

# | Workshop on Unconventionals | in China – The Next 10 Years

SHALE GAS EXPLORATION & DEVELOPMENT, TIGHT OIL AND GAS, CBM EAGE研讨会: 未来十年 - 中国页岩气、致密油气和煤层气的勘探与开发

12-14 SEPTEMBER 2018 · CHENG DU, CHINA

# Programme

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Wang Xiao Lan	Petrochina BGP
Wang Xiao Lan	Petrochina BGP

### **GENERAL INFORMATION**

### Venue

### **Juying Hall**

Chengdu Wang Jiang Hotel No. 42 Xiashahepu Street, Chengdu Zip code:610066 China

### Workshop registration hours

Tuesday 11 September 2018 15:00 - 17:30 Wednesday 12 September 2018 08:00 - 08:45



### **Deliverables**

The following is included in the workshop registration fee:

- Dinner (Wednesday evening)
- Luncheon
- Morning and afternoon refreshment breaks
- Workshop proceedings and report

### A/V Recording

Workshop participants are strictly prohibited from using cameras, including mobile phone cameras and all other recording devices in the meeting room during presentations.

### **PROGRAMME OVERVIEW**

### Wednesday 12 September 2018

Workshop	09:00 – 17:00
Dinner	18:30 – 20:00

Thursday 13 September 2018 - Friday 14 September

Workshop 09:00 – 17:00

### **TECHNICAL PROGRAMME**

### Oral Presentations | Wednesday 12 September

JUYI	JUYING HALL	
09:00	Welcome Remarks and Opening	
09:15	Shale Gas Exploration and Development Practices in the Southern Sichuan Basin - Dr. Ma Xin Hua (PetroChina Southwest Oil and Gasfield Company (SWOG))	
10:00	Morning Coffee Break - Foyer	
Session 2 - Geoscience H. Rebel (AEE Technologies Inc.), F.R. Wu (Petrochina BGP)		
10:30	S201 - Comprehensive Sweet Spot Prediction and fracture modeling Using Geology, Geophysics, and Geomechanics - Application to the Longmaxi formation, China - X.L. Wang* (Petrochina BGP), Y.L. Li (Petrochina Tarim Oilfield), F.R. Wu (Petrochina BGP), Q. Li (Petrochina BGP)	
11:00	\$202 - Shale gas reservoir characterization and sweet spot prediction in China - G. Yu* (Petrochina BGP), Y.S. Zhang (Petrochina South-West Oilfield), X. M. Wang (Petrochina BGP), X. Liang (Petrochina, Zhejiang Oilfield), W. Liu (Petrochina BGP), R. Guo (Petrochina BGP)	
11:30	S203 - Seismic-based de-risking of unconventional plays by integrating rock physics, inversion, geopressure, and geomechanics - X.B. Peng* (APEX Solutions, INC), S. Green (Ikon Science), J. Meyer (Ikon Science), M. Rauch-Davies (Devon Energy), S. Smith (Devon Energy), B. Schmicker (Consultant)	
12:00	Lunch - Phuket Island Restaurant	
Session 3 - Geomechanics		

B. Montaron (Fraimwork SAS), A. Ouenes (FracGeo)	
13:00	S301 - Geomechanical Differences in North America and China Shale Gas Plays – Implications on Drilling Efficiency and Hydraulic Fracturing Effectiveness - S.H. Ong* (Baker Hughes, a GE company)
13:30	S302 - The geomechanical features that limit the extraction of shale gas in Poland R.W. Pachytel* (Polish Geological Institute - NRI), M. Jarosinski (Polish Geological Institute - NRI)
14:00	S303 - The dynamic characteristics of induced seismicity based on epicenter rupture theory - C.Yin* (Petrochina BGP), FR. Wu (Petrochina BGP)   T. Liu (Petrochina BGP)

14:30 Afternoon Coffee Break - Foyer



Session 4 - Drilling A.Q. Zhang (Schlumberger)	
15:00	S401 - Petro China Shale Gas Drilling Performance Break Through in Wei Yuan- Relentless Scientific and Engineering Approaches for the Unconventional Resources in Central China - T. Moh* (Schlumberger China Ltd.), Q.H. Ran, K. Dai (Petro China), G. Gan, D. Liu, X.F. Wang, N. Huang (Schlumberger China Ltd.)
15:25	S402 - Drilling Optimization and Application of New Drilling Technology in Unconventional Reservoir - P.V.* Chinh (Schlumberger), H. Nan (SCHLUMBERGER CHINA)
15:50	S403 - Geosteering to Optimise Well Cost & Production Rates - S.V. Jean* (Integrated GGRE Asia Sdn Bhd)
16:15	S404 - Do we really understand the risk in Sichuan shale Gas Drilling? - F. Gui* (Baker Hughes, a GE Company)
16:40	End of Day 1
18:30	Dinner - 转转会 (会展店)

### Oral Presentations | Thursday 13 September

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# **Session 5 - Completion**

N. Zhang (Baker Hughes)

S500 - Formation Evaluations while Drilling Bringing out High Quality of Well Completion could Increase Production Performance - Y.H. Yao\* (Baker Hughes), N. Zhang (Baker Hughes), Q.R. Li (PetroChina), Y. Yang (PetroChina), J. Zheng (PetroChina)

**S501 - Spectre Disintegrating Plugs Eliminated Intervention** 09:00 and Reduced Completion Cycle in Weiyuan Shale Gas - C. Xu\* (Baker Hughes, a GE Company), R.C. Pang (Baker Hughes, a GE Company), B. Ying (Baker Hughes, a GE Company), J.B. Guo (Baker Hughes, a GE Company), Z.H. Zhang (Baker Hughes, a GE Company)

09:30 S502 - Full Dissolvable Plug&Perf System Enhance Operation Efficiency without Intervention Needs - L.M. Zhang (Schlumberger), J.S. Lee (Schlumberger)

10:00 Morning Coffee Break - Foyer

Session 6 (a) - Fracturing

Y.Q. Fu (PetroChina Southwest Oil and Gasfield Company (SWOG)), G.J. Zheng (Halliburton)

S6101 - Increasing production and lower stimulation cost on natural fractured unconventional reservoirs from US to China - Y.H. Wu\* (Feling LLC), K. Zhang (University of Utah, China University of Petroleum (Beijing)), R.J. Zinno (Feiling LLC)

10:55 S6102 - Practices and understanding of fracturing technology in horizontal wells of shale gas in Changning shale gas field - H.Y. Huang\*(Shale Gas Research Institue, SWOG), Y. Fan\*(Shale Gas Research Institue, SWOG)

S6103 - Refracturing Technology Development and Practice in North America - J. Abbott\* (SinoFTS Petroleum Services Ltd.), S. Ma (SinoFTS Petroleum Services Ltd.), H. Mingzheng(SinoFTS Petroleum Services Ltd.)

S6104 - The Practice and Challenge of Low Pressure Tight Oil Development in Ordos Basin - X.F. Du\* (Changqing Oil Field of PetroChina)

12:10 Lunch - Malacca Restaurant

**Session 6 (b) - Fracturing** G.J. Zheng ( Halliburton), Y.Q. Fu (PetroChina Southwest Oil and Gasfield Company (SWOG))

S6201 - Advanced 3D fracture modelling: a full-spectrum approach linking geomechanics, completions, stimulation and reservoir simulation - G. Izadi\* (Baker Hughes a GE Company), C.A. Barton (Baker Hughes a GE Company), L. Cruz (Equinor)

S6202 - Values from fracture monitoring drive optimal development of unconventional resources - G.J. Zheng\* (Halliburton), X. Ma ( Halliburton), Y. Wang ( Halliburton), J. Tang (Halliburton)

14:15 S6203 - The FEM numerical simulation and quantitative prediction of distribution of fractures of the Longmaxi Formation in Dingshan Area - J.T. Xie\* (Fracturing SWPU.), Q.R. Qin (SWPU), C.H. Fan (SWPU)

14:45 Afternoon Coffee Break - Foyer

### **Session 7 - Production**

X.Z. Li (RIPED), A. Wang (Halliburton)

S701 - Developing Applied Petrophysical Models for Organic **Rich Mudrocks Integration of Advanced Geochemistry** Approaches for Producibility Assessment - F.E. Walles\* (Baker Hughes, a GE Company, Houston), I. McGlynn\* (Baker Hughes, a GE Company, Houston), J. Raines (Baker Hughes, a GE Company, Houston), Matt Bratovich\* (Baker Hughes, a GE Company, Houston)

15:35 \$702 - Analysis of China shale gas exploration and development status and possible cost reduction - N. Wang\* (Research Institute of Petroleum Exploration and Development, PetroChina), X.Z. Li, W. Guo, X.W. Zhang (Research Institute of Petroleum Exploration and Development, PetroChina)

16:00 S703 - EUR Evaluation workflow and influence Factors for Shale Gas Well in Weiyuan Gas Field, China - Y.H. Su\* (RIPED), X.Z. Li (RIPED), Y.J. Wan (RIPED)

16:25 S704 - First Application of FiberOptic Production Analysis in China - A. Wang\* (Halliburton), M. Chin (Halliburton), C.Duan (Halliburton)

16:50 End of Day 2

### Oral Presentations | Friday 14 September

### **JUYING HALL**

09:00 Poster Session and Morning Break

### Session 9 - Unconventional Reservoir **Simulation**

W. Yu (Texas A&M University and UT-Austin)

10:00	S901 - An assisted history-matching workflow coupling	
	MCMC and EDFM for shale gas and tight oil reservoirs with	
	complex fracture geometries - W. Yu* (Texas A&M University	
	and UT-Austin)	

10:25 S902 - A revolutionary UT-EDFM method for production simulation in shale reservoirs with complex fracture geometry - MJ. Miao (Sim Tech, LLC/UT Austin), W. Yu\* (UT Austin), K. Sepehrnoori (UT Austin)

10.50 S903 - Modelling desorption and diffusion of gas and water from matrix to fracture of high-rank coals - X.L. Peng\* (Southwest Petroleum University), S.Y. Zhu (Southwest Petroleum University), Z.M. Du (Southwest Petroleum University), M.W. Wang (Southwest Petroleum University), H.S. Sun (CNOOC)

11:15 S904 - A Powerful and Practical Workflow for Naturally Fractured Granite Reservoir with Complex Fractures from Modeling to Simulation - F. Xu\* (RIPED, CNPC), J.L. Jin(RIPED, CNPC), X.B. Li (RIPED, CNPC), X.L. Li (RIPED, CNPC), J.J. Miao (SimTech LLC), W. Yu (Texas A & M University)

11:40 Lunch - Phuket Island Restaurant

### Session 10 - Case studies - International A. Ouenes (FracGeo), M.F. Li (BP(China) E & P)

\$1001 - Field experiment for shale oil reservoir production estimation: Western Siberia case study - I.V. Shishmanidi\* (Gazpromneft Science & Technology Centre), A.D. Alekseev (Gazpromneft Science & Technology Centre), A.V. Basov (LLC "Gazpromneft-Angara")

13:15 S1002 - Completion Optimization While Drilling - Reducing **Drilling Costs and Improving Fracing Performance with** Surface Drilling Data. Comparing Case Studies from US and China - Z.H. Qiu\* (Geospan), X.P. Li (Fracgeo)

### Session 11 - Case studies - Local, China A. Ouenes (FracGeo), M.F. Li (BP(China) E & P)

S1101 - Broadband Vibroseis VSP - a Good Practice for Shale Gas Exploration in Sichuan Basin - M.F. Li\* (BP(China) E & P), S. Soulas (BP London), F. Sutherland (BP London)

S1102 - Fracture & Stress Prediction of Shale and 14:15 It's Application - S.G. Li\* (Southwest oil and gas Branch Co. SINOPEC), P. Wang (Southwest oil and gas Branch Co. SINOPEC), T.J. Xu (Southwest oil and gas Branch Co. SINOPEC)

14:45 S1103 - Practice of technologies for the effective development of tight oil reservoirs in Ma 56 Block, the Santanghu Basin - H.B. He\* (PetroChina Tuha Oilfield Company), L Yu\*(PetroChina Tuha Oilfield Company)

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15:15	Afternoon Coffee Break - Foyer
15:45	Closing Remarks and Wrap Up - B. Zhang (BP)
16:30	End of Day 3

### Poster Presentations | Friday 14 September

### **Session 8 - Poster Session**

S801 - Cotrolling factors on gengration and high productivity of shale gas in the Longmaxi formation - S. He\* (SWPU), Q.R. Qin (SWPU), C.H. Fan (SWPU)

> S802 - Structural features analysis and genetic mechanism of Longmaxi Formation in the Dingshan area in southeast of Sichuan basin - X.Y. Ge\* (SWPU), Q.R. Qin (SWPU), C.H. Fan

S803 - Main controlling factors and favorable area prediction of shale gas in Wufeng-Longmaxi Formation in Dingshan area, Southeastern Sichuan - Y. Zhang\* (SWPU), C.H. Fan (SWPU), C. Zhong (SWPU)

S804 - Rock Physics Model of the Jimusar Tight Oil Reservoirs, Junggar Basin, NW China - M.H. Lu\* (RIPED, PetroChina), H. Cao (RIPED, PetroChina), X.F. Yan (RIPED, PetroChina)

S805 - Controlling factors for shale gas geological sweet spots in Wufeng-Longmaxi Fm, southern Sichuan Basin, China - Q. Zhang\* (Research Institute of Petroleum Exploration and Development), F. Liang (Research Institute of Petroleum Exploration and Development) , Z.L. Pang (Research Institute of Petroleum Exploration and Development)

S806 - Technical Exploration of Improving Horizontal Well Production in Jimsar Tight Oil Formation - L. Zhao\* (PetroChina), J.W. Xu, J. Zhang, N. Cheng, Y. He

S807 - The Current Status and Challenge of Tight Gas **Development in Eastern Ordos Basin -** Y. Ding\* (Oil and Gas Technology Research Institute Of Changqing Oilfield Company), X.W. Li (Oil and Gas Technology Research Institute Of Changqing Oilfield Company), Y.M. Zhang (Oil and Gas Technology Research Institute Of Changqing Oilfield Company), Y.J. Wang (Oil and Gas Technology Research Institute Of Changqing Oilfield Company)

### **SPONSORING**

We would like to thank our sponsors for their generous support of the workshop.

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## See you in China!

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