Workshop on Unconventionals in China – The Next 10 Years
Shale Gas Exploration & Development, Tight Oil, CBM

12-14 September 2018
Cheng Du, China

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Workshop overview

A workshop on Unconventional oil and gas will be held in Cheng Du, China on September 2018. The Technical Programme Committee is being led by chairperson Mr. Wu Qi (E&P company of PetroChina) and co-chairmen Mr. Zhang Bin (BP China Upstream) and Dr. Bernard Montaron (Fraimwork SAS).

In 2016 the production of unconventional gas in China reached 12.4 billion cubic meters (bcm) with 4.5 bcm from coal bed methane and 7.9 bcm from shale gas. Unconventional gas production is expected to rise close to 20 bcm in 2017 with shale gas jumping to 15 bcm, the Fuling field in the Chongqing municipality contributing about two third of this. Unconventional oil and gas production in the United States reached 480 bcm in 2016, representing 64% of total natural gas production in the US, with 32.5 bcm from coal bed methane and 447.5 bcm from shale gas. US oil shale production decreased slightly due to economics from 3.4 in 2015 to 3.2 billion barrels in 2016. Other major international development for unconventional oil and gas progressing in 2016 were in Canada, and Argentina’s Neuquen basin.

The dramatic oil price drop in the last 3 years had a significant impact on unconventional oil and gas development all around the world, forcing operators to cut costs, to improve well construction and production efficiency, and to stop projects deemed non-economical. Participants to this international workshop will be encouraged to discuss and share their experiences in addressing specific exploration, development, and production challenges.

The 3-day workshop will cover key issues such as drilling efficiency, improved fracturing and completion techniques, well clean-up and flowback, production optimization, development strategies, declination analysis and EUR estimation, integrated workflows for sweet spot mapping, and how to deal with high stress anisotropy.

Workshop objectives

The main objective of this workshop is to achieve a better understanding of how the production of unconventional oil and gas could evolve in China in the next 10 years, with the application of new workflows, industry best practice, and innovative technologies to solve the difficult challenges – technical and economical – encountered in Sichuan basin and other basins.

Sharing knowledge, experiences, and vision among participants regarding all the processes that can contribute to make unconventional production more cost effective will of course benefit everybody and all the shale gas and oil shale regions in the world.

Who should attend

The list of workshop topics covers all unconventional E&P domains, from G&G to production, which implies that all these disciplines must be well represented. We need everybody on board! But if you plan to attend, please come prepared to participate actively to the workshop either by giving a talk or presenting a poster, or by sharing your knowledge, concerns, experiences, during the workshop discussions.

Workshop topics and details

Session 1 - Opening and Keynote Address

Session 2 - Geoscience

The session will focus on integration of geoscience data and tools with other subsurface disciplines, well & reservoir management and/or production engineering for sweet-spotting unconventional reservoirs. With increasing complexity and multiple controlling parameters, uncertainties are higher and probability of success lower than in conventional cases. Therefore, integrated workflows need to address both technical success and commercial productivity during the end-to-end evaluation cycle.

Session 3 - Geomechanics

In unconventional fields geomechanics are particularly important. They help to determine the optimum orientation of horizontal wells, optimize drilling parameters, predict zones with high density of natural fractures (sweet spots), and help to understand unusual hydraulic fracturing behavior such as creating low-productivity horizontal fractures due to strike-slip stress conditions. Strike-slip stress is encountered in several important unconventional basins in the world, including Sichuan basin in China, Saudi Arabia, Australia, and the Western side of Neuquen basin in Argentina. This session will cover these topics and allow participants to share experiences and discuss solutions.

Session 4 - Drilling

This session will address the challenges of drilling quality well in unconventional reservoir. Placing the well precisely, drilling fast and safe, and reaching longer horizontal, are the factors influencing cost and production. We will discuss the global unconventional drilling technologies and experiences such as extended reach drilling, downhole smart tools and drilling optimization. We drill more for less.
Session 5 - Completion
This section will focus on new technologies of solving the challenge of completion in unconventional reservoir development. The horizontal section of wells become longer and the formation was found deeper than before, there are too much limitation, even failure on the traditional completion method. We are looking for completion technologies to develop unconventional reservoir by suitable and efficient way.

Session 6 - Fracturing
This section will focus on the unconventional stimulation. Seek a better methodology and some tailored technologies to achieve the goal of increasing production and lower cost. We are going to discuss diverse aspects, such as fracture geometry, material, multiple Frac downhole tools and Fracture monitoring etc.. The attendees should realize the difference between unconventional and conventional reservoir stimulation, identify the main direction of unconventional fracturing.

Session 7 - Production
This section will discuss the flow back and long term production process, also highlight those key points to minimize the damage to propped Fracture and reservoir; specially flow back stage right after Frac job shut down. The sizes of flow back nozzles set up should base on reservoir stability and Fracture long term conductivity. Production regime is the consolidation of reservoir study, stimulation parameters and well testing setting.

Session 8 - Poster Session (TBC)

Session 9 - Unconventional Reservoir Simulation
The session will focus on various elements of reservoir simulation developments and application in shale gas and tight oil reservoirs, such as fast production simulation with complex hydraulic fracture and natural fractures, rate transient analysis, well test, optimization of well spacing, and water flow back analysis.

Session 10 - Case studies – International
This session will focus on development studies of producing shale gas fields. Case studies that provide detailed descriptions of reservoir, fluids and stimulation characteristics of the field(s) will offer the audience useful reference cases against to which benchmark their own assets, in aspects of unconventional field reservoir management such like decline management, well spacing optimization, social impact, and long term deliverability.

Session 11 - Case studies – Local, China
This session will focus on the case studies of sweet spot prediction in China by the methods of multi-attribute data fusion. It will introduce how to apply the seismic and log data to predict the shale formation’s depth, thickness, fault, fracture, local stress field, TOC, brittleness, pressure, etc. Furthermore, the effects about the application of the shale gas field in South China will be presented by comprehensive analysis the sweet spot parameters.

Session 12 - Summary and Closing Remarks

Workshop format
The format will comprise a mixture of invited presentations and contributions selected from open submissions followed by interactive parts at the end of each session.

Register Now for the Workshop
Registration is available online on the 7th June 2018 via the event website (http://bit.ly/eageuncon). Do not miss the opportunity to avail yourself for the Earlybird prices and reserve yourself a seat by registering before 7th July 2018!

Important Dates

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<td>Registration open</td>
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Contact
For more information or enquiries about this workshop, please visit the event’s website (www.eage.org) or contact the EAGE Asia Pacific office via asiapacific@eage.org.

We hope to see you in Cheng Du.

This workshop proudly sponsored by: