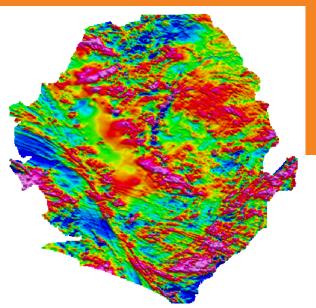






# **Structural Geophysics**



# Agate/WAXI Training

## 23<sup>rd -</sup> 27<sup>th</sup>Feb 2023 Freetown, Sierra Leone

This 5 day training course will provide an introduction to modern laboratory based techniques applied to the regional geophysical data of the West African Craton, **including the newly-flown data from Sierra Leone** 

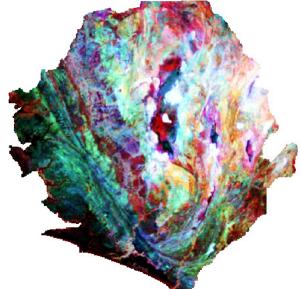
This course is aimed at geologists wishing to improve their skill base in modern integrated Structural Geophysics mapping techniques.

Many regions in the world now are covered at a high-resolution by airborne geophysical data sets, including magnetic, electromagnetic, digital terrain models and radiometric surveys. When combined with multi-spectral satellite data, and of course the available geological observations, these geophysical data provide key constraints on our geological interpretation, in particular in ancient terrains.

This training course, organised by Mark Jessell (UWA) who has too many years

experience of interpretation and modelling of aeromagnetic, radiometric and other regional geophysical data, is aimed at those people who would like to acquire the fundamental interpretation techniques needed to use very high resolution data sets and those who are faced with the problem of integrating their geological and geophysical data.

Participants will be trained on case studies using data from the region, **including the newly-flown data from Sierra Leone**, and are encouraged to bring their own regional datasets.



# Programme

Lectures	1 Introduction: what can potential field data tell	MWJ
	us about geology?	
Laboratory exercises	2 Geophysical principles;	
	3 Regional Geophysics and the Regolith	
	Collaborative Case Study: Regolith	
Lectures	4 Data processing and data degradation during processing 5 Data/Image filtering/processing – enhancing the geological signal	MMJ
Laboratory exercises	6 Structural Geophysics Collaborative Case Study: Intepreting Structures	MMJ
Lectures	7 Interpretation strategies 8 Petrophysics / lithologies	MWJ
Laboratory exercises	Presentation by NMA-SL on new regional data Collaborative case study using new Sierra Le- one	NMA
Lectures	9 Structural Controls on Ore Deposits	MMN
Laboratory exercises	Collaborative Case Study Attendees' Data Sets	
Lectures	10 Inversions: 2.D & 3D forward and inverse modeling	MM1
	Lectures Laboratory exercises Laboratory exercises Laboratory exercises Laboratory exercises	Lectures4 Data processing and data degradation during processing 5 Data/Image filtering/processing – enhancing the geological signalLaboratory exercises6 Structural Geophysics Collaborative Case Study: Intepreting StructuresLectures7 Interpretation strategies 8 Petrophysics / lithologiesLaboratory exercisesPresentation by NMA-SL on new regional data Collaborative case study using new Sierra Le- oneLectures9 Structural Controls on Ore DepositsLaboratory exercisesCollaborative Case Study Attendees' Data SetsLectures10 Inversions: 2.D & 3D forward and inverse

\* All practical training will use PC's provided by attendees.

All relevant data will be provided, although attendees should have access to their own GIS software if possible, if not they will be provided with QGIS.

# Information

All attendees will have the opportunity to participate in collaborative interpretations of their own data sets.

#### **Course Content: Hands On Exercises**

#### Attendees'Data Sets

Attendees wishing to provide datasets for discussion should prepare a 5 slide introduction to their area of interest so that the audience can understand the regional or local context of the data.

If digital data are available then both processing and interpretation procedures can be performed.

#### **Course Leader: Mark Jessell**



Professor at the Centre for Exploration Targeting at The University of Western Australia, Mark Jessell has a vast experience in interpretation and modelling of aeromagnetic, radiometric and other regional geophysical data in 2 and 3D.

#### **Registration Fees**

For the full 5 days of training, including training materials. WAXI Sponsors US\$1,500 per attendee Non-WAXI sponsors AU\$1,800 per attendee

#### Language

English and French

#### Duration

5 days, 3 hours/day lectures + 3 hours/day lab excercises.

#### Time

Freetown, Sierra Leone 9 am to 5 pm

#### Registration

Register and pay online on the Agate website, or using the form on the next page.

#### **Certificate of Attendance**

Upon completion, participants will receive a certificate of attendance



### AGATE/WAXI Structural Geophysics Course

### 18<sup>th</sup>- 22<sup>nd</sup> Feb 2023

### Either complete this form or register online: https://agate-project.org/training-courses/short-courses/

Company
Address
Phone
Administrative Email contact
Attendee's Name 1
Attendee's Name 2
Attendee's Name 3
Attendee's Name 4
Total Registration Fees

US\$1,500 per person for WAXI sponsors & US\$1,800 for non-WAXI sponsors

Email: Corinne.Debat@agate-project.org

On confirmation of your places, we will ask you to transfer the registration fee to a bank account to be announced.