AN INTRODUCTION TO OFFSHORE GEOPHYSICS AND GEOTECHNICAL ENGINEERING

Two day course 3 - 4 October

Day 1 (Offshore Geophysics) MONDAY 3 OCTOBER

Organised by the
Offshore Site Investigation and Geotechnics (OSIG) Committee
of the Society for Underwater Technology (SUT)

This two day course has been run successfully for a number of years. Industry experts will cover a wide range of topics from planning an offshore site investigation, through technical and operational aspects of data acquisition and reporting to the practical use of the data in geohazard assessment and foundation analyses. Numerous case studies will be used to illustrate concepts and applications.

The course is intended for non-specialists and will give a broad overview of the offshore site investigation market today and how the data acquired is applied to maximise the value of real offshore projects.

Chairmen:
Dei Huws - Bangor University
Eric Cauquil - TOTAL

Organising Committee:
Thierry des Vallieres - TOTAL
Andy Barwise - Gardline Geosciences Ltd
Peter Larkin - Senergy & GeoEngineering Ltd
Toby Powell - Senergy Survey & GeoEngineering Ltd
Richard Orrren - SenergySurvey & GeoEngineering Ltd

at

TOTAL S.A.,Tour Coupole,
2, Place Jean Millier
La Défense 6
92078 PARIS LA DÉFENSE
France

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SUT Society for Underwater Technology

TOTAL

Monday 3 October 2011- Paris
An Introduction to Offshore Geophysics Geotechnical Engineering

0800 Registration & Coffee

0845 Chairman - Introduction
Del Huws - Bangor University
Eric Cauquil - TOTAL

0900 Industry Sectors
Mick Cook - MCL
- Type of oil company: Super majors, majors, independents and NOCs
- Rig owners
- Contractors
- Consultants
- Contractual routes and relationships (EPIC)

0925 Site Investigation Planning
Dave Coursey, RPS Energy
- Overview
- Need for SI
- Seabed risk
- Types of offshore survey
- Types of offshore structure
- Desk studies

1010 Offshore Positioning
Mike Liddell - Fugro
- Why is positioning control required?
- Basics (UTM, Zones, Spheroids, conventions)
- Basic equipment
- QA/QC, errors and how to allow for them
- Case history

1035 Introductory Seismic Principles
Dei Huws - Bangor University
- What is seismic energy - and the elastic assumption
- Modes of propagation
- What controls speed of propagation
- What happens at an interface
- Resolution - vertical and horizontal
- Loss of energy

1100 Break

1130 Geophysical Systems
Richard Orren - Senergy
- Basic types of geophysical systems
- Mounting of equipment (potential issues to be aware of)
- Different types of vessels
- Issues (lack of vessels, geographical constraints, benchmark costs, etc.)
- Different types of data collected
- Errors and how to allow for them
- Data reduction and presentation

1235 Swathe Bathymetry / Multibeam
Mike Liddell - Fugro
- Multibeam echo sounders and motion compensation systems
- QC of field data
- Data corrections
- Gridding and contouring
- Digital elevation models

1300 Lunch

1400 3-D Surveys in SI
John Garrard - Shell
- The power of 3D
- Limitations
- Case study - an integrated interpretation

1445 Data Interpretation
Stephan Unterseh- TOTAL
- Geophysical Interpretation Applications
- End users and their needs
- Role of the Interpreter
- Hazards Interpretation for Facilities
- Drilling Hazards; interpretation and implications

1530 Break

1600 Engineering Geophysics
Jerome Adamy - TOTAL
- Objectives / Types of Projects
- Equipment
- Application

1630 Near Shore Engineering
Nigel Kee - Fugro
- Types of project
- Risks and issues with shallow water working
- Contractual issues
- Statutory bodies

1700 Environmental Assessment
Doug Stewart - Gardline
- Why carry out environmental surveys?
- The legal framework for offshore developments
- Environmental baseline assessments and habitat surveys
- Environmental data collection and the overlap with site investigations

1730 Close

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Day 2 - (Offshore Geotechnics)
TUESDAY 4 OCTOBER

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Tuesday 4 October 2011 - Paris
An Introduction to Offshore Geotechnics and Geotechnical Engineering

0830 Coffee

0845 Chairman - Introduction
Pat Power - Fugro
Eric Cauquil - TOTAL

0900 Geotechnical Systems and CPT Interpretation
Tome Lunne - NGI
- Shallow versus deep investigations
- Shallow methods (CPT, VC, grab sampler)
- Deep methods (boreholes and downhole sampling testing)
- Sampling handling/storage
- Different types of vessels

1005 Data Integration
Lorraine O'Leary - Fugro
- Using Geophysical and Geotechnical data together
- Using geophysics to map sediment layers
- Using geotechnical data to refine stratigraphy
- Applying geological solutions to engineering problems

1040 Break

1110 Onshore Laboratory Testing
Tom Lunne - NGI
- Purpose of lab testing
- Offshore versus onshore testing
- Offshore testing
- Developing an onshore laboratory testing programme
- Onshore testing (what are the various tests for?)
- Evaluation of sample disturbance
- Reporting and interpretation

1215 Geotechnical Analysis for Pipelines
TBC -Subsea 7
- Pipeline route surveys
- Types of trenchers
- UHB issues

1300 Lunch

1400 Hazards for Jack-up Rigs
Julian Osborne - RPS Energy
- What are the hazards?
- Is the site survey/investigation data adequate?
- Has the data been interpreted and analysed appropriately?
- What can be done to manage the seabed risk?

1445 Drilling Presentation
Willem Boon - Senergy
- What are the questions drillers want answers to from geotechnical people?
- What is the impact of getting wrong answers?

1530 Break

1550 Foundation Design for Offshore Structures
Brian Mackenzie - Fugro
- Different types of structure + different soil = different foundations (examples)
- Typical loading regimes
- Pros and cons of foundation solutions
- Design issues and impact of quality of SI data
- Installation design and issues
- Case histories

1625 Implications of Geohazards on Field Development
Kevin Hampson - BP, Eric Cauquil - TOTAL
- What are geohazards?
- Why investigate geohazards?
- A strategy for investigation and risk analysis
- Minimising risk for field development
- Case study

1700 Close

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Monday & Tuesday 3 - 4 October
at TOTAL S.A.,Tour Coupole, 2, Place Jean Millier, La Défense 692078 PARIS

REGISTRATION INFORMATION

To register, please complete the registration form and send your payment to SUT's Aberdeen office SUT, Innovation Centre, Exploration Drive, Aberdeen Science and Energy Park, Bridge of Don, Aberdeen AB23 8GX Telephone: 01224 823637 Fax: 01224 820236 Email: anna.henty@sut.org

Registration Fees:

SUT Member Rate	Non Member Rate	Student Rate	TOTAL Staff rate
€ 200.00 (excluding VAT)	€ 250.00 (excluding VAT)	€ 80.00 (excluding VAT)	€ 80.00 (excluding VAT)

PAYMENT METHODS

Bank Transfer (exclusive of transfer fees and currency exchange rates) to Barclays Bank plc, Pall Mall Business Centre, P.O. Box 15164, London SW1A 1QE. Sort Code No. 20 65 82. Account No. 80849499
Cheque: Sterling only drawn on a UK Bank Account. An International cheque can be obtained from all major overseas banks. Please ensure any charges are met at source.
Credit Card: We do not accept AMEX.

VAT: Our VAT No. is 242 3504 95. VAT must be paid on all registration fees, including those from overseas. All EC country organisations must provide their VAT number in accordance with EC VAT regulations. A VAT receipted invoice will be sent in acknowledgement of all pre-paid registrations.

CANCELLATIONS: Refunds will be made on written cancellations received up to ten working days in advance of the event but will be subject to a 15% handling charge. 50% will be deducted up to five working days in advance and 100% thereafter up to the start of the event. No refund will be given for non-attendance. Delegates may wish to nominate a substitute in their place.

Please note that the programme is subject to change without notice.

Registration Form please complete and either email to anna.henty@sut.org or print off a copy and fax to 01224 820236

Name_____ Phone_____

Company_____ Fax _____

Address _____

_____

_____Email_____

For fees and payment options, please see above

Payment can be made by credit card (NOT AMEX) Amount £_____

Card No_____ Expiry Date_____ Security No._____

Name on Card_____ Billing Address_____

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Please indicate your preferred payment method

- Credit Card (details above)
- Cheque enclosed, made payable to Society for Underwater Technology