Horizontal well drilling has entered an era of faster evolution recently with the advent of shale oil and gas development. In this workshop, optimised approaches and techniques will be presented by international experts with the objective to achieve cost efficiency, higher production with better well control and maintained integrity.

New challenges and associated solutions will be investigated such as unconventional data acquisition and interpretation, well placement through geo-steering and geomechanics, drilling and trajectory engineering, optimum completion design and cost-effective approaches for reservoir data acquisition and interpretation.

In the current environment of lower oil price, complex horizontal well drilling and data acquisition require even stronger focus on cost-effectiveness and improved HSE performance, and overall value generation.

SPE is the organisation where oil and gas experts come together to discuss the way forward and ensure that plans for a promising future actually materialise. This workshop will attempt to achieve that through keynote speakers, industry panels and breakout sessions. Experts will present their experiences, the audience will exchange lessons learnt, and participants will benefit from exploring each other’s ideas, challenging each other’s assumptions, and sharing best practices.
Session Chairs: Lee Dolman, OILSERV; Richard Johnson, Weatherford

Horizontal development wells have brought many drilling challenges to both operators and service providers. Whether it is hole cleaning, torque and drag, buckling and, perhaps most importantly, production success by staying within the reservoir sweet spot. The risks associated with horizontal wells are significant both mechanically and financially. Despite the original technology revolution at the end of the 1990’s to address the fundamental complications of horizontal drilling, more challenges are being introduced as we continue to expand and push the physics of drilling longer and longer wells.

This session will address some of the issues faced during horizontal well planning and execution from different aspects and share some of the recent studies and best practices that has made horizontal drilling more reliable and effective. Understanding and mitigating the hazards of drilling horizontal wells plays an important role and is one of the key drivers for increasing efficiency and technical reliability, and reducing operational and production risks and cost.

The focus in this session will be on exchanging ideas and practical knowledge with consideration of the engineering and evaluation details and also the adoption of newer techniques not normally applied to horizontal well profiles. Experience and new technology can result in significant improvements in consistency, efficiency, and control of horizontal well operations. The session will introduce both new ideas and a new perspective on managing the old challenges.

1230–1330 | Luncheon and Prayers
1330–1645 | Session 2: Horizontal Completion and Workover Challenges—Increase Productivity and Decrease OPEX While Managing Well Integrity

Session Chairs: Klisthenis Dimitriadis, Independent Consultant; Eirik Kårstad, Baker Hughes

Horizontal wells have been notoriously more difficult to complete and service than to drill. Water and gas shutoff, zones with different pressure and solid control requirements, isolation, and selectivity among these different zones, and servicing the associated jewellery to achieve all this when gravity and friction work against you are just a few of these challenges.

In response completion designers developed versatile and fit-for-purpose solutions. Some of those went for longevity and associated complexity while others opted for simplicity and low cost. Achieving increased productivity or arresting its decline through mechanical and chemical means has always been the aspiration. Different operating environments and profitability drivers yield different approaches, the US shale oil and gas developments provide a good example of this trend. Technological advances have enabled running and working-over/stimulating horizontal completions in circumstances previously thought impossible. This is likely to continue unless we let budget cuts and risk aversion curtail the pace of the progress achieved so far. This session will draw attention to long-term benefits balancing immediate “easy wins”. Sharing related experiences could help towards achieving this goal.

Maintaining well integrity in the horizontal section throughout the well’s useful life can be challenging. Permanent abandonment of horizontal wells credibly and economically is also coming into focus with regulators and the public opinion being very critical. Our sector’s license to operate depends on its ability to treat well integrity seriously and transparently, hopefully we’ll be able to demonstrate this with real-life examples.

1645–1700 | Wrap-Up of Day 1

TUESDAY, 28 March 2017
0815–0845 | Welcome Coffee
0845–0900 | Day 1 Summary/Introduction of Day 2 by Workshop Co-Chairs
0900–1000 | Keynote Speeches
1000–1230 | Session 3: Reservoir Management Challenges Faced in Data Acquisition and Interpretation

Session Chairs: Martin Sanderson, Schlumberger; Fahad Al-Zedjali, Baker Hughes

Horizontal wells enable a rich data environment to understand reservoir characterisation and production better. Prior to a development campaign, reservoir models are constructed and field development plans are made. The placement of the horizontal wells is key to the completion strategy where ICD (Intelligent Control Devices) and ICV (Intelligent Control Valves) are placed to maximise the production.

Challenges faced in this endeavour is the ability of existing reservoir models to represent the variation of key reservoir features, in particular, beyond the seismic resolution, which can compromise the completion plan and lead to sub optimal production. Issues include the determination of faults and associated fractures corridors, proper representation of heterogeneities (e.g. vugs), or proper morphology of depositional facies.
In order to overcome this, logging data acquisition and evaluation is critical. Unlike in vertical wells, the evaluation of horizontal wells data often involves a structural and stratigraphical modelling component. Logging data, including wellbore image can be used to update and enhance the reservoir models in real-time and allow the completion design to be modified prior to running.

In the post completion phase when the well is reaching maturity, the dynamic reservoir properties may change due to depletion or injection, the connectivity within the reservoirs caused by high permeability conduits for instance connected vugs or fractures is of critical importance. How technology can be deployed to understand these and enable a change to the completion is of key importance.

1230–1330 | Luncheon and Prayers

1330–1645 | Session 4: Unconventional Horizontal Wells Technical and Operational Challenges with Cost Efficient Solutions

Session Chairs: Mazen Al Omari, NPS; Gehad Mahmoud, ADCO

Unconventional plays an important role in raising the economic potential as a source of energy. Operators are perusing exploration and development of tight reservoirs which is showing new challenges. The Middle East basins are expected to be one of the most potential evolving unconventional plays—these basins hold the world’s largest conventional hydrocarbon reserves and may have magnitude of hydrocarbons in unconventional reservoirs waiting to be developed.

The objective of this unconventional session is to share with workshop participants different examples on the method used to uncover the unconventional resources potential. This session will focus on the methods of maximising productivity of Middle East unconventional reservoirs and applying cost-effective drilling, completion, and production approaches. Furthermore, sharing best practices of fracturing and optimum horizontal drilling would enhance productivity in tight hydrocarbon and source rocks.

Unconventional reservoirs remain challenging and are often based on empirical observations and extrapolation of existing trends. Thus, unconventional practices for now remains immature in the industry. This session will also address whether these practices have become standard or need deeper investigation.

1645–1700 | Workshop Summary by Workshop Co-Chairs/Thanking all Committee Members and Sponsors/Raffle Draw

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GENERAL INFORMATION

Format – Two days of informal discussions prompted by selected keynote presentations and discussions. Focused topics and issues critical to advancing both technology and best practices. Majority of the presentations are in the form of case studies, highlighting engineering achievements, and lessons learnt. In order to stimulate frank discussion, no proceedings are published and the press is not invited to attend.

Documentation
• Proceedings will not be published; therefore, formal papers and handouts are not expected from speakers.
• Work in progress, new ideas, and interesting projects are sought.

Poster Session – The Steering Committee encourages registrations from professionals who are able to prepare and present a poster on a relevant project.

Attendance – Registrations will be accepted on a first-come, first-served basis. The Steering Committee encourages attendance from those who can contribute effectively either in discussions or with posters.

Workshop Deliverables
The Steering Committee will appoint a “scribe” to record the discussions and to produce the full workshop report for SPE.

Commercialism – Commercialism in posters or presentations will not be permitted.

Attendance Certificate – All attendees will receive an attendance certificate attesting to their participation in the workshop.

Continuing Education Units – Attendees at this workshop qualify for SPE Continuing Education Units (CEU) at the rate of 0.1 CEU per hour of the workshop.

Registration Information – This is a nonresidential workshop and therefore hotel accommodation is not included in the registration fees. The registration fees include all workshop sessions, coffee breaks, and luncheons.

Cancellation and Refund Policy
• A processing fee of USD 100 will be charged for cancellations received before the registration deadline 25 February 2017.
• For cancellations received after the registration deadline, 25 February 2017, 25% refund will be made to the registrant.
• No refund on cancellations received within seven (7) days prior to the workshop date, i.e. on or after 20 March 2017.
• No refund will be issued if a registrant fails to attend the workshop.

Registration Policy
• Registration fee MUST be paid in advance for attending the Workshop.
• Full fixed fee is charged regardless of the length of time that the registrant attends the workshop.
• Fixed fee cannot be prorated or reduced for anyone (workshop co-chairpersons, committee members, speakers, discussion leaders, students, and registrants).
• Delegates with no proof of advance payment are required to pay onsite by cash or cheque, present a copy of the wire transfer, or submit a letter from their company guaranteeing payment of the workshop fees.

SPONSORSHIP INFORMATION

Sponsorship support helps offset the cost of producing workshops and allows SPE to keep the attendance price within reach of operations-level individuals, those who benefit most from these technical workshops.

Sponsors benefit both directly and indirectly by having their names associated with a specific workshop. While SPE prohibits any type of commercialism within the workshop hall itself, the society recognises that sponsoring companies offer valuable information to attendees outside the technical sessions.

SPONSORSHIP CATEGORIES
Sponsorships are offered on a first come basis. Please contact SPE to verify the availability of a particular sponsorship. Existing sponsors have the opportunity to renew the same level of sponsorship for annual workshops.

SPONSORSHIP BENEFITS
In addition to onsite recognition, SPE will recognise sponsors on the SPE website and in all printed material for the workshop. Based on the sponsorship selected, sponsoring companies also receive logo visibility on promotional workshop items.

FOR MORE INFORMATION
For a detailed list of available sponsorships, including benefits and pricing, contact Yousuff Dadapeer at ydadapeer@spe.org.
REGISTRATION FORM
SPE Workshop: New Approach in Horizontal Wells Drilling—Cost Efficiency, Higher Productivity, and Unconventional Solutions


Attendance is limited and is not guaranteed. Early registration is recommended. Please print or type in black ink.

IMPORTANT:
Registration fee MUST be paid in advance for attending the workshop.

WORKSHOP FEE:
SPE Members:
☐ Before 10 February = USD 700
☐ After 10 February = USD 1000
Nonmembers:
☐ Before 10 February = USD 800
☐ After 10 February = USD 1300

Workshop fee includes:
Technical sessions, materials, daily coffee breaks and luncheons, certificate of Continuing Education Units (CEU), and welcome reception and dinner (if applicable). Accommodation is NOT included in the workshop registration fee.

IMPORTANT: All SPE Middle East rates are net of taxes. The fees in this form do not include any local or withholding taxes. Please note that the invoice is to be paid in full.

Fax or email the completed registration form with payment or credit card information to:
Online: www.spe.org/go/17aab2
Email to: registrationdubai@spe.org
Telephone: +971 (4) 457 5800
Fax: +971 (4) 457 3164

Visa: SPE Middle East, North Africa, and South Asia will assist in providing a visa invitation letter, upon request in writing, to confirmed registrants after receiving full payment of registration fees. Visa invitation letters take five days to issue from the date of request and it is the delegate’s responsibility to obtain their own visa. SPE cannot issue the visa nor can we guarantee it will be obtained.

Questions: Contact Yousuff Dadapeer, Event Manager, at ydadapeer@spe.org.

FIRST NAME ___________________________ LAST NAME ___________________________

SPE MEMBER? ☐ Yes ☐ No

MEMBER NUMBER ___________________________

COMPANY/ORGANISATION ___________________________

JOB TITLE ___________________________

STREET/PO. BOX NUMBER ___________________________

CITY ___________________________

STATE/PROVINCE ___________________________

ZIP/POSTAL CODE ___________________________

COUNTRY ___________________________

FAX ___________________________

TELEPHONE ___________________________

EMAIL (REQUIRED) ___________________________

DO YOU WISH TO PRESENT A POSTER? (SUBJECT TO SELECTION)
☐ Yes ☐ No

DO YOU WISH TO BE CONSIDERED A DISCUSSION LEADER? (SUBJECT TO SELECTION)
☐ Yes ☐ No

If yes, please indicate the subject on which you would like to present:

HOW DID YOU FIRST BECOME AWARE OF THIS EVENT?
☐ Colleague (word of mouth) ☐ Section or Student Chapter ☐ JPT Ad ☐ Industry Publication
☐ Email from SPE ☐ SPE Website ☐ Other Industry Website ☐ Brochure Received by Mail
☐ I am a Committee Member/Presenter ☐ Employer ☐ An Exhibitor
☐ Others (please specify) ___________________________

DO YOU HAVE ANY MOBILITY/DIETARY REQUIREMENTS? (PLEASE SPECIFY):

PAYMENT DETAILS:
☐ Bank Transfers: (Please include the name of the registrant and 17AAB2 as reference for the transfer)

Name of Bank: HSBC Bank Middle East Ltd, Jebel Ali Branch, P.O. Box 66, Dubai, UAE

Name of Account: SPE Middle East DMCC

IBAN Number: AE180200000036217131100

Swift Code: BBMEAED

☐ Credit Card (Check one): ☐ American Express ☐ MasterCard ☐ Visa

Card Number (will be billed through Society of Petroleum Engineers) ___________________________

Expiry Date (mm/yy) ___________________________

Security Code ___________________________

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• No refund will be issued if a registrant fails to attend the workshop.

NAME OF CREDIT CARD HOLDER: (PRINTED) ___________________________

SIGNATURE: (REQUIRED) ___________________________

DATE: ___________________________

To submit your registration online, please visit the event’s website, www.spe.org/go/17aab2
Alternatively, you can email this form to registrationdubai@spe.org or fax it to +971.4.457.3164.