



Society of Petroleum Engineers

22–23 January 2012 | Beach Rotana Hotel | Abu Dhabi, UAE

**Early Bird Registration Deadline:
15 November 2011**

SPE Applied Technology Workshop

Development of Sour Fields: Addressing Business and Technology Challenges



Who Should Attend

This workshop is directed to technical professionals with interest in the development of highly sour gas fields, the operations of produced gas and sulphur handling facilities. Participation is expected from specialists in the areas of reservoirs, drilling and completion, field operations, gas processing, asset integrity, sulphur management, intelligent fields, and HSE.

Workshop Abstract

Around one-third of the world's gas fields are sour—that is, they are contaminated by varying levels of H₂S (hydrogen sulphide) and/or CO₂. This presents sour gas ventures with considerable challenges to achieve a successful commercial development. One key challenge is in reducing the level of contaminants to make the gas 'sweet' at a reasonable cost and doing so safely, whilst finding responsible and sustainable solutions for the H₂S/CO₂ streams. The growing demand for gas in the region imposes a demanding schedule on the development of sour gas assets.

The drive to commercialise this significant resource base requires the development and application of the critical technology required to unlock contaminated gas fields and make commercially attractive sour gas operations possible. The next generation of sour gas fields will be at an unprecedented scale and complexity and will require operators to go beyond the application of off-the-shelf technologies. Instead industry requires integrated, customised solutions that provide answers to the full range of challenges posed by undeveloped gas fields.

Subsurface contaminated gas developments in the region require high-resolution reservoir characterisation, supported by unequivocal pressure, temperature and fluid compositional data, including variations, ranges, and distributions. Optimisation of drilling operations will clearly play a crucial role in safely meeting start-up targets and in driving cost reduction. The key challenges to managing capital expenditure and operating costs also lie in understanding and assuring the availability, reliability, and maintainability of the facilities. Contaminated gas developments need to ensure that the material, and equipment selected is capable of maintaining its integrity throughout the life of the field, from the production system to the inspection strategy. Safe, cost-effective, and environmentally sound solutions must also be adopted for the non-hydrocarbon components.

Join us for an interactive workshop where industry professionals will gather to discuss and share experiences around these important issues. Each session will begin with a brief case study presentation followed by brainstorming exercises. Working in teams, participants will be challenged to propose their own strategies for addressing the issues presented. Workshop leaders will facilitate the discussions by providing input from their own experiences, guiding the teams as needed. Each team will then have the opportunity to defend their ideas and recommendations to the remaining attendees.

Committee Members

**Co-Chairperson
John Williams**

The Petroleum Institute

**Co-Chairperson
Vincent Flores**

VAM Drilling

Aggelos Calogirou

Wintershall

Andreas Rosener

Wintershall

Faleh Al-Shutair

Chevron

Jeff Russell

KNOC

Juan Carlos G. Bonilla

Schlumberger

Michael Shammai

Baker Hughes

Richard Singleton

Al-Hosn Gas

Sameh Macary

Tengizchevroil

Thomas Finkbeiner

Baker Hughes

Zaki Ali

Schlumberger

WORKSHOP

Development of Sour Fields: Addressing Business and Technology Challenges

Sponsorship Support

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 event 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 find out about the sponsorship packages available.

Sponsorship Benefits

In addition to onsite recognition, SPE will recognise sponsors on the SPE website and in all printed material for the workshop.

To book a sponsorship package contact Caroline Attenborough, at cattenborough@spe.org.

Workshop Venue

Beach Rotana Hotel
P.O. Box 45200
Abu Dhabi, UAE
Tel: +971.2.697.9071
Fax: +971.2.697.9894
Website: www.rotana.com

**SAVE USD 400
BY REGISTERING
BEFORE
15 NOVEMBER 2011**

Schedule

Sunday, 22 January 2012

- 0745–0815 hours** Welcome Refreshments, Registration, and Badge Collection
- 0815–0830 hours** Seating and Safety Briefing by the Hotel and Co-Chairpersons' Speech
- 0830–0850 hours** Workshop Opening Remarks
- 0850–0900 hours** Workshop Briefing
- 0900–0920 hours** Keynote Address—Day 1
- 0920–1215 hours** **Session 1: HSE**
Session Chairs: **John Williams**, The Petroleum Institute; **Vincent Flores**, VAM Drilling

This session will discuss and share HSE lessons learnt, best practices, new techniques, successful procedures, and methods implemented in the Middle East region and all over the world.

H₂S is hazardous to human health, living organisms and more generally to the environment. Therefore, health, safety, and environment is a major concern when developing sour gas fields. With the recent increase in sour gas projects, the industry now faces greater challenges to ensure HSE controls and to implement appropriate procedures. Sour gas projects are unusual business, where everybody should feel responsible for HSE. To reach this objective, all parties shall be involved: operators, drilling contractors, service companies, and tubular suppliers.

- 1215–1345 hours** Luncheon and Prayers
- 1345–1630 hours** **Session 2: Strategies for Sustainability**
Session Chairs: **Juan Carlos G. Bonilla**, Schlumberger; **Gary Walker**, Tengizchevroil

This session will explore current best practices for addressing economic challenges of sour gas production, while also discussing how they may change in the future. Regulatory requirements and new technology developments will also be explored.

One of the key challenges to sour gas production is proving the long term business case. Ensuring the economic feasibility of opportunities requires detailing solutions to address the numerous safety and environmental issues relating to the presence of dangerous impurities. From production to delivery, the significant costs of dealing with high concentrations of H₂S, CO₂, and sulphur must be examined in addition to exploring the possibilities of deriving economic value from their disposal.

- 1630–1645 hours** Group Photograph
- 1645–1700 hours** Break to Refresh
- 1700–1800 hours** Networking Hour and Poster Session

Monday, 23 January 2012

- 0800–0830 hours** Welcome Refreshments, Registration, and Badge Collection
- 0830–0900 hours** Keynote Address—Day 2
- 0900–1000 hours** SPE Middle East Unconventional Gas Conference and Exhibition (UGAS) Opening Ceremony
- 1000–1230 hours** **Session 3: Technical Challenges—Optimising Wellbore Integrity**
Session Chairs: **Andreas Rosener**, Wintershall; **Thomas Finkbeiner**, Baker Hughes

This session will concentrate on the best practices for well planning, material selection, drill string design, well control, and the long term integrity of sour wells. In addition, this session will address technology gaps that are currently present in the industry for sour gas drilling, what equipment and procedures can be implemented to mitigate the risks down to an acceptable level, and where future technology developments should focus on.

Drilling and producing sour gas generates unique challenges to engineers during the entire life of the well. The industry trend of drilling for deeper and sourer targets produces additional risks and challenges. Standard equipment and procedures are no longer applicable and fit-for-purpose solutions are required for each well and each field development.

- 1230–1345 hours** Luncheon and Prayers
- 1345–1645 hours** **Session 4: Reservoir Characterisation and Management**
Session Chairs: **Aggelos Calogirou**, Wintershall; **Zaki Ali**, Schlumberger

This session will discuss best practices, experience gathered with sour gas reservoirs within the industry, ideas on how to tackle specific challenges, and identify new technology needs.

Reservoir characterisation and management in sour gas fields poses some additional challenges that go beyond conventional fields. Unique aspects of reservoir characterisation in sour gas fields are: the exact reservoir fluid characterisation, strong vertical and areal H₂S concentration trends, presence of mercaptans and elemental sulphur production. Reservoir management has to address specific topics: the treatment (e.g. clauss process) or re-injection of H₂S, meeting condensate and sales gas specifications, well monitoring, well operations such as logging, coring, testing, stimulation, and intervention.

- 1630–1645 hours** Workshop Summary and Closing
- 1900–2100 hours** SPE Middle East Unconventional Gas Conference and Exhibition (UGAS) Gala Dinner

General Information**Workshop Guidelines****Format**

Two (2) days of informal discussions prompted by selected keynote presentations and discussions. Workshops maximise the exchange of ideas among attendees and presenters through brief technical presentations followed by extended Q&A periods. Focused topics attract an informed audience eager to discuss issues critical to advancing both technology and best practices. The 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.
- Professionally-prepared visual aids are not required; handwritten view graphs are entirely acceptable.
- Note-taking by participants is encouraged.

Poster Session

The Steering Committee encourages registrations from professionals who are able to prepare and present a poster on a relevant project. For further details kindly contact Saba Faghihi, event coordinator at sfaghihi@spe.org.

Attendance

Registrations will be accepted on a first-come, first-serve basis. The Steering Committee encourages attendance from those who can contribute to the workshop most effectively either in discussions or with posters. A mix of attendees in terms of geographic origin, companies, and disciplines will be encouraged.

Workshop Deliverables

- The Steering Committee will appoint a "scribe" to record the discussions and to produce the full workshop report for SPE.
- This report will be circulated to all attendees as the workshop deliverable within 4–6 weeks following the workshop. The copyright of the report is with SPE.
- PowerPoint presentation materials will be posted on a specific SPE URL address after the workshop. Provision of the materials by the speakers will signify their permission for SPE to do so.

Commercialism

In keeping with ATW objectives and the SPE mission, commercialism in posters or presentations will not be permitted. Company logos must be limited to the title slide and used only to indicate the affiliation of the presenter and others involved in the work.

Attendance Certificate

All attendees will receive an attendance certificate attesting to their participation in the workshop. This certificate will be provided in exchange for a completed workshop questionnaire.

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.

Cancellation and Refund Policy

- A processing fee of USD 100 will be charged for cancellations received before the registration deadline 22 December 2011.
- For cancellations received after the registration deadline, 22 December 2011, 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 15 January 2012.
- 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 Applied Technology 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).
- Attendees are expected to attend all workshop sessions and are not permitted to attend on a partial basis.

PLEASE USE INSIDE FORM FOR REGISTRATION**SPE Middle East Unconventional Gas Conference and Exhibition (UGAS)**

The third edition of SPE Middle East Unconventional Gas Conference and Exhibition (UGAS) will be held at the same hotel as the workshop. This year's theme is Unlocking Unconventional Gas: New Energy in the Middle East. The event will tackle industry-standard levels of technology and their limitations with regards to harvesting "unconventional gas" resources and will focus on the latest forefront technology of unconventional gas. UGAS will also shed light on the importance of these natural gas resources that were historically overlooked in search of more economical, conventional reserves. For more information, please visit www.spe.org/events/ugas.

Workshop and two-day conference fee:

Before 15 November 2011	USD 2,000 for SPE members	USD 2,150 for Nonmembers
After 15 November 2011	USD 2,400 for SPE members	USD 2,550 for Nonmembers

Workshop and one-day conference fee:

Before 15 November 2011	USD 1,800 for SPE members	USD 1,950 for Nonmembers
After 15 November 2011	USD 2,200 for SPE members	USD 2,350 for Nonmembers

To register for UGAS, contact Aswathy Prathap at aprathap@spe.org.

