

# GEOLOGICAL INTERPRETATION OF AIRBORNE ELECTROMAGNETIC DATA

A 1.5 day introductory short course on AEM theory and interpretation



Image courtesy Geotech Airborne

Discover how to effectively apply and interpret AEM data to enhance your exploration and mapping projects. Our course covers the applications and limitations of AEM data, offering various approaches to interpretation across different settings. You'll learn when to consult a geophysicist for advanced analysis. AEM is essential for exploration and mapping, and our mission is to bring you closer to discoveries by implementing these advanced interpretation methodologies.

The coverage of Airborne EM data is expanding rapidly in Australia and worldwide, but our ability to assimilate this data into exploration, regional mapping, or groundwater programs is not keeping pace. This introductory course aims to enlighten participants on the strengths and weaknesses of AEM methods and to illustrate how data can be used for mineral exploration, groundwater definition, and geological mapping.

Attendees will learn about the range of applications of AEM data, basic theory, and the key steps involved in data acquisition, processing, modeling, and inversion. Case studies and hands-on exercises will introduce concepts and tools for the geological interpretation of AEM data and target generation for mineral and groundwater exploration.

This 1.5-day course is suitable for geologists at all levels wanting to increase their knowledge of the applications of AEM data and approaches for interpretation. It is also suitable for geophysicists wanting to increase their knowledge and experience with AEM data.

## COURSE OUTLINE

- > The spectrum of AEM applications
- > Basic physics
- > Processing, modelling and inversion
- > AEM systems, flying considerations and logistics
- > Case histories covering applications for mineral exploration, mapping and groundwater
- > Hands-on interpretation exercises

## COURSE PRESENTERS



### Karen Gilgallon - Senior Principal Geophysicist

Karen has over 20 years' experience in a variety of geophysical methods including gravity, EM and downhole logging to investigate the "Geophysical Signature of the Lake Bryde Paleochannel". After graduating, she has worked for the Waters and Rivers Commission (now the Department of Environment and Conservation) in the hydrogeology section to help explore for and monitor groundwater resources.



### Ned Stolz - Senior Principal Geophysicist

Ned began his career with CRA on regional scale exploration for uranium and base metals before returning to university to complete a PhD in electromagnetic geophysics. After this he joined Western Mining to apply his electromagnetic knowledge to nickel sulphide exploration in the Agnew - Wiluna belt of WA. His interest in mineral systems targeting and databases lead him to the role of Group Leader - Geophysics at Geoscience Australia in Canberra, responsible for all onshore and airborne geophysical acquisition.

## FOR MORE INFORMATION

Please contact SGC for further information or complete the form and we will contact you - <https://info.sgc.com.au/eoi-aem-workshop>

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