Workshop Outline
This three-day workshop will be dedicated to sharing knowledge, ideas, and workflows pertaining to exploration in rift basins. The workshop will emphasize case studies involving different play types structural and stratigraphic in carbonates and clastics reservoirs — in order to help focus explorationists in their search for these types of basins.

In the Middle East, as in other parts of the world, most simple anticlinal traps have already been discovered. Despite the potential for structural traps in rift basins still one of the more attractive the current exploration activities in the world are increasingly focused on more subtle trapping styles, as a combination of structural and stratigraphic traps and pure stratigraphic traps such as pinchouts, lenses, unconformity traps, and reefs. Most known oil and gas fields in the Middle East are associated with platform carbonates, however significant hydrocarbon volumes are expected to be discovered in the rift basins in the region.

Mature sedimentary basins have the highest percentages of known play types. These areas are generally associated with greater well control and more seismic data, resulting in much better understanding of depositional environments and tectonic histories. In underexplored sedimentary basins, as in some of the rift basins in the Middle East area, sufficient well and seismic control is lacking. Therefore, to better understand the local traps mechanisms, analogs from mature basins with similar depositional and tectonic settings is the key to identifying trapped hydrocarbon accumulations.

The case histories will illustrate geological settings and characteristics with maps, cross sections, and appropriate well data. And the real behind-the-scene stories on how they were discovered — concept-led or technology-led deliberate hunting or by serendipity. We will of course be very interested to hear how the follow-up, in-field or exploration, has been executed. Key learnings — from technical to management decision making — will be important to share with the rest of the audience.

Benefits of Attending
The workshop is an opportunity for attendees to receive up-to-date knowledge about rift basin exploration, exposure to regional and global rift basin accumulations case studies and to be introduced to state of the art-technologies utilized to detect these traps. It is an opportunity to network and share experiences. The participants will receive a summary of the breakout sessions and discussions, lessons learned and will be sent an electronic copy of the abstracts presented in the workshop.

Who Should Attend?
This workshop targets technical experts involved in exploring and developing rift basins who are working in national operating and service companies, as well as academic institutions.

COMMITTEE LIST
CHAIR Julio Almeida De Carvalho, Saudi Aramco
Paul Bellingham, ION
Joshua Smith, KAUST University
Joao Keller, Saudi Aramco
Gianreto Manatschal, Strasbourg University
DAY 1: MONDAY, 17 JUNE

SESSION 1: RIFT BASIN EVOLUTION
Rift basins and rifted margins are richly endowed with hydrocarbon resources and have remained a target of exploration over the past century. The reasons for the prolific nature of these basins include: (1) Deposition of source rock sequences throughout rift evolution. (2) The architecture of these basins facilitate the formation of traps. (3) Focused sedimentation within rift basins increases the chances of reservoir presence. Our fundamental understanding of these basins continues to develop and is an active area of research. This session will present an overview of rift basins and rifted margins and the latest thinking about their development and hydrocarbon prospectivity.

SESSION 2: PETROLEUM SYSTEM EVOLUTION THROUGH TIME
Rift basins and rifted margins have a widely varied evolution that is a result of the geographic location (e.g. climatic conditions), tectonic evolution, geodynamic setting, etc. Together these factors control basin subsidence and uplift patterns, basal heat flux, source rock extent and quality and reservoir distribution, all the key elements of the petroleum system. The basin architecture associated with the depositional environment will control the petroleum system development in each basin setting. This session will look at our current understanding of the key elements of the petroleum system in a rift environment.

DAY 2: TUESDAY, 18 JUNE

SESSION 3: SALT PLAY FAIRWAYS IN RIFT BASINS
Salt structures are common and often prolific features within rift basins whose presence can play many different roles in the establishment of hydrocarbon play fairways. Salt bodies can provide excellent seals and constrain migration pathways for hydrocarbons produced in both the pre- and post-salt sedimentary sections. Salt movement also has a direct impact on syn-kinematic sediment deposition and the sediment architecture within rift basins and margins.

SESSION 4: TRAP FORMATION IN RIFT BASINS
The tectonic activity in rift basins drives the mechanism of trap formation in both the syn- and post-rift sedimentary sequences. Moreover, these traps can be purely structural, stratigraphic or a combination of both. The understanding of trapping mechanisms in the context of rift evolution is critical to the prospectivity of the rift basins. Developments in seismic imaging have consistently improved the explorers ability to define traps, both structural and stratigraphic and constrain rock and fluid properties within those traps.

DAY 3: WEDNESDAY, 19 JUNE

SESSION 5: FUTURE EXPLORATION IN RIFT BASINS
Rift basins worldwide still contain significant yet to find resources and thus remain a target for exploration and an important part of the future of the oil & gas industry. The advance of new technologies in data acquisition, data processing, well completion as well as improvements in our overall understanding of rift basin evolution have opened up new areas for exploration in the already explored as well as still unexplored rift basins. These new technologies are helping our understanding of: the structural architecture of rift basins; the interplay of tectonics, sediment supply, and stratigraphy of rift basins; how the sedimentary fill can be subdivided into tectonostratigraphic packages; the initiation of seafloor spreading; basin inversion; and the transition from rifting to drifting.
WORKSHOP GUIDELINES

FORMAT
The workshop will be 2.5 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 display for presentation. If you are interested in participating, please send a short abstract along with the poster artwork (in PDF high resolution format) to bwelch@aapg.org by 19th May 2019. All posters will be produced as pull-up banners and delivered by AAPG. There will not be any other format available for poster display. Please ensure that the poster artwork measurements are 95 cm (width) x 165 cm (height). Please provide the topic with a short abstract of the proposed poster.

REGISTRATION TYPES & FEES
Fees are inclusive of onsite documentation, coffee breaks and luncheons. To register as a ‘Young Professional’ you must either be a current student or a young professional 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 2nd June 2019.

WORKSHOP LOCATION
Bahrain.

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.

EVENTS CALENDAR

24-26 JUNE DHAHRAN, SAUDI ARABIA
Integrated Emerging Exploration Concepts: Challenges, Future Trends and Opportunities

6-7 SEPTEMBER ALEXANDRIA, EGYPT
The Eastern Mediterranean Mega-Basin: New Data, New Ideas and New Opportunities

7-9 OCTOBER MUSCAT, OMAN
Low Resistivity Pay

25-27 NOVEMBER BAHRAIN
5th Edition: EAGE/AAPG Tight Reservoirs in the Middle East

9-11 DECEMBER MUSCAT, OMAN
2nd Edition: Structural Styles of the Middle East

13-15 JANUARY DHAHRAN, SAUDI ARABIA
IPTC 2020: International Petroleum Technology Conference

20-22 JANUARY MUSCAT, OMAN
2nd Edition: Decision Based Integrated Reservoir Modeling

27-29 JANUARY ABU DHABI, UAE
3rd Edition: Carbonate Reservoirs of the Middle East

15 MARCH BAHRAIN
11th Middle East Region Imperial Barrel Award Competition

16-19 MARCH BAHRAIN
GEO 2020: 14th Middle East Geosciences Conference and Exhibition

30 MARCH - 1 APRIL ABU DHABI, UAE
3rd Edition: AAPG/SPE E&P Data Management

6-8 APRIL ABU DHABI, UAE
Shuaiba Formation Exploration and Development

13-15 APRIL MUSCAT, OMAN
3rd Edition: Stratigraphic Traps of the Middle East
### RIFT BASIN EXPLORATION GTW

**17-19 JUNE 2019 • BAHRAIN**

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name</td>
<td></td>
</tr>
<tr>
<td>First Name</td>
<td></td>
</tr>
<tr>
<td>Nickname for Name Tag</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>□ Male □ Female</td>
</tr>
<tr>
<td>Company Name</td>
<td></td>
</tr>
<tr>
<td>E-mail (required)</td>
<td></td>
</tr>
<tr>
<td>Business Address</td>
<td></td>
</tr>
<tr>
<td>Business Telephone</td>
<td></td>
</tr>
<tr>
<td>Job Title</td>
<td></td>
</tr>
<tr>
<td>Mobile Telephone</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
</tr>
<tr>
<td>State/Province</td>
<td></td>
</tr>
<tr>
<td>Post Code</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td></td>
</tr>
<tr>
<td>Alternative Telephone</td>
<td></td>
</tr>
<tr>
<td>Fax</td>
<td></td>
</tr>
<tr>
<td>AAPG Member?</td>
<td>□ Yes □ No □ Member No.</td>
</tr>
<tr>
<td>Member No</td>
<td></td>
</tr>
<tr>
<td>I am also a member of:</td>
<td>□ EAGE □ SEG □ SPE □ Other</td>
</tr>
</tbody>
</table>

#### REGISTRATION TYPE & FEES

- □ Member*/Speaker ($1,500)
- □ Non-Member ($1,700)
- □ Join & Save ($1,700)
- □ Young Professionals ($850)
- □ Academia ($500)
- □ Students ($350)

*To avail the member rate you must be an ACTIVE member of AAPG.

#### PAYMENT

- □ MasterCard
- □ VISA
- □ American Express
- □ Discover

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Number</td>
<td></td>
</tr>
<tr>
<td>Expiration Date</td>
<td></td>
</tr>
<tr>
<td>CSC</td>
<td></td>
</tr>
<tr>
<td>Billind Address</td>
<td></td>
</tr>
<tr>
<td>City/State</td>
<td></td>
</tr>
<tr>
<td>ZIP</td>
<td></td>
</tr>
<tr>
<td>Card Holder Name</td>
<td></td>
</tr>
<tr>
<td>Authorized Signature</td>
<td></td>
</tr>
</tbody>
</table>

Credit card charges will be processed in US dollars.

**Complete this form and send to: BRITTANY WELCH**

Event Coordinator, AAPG Middle East & Africa | Dubai Silicon Oasis, Office F-502, PO Box 341359 * Dubai, UAE
Email: bwelch@aapg.org | T: +971 4 372 4198 | F: +971 4 372 4204

Invoices must be paid within 10 days of receipt. Should your application be received six weeks prior to the commencement of the workshop, please note that we will only accept credit card payment. AAPG will refund the tuition, less a $100 processing fee, if request is received no later than 30 days prior to the workshop. Cancellation 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, participant is 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. The American Association of Petroleum Geologists (AAPG) does not endorse or recommend any products and services that may be cited, used or discussed in AAPG publications or in presentations at events associated with AAPG.