



# THE CENTRAL SCOTLAND REGIONAL GROUP OF THE GEOLOGICAL SOCIETY



Notice of Talk  
Tuesday 16<sup>th</sup> February 2016

## 'Near-surface Geophysics as Used in Geotechnical Site Investigations'

Dr Simon Hughes

Operations Manager TerraDat UK Limited

Geophysics is a modern science routinely applied to ground exploration. A range of survey tools are available for mapping/profiling subsurface targets such as mineral bodies, engineering rockhead, shallow archaeology, environmental contamination through to unexploded ordnance. Geophysical surveys are becoming more common place as they become an accepted part of geotechnical site investigations.

Advantages include: low cost, rapid site coverage, no exposure to buried hazards and minimal surface disturbance, and results that are easy to comprehend.

Limitations: certain sites are not suitable i.e. reinforced concrete slabs, noisy sites; targets but does not replace intrusive work; small targets at depth.

Through the use of several case studies, the trials, pitfalls and successes of using geophysics are discussed. The case studies include:

- Bypass scheme over limestone
- Wind farm developments (Wales and Scotland)
- Mine workings (School Extension, Greater Manchester)
- Pipelines

In these case studies methods such as resistivity tomography, microgravity, seismic, electromagnetic and magnetics techniques will be introduced.

### Venue

Glasgow Caledonian University  
Room A523, Govan Mbeki Building  
Cowcaddens Road  
Glasgow G4 0BA

[Map](#)

**18:00 for 18.15 - All Welcome**



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### **Dr Simon Hughes:**

Operations Manager, TerraDat UK Limited

Simon studied a BSc (Hons) in Geology at Southampton University, worked for Amoco UK Ltd. and then went on to do a PhD in Volcanology at Cardiff University. He moved to North America and did a Post-doc. at the Institute of Geophysics, National University of Mexico (UNAM) and was a Professor at State University of New York (SUNY) Buffalo. In 2005, Simon decided it was time to get a “proper” job and so he moved back to the UK and became the Operations Manager of TerraDat, where he has been ever since.

Simon is the Secretary of the Near Surface Geophysics Group and the Southern Wales Regional Group, both of the Geological Society, and sits on the Ground Forum.



For further information regarding the talk or to contact the Central Scotland Regional Group please visit our webpage at [www.geolsoc.org.uk/centralscotland](http://www.geolsoc.org.uk/centralscotland)