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Gravity and Magnetics Training Programme

Gravity and magnetic data and analysis are essential and cost-effective components of an integrated geoscience interpretation project, providing crucial insights into your areas of interest in order to help minimise exploration risk.

## LEARN HOW TO USE GRAVITY AND MAGNETICS TO REDUCE RISK

Our Gravity and Magnetics Training Programme comprises standalone modules that allow you to customise delivery method and content based on your specific requirements - from a single 1-day module to a comprehensive 4-day course, and from classroom-based instructor-led training to remote online delivery.

This full programme provides you with the skills to:

- Choose the correct data or acquisition programme to suit your requirements.

- Understand the fundamental links between geology and gravity and magnetic responses.

- Use gravity and magnetic data to create advanced derivatives to address specific problems.

- Apply the techniques learnt in a balanced, integrated exploration workflow.

Pre-requisites & Intended Audience

The programme is geared towards geoscientists and explorationists who may need to use conventional gravity, gradiometry and magnetic data within their projects. Participants should have a working knowledge of earth or physical sciences. No knowledge of gravity and magnetic data and interpretation techniques is required.

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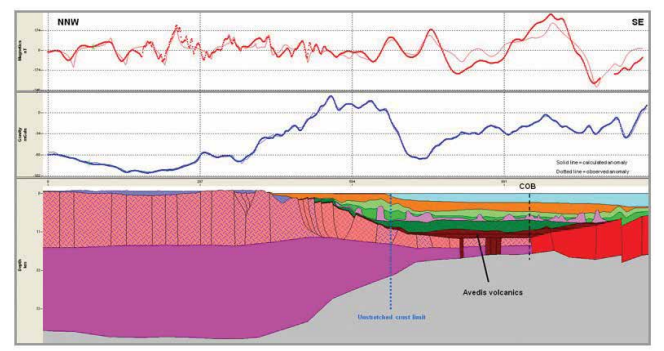
Features

- Focuses on the fundamentals of gravity and magnetic data, advanced processing, interpretation and integration with other data.

- Uses industry-standard workflows and applications.

- Instructor-led hands-on exercises - 'learning by doing'.

- Trainer demonstrations and industry case studies.

- Flexible delivery.
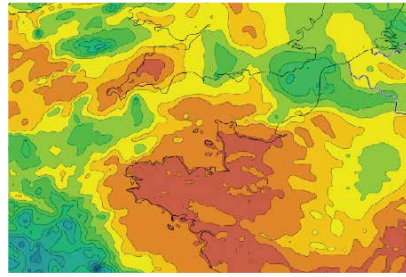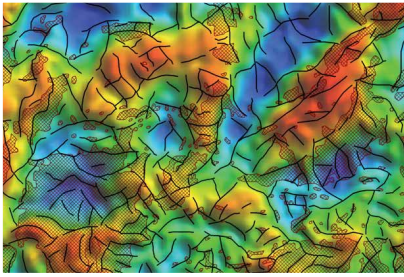
Participants Will

- Understand the basic concepts of gravity and magnetic field responses to 3D variation in density and magnetisation of rocks.

- Recognise the common representations of gravity and magnetic anomalies.

- Be able to plan an appropriate survey tailored for specific needs.

- Develop confidence in the use of advanced processing including amplitude and phase derivatives and transforms and filtering.

- Understand how to identify structural lineaments from the data and map them within ArcGIS.

- Understand the process of 2D and 3D depth estimation and considerations to be applied.

- Develop useful 2D gravity and/or magnetic models and understand the process of 3D inversion.

- Be able to integrate gravity and magnetic data and results with other geological and geophysical data.

- Build awareness of the use of gravity and magnetic data at a variety of scales.

- Apply the techniques learnt in a balanced, integrated exploration workflow.

Module 1:
Fundamentals of Gravity and Magnetic Data

- Introduction to gravity and magnetic data and anomalies.
- Gravity and magnetic responses as a reflection of geology.
- Gravity and magnetic data reduction.

Module 2:
Survey Acquisition

- Available technologies.
- Gravity and magnetic data acquisition.
- Gravity and magnetic survey planning.

Module 3:
Filters, Derivatives and Depth Estimation

- Transformations, filters and derivatives for interpretation.
- Depth estimation - theory and application.

Module 4:
2D/3D Modelling and Integrated Interpretation

- Modelling and inversion.
- Integration of the different. interpretation elements.

All modules have a duration of 1-day.

To learn more about Gravity and Magnetics Training
email **gravmag@getech.com** or visit **www.getech.com**

ABOUT GETECH

Getech applies its world-leading geoscience data and unique geospatial software products to accelerate the energy transition by locating, developing and operating geoenergy and green hydrogen projects.

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