WORKSHOP OUTLINE

The fifth annual AAPG Siliciclastic Reservoirs of the Middle East Workshop will take place in Al Khobar in Saudi Arabia from 4 – 6 December 2023. The workshop will bring in professionals from the region to share their knowledge and experience related to siliciclastic reservoirs. The workshop will showcase the best success stories in the industry, on understanding and utilizing oil and gas siliciclastic reservoirs in the region.

Exploration and production of oil in the Middle East has been ongoing for decades. Within a mature hydrocarbon basin, simple siliciclastic reservoirs are diminishing rapidly and more complicated opportunities require an innovative way of thinking to maximize the remaining opportunities.

To maximize the potential of these mature hydrocarbon basins, explorers must adopt innovative approaches to identify unconventional reservoirs such as tight sands, shales, and coal beds. In addition, new technologies and methods must be employed to increase production rates from these reservoirs and extend the life of the basin.

This requires in-depth studies of these siliciclastic reservoirs. Selected speakers from both industry and academia will present field and regional scale case studies covering all subsurface aspects of the hydrocarbon cycle, from prospect maturation to production. Sessions covering recent applications of specialized knowledge such as stratigraphy, geochemistry, geophysics and geomechanics will also be included. Breakout sessions to view posters and cores covering key regional clastic reservoirs take place. A post-workshop fieldtrip will be offered, giving participants the opportunity to experience the diverse geology of the eastern Saudi Arabia.

Benefits of Attending

The workshop is an opportunity for attendees to receive up-to-date knowledge about siliciclastic reservoir characterization, exposure to regional case studies and be introduced to innovative technologies utilized to explore and develop these important reservoirs. It provides a chance to network and to share experiences between different subsurface disciplines, service providers and operators.

Who Should Attend?

Geologists, sedimentologists, stratigraphers, seismic interpreters, geophysicists, petrophysicists, petroleum technologists, reservoir engineers and managers working in the exploration, appraisal and development of siliciclastic hydrocarbon reservoirs.

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.

CALL FOR ABSTRACTS

The call for abstracts is currently open. Abstracts should be submitted via email to Cora Navarro at cnavarro@aapg.org no later than 12 October 2023. Abstracts will be accepted for both oral and poster presentations.

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.

REGISTRATION TYPES & FEES

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

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<th>Membership Category</th>
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<tr>
<td>AAPG Non-Member Fee</td>
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<td>AAPG Student Member (Masters)</td>
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*To avail a Member rate you must be an active member of AAPG.
**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 27 November 2023.

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. Management 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.
Hydrocarbon exploration and production is a risky business, and even the most experienced companies can fail to discover or produce hydrocarbons in certain situations. This workshop session will discuss the lessons that have been learned from stranded, contingent, unconventional and tight hydrocarbon reservoir, and unsuccessful hydrocarbon exploration and production projects, both in terms of the technical challenges and the business decisions that led to failure. These reservoirs might contain large hydrocarbon quantities. The workshop session will discuss different challenges and solutions related to these types of reservoirs.

This session aims to explore the latest advancements and best practices in digital transformation focusing specifically on siliciclastic reservoir management. Recent research and innovation based on machine-learning and data analytics approaches have shown encouraging and promising results for geoscience purposes. This session will provide an overview of the integration of digital technologies in the characterization and management of siliciclastic reservoirs. Advanced digital tools will be presented and discussed, such as data analytics approaches, uncertainty quantification and risk assessment workflows to build accurate and representative reservoir models, or real-time reservoir monitoring and surveillance techniques to optimize production strategies in brown field sites.

The application of outcrop analogues to subsurface reservoirs has been a valuable tool in the exploration and production for hydrocarbons and CCS. By studying rock exposures, geologists can gain insights into the geometry, sedimentology, and stratigraphy of subsurface reservoirs. With the advent of remote sensing techniques such as multi-and hyperspectral satellite data, Ground Penetrating Radar (GPR), airborne LiDAR, and use of drones, the outcrop analogues are effectively used in making informed decisions regarding reservoir characterization, reservoir modeling, and production optimization. Data integration from these sources can build better accurate reservoir modeling, optimize drilling and production strategies, and reduce exploration risks.

Understanding and better predating reservoir quality (RQ) in clastic sequence is a key and challenging task in HC exploration and development phases. RQ is controlled by many interrelated depositional and diagenetic processes. Therefore, a better understanding of diagenesis will lead to improved exploration risking of reservoir quality and provide a basis for building reservoir models.

In this session, delegates from academia and industry will address topics including experimental diagenesis and factors that impact diagenesis and related reservoir quality through integrated case studies of different tectonic and stratigraphic settings of various clastic reservoirs in the Middle East.

Tectonics can have a significant impact on sedimentation, both in terms of the type and distribution of sediments deposited, and the properties of the resulting reservoirs. There are various ways in which tectonics can influence sedimentation, and how this can impact reservoir quality.

The session objects reviewing the basic principles of tectonics and its impact on sedimentation. It also aims to illustrate the different types of tectonic settings, and how they can lead to different types of sediments being deposited. Moreover, the role of tectonics in creating reservoir heterogeneities, and how this can impact the flow of fluids through the reservoir will be a matter of discussion. At the end, a showcase of examples within the region of how tectonics has impacted sedimentation and reservoir quality are going to be described.