

6-8 April 2026 | Muscat, Oman

# 3RD EDITION: AAPG “STRUCTURAL STYLES OF THE MIDDLE EAST” GTW



## TECHNICAL PROGRAM COMMITTEE

**David Repol (Co-Chair)**  
PDO

**Majid Aljamed (Co-Chair)**  
Saudi Aramco

**Jan Witte**  
Falcon Geoconsulting

**Ivan Callegari**  
GUTech

**Antoine Delaunay**  
KAUST

**Meshal Al-Wadi**  
KOC

**Elias Kharusi**  
Petrogas

**Christian Heine**  
Shell

**Andreas Scharf**  
Sultan Qaboos University

**Oskar Vidal-Royo**  
Terractiva

## WORKSHOP OUTLINE

### WORKSHOP OVERVIEW

The AAPG Structural Styles of the Middle East is back! This exciting and highly anticipated Geoscience Technology Workshop will take place from 6 – 8 April 2026, in Muscat, Oman. This workshop aims to explore the diverse structural styles resulting from the different deformation phases on the tectonostratigraphic framework of the Arabian Plate and adjacent regions. The workshop aims to covers a wide range of topics at both regional and local scale including:

- Influence of the various tectonic phases on the structural evolution of the main geological province in the Middle East and the Zagros/Makran regions.
- Intrinsic characteristics and comparisons of structural styles across different geological provinces and time intervals.
- Impact and control of fault & trap geometries on flow paths, retention, and storage.
- Key structural tools, methods and best practices used for the seismic interpretation and quality control of structural models.
- Applied structural analysis examples from the resources exploration to the energy transition and decarbonization.

Based on subjects above, the 2026 edition of the “Structural Styles of the Middle East” will articulate around 5 main themes covered by half-day technical sessions. These themes are the following:

- Latest advances on Tectonic Evolution of the Middle East
- Case Studies in the Structural Evaluation of Complex Reservoirs, Traps & Storage
- Salt Tectonics in the Middle East
- Examples of Structurally Influenced Resource Plays & Hydrocarbon Fields of the Middle East
- Digital Tools, Data Analytics and AI in Structural Geology
- Open Discussion Session

### WORKSHOP OBJECTIVE

This workshop’s primary goal is to enhance knowledge sharing and collaboration within the geoscience community. Technical sessions will explore how various regional tectonic phases and other significant factors have influenced these major structural styles. Additionally, there will be a focus on recent advancements related to the topics discussed, highlighting their implications for the economic potential of hydrocarbon resources and the future of energy transition.

## WORKSHOP GUIDELINES

### FORMAT

The workshop will be 3 days, consisting of oral presentations, poster presentations and breakout sessions where participants can discuss and investigate a specific theme that is of mutual interest. The first day will feature an inaugural keynote speech by a high-profile professional from the industry.

### ATTENDANCE

Registrations are invited from all relevant disciplines with experience and/or knowledge of the subject areas being addressed in the workshop. Registrations will be accepted on a first-come, first-served basis.

### CALL FOR POSTERS

You are invited to prepare a poster for presentation at the workshop. If you are interested in participating, please send a short abstract to [cnavarro@aapg.org](mailto:cnavarro@aapg.org) by **9 March 2026**. All posters will be produced as pull-up banners and delivered by AAPG. There will not be any other format available for poster display.

### REGISTRATION TYPES & FEES

Fees are inclusive of onsite documentation, coffee breaks and luncheons.

- \$1,850 Non-Member
- \$1,850 Join & Save
- \$1,650 Member \*
- \$1,550 Committee/Presenter
- \$850 Young Professional \*\*
- \$500 Academia
- \$350 Student (Masters)

\*To avail the Member rate you must be an active member of AAPG, KGS, GSO or DGS.

\*\*To register as a Young Professional you must be under the age of 35 with less than 10 years of work experience.

### REGISTRATION DEADLINE

To guarantee your seat, please make sure to register by **30 March 2026**.

### CANCELLATION POLICY

AAPG will refund the tuition, less a \$100 processing fee, if the request is received no later than 30 days prior to the workshop. Cancellations must be made in writing. The registrar will accept cancellation notices by telephone, but all such notices must be followed up by fax or e-mail. No refund will be made for cancellations received less than 30 days prior to a workshop being given. Nonpayment of tuition does not constitute automatic cancellation. If no cancellation notice is received by 30 days prior to a workshop, participants are liable for full tuition. AAPG reserves the right to cancel a workshop if enrollment is insufficient to ensure proper effectiveness. Substitutions for individuals can be made at any time. A paid enrollment may be transferred one time to a future workshop if the request is received prior to the 30-day cut-off date.



DAY 1: MONDAY 6 APRIL

**SESSION 1: LATEST ADVANCES ON TECTONIC EVOLUTION OF THE MIDDLE EAST**

The Arabian lithospheric plate hosts the majority of global hydrocarbon resources as well as significant mineral deposits. It is bound by the young rifted margins and actively spreading ocean basins of the Red Sea and Gulf of Aden to the W and SE, respectively, with the resulting northward motion being accommodated by active transform plate boundaries along its western and eastern edges along Dead Sea/Aqaba and Owen fracture zone, respectively. To the north, along the convergent plate boundary between Anatolia and Makran, the kinematics change from continent-continent collision to oceanic plate subduction, making this data-rich and intermediate-sized plate an ideal laboratory to study plate-wide effects of changing plate boundary configurations across scales.

In this session, we solicit contributions which illuminate the different structural styles of the Arabian plate from lithosphere/crust to basin scale but in particular:

- Geodynamics of the Arabian plate such as vertical motions and their effects on sea level/stratigraphy as well as magmatism through time using seismological, geological and tectonophysical observations/models.
- Novel insights into the structure and tectonic evolution of the Arabian plate lithosphere & crust and its margins (Red Sea, Afar, Gulf of Aden, Dead Sea Transform, Owen Fracture Zone, Zagros mountains).
- Geological and geophysical insights into plate-scale processes shaping intra-plate stress, deformation, and depositional environments in petroleum system evolution.
- Mineral systems and basement structures of the Arabian Shield.

**SESSION 2: CASE STUDIES IN THE STRUCTURAL EVALUATION OF COMPLEX RESERVOIRS, TRAPS & STORAGE**

Structurally complex traps are integral to the exploration, production and storage of natural resources in the Middle East. We welcome contributions focusing on the assessment of structurally complex reservoirs and traps, applied to Hydrocarbon Exploration and Production as well as Carbon Capture and Storage. Particularly relevant are case studies integrating a diversity of disciplines and datasets, both geological and geophysical, into workflows aiming to further the understanding of structurally controlled traps hosting natural resources in the region. Works submitted to this session should preferably focus on areas of study within the Middle East. However, contributions from other provinces around the world are also welcome, provided their relevance and applicability to the exploration, production and storage of natural resources in the Middle East.

Topics welcome in this session typically include (but are not limited to): structural characterization of reservoirs and traps; structurally compartmentalized and/or fractured reservoirs; fault seal analysis; understanding history, configuration and evolution of traps through time; structural controls on petrophysical properties of prospective reservoirs; new and alternative workflows on decreasing structural trap uncertainty; and examples of failure and success in the exploration and production of structural prospects and plays in the Middle East.

DAY 2: TUESDAY 7 APRIL

**SESSION 3: SALT TECTONICS IN THE MIDDLE EAST**

Salt tectonics plays a major role for various structural styles in the Middle East, and large hydrocarbon resources are associated with salt basins. Evaporites across the Middle East cover a very large stratigraphic range, from the infra-Cambrian to the Mio-Pliocene. Structures generated by halokinesis range from relatively simple salt withdrawal and dissolution 4-way dip closures to complex deformation of carbonate stringers within salt domes and diapirs. Salt tectonics can have a strong impact on final fault framework geometries, and it will also influence local changes in stress regime, independently of the dominant regional remote stress. Amongst many common challenges, the structures associated with salt are often difficult to image and challenging to be recognized unless special filters are applied during seismic processing.

The objective of this session is to showcase and discuss the range of structural styles, their evolution, mechanisms of deformation and significance within the greater temporal and regional structural context of the Arabian Peninsula.

**SESSION 4: EXAMPLES OF STRUCTURALLY INFLUENCED RESOURCE PLAYS & HYDROCARBON FIELDS OF THE MIDDLE EAST**

The Arabian Plate's tectonic evolution has led to the formation of diverse geological features, including fault systems, folds, and basins, which are conducive to the generation and accumulation of hydrocarbons, minerals, and other resources.

The Middle East is home to numerous prominent hydrocarbon-producing basins, with most super-giant fields being structurally derived. A comprehensive understanding of the structural framework is vital for hydrocarbon exploration, as it aids in pinpointing potential traps and reservoirs. This knowledge is also applicable to the exploration of many other resources, as analogous geological characteristics may signal their presence.

Beyond hydrocarbons, the geological history of the Arabian plate has also fostered favorable conditions for the development of other resources such as mineral, geothermal and groundwater resources, particularly in regions marked by significant volcanic and tectonic activities.

This session explores the various resource plays and Hydrocarbon Fields of the Middle East that have been influenced by the Arabian Plate's structural styles whether it was in the formation, trapping or identification of these resources.

DAY 3: WEDNESDAY 8 APRIL

**SESSION 5: DIGITAL TOOLS, DATA ANALYTICS AND AI IN STRUCTURAL GEOLOGY**

The rapid evolution of AI technologies, Machine Learning (ML), Generative AI (GenAI), AI agents, AI clones, and Retrieval-Augmented Generation (RAG)-based systems, is unlocking new possibilities for structural data analysis. These tools are now available to structural geologists, offering unprecedented ways to interpret fault systems, fracture networks, and complex basin evolution. However, challenges remain "How far can AI go in reshaping structural geology"?

At the core of this transformation, traditional AI and ML techniques are already driving breakthroughs in fault detection, fracture classification, geomechanical risk assessment, and predictive modeling. Advances in supervised and unsupervised learning, deep learning architectures, and AI-assisted geospatial analytics are refining interpretations, enhancing efficiency, and reducing uncertainty. Yet, challenges remain, from training data limitations to the integration of AI outputs with geological reasoning.

This session provides a platform to explore, challenge, and debate the role of AI in structural geology. How do we leverage AI's strengths while preserving our geological intuition? Where do emerging AI technologies fit into practical applications? And most importantly, what are the next steps?

Join us to bridge the gap between proven methodologies and cutting-edge innovation on the future of AI-driven structural analysis.

**SESSION 6: OPEN DISCUSSION SESSION**

This session is seeking to monitor the latest progress of ideas, observations and interpretations that were presented and discussed during the last edition of the workshop in 2019 (i.e., i) Structurally influenced traps, source rocks, reservoirs and seals; ii) Precambrian basement patterns and the Paleozoic tectonic evolution; iii) Salt tectonics in the Middle East; and iv) Tectonic evolution of the Meso-Cenozoic). This may include a large variety of aspects like the modifications and improvements of findings, the solutions of addressed problems, the application of new models and tools. In short, AAPG and all workshop participants are keen to see what the outcome of these aspects is and what has been learned in the meantime.

The open discussion session is also meant to serve as a haven for structural style contributions that do not readily correspond to the titles of the other sessions. In addition, this session serves to attract contributions related to interesting and/or significant recent findings at a local or regional scale. The above-mentioned contributions may very well serve as topics which AAPG will follow up during the next edition of the workshop. With respect to the interactive nature of the session, AAPG is particularly interested in topics that are predestined to stimulate lively discussions at the workshop and also among the broader geoscientific community.

TO REGISTER, PLEASE CLICK [HERE](#)



6TH EDITION: AAPG STRUCTURAL  
STYLES OF THE MIDDLE EAST

## FIELD TRIP & CORE DISPLAY

6-8 April 2026  
Muscat, Oman

### FIELD TRIP

## KUWAIT FORMATION EXPOSURE AT JAL AZ-ZOR ESCARPMENT BEACH, KUWAIT

4th December 2025 (1-day field trip)

#### FIELD TRIP INTRODUCTION

We are excited to announce an exclusive geological field trip to the Jal Az-Zor Escarpment in Kuwait, as part of the 6th edition of the AAPG Structural Styles of the Middle East. This field trip offers a unique opportunity to explore one of the most geologically significant outcrops in the Northern Arabian Gulf region, providing invaluable insights into the complex facies architecture of siliciclastic systems. During this trip, participants will visit key outcrop sites showcasing estuarine, estuarine mouth bar/shoreface, microbial facies, and more. These exposures provide an excellent analogue for understanding the depositional environments and lateral/vertical facies variability critical for reservoir modeling. This field trip is a must-attend for geologists, sedimentologists, and reservoir engineers interested in high-resolution depositional analogues and facies-based reservoir characterization.



#### FIELD TRIP INFORMATION

##### Field Trip Organizer



الجمعية الكويتية لعلوم الأرض  
Kuwait Geosciences Society

##### Field Trip Leader



Dr. Aimen Amer, Slb

MORE INFORMATION TO FOLLOW SOON!

### CORE DISPLAY SESSION



#### CORE INFORMATION

In conjunction to the siliciclastic sessions being presented, we are pleased to hold a session displaying a series of cores from around the Arabian Peninsula. These cores will focus on understanding shallow marine clastic environments from different localities and ages. The core sessions will be an interactive environment showcasing elements of fluvial, estuarine, mouth bar and shoreface depositional environments. Participants will be able to evaluate and discuss variations in transgressive versus regressive cycles, sand-to-shale ratios, facies associations, and dominant sedimentary processes whether fluvial, wave borne or tidal. In addition there will be a particular focus on understanding of the regional variability of the Jauf Formation, along the depositional dip from Saudi Arabia to Bahrain.