

## **Joint Meeting**

# **The Mining Institute of Scotland & The Edinburgh Geological Society**

**Wednesday, 6 February 2019**

## **'The Glasgow Geothermal Energy Research Field Site' Hugh Barron, BGS Scotland**



**Wednesday, 6 February 2019: Presentation @ 7:30pm**

**Hutton Lecture Theatre in the Grant Institute of Geology,**

**The King's Buildings, James Hutton Road, Edinburgh EH9 3FE.**

**Tea and biscuits are served following the lecture in the Cockburn Museum of the Grant  
Institute.**

**Please note there will be no video link for this presentation**

**Contact [Mark.Friel@hsgplc.co.uk](mailto:Mark.Friel@hsgplc.co.uk)**

## Lecture Outline

The British Geological Survey (BGS) and Natural Environment Research Council (NERC) are developing two world-class subsurface energy research test centres in the UK, one of which is in the Clyde Gateway area in the east end of Glasgow. This Glasgow Geothermal Energy Research Field Site is part of a £9M project to study low-temperature geothermal energy from the flooded mine workings below Glasgow.

Eastern Glasgow was once the location of extensive coal mining. The eventual closure of the mines led to them becoming naturally flooded with warm water which could be exploited via heat pumps to provide low-carbon heat for homes and businesses. In the Glasgow area, temperatures from around 12 to 20 °C are recorded in mine workings down to around 400 metres depth. However, we need to understand underground processes so that we can benefit from and protect underground resources. Geothermal energy could provide a low-cost, low-carbon heat source, but there are number of challenges for the geothermal industry.

This aims to be a world-class research site that would attract leading geothermal scientists and engineers. The knowledge, expertise and technology generated from this investment will be exportable to other areas. Around the UK, The Coal Authority datasets show flooded mine workings that could provide an energy source in other densely populated areas. Many other countries around the globe will also be interested in research at the site.

The front cover image shows core being recovered from the first borehole drilled as part of the Glasgow Geothermal Energy Research Field Site project. The borehole is situated in Dalmarnock, next to the Police Scotland Admin HQ.

## About The Presenter

Hugh is the External Liaison Manager for the Glasgow Geothermal Energy Research Field Site and has over 30 years' experience with BGS as a geologist, business development and project manager. He has been involved in geothermal feasibility work in Scotland for the last six years. With Aecom, he managed a project to review the deep geothermal energy potential in Scotland for the Scottish Government and was a co-author of the report. Hugh has worked with a variety of commercial and academic partners on shallow (minewater), intermediate (hot sedimentary aquifer) and deep geothermal (electricity generation) feasibility projects in Scotland. He is a Chartered Geologist and currently Chair of the Geological Society Geoconservation Committee

## Directions to the Grant Institute

The Grant Institute is located just off West Mains Road, in the University of Edinburgh's King's Buildings Campus. The building is circled in red on each of the maps below. Lothian bus services 24, 38, 41, 42 and 67 stop nearby. You can park in front of the Grant Institute - in the evening, parking is free and available for visitors. Enter by the front door and once in the foyer, take the left hand corridor. Follow it until it takes you down a set of steps, into the Hutton Lecture Theatre - marked by a red dot on the second map below.

