mining environmental engineering to energy engineering. He continues to work closely with industrial partners worldwide, and with a dynamic start-up company active in geothermal energy. He has served on advisory panels to the UK and Scottish governments, and is currently Chair of the Global Scientific Committee of the Plant Earth Institute, an international NGO which aims to promote South-South collaboration to develop science and engineering capacity to tackle sustainable development challenges in the countries of the Global South. His current research focuses on the energy sector, engaging with the broad challenges involved in providing sustainable and low-carbon energy sources for the future. In particular, his interests lie within the fields of geothermal energy, renewable heat, responsible use of fossil fuels with CCS, and hydropower.

Dr Nelly Montcoudiol FGS Research Assistant, University of Glasgow

Nelly is a post-doctoral researcher at the University of Glasgow. Her research focuses on the impact on groundwater resources of shale gas exploration by hydraulic fracturing (fracking). Nelly's specific expertise lies within the fields of hydrogeochemistry and groundwater modelling and she has also undertaken fieldwork in a range of hydrogeological environments internationally. She holds an MSc in Hydrogeology from the Centre for Hydrogeology and Geothermics at the University of Neuchâtel, Switzerland, and a PhD in Hydrogeology from Université Laval, Québec, Canada.

Dr Catherine Isherwood CGeol FGS EurGeol Senior Hydrogeologist, RSKW

Catherine has over ten years' experience working as an environmental specialist, with particular focus on hydrological, hydrogeological and geological assessment. This includes undertaking hydrological and hydrogeological assessments for a wide range of projects within the UK and in Europe. Catherine's work currently focuses on hydrogeological risk assessment, in particular in relation to impacts on groundwater resources from conventional and unconventional oil and gas developments and from exploitation of geothermal energy potential within the UK.