

EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS



Third Borehole Geology Workshop

**NEW FRONTIERS IN BOREHOLE GEOLOGY FOR CHARACTERISATION,
MODELLING, UPSCALING AND INTEGRATION**

14-17 OCTOBER 2019 • MUSCAT, OMAN

- **Technical Programme**

WWW.EAGE.ORG

TECHNICAL COMMITTEE

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Chandramani Shrivastava	Schlumberger
Rania Carballares	Schlumberger
Salim Al Shuaili	PDO (Petroleum Development Oman)

WORKSHOP OVERVIEW

Borehole data are fundamental in all types of studies aimed to measure and describe, understand and eventually predict the geology in the subsurface.

Together with core borehole images are currently the only data that can provide us a high-resolution view of the actual rock and its features in the borehole. The integration of core and borehole images with a wide range of other data types such as physicochemical measurements, conventional logging data, cuttings analysis as well as rock and fluid samples allow us to achieve a holistic and detailed understanding of the subsurface features, properties and heterogeneities at various scales to address a wide range of challenges.

In the last years, driven by technological and economic changes, borehole images as well as other borehole-based techniques are being applied in a wider range of subsurface characterization studies; these span from hydrocarbon reservoir studies and operations throughout the E&P cycle to applications in environmental impact and mineral resource, and in alternative energy sources. In this perspective the need for multidisciplinary integration and cross-discipline collaboration is stronger than ever.

The Third EAGE Borehole Geology Workshop welcomes attendance and contribution of all subsurface professionals that are working in different disciplines of the energy, resource and environmental sectors both in the industry and in academic and research institutes. The workshop will also be a ground for triggering collaboration amongst borehole geologists and professionals of other subsurface disciplines.



FIELD TRIP

Monday, 14 October 2019 07:00 – 17:00

Borehole image and outcrop aspects of fractures and fractured reservoirs in Jabal Madmar (Oman) Observation, interpretation and calibration

By Loic Bazalgette, Mohammed Helmy and Salim Al Shuaili (PDO)

TRAINING SESSION

Wednesday, 16 October 2019

An overview of Borehole Image Structural Interpretation

Salim Al Shuaili, Petroleum Development Oman

Thursday, 17 October 2019

Forward Stratigraphic Modeling with GPM

Rania Carballares, Schlumberger

OVERVIEW OF REGISTRATION FEES

REGISTERED AND PAID	15/06/2019	17/09/2019	ON-SITE
	-	-	
	16/09/2019	12/10 2019	
EAGE Member	€ 795	€ 895	€ 895
EAGE Student Member	€ 400	€ 450	€ 450
Non-Member*	€ 995	€ 1095	€ 1095
Student Non-Member*	€ 450	€ 500	€ 500

Please note: The Registration fee includes the training sessions on 15 – 17 October 2019 and the social functions, however it does not include the fieldtrip. Upon registering, please indicate if you would like to attend the fieldtrip as seats are limited.

To qualify for the member registration fee, your EAGE membership dues for 2019 must have been paid and confirmed. The processing time for membership applications or renewals is 10 working days.

The non-member fee includes EAGE membership for 2019.

To qualify for the reduced student registration fee:

- Students must be enrolled in a full-time study programme at a recognized university or institute.

- The registration must be accompanied by a copy of a student ID card and/or official proof of enrolment.

- Please note: Student non-members can't be older than 34 years of age (when registering)

Please note that EAGE reserves the right to cancel the event due to low participation, in this case, payment will be refunded in full.

HOW TO REGISTER

We recommend that you register for the workshop and field-trip via the online registration form on the EAGE event website.

VENUE – CROWNE PLAZA, OCEC

EAGE has negotiated room rates for delegates attending the Third Borehole Geology Workshop. Please visit the website for more information or mai@eage.org for more details.

Crowne Plaza

Hotel address: Crowne Plaza Muscat Oman Convention & Exhibition Centre, Al Jamah Al Akbar Street, Madinat Al Irfan

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Email: mahira.albalushi@ihg.com

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Oral Presentations | Tuesday 15 October

AL ADHAM BALLROOM	
08:00	Registration & Coffee
08:40	HSE Announcement
08:45	Opening Address - Ingelinn Aarnes (Baker Hughes)
09:00	Keynote Address - Dr. Wouter Smits (PDO)
Session 1: Beyond Oil and Gas: Mining and Mineral Resources, Environmental Applications, Geothermal Wells Session Chairs: I. Aarnes (Baker Hughes), A.K. Thorsen (Baker Hughes)	
09:45	BG01 - Structural and Hydrogeological Study at Oman Drilling Project-BA Site - A. Al-Hajri ^{1*} , I. Callegari ¹ , E. Holzbecher ¹ , J. Matter ² , P. Gouze ³ , D. Roubinet ³ , R. Leprovost ³ , G. Lods ³ ¹ German University of Technology in Oman; ² University of Southampton; ³ University of Montpellier
10:15	BG02 - Integration Borehole Image and WEB AVO inversion for fracture prediction in deep reservoirs - A. Pascarella ^{1*} , P. Van der Vegt ¹ , C. Leo ¹ , M. Zhang ² , P. Douleris ² , P. Haffinger ² ¹ PanTerra Geoconsultants BV; ² Delft Inversion
10:45	BG03 - Borehole Image Logs applied to Sequence Stratigraphy and Geothermal Exploration in Carbonates: an Integrated Workflow(UpperJurassic/Molasse basin). - P. Wolpert ^{1*} , T. Aigner ¹ ¹ Eberhard Karls University Tübingen/germany"
11:15	Discussion
11:45	Coffee Break
Session 2: The Role of the Geologist in Automation and Digital Enabling Innovations Session Chairs: C. Buchan (Task Fronterra Geoscience), C. Shrivastava (Schlumberger)	
12:15	BG04 - Particle Shape Analysis for Conglomerate Reservoir Using Borehole Resistivity Images - A. Aviantara ¹ , S. Yang ^{3*} , W. Huang ² , C. Chen ² , I. Le Nir ³ , J. Yuan ³ , S. Li ⁴ , H. Delius ⁵ , K. Pokhriyal ⁵ ¹ Schlumberger; ² Petrochina; ³ Schlumberger; ⁴ Schlumberger; ⁵ Schlumberger
12:45	BG05 - Geological Data Integration in Automation Processes - A. Thorsen ^{1*} ¹ Baker Hughes Norge AS
13:15	Discussion
13:45	Lunch
14:45	BG06 - Novel Dip Picking Approach using "Expert Dip" in HAHZ Well and Influence on Structural Modelling - C. Shrivastava ^{1*} , S. Das ^{1*} , G. Sultan ¹ , V. Vallega ² , S. Bhadra ¹ ¹ Schlumberger; ² Schlumberger
15:15	BG07 - "Advanced techniques for image log interpretation in carbonate reservoirs: workflow, geological control factors, dynamic data integration" - G. Buongiovanni ^{1*} , R. Berto ¹ , M. Pirrone ¹ , G. Trombin ¹ ¹ Eni S.p.A.
15:45	Discussion
16:15	Close of Day
18:00	Icebreaker

Oral Presentations | Wednesday 16 October

AL ADHAM BALLROOM	
08:30	Session: An overview of Borehole Image Structural Interpretation - Salim Al Shuaili (Petroleum Development Oman)
Session 3: The Problem of Scale: From Core to Log to Model Session Chairs: R. Berto (Eni S.p.a.), C. Rambousek (Nimbus Geoscience)	
09:40	BG08 - The integration of core and borehole image log data using core goniometry - J. Prosser ^{1*} , L. Bourke ¹ ¹ Task Fronterra Geoscience
10:10	BG09 - Borehole Imaged the Bridge between CT to Simulator Cell - M. Helmy ^{1*} , R. Svec ¹ ¹ Shell / PDO
10:40	Coffee Break
11:10	BG12 - Analysis of subseismic-scale folds in complex tectonosedimentary settings: A case study from the Austrian Molasse Basin - C. Rambousek ^{1*} , M. Habermueller ^{1*} , G. Wiesmayr ² , B. Grasemann ³ ¹ NiMBUC Geoscience; ² RAG Exploration & Production GmbH; ³ University of Vienna
11:40	BG13 - Borehole image structural modelling and synthetic dip modelling in 3D - L. Bourke ^{1*} , O. Salafonov ¹ ¹ Task Geoscience (Asia) Pty Ltd
12:10	Discussion
12:40	Lunch
Session 4: New Acquisition Technologies and their Applications Session Chairs: R. Carballeas (Schlumberger), M. Helmy (Shell / PDO)	
13:40	BG14 - Image Logs Worth Hundred Applications: Industry's First Innovative High-Resolution Dual-Imager Logging-while-Drilling Technology Overcomes Barriers of Oil-base-Mud - C. Shrivastava ^{1*} , C. Maeso ² , V. Wibowo ¹ ¹ Schlumberger; ² Schlumberger
14:10	BG15 - Advances in Borehole Geology Interpretation using the new Dual Imager LWD Tool for Oil-Base Mud - G. Barbacini ^{1*} , C. Shrivastava ² , R. Berto ¹ , T.A. Bianco ¹ , F. Colombo ¹ , M. Miraglia ¹ , A. Riva ¹ , V. Wibowo Krissetiawati ² ¹ Eni S.p.a.; ² Schlumberger
14:40	BG16 - Integration of latest oil-base mud borehole images with lower resolution tools, Thunder Horse North field, GOM - C. Vahle ^{1*} , B. Ruehlicke ² , Z. Veselovsky ³ , B. Hansen ² ¹ Eriksfiord GmbH; ² Eriksfiord Inc; ³ Eriksfiord AS
15:10	Coffee Break & Poster
15:40	BG18 - Borehole stability applications using high-resolution LWD acoustic caliper images - L. Solberg ^{1*} , J. Titjen ¹ , S. Morris ¹ ¹ BHGE
16:10	Discussion
16:40	Close of Day
19:00	Workshop Dinner

Poster Presentations | Wednesday 16 October

AL ADHAM BALLROOM FOYER	
Poster Session	
15:10	BG17 - Efficient Application of Advanced Mud-logging in Unconventional Reservoirs: A Cost-effective Methodology from Borehole Geology to Fracture-Stimulation - J. Peano ² , P. Delgado ^{1*} , C. Shrivastava ³ ¹ Schlumberger; ² Tecpetrol; ³ Schlumberger

Oral Presentations | Thursday 17 October

AL ADHAM BALLROOM	
08:30	Session: Forward Stratigraphic Modeling with GPM - Rania Carballeares (Schlumberger)
Session 5: Multidisciplinary Integration for Reservoir Management and Monitoring: Dynamic and Test Data, Geomechanics, real-Time Petrophysics and Rock Typing Session Chairs: I. Aarnes (Baker Hughes), C. Shrivastava (Schlumberger)	
09:40	BG20 - Using core photos as image logs: An example from a fractured reservoir in Algeria - J. Paludan ^{1*} , M.S. Abrouche ² , Y. Oulad Hedda ³ , B. Hichour ³ , H. Taleb ³ ¹ BHGE Denmark A/S; ² BHGE Algeria; ³ Sonatrach
10:10	BG21 - Carbonate Reservoir Rock Typing and Mapping from the Horizontal Well High Resolution Logging While Drilling Images - S. Yang ^{1*} , R.H. Al Lawatia ¹ ¹ Schlumberger
10:40	Coffee Break & Poster
11:10	BG24 - Isotope Logging: A Case Study of Integration with Borehole Geology - A. Di Daniel ¹ , D. Strapoc ^{4*} , C. Shrivastava ³ , C. Murlidhar ² ¹ Schlumberger; ² Sarawak Shell Berhad; ³ Schlumberger; ⁴ Schlumberger
11:40	BG25 - Data Integration - Time and Discipline Dependencies - A. Thorsen ^{1*} ¹ Baker Hughes, a GE Company
12:10	BG26 - A New Perspective in Geological Data Acquisition for Well Placement Operations - M. Mele ¹ , A. Leone ^{1*} ¹ Eni spa
12:40	Lunch

13:40	BG27 - Integration of Fullwave Sonic with Image Log for Improved Fracture Characterization. - C. Ayadiuno ^{1*} , X. Sun ¹ , W. Li ¹ ¹ Saudi Aramco
14:10	BG28 - Combining rig site XRF data and high-resolution borehole images for identifying a problematic sandstone formation contact - F.J. Bender ^{1*} , S.R. Fayers ² , B. Fortier ³ ¹ Baker Hughes a GE Company; ² Baker Hughes a GE company; ³ Equinor
14:40	Discussion
15:15	Closing Address (Co-Chair)
15:30	Coffee Break + Close of Day

Poster Presentation | Thursday 17 October

AL ADHAM BALLROOM FOYER	
Poster Session	
10:40	BG22 - The present-day stress system and tectonic evolution based on borehole image data in offshore Brunei - C. Xu ^{1*} ¹ Shell US

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CONTACT

For more information on the workshop, please visit the event's website or contact the EAGE Middle East & Africa office via middle_east@eage.org or +971 4 369 3897.

See you in Muscat!

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