

WANG Fei

Ph.D., Associate Professor

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Education

Ph.D., Petroleum Engineering, Heriot-Watt University (UK), 2010

B.S., Petroleum Engineering, China University of Petroleum, Beijing (China), 2006

Research Areas and Interests

Modeling and Simulation of Unconventional Gas Reservoirs

Multi-field Coupling Problems in Hydraulic Fracturing

Pre- and Post-fracturing Evaluation

Reservoir Characterization and Well Production Analysis

Teaching

Oil Production Engineering (undergraduate course, taught in English)

Modern Well Test Analysis (postgraduate course, taught in English)

Professional Experiences

2010.09–present, Associate Professor, Department of Petroleum Engineering, China University of Petroleum-Beijing, China

Other Appointments

Reviewer of Journal of Petroleum Science and Engineering

Reviewer of Journal of Natural Gas Science and Engineering

Technical Committee of International Conference on Petroleum Industry and Energy (2016)

Section Chair of International Field Exploration and Development Conference (2017)

Other Professional Affiliations

Society of Petroleum Engineers (SPE)

Selected Publications

1. **Fei Wang**, Hun Lin, Xinrun Lyn, Baoman Li, Yichi Zhang, Shicheng Zhang. Fracturing-fluid Migration Front Progression in Fractured Gas Shale: Experiment and Numerical Analyses. *Hydraulic Fracturing Journal*. 2018, 5(1):95-102.
2. **Fei Wang**, Ziqing Pan, Yichi Zhang, Shicheng Zhang. Simulation of Coupled Hydro-Mechanical-Chemical Phenomena in Hydraulically Fractured Gas Shale during Fracturing-fluid Flowback. *Journal of Petroleum Science and Engineering*. 2018(163):16-26.
3. **Fei Wang**, Ziqing Pan, Shicheng Zhang. Coupled Thermo-Hydro-Chemical Modeling of Fracturing-fluid Leakoff in Hydraulically Fractured Shale Gas Reservoirs. *Journal of Petroleum Science and Engineering*. 2018(161):17-28.

4. **Fei Wang**, Baoman Li, Yichi Zhang, Shicheng Zhang. Coupled Thermo-Hydro-Mechanical-Chemical Modeling of Water Leak-off Process during Hydraulic Fracturing in Shale Gas Reservoirs. *Energies*. 2017, 10, 1960.
5. **Fei Wang**, Ziqing Pan, Hun Lin, Shicheng Zhang. Modeling Water Leak-off Behavior in Hydraulically Fractured Gas Shale under Multi-mechanism Dominated Conditions. *Transport in Porous Media*. 2017(118): 177-200.
6. **Fei Wang**, Ziqing Pan, Shicheng Zhang. Impact of Chemical Osmosis on Water Leakoff and Flowback Behavior from Hydraulically Fractured Gas Shale. *Journal of Petroleum Science and Engineering*. 2017(151):264-274.
7. **Fei Wang**, Ziqing Pan, Shicheng Zhang. Modeling Fracturing-fluid Flowback Behavior in Hydraulically Fractured Shale Gas under Chemical Potential Dominated Conditions. *Applied Geochemistry*. 2016(74):194-202.
8. **Fei Wang**, Shicheng Zhang. Pressure-buildup Analysis Method for A Post-treatment Evaluation of Hydraulically Fractured Tight Gas Wells. *Journal of Natural Gas Science and Engineering*. 2016(35): 753-760.
9. **Fei Wang**, Ziqing Pan. Numerical Simulation of Chemical Potential Dominated Fracturing-fluid Flowback in Hydraulically Fractured Shale Gas Formation. *Petroleum Exploration and Development*. 2016, 43(6):971-977.
10. **Fei Wang**, Ziqing Pan, Hun Lin, Shicheng Zhang: "A Chemical Potential Dominated Model for Fracturing-fluid Flowback Simulation in Hydraulically Fractured Gas Shale," SPE-181418, presented at the *SPE Annual Technical Conference and Exhibition* held in Dubai, UAE, 26–28 September 2016.
11. **Fei Wang**, Ziqing Pan. Deconvolution-based Well Test Model for The Fractured Horizontal Wells in Tight Gas Reservoirs. *Acta Petrolei Sinica*. 2016, 37 (7):898-902.
12. **Fei Wang**, Yu An. Application of Deconvolution-based Pressure Buildup Analysis for Offshore Low-permeability Gas Reservoirs. *Science and Technology Review*. 2016, 34(24): 1-4.
13. **Fei Wang**, Shicheng Zhang. Dynamic Distribution of Invaded Zones by Slickwater and Its Impacts on Production Performance in Tight Gas Reservoirs. *China Offshore Oil and Gas*. 2015, 27(5):97-101.
14. **Fei Wang**, Shicheng Zhang. A Calculating Method of Stimulated Reservoir Volume for Multi-stage Hydraulic Fracturing in Horizontal Wells. *Well Testing*. 2015, 24(2):1-5.
15. **Fei Wang**, Shicheng Zhang. Production Analysis of Multi-stage Hydraulically Fractured Horizontal Wells in Tight Gas Reservoirs. *Journal of Geography and Geology*. 2014, 6(4), 58-67.
16. **Fei Wang**, Bailong Liu, Shicheng Zhang. Production Performance Analysis of Multi-stage Hydraulically Fractured Tight Gas Wells. *Journal of Oil and Gas Technology*. 2014,36(1):140-146.
17. **Fei Wang**, Shicheng Zhang. Application of Well Test and Production Data in The Early Stage of Gas Storage Evaluation. *Special Oil and Gas Reservoirs*. 2014, 21(2):102-106.
18. **Fei Wang**, Shicheng Zhang. Fast Pressure Decline Analysis of Fracture Calibration Tests. *Journal of Southwest Petroleum University*. 2014, 36(3):115-120.

19. **Fei Wang**, Shicheng Zhang. Comparative Study on Post-treatment Evaluation Methods of Multi-stage Hydraulically Fractured Horizontal Wells. *Coal Engineering*. 2014, 46(8):102-105.
20. **Fei Wang**, Xiaogang Li. Processing and Interpretation of Permanent Downhole Monitoring Data, *Journal of Petroleum Science Research*. 2013, 2(3), 138-144.
21. **Fei Wang**, Bailong Liu, Shicheng Zhang. Pressure Transient Analysis of Multi-stage Hydraulically Fractured Horizontal Wells. *Journal of Petroleum Science Research*. 2013, 2(4), 162-166.
22. **Fei Wang**. Processing and Analysis of Transient Pressure from Permanent Down-hole Gauges, *Petroleum Science*. 2012, 9(3):330-335.
23. Xinrun Lyu, Shicheng Zhang, Xinfang Ma, **Fei Wang**, Jianye Mou. Numerical Investigation of Wellbore Temperature and Pressure fields in CO₂ Fracturing. *Applied Thermal Engineering*. 2018(132):760-768.
24. Hun Lin, Shicheng Zhang, **Fei Wang**, Ziqing Pan, Tong Zhou, Zongxiao Ren. Experimental Investigation on Imbibition-Front Progression in Shale Based on Nuclear Magnetic Resonance. *Energy & Fuels*, 30 (11), 2016.
25. Hun Lin, Shicheng Zhang, **Fei Wang**, Ziqing Pan, Yifei Zhang, Yulong Chen. Optimization of Hydraulic Fracture Parameters for Low-Permeability Condensate Reservoirs in Jilin Oilfield. *Journal of Xi'an Petroleum University*. 2016, 31(3): 62-67.
26. Xiang Zhou, Shicheng Zhang, Xiong Zhang, **Fei Wang**, Hun Lin. Core-Scale Experimental and Numerical Investigation on Fluoroboric Acidizing of A Sandstone Reservoir. *Energy Technology*. 2016,4(7):870-879.
27. Hun Lin, Shicheng Zhang, **Fei Wang**: "Optimization of Hydraulic Fracture Parameters for Low-Permeability Condensate Reservoirs," presented at the *International Conference on Petroleum Industry and Energy* held in Barcelona, Spain, 12-14 June 2016.
28. Shujie Liu, Jiujie Cai, **Fei Wang**, Xinyun Lyu, Wei Wang. Application of Improved Pressure Decline Analysis for Fracturing in Offshore Low Permeability Gas Field, *Fault-Block Oil & Gas Field*. 2016, 22(3): 369-373.
29. Linjing Xu, Shicheng Zhang, **Fei Wang**: " Acid Leakoff Mechanism in Acid Fracturing of Naturally Fractured Carbonate Gas Reservoirs," presented at the *International Conference on Energy and Environmental Protection* held in Switzerland, 11-12 December 2013.
30. Xiaobing Bian, Shicheng Zhang, Jingchen Zhang, **Fei Wang**. A New Method to Optimize the Fracture Geometry of A Frac-packed Well in Unconsolidated Sandstone Heavy Oil Reservoirs. *Science China-Technological Science*. 2012, 55: 1725-1731.
31. Xiaodong Wang, Guanghe Li, **Fei Wang**. Productivity Analysis of Horizontal Wells Intercepted by Multiple Finite-conductivity Fractures. *Petroleum Science*. 2010,7:367-371.