

## **GUO XiaoZhe**

### **Ph.D., Associate Professor**

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### **Education and Professional Experiences**

1995-1999, B.S., Petroleum Engineering, Daqing Petroleum Institute

1999-2002, M.S., Oil & Gas Field Development Engineering, China University of Petroleum-Beijing

2002-2005, Ph.D., Oil & Gas Field Development Engineering, China University of Petroleum-Beijing

2014-2015, Visiting Scholar, the University of Tulsa, USA

2005-2009, Lecturer, Department of Petroleum Engineering, China University of Petroleum-Beijing

2009-present, Associate Professor, Department of Petroleum Engineering, China University of Petroleum-Beijing

### **Research Areas and Interests**

Oil & Gas Percolation Theory and Systems Engineering

Unconventional Oil & Gas Development Technology

Fracturing-recovery Integration Technique on Tight and Shale Oil & Gas

### **Teaching**

Fluid Mechanics in Porous Medium; Reservoir Engineering; Petroleum Production Engineering; Modern Reservoir Management; Reservoir numerical simulation

### **Main Research Contents at Present**

1. Adjustment of Reservoir Development Program (Including Low Permeability, Heavy Crude, Fault Block, High Water-cut)

Detailed Reservoir Characterization, Numerical Simulation of Reservoir, Profile Control and Water Plugging, Distribution Pattern of Remaining Oil, Well Pattern Arrangement, Well Test, Enhanced Recovery, etc.

2. Output Improvement and Reconstruction Technology of Low Permeability Reservoir

Reservoir Fracture Distribution Simulation, Hydraulic Fracture Distribution Simulation, Percolation Mechanism (Including Experiment), Evaluation and Measures of Injection Well Augmented Injection Effect, etc.

3. Shale Gas Reservoir Development Technology

Shale Gas Reservoir Reconstruction, Shale Gas Percolation Mechanism, Network Fractures Simulation of Shale Gas Horizontal Well Fracturing, Shale Gas Numerical Simulation and Productivity Prediction, etc.

### **Scientific research**

2012-2013, Southwest Gas Filed, Fracture Description and Productivity Prediction Method for Fractured Horizontal Wells in Shale Gas Reservoir, Project Leader.

2011-2014, School Fund, Study on Mechanism and Application of Imbibition in Shale Gas Reservoir, Project Leader.

2013-2014, Southwest Gas Filed, Study on Numerical Simulation of Unconventional Oil & Gas Reservoir Fracturing Based on Eclipse, Project Leader.

2015-2018, School Fund, Study on the Mechanism of Gas & Water Two-phase Seepage in Fractured Horizontal Well of Shale Gas Reservoirs, Project Leader.

2016-2017, Study on Influence Factors of Volume Fracturing Productivity in Low Permeability and Tight reservoir Based on Numerical Simulation, Project Leader.

## **Honors and Awards**

2014.06, The Title of Excellent Teacher, China University of Petroleum-Beijing

2013-2014, 2013-2014 Academic Year's Excellent Guidance Teacher for Scientific and Technological Innovation of College Students, China University of Petroleum-Beijing

2016, 2016 Outstanding Union Cadre of the Year, China University of Petroleum-Beijing

## **Selected Publications**

1. Guo Xiaozhe, Zhou Changsha. Seepage Numerical Model for Fractured Horizontal Well in Shale Gas Reservoir[J]. Journal of Southwest Petroleum University(Science & Technology Edition), 2014, 36(05): 90-96.
2. Guo Xiaozhe, Zhao Gang. Simulation of Fracturing Network of Shale Gas Reservoir and Evaluation on Communication Results[J]. Special Oil & Gas Reservoirs, 2015, 22(01):99-102+155.
3. Guo Xiaozhe, Zhou Changsha. Establishment of A Seepage Model Considering the Stress Sensitivity in Fractured Horizontal Wells in Shale Gas Reservoirs and Its Analysis[J]. Journal of Yangtze University(Natural Science Edition), 2015, 12(05):44-50+4.
4. Guo Xiaozhe, Zhou Changsha. Seepage model and productivity forecast based on slippage of fractured horizontal wells in shale gas pool[J]. Oil Drilling & Production Technology, 2015, 37(03): 61-65.
5. Guo Xiaozhe, Zhou Changsha. Diffusion Seepage Model for Fractured Horizontal Well in Shale Gas Reservoir[J]. Journal of Southwest Petroleum University(Science & Technology Edition), 2015, 37(03):38-44.
6. Guo Xiaozhe, Zhou Changsha. Establishment of A Comprehensive Seepage Model for Shale Gas Reservoir and Analysis on Its Influential Factors[J]. Journal of Yangtze University(Natural Science Edition), 2016, 13(05):49-53+5-6.
7. Guo Xiaozhe, Zhou Changsha. The Trilinear Seepage Model for Fractured Horizontal Well in Shale Gas Reservoir[J]. Journal of Southwest Petroleum University(Science & Technology Edition), 2016, 38(02):86-94.
8. Guo Xiaozhe, Wang Jing, Liu Xuefeng. Gas-water Two Phase Porous Flow Model of Fractured Horizontal Well in Shale Gas Reservoir[J]. Acta Petrolei Sinica, 2016, 37(09):1165-1170.
9. Guo Xiaozhe, Zhang Ziming, Kong Xiangming, Liu Xuefng, Zhang Wenchang. Research on the Well Group Spacing Parameters for Fracturing Shale Gas Horizontal Wells[J]. Unconventional Oil & Gas, 2016, 3(06):66-71.
10. Guo Xiaozhe, Li Jing, Song Li, Rui Lei. Monitoring and Alarming System for Hydrate in Gas Wells, Advances in Petroleum Exploration and Development (APED), 2017, 13(1):25-28.
11. Guo Xiaozhe, Li Jing, Zhang Xin. Study on the Establishment of Material Balance Model for

Fractured Horizontal Well in Shale Gas Reservoir[J]. Journal of Southwest Petroleum University(Science & Technology Edition), 2017, 39(02):132-138.

12. Guo Xiaozhe, Zhao Gang, Liu Xuefeng, Wang Jing, Kong Xiangming, Jiang Caiyun. The Effect of Geological Parameters on Volume Fracturing in Tight Reservoir[J]. Journal of Yangtze University(Natural Science Edition), 2017, 14(11):69-74+7-8.

13. Guo Xiaozhe, Han Wenlei, Niu Huizhen, Kong Xiangming. Development Trend for Nanometer Oil Production Technology Based on Patent Analysis[J]. Oil Forum, 2017, 36(03):32-40+49.