THE CENTRAL SCOTLAND REGIONAL GROUP OF THE GEOLOGICAL SOCIETY

Notice of event: Wednesday 11th September 2019
Edinburgh Centre for Carbon Innovation – ECCI

High School Yards, EH1 1LZ

6.15pm for 6:30pm start

Note that there is no parking at the venue

Scotland's buried valleys
A BGS presentation on buried valleys in superficial geology in Scotland

by
Dr Tim Kearsey
Sedimentary Geologist & Project Leader, British Geological Survey

Dr Tim Kearsey, is a sedimentary geologist with the BGS and will be giving a presentation on recent developments in the published knowledge about the presence of sub-surface ancient valleys across Scotland, and the UK, using large borehole datasets.

Buried valleys are ancient river or subglacial drainage networks that are now abandoned and often partly or fully filled or buried with more recent sediments.

In the Central Valley of Scotland, these are known to exist under Grangemouth and Falkirk area, Glasgow and beyond that up in Old Aberdeen.

The presence of varying rockhead and varying bedrock depths has been understood for some time, but the recent mapping undertaken by the BGS has involved reinterpreting historic records of over 200,000 boreholes to link and investigate the relationships between some of the buried features.

Based on the borehole records reviewed and the relationships identified, in Scotland, the buried valley under Grangemouth is over 160m deep and the difference between superficial geology and surrounding geology may have significant implications for existing and proposed development, with interesting implications for new potential development in emerging markets such as geothermal energy.

More information on the Central Scotland Regional Group can be found on our webpage.

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Presenter - Dr Tim Kearsey PhD, MSci, FGS

Sedimentary Geologist, British Geological Survey

Tim Kearsey is a sedimentary geologist who has worked on Quaternary and Carboniferous sediments in Scotland for 10 years.

Tim is a member of the British Sedimentary Research Group, a member of the Quaternary Research Association and a Fellow of the Geological Society.

Tim's work for BGS has covered Quaternary investigation projects, oil and gas modelling of Devonian and Carboniferous basin structures and detailed 3D modelling of folded or faulted structures.

2009 – Ongoing BGS. Sedimentary Geologist, British Geological Survey
2005 – 2009, PhD University of Plymouth
2001 – 2005, MSci University of Birmingham, with an international year at the University of British Columbia, Canada.

Key Projects:
2017 – Ongoing: Project Leader for Geological Observatory Forth
2016 – Ongoing: Quaternary heterogeneities – developing an understanding of buried valleys that are now abandoned and have little or no surface expression or evidence in landscape
2012 – 2017: Tetrapod Evolution: Collaborative project with several British Universities and the National Museum of Scotland
2014 – 2016 Stratigrapher and sedimentologist, UK North Sea Oil and Gas
2009 – Ongoing: GSI3D and GOCAD 3D model development in highly faulted and folded terrains

Tim has contributed to promoting geology and broadening public engagement with interesting stories relating to geology and the work of the BGS and his recent work has been widely promoted in national literature, tweeted and reported by the BBC.

For more information about Tim and his work on the buried valleys in Scotland with the BGS please visit:
https://www.bgs.ac.uk/products/onshore/BuriedValleys.html