

Dr. Kegang Ling
Associate Professor in Petroleum Engineering
University of North Dakota

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Education

Dec 2010 Ph.D. in Petroleum Engineering, Texas A&M University. Thesis: "Gas Viscosity at High Pressures and High Temperature" – Supervised by Dr. Gioia Falcone and Dr. Teodoriu Catalin.

Dec 2006 M.Sc. in Petroleum Engineering, University of Louisiana at Lafayette. Thesis: "A New Method for Predicting Deliverability of Multilateral Wells" -Supervised by Dr. Boyun Guo.

Jul 1995 B.Sc. in Geology, China University of Petroleum at Beijing.

Professional Experience

Dec 2011 – present, Assistant Professor in Petroleum Engineering, **University of North Dakota**

- Develop coursework materials and teach undergraduate petroleum engineering courses
- Carry out research and supervise undergraduate and graduate students
- Faculty advisor for student chapter of the Society of Petroleum Engineers

Sep 2009-Nov 2011 Petroleum Engineer in **Ryder Scott Company** in Houston, TX

- Utilized various reserves evaluation strategies to book reserves and submitted the corresponding reports to U.S. Securities and Exchange Commission (SEC) for oil companies and National Mineral Department including China National Offshore Oil Company (CNOOC), Mitsui, Ministry of Energy of Trinidad and Tobago, BP, and ENI etc. Geographical area of experience included China, Australia, Indonesia, Trinidad & Tobago, Nigeria, and New Zealand.

Aug 1995-Dec 2004 Petroleum Engineer in **China National Offshore Oil Corporation**

- Reserves and resources evaluation
- Reservoir simulation
- Geological and geophysical analysis for exploration and production

Professional and Academic Roles

Society of Petroleum Engineers (SPE): Member (2005 to present)

Faculty advisor of University of North Dakota SPE student chapter, 2012-2013

Honors, Awards and Scholarships

SPE Faculty Enhancement Travel Grant, 2013, 2014
 Research Assistantship, Texas A&M University
 Research Assistantship, University of Louisiana at Lafayette
 Institute Scholarships, China University of Petroleum at Beijing

Funded Proposals

Source of Funds	Title of Project	Year	Amount	PI/Co-PI/Students
North Dakota Industrial Commission Oil and Gas Research Program	Support for Petroleum Engineering Research at UND's College of Engineering & Mines	March 2023, -February 2025	\$2,980,000	Co-PI
North Dakota Industrial Commission Oil and Gas Research Program	Support for Petroleum Engineering Research at UND's College of Engineering & Mines	March 2020, -February 2023	\$3,728,000	Co-PI
Research North Dakota	A Path to a Quantitative Clinical Method for Early Diagnosis of Cancer Based on Cell Mechanic	June 2018-June 2021	\$178,000	PI
UND EERC	Carbon Dioxide Enhanced Oil Recovery Improvement in Conventional Fields Using Rich Gas	Feb, 2020-May 2020	\$20,000	PI
North Dakota Industrial Commission Oil and Gas Research Program	Support for Petroleum Engineering Research at UND's College of Engineering & Mines	September 1, 2018-February 28, 2020	\$600,000	Co-PI
Research North Dakota-Venture Grant	Detection of Blockage in Petroleum Pipelines	Sep 2017 - Sep 2018	\$99,932	PI
Department of Energy	Geomechanical Study of Bakken Formation for Improved Oil Recovery	Jul 2012 - Dec 2013	\$252,000	PI
North Dakota Transmission Authority	Williston Basin Oil and Gas Related Electric Load Growth Forecast	Apr 2012 - Sep 2012	\$55,200	Co-PI
Society of Petroleum Engineers	SPE Awards for Academic Professional Development	2013	\$2,500	

Society of Petroleum Engineers	SPE Awards for Academic Professional Development	2013	\$2,500	
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Courses Taught and Teaching

Undergraduate courses at University of North Dakota:

- PTRE 311 Petroleum Fluids Properties
- PTRE 361 Petroleum Engineering Laboratory I
- PTRE 421 Petroleum Production Engineering
- PTRE 431 Petroleum Reservoir Engineering
- PTRE 441 Petroleum Project Management
- PTRE 445 Advanced Reservoir Engineering
- PTRE 461 Natural Gas Engineering
- PTRE 462 Petroleum Engineering Laboratory II
- PTRE 475 Well Completion
- PTRE 484 Senior Design I
- PTRE 485 Senior Design II
- PTRE 521 Advanced Production Engineering

Graduate Students Supervised/Co-Supervised and Participation in Graduation Committees

Graduated more 15 master and PhD students. Currently advising 10 graduate students.

Spoken languages

- Chinese (mother tongue)
- English (fluent)

Technical publications

Journal Papers

1. P Pothana, FE Garcia, K Ling. 2024. Effective Elastic Properties and Micro-mechanical Damage Evolution of Composite Granular Rocks: Insights from Particulate Discrete Element Modelling. *Rock Mechanics and Rock Engineering*, 1-45
2. G Adeyemi, K Ling, A Fadairo. 2024. Experimental investigation of the impact of soybean oil-derived surfactant as a surface-active agent during gas well deliquification. *Petroleum Research*
3. P Pothana, G Ifrene, K Ling. 2024. Integrated Petrophysical Evaluation and Rock Physics Modeling of Broom Creek Deep Saline Aquifer for Geological CO₂ Storage. *Fuels* 5 (1), 53-74
4. O Oni, AS Fadairo, W Gosnold, S Egenhoff, G Adeyemi, K Ling. 2023. Investigating the suitability of North Dakota fly ash as fluid loss reducing additive in densified water-based drilling fluid. *Powder Technology* 430, 118972

5. C Wu, A Merzoug, X Wan, K Ling, J Zhao, T Jiang, L Jin. 2023. Development of a new CO₂ EOR screening approach focused on deep-depth reservoirs. *Geoenergy Science and Engineering* 231, 212335
6. P Pothana, G Ifrene, K Ling. 2023. Stress-Dependent Petrophysical Properties of the Bakken Unconventional Petroleum System: Insights from Elastic Wave Velocities and Permeability Measurements. *Fuels* 4 (4), 397-416
7. A Fadaïro, D Olatunji, K Ling, V Rasouli, G Adeyemi, O Gbadamosi. 2023. Machine learning model for constant volume depletion prediction of the Niger Delta condensate systems. *Petroleum Science and Technology*, 1-21
8. S Afari, K Ling, D Maxey, B Sennaoui, J Porlles. 2023. Experimental investigation of gaseous solvent huff-n-puff in the Middle Bakken Formation. *Petroleum Science*
9. Y Khetib, K Ling, C Tang, AE Aoun, AS Fadaïro, H Ouadi. 2023. Investigating the Impact of Undulation Amplitude of Unconventional Oil Well Laterals on Transient Multiphase Flow Behavior: Experimental and Numerical Study. *Fuels* 4 (4), 417-440
10. C Feng, Z Feng, R Mao, G Li, Y Zhong, **K Ling**. 2023. Prediction of vitrinite reflectance of shale oil reservoirs using nuclear magnetic resonance and conventional log data. *Fuel* 339, 127422
11. J. Zhao, L. Jin, N. Azzolina, X. Wan, X. Yu, J. Sorensen, B. Kurz, N. Bosshart, S. Smith, C. Wu, J. Vrtis, C. Gorecki, **K. Ling**. 2022. Investigating Enhanced Oil Recovery in Unconventional Reservoirs Based on Field Case Review, Laboratory, and Simulation Studies. *Energy & Fuels* 36 (24), 14771-14788
12. B Shi, Z Wang, Z Zhang, Y Xu, **K Ling**. 2022. A state of the art review on the wellbore blockage of condensate gas wells: Towards understanding the blockage type, mechanism, and treatment. *Lithosphere* 2022 (Special 12), 8076631
13. A Fadaïro, **K Ling**, V Rasouli, G Adeyemi 2022. A Semi-Analytical Approach for Calculating Productivity Index in Vertical Flowing Well: High Gas-Oil Ratio Field Data as a Case Study. *Journal of Energy Resources Technology* 144 (11), 113006
14. H Fu, **K Ling**, H Pu. 2022. Identifying two-point leakages in parallel pipelines based on flow parameter analysis. *Journal of Pipeline Science and Engineering*, 100052
15. S Afari, **K Ling**, B Sennaoui, D Maxey, T Oguntade, J Porlles. 2022. Optimization of CO₂ huff-n-puff EOR in the Bakken Formation using numerical simulation and response surface methodology. *Journal of Petroleum Science and Engineering* 215, 110552
16. A Fadaïro, C Obi, **K Ling**, V Rasouli, O Aboaba, O Gbadamosi. 2021. An improved model for severe slugging stability criteria in offshore pipeline-riser systems. *Petroleum Research*
17. A Fadaïro, G Adeyemi, T Ogunkunle, **K Ling**, V Rasouli, E Effiong, J Ayoo 2021. Study the suitability of neem seed oil for formulation of eco-friendly oil based drilling fluid. *Petroleum Research* 6 (3), 283-290
18. G Han, G Ma, Y Gao, H Zhang, **K Ling**. 2021. A new transient model to simulate and optimize liquid unloading with coiled tubing conveyed gas lift, *Journal of Petroleum Science and Engineering*, 108394
19. C Feng, J Feng, Z Feng, Y Zhong, Z Mao, **K Ling**, 2021. Determination of reservoir wettability based on resistivity index prediction from core and log data, *Journal of Petroleum Science and Engineering* 205, 108842
20. H Fu, S Wang, **K Ling**, 2021. Detection of two-point leakages in a pipeline based on lab investigation and numerical simulation, *Journal of Petroleum Science and Engineering* 204, 108747

21. X Xu, L Zeng, H Tian, **K Ling**, S Che, X Yu, Z Shu, S Dong, 2021. Controlling factors of lamellation fractures in marine shales: A case study of the Fuling Area in Eastern Sichuan Basin, China, *Journal of Petroleum Science and Engineering*, 109091
22. T Ogunkunle, A Fadairo, V Rasouli, **K Ling**, A Oladepo, O Chukwuma, J. Ayoo, 2021. Microbial-derived bio-surfactant using neem oil as substrate and its suitability for enhanced oil recovery, *Journal of Petroleum Exploration and Production Technology*, 1-12
23. T Guo, S Tang, Y Li, F Zhou, B Tan, Z Qu, **K Ling**, 2021. The effect of dissolved cavern on the fracture propagation in vuggy carbonate reservoir, *Journal of Energy Resources Technology* 143 (5)
24. J Waburoko, C Xie, **K Ling**, 2021. Effect of Well Orientation on Oil Recovery from Waterflooding in Shallow Green Reservoirs: A Case Study from Central Africa, *Energies* 14 (5), 1223
25. S Hu, W Huang, H Yao, **K Ling**, 2021. A correction method based on geometric factor for resistivity log response of thinly laminated sand reservoirs: A case of study, *Interpretation*, <https://doi.org/10.1190/int-2020-0080.1>
26. Y. Zhao, X. Qi, Z. Wang, **K. Ling**, Z. Rui, 2020. Effect of Emulsified Water Droplet on Wax Deposition Path in Multiphase Transportation Pipeline, *Journal of Energy Resources Technology*
27. A. Fadairo, **K. Ling**, V. Rasouli, A. Adelokun, O. Tomomewo, 2020. An improved hydraulics model for aerated fluid underbalanced drilling in vertical wells, *Upstream Oil and Gas Technology*, 5, 100009
28. H. Fu, L. Yang, H. Liang, S. Wang, **K. Ling**. 2020. Diagnosis of the single leakage in the fluid pipeline through experimental study and CFD simulation, *Journal of Petroleum Science and Engineering*, 107437
29. S. Liu, T. Guo, Z. Rui, **K. Ling**. 2020. Performance Evaluation of Degradable Temporary Plugging Agent in Laboratory Experiment, *Journal of Energy Resources Technology*, 142 (12)
30. C. Feng, Z. Yang, Z. Feng, Y. Zhong, **K. Ling**, 2020. A novel method to estimate resistivity index of tight sandstone reservoirs using nuclear magnetic resonance logs, *Journal of Natural Gas Science & Engineering*.
31. S Wang, K Liu, J Han, **K Ling**, H Wang, B Jia, 2019. Investigation of Properties Alternation during Super-Critical CO₂ Injection in Shale, *Applied Sciences* 9 (8), 1686
32. G Mask, X Wu, **K Ling**, 2019. An improved model for gas-liquid flow pattern prediction based on machine learning, Volume 183, December 2019, Article 106370
33. L Yang, H Fu, H Liang, Y Wang, G Han, **K Ling**, 2019. Detection of pipeline blockage using lab experiment and computational fluid dynamic simulation, *Journal of Petroleum Science and Engineering* 183, 106421
34. H Yu, Z Rui, Z Chen, X Lu, Z Yang, J Liu, X Qu, S Patil, **K Ling**, J Lu, 2019. Feasibility study of improved unconventional reservoir performance with carbonated water and surfactant, *Energy*
35. Y Gu, Z Bao, X Song, S Patil, **K Ling**, 2019. Complex lithology prediction using probabilistic neural network improved by continuous restricted Boltzmann machine and particle swarm optimization, *Journal of Petroleum Science and Engineering* 179, 966-978

36. K Liu, M Ostadhassan, B Bubach, **K Ling**, B Tokhmechi, D Robert, 2018. Statistical grid nanoindentation analysis to estimate macro-mechanical properties of the Bakken Shale, *Journal of Natural Gas Science and Engineering*. 2018
37. Z Rui, K Cui, X Wang, J Lu, G Chen, **K Ling**, S Patil, 2018. A quantitative framework for evaluating unconventional well development, *Journal of Petroleum Science and Engineering* 166, 900-905
38. Z. Rui, C. Li, F. Peng, **K. Ling**, H. Chang, G. Chen, X. Zhou, H. Chang "Development of industry performance metrics for offshore oil and gas project", *Journal of Natural Gas Science & Engineering*. 2017.
39. Z. Rui, G. Han, H. Zhang, S Wang, H. Pu, **K. Ling**, "A New Model to Evaluate Two Leak Points in a Gas Pipeline", *Journal of Natural Gas Science & Engineering*. 2017.
40. Z. Rui, J. Lu, Z. Zhang, R. Guo, **K. Ling**, R. Zhang, S. Patil, "A quantitative oil and gas reservoir evaluation system for development", *Journal of Natural Gas Science & Engineering*. 2017.
41. Z. Rui, F. Peng, **K. Ling**, H. Chang, G. Chen, X. Zhou, "Investigation into the performance of oil and gas projects", *Journal of Natural Gas Science & Engineering*. 2017.
42. H. Zhang, **K. Ling**, G. Han, "New Analytical Equations of Recovery Factor for Radial Flow System", *Journal of Petroleum Science and Engineering*. 2016
43. J. He, Z. Rui, **K. Ling**, "A New Method to Determine Biot Coefficients of Bakken Samples", *Journal of Natural Gas Science & Engineering*. 2016.
44. **K. Ling**, X. Wu, Z. Shen, "A New Method to Detect Partial Blockage in Gas Pipeline", *SPE Oil and Gas Facilities*. 2016
45. **K. Ling**, J. He, P. Pei, J. Ge, W. Qin, "A Correlation to Evaluate the Fracture Permeability Changes as Reservoir is Depleted", *Journal of Petroleum Science and Engineering*. 2016.
46. P. Pei, **K. Ling**, X. Hou, S. Nordeng, S. Johnson, " Brittleness investigation of producing units in Three Forks and Bakken formations, Williston Basin", *Journal of Natural Gas Science & Engineering*. 2016.
47. G. Han, H. Zhang, **K. Ling**, "The Optimization Approach of Casing Gas Assisted Rod Pumping System", *Journal of Natural Gas Science & Engineering*. 2016.
48. G. Han, **K. Ling**, H. Zhang, "Smart De-Watering and Production System through Real-Time Water Level Surveillance for Coal-Bed Methane Wells", *Journal of Natural Gas Science & Engineering*. 2016
49. J. He, **K. Ling**, "Measuring Permeabilities of Middle-Bakken Samples Using Three Different Methods", *Journal of Natural Gas Science & Engineering*. 2016
50. J. He, **K. Ling**, P. Pei, X. Ni, "Calculation of Rock Compressibility by Use of Pressure Buildup in Permeability Experiment", *Journal of Petroleum Science and Engineering*. 2016
51. **K. Ling**, J. He, P. Pei, J. Ge, X. Ni, "A Method to Determine Pore Compressibility Based on Permeability Measurements", *International Journal of Rock Mechanics and Mining Sciences*, 2015.
52. P. Pei, D. Laudal, J. Nasah, S. Johnson, **K. Ling** "Utilization of aquifer storage in flare gas reduction", *Journal of Natural Gas Science & Engineering*, 2015
53. P. Pei, S. Korom, **K. Ling**, A. Gil, J. He "Thermodynamic Impact of Aquifer Permeability on the Performance of a Compressed Air Energy Storage Plant", *Energy Conversion & Management*, 2015
54. **K. Ling**, "Fractional Flow in Radial System – A Study for Peripheral Waterflood",

- Journal of Petroleum Exploration and Production Technology*, 2015
55. X. Wu, B. Xu, **K. Ling**, "A Semi-Analytical Solution to the Transient Temperature Behavior along the Vertical Well after Well Shut-in", *Journal of Petroleum Science and Engineering*, 2015
 56. G. Han, **K. Ling**, H. Wu, F. Gao, F. Zhu., M. Zhang, "An experimental study of coal-fines migration in Coalbed-methane production wells", *Journal of Natural Gas Science & Engineering*, 2015
 57. P. Pei, **K. Ling**, J. He, Z. Liu, "Shale gas reservoir treatment by a CO₂-based technology", *Journal of Natural Gas Science & Engineering*. March 2015,
 58. **K. Ling**, H. Zhang, Z. Shen, A. Ghalambor, G. Han, J. He, P. Pei, "A New Approach to Estimate Invasion Radius of Mud Filtrate to Evaluate Formation Damage Caused by Overbalanced Drilling", paper SPE 168184, *SPE Drilling & Completion*, 2015.
 59. **K. Ling**, C. Xu, G. Han, J. He, P. Pei, "A New Method for Leak Detection in Gas Pipelines", *SPE Oil and Gas Facilities*. 2015
 60. P. Pei, S. Korom, **K. Ling**, J. Nasah, "Cost Comparison of Syngas Production from Natural Gas Conversion and Underground Coal Gasification", *Mitigation and Adaptation Strategies for Global Change*. 2014
 61. Z. Shen, F. Beck, **K. Ling**, "The mechanism of Wellbore Weakening in Worn Casing-Cement-Formation System", *Journal of Petroleum Engineering*. 2014
 62. **K. Ling**, X. Wu, H. Zhang, J. He, "Improved Gas Resource Calculation Using Modified Material Balance for Overpressure Gas Reservoirs", *Journal of Natural Gas Science & Engineering*. Vol. 17, March 2014, Pages 71 - 81
 63. G. Han, H. Zhang, **K. Ling**, R. Zhang, "Study on Undulating Well in Anisotropic Reservoir by Semi-Analytical Method", *Special Topic&Review in Porous Media*. 2015
 64. **K. Ling**, J. He, P. Pei, G. Han, H. Zhang, "Determining the Permeability of Tight Rock with Gas Transient Flow", *Journal of Natural Gas Science & Engineering*. Vol.15, November 2013
 65. G. Han, H. Zhang, **K. Ling**, D. Wu, G. Zhang, " A Transient Two-phase Fluid and Heat Flow Model for Gas-lift Assisted Waxy Crude Wells with Periodical Electric Heating ", paper SPE 165415, *Journal of Canadian Petroleum Technology*, 2014
 66. **K. Ling**, J. He, J. Ge, Z. Shen, P. Pei, "A Rigorous Method to Calculate the Rising Speed of Gas Kick", *Journal of Petroleum Exploration and Production Technology*, 2014
 67. **K. Ling**, X. Wu, B. Guo, J. He, "New Method to Estimate the Surface Separators Optimum Operating Pressures", paper SPE 163111, *SPE Oil and Gas Facilities*, June 2013
 68. X. Wu, **K. Ling**, D. Liu, "Deepwater Reservoir Characterization Using Tidal Signal Extracted from Permanent Downhole Pressure Gauge", *SPE Reservoir Evaluation & Engineering*, Vol. 16, No. 4, November 2013
 69. **K. Ling**, B. Guo, H. Zhang, "Numerical Simulation of Transient Flow in Gas Pipeline and Tank", SPE 151546-PA, *SPE Oil and Gas Facilities* December 2012
 70. J. Li, B. Guo, **K. Ling**, "Flow Diverting for Reducing Wellbore Erosion in Gas-Drilling Shale Gas Wells", *ASME Journal of Energy Resources Technology*. 135(3), 031501 (May 24, 2013)
 71. G. Han, **K. Ling**, H. Zhang, S. H. Khor, R. K. Thakur, "Simulation of Multiphase Fluid-Hammer Effects during Well Shut-In and Opening", SPE 160049-PA, *SPE Oil and Gas Facilities*, Vol. 2, No. 6, December 16, 2013

72. B. Guo, J. Zhou, **K. Ling**, A. Ghalambor, "A Rigorous Composite-Inflow-Performance Relationship Model for Multilateral Wells", *SPE Prod & Oper* 23 (2): 241-248. SPE 100923-PA

Conference Papers

1. G Adeyemi, S Egenhoff, A Fadairo, K Ling, O Tomomewo, A Oladepo, A Ayoola, and O Jeffery. 2023. Investigating Suitability of Microbial Derived Biosurfactant for Deliquifying Gas Well - An Experimental Approach. Paper presented at the SPE Nigeria Annual International Conference and Exhibition, Lagos, Nigeria, July 2023. doi: <https://doi.org/10.2118/217253-MS>
2. P Pothana, V Gokapai, G Ifrene, K Ling. 2023. Effect of Binding Material on the Acoustic, Elastic and Strength Properties of Artificial Granular Rocks. ARMA US Rock Mechanics/Geomechanics Symposium, ARMA-2023-0560
3. P Pothana, G Ifrene, K Ling, FE Garcia. 2023. Investigating Grain Size Influence on the Stress-Dependent Permeability of Porous Rocks Using Particulate Discrete Element Method. ARMA US Rock Mechanics/Geomechanics Symposium, ARMA-2023-0827
4. O Bakelli, K Ling, N Timothy, M Taufique, and Y Khetib. 2023. Spatial Data Analysis of Water Production from Unconventional Reservoirs, Case Study from the Williston Basin, North Dakota. Paper presented at the 57th U.S. Rock Mechanics/Geomechanics Symposium, Atlanta, Georgia, USA, June 2023. doi: <https://doi.org/10.56952/ARMA-2023-0859>
5. O Bakelli, H Chellal, A Aoun, Y Khetib, I Mellal, and K Ling. 2023. Integrated Reservoir Simulation and Discrete Fracture Network Modeling for Produced Water Source Identification in Tight Reservoirs, Case Study from the Bakken Formation, Williston Basin. Paper presented at the 57th U.S. Rock Mechanics/Geomechanics Symposium, Atlanta, Georgia, USA, June 2023. doi: <https://doi.org/10.56952/ARMA-2023-0864>
6. Y Khetib, **K Ling**, AE Aoun. 2023. Experimental and Numerical Analysis of Toe-Up Trajectory Inclination Angle and Gas Lift Rate Effect on Unconventional Oil Well Performance. SPE/AAPG/SEG Unconventional Resources Technology Conference, D011S021R003
7. A. Fadairo, S. Egenhoff, G. Adeyemi, **K. Ling**, O. Tomomewo, A. Oladepo, O. Oni, R. Nwaokwu. 2023. Improved Model for Predicting the Productivity of Multi-Fractured Shale Wells. TMS and EFS Field Data as Case Studies. SPE Western Regional Meeting, D021S001R005
8. G Adeyemi, A Fadairo, **K Ling**, V Rasouli, T Ogunkunle, J Ayoo, A Olowu Evaluating the Performance of Natural Organic Sorbent for Produced Water Treatment. SPE Nigeria Annual International Conference and Exhibition, 2022
9. A Fadairo, G Adeyemi, **K Ling**, V Rasouli, A Iroko, SB Olayinka, ...2021. Modeling the Pressure Transverse for Foam Drilling Operation in Vertical Well, SPE Nigeria Annual International Conference and Exhibition
10. Adeyemi, G., Fadairo, A., Ogunkunle, T., Oladepo, A., Alozie, A., Vamegh, R., **Ling, K.** Oredeko, O. (2020, August 11). A Model for Predicting Elemental Sulphur Induced Permeability Damage in a Fractured Sour Gas Reservoir. Society of Petroleum Engineers. doi:10.2118/203750-MS
11. Zhang, S., Li, C., Pu, H., **Ling, K.**, Sun, R., & Zhao, J. X. (2019, October 30).

- Experimental Study of Surfactant-Assisted Oil Recovery in the Middle Bakken Cores. Society of Petroleum Engineers. doi:10.2118/197080-MS
12. Wang, S., Han, J., Wang, Y., **Ling, K.**, Jia, B., Wang, H., & Long, Y. (2019, November 13). Recovery Potential and Mechanism Investigation of the Supercritical CO₂ EOR in the Bakken Tight Formation. Carbon Management Technology Conference. doi:10.7122/CMTC-579484-MS
 13. Fu, H., Long, Y., Wang, S., Wang, Y., Yu, P., & **Ling, K.** (2019, November 13). The Development of CO₂ Plume in CO₂ Sequestration in the Aquifer. Carbon Management Technology Conference. doi:10.7122/CMTC-552516-MS
 14. Yang L, **Ling K**, Fu H, Liang H, Wang Y. 2019. A SYSTEMATIC INSTRUCTION FOR SELECTING METHODS TO DETECT PIPELINE LEAKAGES. 4th Thermal and Fluids Engineering Conference. April 14–17, 2019, Las Vegas, NV, USA
 15. Yang L, **Ling K**, Fu H, Liang H, Wang Y. 2019. ANALYSIS OF PRESSURE DISTRIBUTION ALONG PIPELINE BLOCKAGE BASED ON THE CFD SIMULATION. 4th Thermal and Fluids Engineering Conference. April 14–17, 2019, Las Vegas, NV, USA
 16. Wang Y, Fu H, **Ling K**, Yang L, Wang S. 2019. Experimental study of pressure-drop in wellbore two-phase flow. 4th Thermal and Fluids Engineering Conference. April 14–17, 2019, Las Vegas, NV, USA
 17. Wang Y, Yang L, Wang S, **Ling, K.** 2019. STUDY THE BOUNDARY OF TWO-PHASE FLOW REGIME FROM BUBBLE TO SLUG FLOW. 4th Thermal and Fluids Engineering Conference. April 14–17, 2019, Las Vegas, NV, USA
 18. Liang, H., Zhang, S., Kang, Y., & **Ling, K.** (2019, March 22). Research on Natural Gas Separation Flow Laws in a New Type of Supersonic Cyclone Separator. International Petroleum Technology Conference. doi:10.2523/IPTC-19239-MS.
 19. Mask, G., Wu, X., & **Ling, K.** (2019, March 22). An Improved Model for Gas-Liquid Flow Pattern Prediction Based on Machine Learning. International Petroleum Technology Conference. doi:10.2523/IPTC-19174-MS.
 20. K Liu, X Wu, **K Ling**, 2019. Integrated Detection of Water Production in a Highly Heterogeneous and Tight Formation Using CRM Model: A Case Study on Water Flooding Gaither Draw Unit, Wyoming, USA. International Petroleum Technology Conference.
 21. J He, **K Ling**, X Wu, P Pei, H Pu, 2019. Static and Dynamic Elastic Moduli of Bakken Formation. International Petroleum Technology Conference.
 22. Sai, W., Kouqi, L., **K. Ling**, & Hongsheng, W. (2018, August 21). Properties Evaluation of the Middle Bakken Formation Due to the CO₂ Injection. American Rock Mechanics Association.
 23. Ge, J., Jerath, S., Ghassemi, A., & **Ling, K.** (2018, August 21). Sensitivity Study on the Poroelastic and Thermoelastic Effects on the Stress Reversal Nearby an Existing Hydraulic Fracture. American Rock Mechanics Association.
 24. Zhong, X., Wang, Y., Pu, H., Li, W., Yin, S., & **Ling, K.** (2018, March 26). Commercial Implementation of Chemical Flooding in Daqing Oilfield, China, and Its Future. Society of Petroleum Engineers. doi:10.2118/190381-MS
 25. Wang, Y., Wang, S., Yang, L., Pu, H., & **Ling, K.** (2018, August 28). A New Model to Evaluate Polished Rod Load of Sucker Rod Pumping System. Society of Petroleum Engineers. doi:10.2118/191803-MS
 26. Han, G., Ma, G., **Ling, K.**, Gao, Y., & Zhang, H. (2018, September 17). A New Transient Model to Simulate and Optimize Liquid Unloading with Coiled Tubing

- Conveyed Gas Lift. Society of Petroleum Engineers. doi:10.2118/191716-MS
27. L. Yang, H. Liang, A. Kovalev, S. Wang, **K. Ling**, 2018. A Critical Overview of Cause and Detection of Pipeline Blockages, 2018 AIChE Annual Meeting
 28. Kong, L., Ostadhassan, M. O., Sarout, J., **Ling, K.**, Li, C., & Wang, H. (2018, April 22). Impact of Thermal Maturation on Wave Velocity in the Bakken Shale. Society of Petroleum Engineers. doi:10.2118/190058-MS
 29. S. Zhang, H. Liang, Y. Kang, **K. Ling**, 2018. Separation Performance of Supersonic Separator with a Rear-Set Helical Guide Blade, 2018 AIChE Annual Meeting
 30. S. Wang, **K. Ling**, H. Wang, N. Liu, Development and Evaluation of an Iridium Oxide Based Chemical Sensor for Downhole CO₂ Monitoring, 2017 AIChE Annual Meeting (ISBN: 978-0-8169-1102-8)
 31. H. Liang, S. Zhang, **K. Ling**, S. Wang, Research on Separation Performance of Supersonic Separator with a Forward Helical Guide Blade, 2017 AIChE Annual Meeting (ISBN: 978-0-8169-1102-8)
 32. S. Wang, **K. Ling**, N. Liu, H. Wang, Development and Evaluation of an Iridium Oxide Based Chemical Sensor for Downhole CO₂ Monitoring--Part I. Carbon Management Technology Conference held in Houston, Texas, USA, 17-20 July 2017.
 33. G. Han, C. Tan, J. Li, Z. Pan, H. Zhang, **K. Ling**, Determination of Oil Well Production Rate by Analysis of the Real-Time Dynamometer Card. SPE Annual Technical Conference and Exhibition held in Dubai, UAE, 26–28 September 2016.
 34. G. Han, Z. Pan, H. Zhang, **K. Ling**, C. Teodoriu, Experimental Study of Gas-Liquid-Coal Fines Three-Phase Flow in Undulating Horizontal Wellbore. SPE Annual Technical Conference and Exhibition held in Dubai, UAE, 26–28 September 2016.
 35. G. Han, Z. Rui, H. Zhang, **K. Ling**, A New Model to Evaluate Two Leak Points in a Gas Pipeline, SPE Annual Technical Conference and Exhibition held in Dubai, UAE, 26–28 September 2016.
 36. **K. Ling**, J. He, P. Pei, S. Wang, X. Ni, "Comparisons of Biot's Coefficients of Bakken Core Samples Measured by Three Methods", ARMA 16-30, the 50th US Rock Mechanics / Geomechanics Symposium held in Houston, Texas, USA, 26-29 June, 2016.
 37. **K. Ling**, Y. Feng, A. Ghilambor, L. Zhou, J. He, "Delivering A More Consistent Estimation of Tight Rock Permeability", paper SPE 179031, SPE International Symposium and Exhibition on Formation Damage Control held in Lafayette, Louisiana, USA, 24–26 February 2016.
 38. **K. Ling**, X. Wu, G. Han, S. Wang, "Optimising the Multistage Fracturing Interval for Horizontal Wells in Bakken and Three Forks Formations", paper SPE 181788, SPE Asia Pacific Hydraulic Fracturing Conference 2016.
 39. W. Tian, X. Wu, Z. Zhang, **K. Ling**, "Estimate the Effective Fracture Properties from Tight Formation Production Data", SPE Asia Pacific Unconventional Resources Conference and Exhibition held in Brisbane, Australia, 9–11 November 2015.
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