



Recent Publications by Geomechanics Personnel Dealing with Applications of Rock Mechanics to Petroleum Engineering:

1. L. L. Lacy, "Comparison of Hydraulic-Fracture Orientation Techniques", published in **SPE Formation Evaluation** (March 1987) and SPE Reprint Series No. 28, **Hydraulic Fracturing**, 1989.
2. L. L. Lacy and M. B. Smith, "Fracture Azimuth and Geometry Determination", published as Chapter 16 in SPE Monograph Vol. 12, **Recent Advances in Hydraulic Fracturing**, 1989.
3. L. L. Lacy and H. G. Hudson, **SPE 29591**, "New Step-Rate Test Analysis for Fracture Evaluation", 1995 SPE Rocky Mountain Region/Low Permeability Reservoir Symposium, Denver, CO, March, 1995.
4. L. L. Lacy, A. Rickards and D. M. Bilden, **SPE 36421**, "Fracture Width and Embedment Testing in Soft Reservoir Sandstone", 1996 SPE Annual Technical Conference and Exhibitions, Denver, CO, 5-8 Oct., 1996. Published in SPE Drilling and Completions Journal, pp 25-29, March, 1998.
5. L. L. Lacy, A. R. Rickards and S. A. Ali, **SPE 38590**, "Embedment and Fracture Conductivity in Soft Formations Associated with HEC, Borate and Water-Based Fracture Designs", 1997 SPE Annual Technical Conference and Exhibitions, San Antonio, TX, 5-8 Oct., 1997.
6. L. L. Lacy, **SPE 38716**, "Dynamic Rock Mechanics Testing For Optimized Fracture Designs", 1997 SPE Annual Technical Conference and Exhibitions, San Antonio, TX, 5-8 Oct., 1997.
7. L. L. Lacy and A. Richards, **SPE 36476**, "Analyzing Cements and Completion Gels Using Dynamic Modulus", 1996 SPE Annual Technical Conference and Exhibitions, Denver, CO, 5-8 Oct., 1996.
8. D. T. Mueller, L. L. Lacy, and V. G. Boncan, **SPE 36475**, "Characterization of the Initial, Transitional and Set Properties of Oilwell Cement", 1996 SPE Annual Technical Conference and Exhibitions, Denver, CO, 5-8 Oct., 1996.
9. A. Rickards, L. L. Lacy, H. Brannon, C. Stephenson and D. Bilden, **SPE 49247**, "Need Stress Relief? A New Approach to Reducing Stress Cycling Induced Proppant Pack Failure", 1998 SPE Annual Technical Conference and Exhibitions, New Orleans, LA, 27-30 Sept., 1998.
10. D. M. Bilden, L. L. Lacy, F.H. Seiler, N. D. Ischy and C. S. Fox, **SPE 49099**, "New Water-Soluble Perforation Ball Sealers Provide Enhanced Diversion in Well Completions", 1998 SPE Annual Technical Conference and Exhibitions, New Orleans, LA, (27-30 Sept. 1998). Published in World Oil, Oct., 1998.
11. Z. G. Lian and D. Jiao, **SPE 49964**, "Integration of Fuzzy Methods into Geostatistics for Petrophysical Property Distribution Simulation of a Reservoir at

- Exploration Stage”, 1998 SPE Asia and Pacific Oil and Gas Conference, Perth, Australia, 1998.
12. S. Q. Zhang and **D. Jiao**, “3-D Description of Fracture Surface and Stress Sensitivity Analysis For Naturally Fractured Reservoir”, **The 4th International Reservoir Characteristic Conference**, Houston, 1997.
 13. **D. Jiao** and M. M. Sharma, “Mud Induced Formation Damage in Fractured Reservoirs”, **SPE Drilling and Completion**, March, 1996.
 14. Y. F. Meng and **D. Jiao**, **SPE 37078**, “ Horizontal Drilling Technology by using Recycling Form”, 1996.
 15. Y. F. Meng and **D. Jiao**, **SPE 35602**, “Affection of Shale Hydration for Stress Sensitive Gas Reservoir”, 1996.
 16. **D. Jiao** and M. M. Sharma, “Filter Cake Formation in Crossflow Filtration of Colloidal Suspension”, Paper No. 89a, **The First International Particle Technology Forum**, Aug., 1994.
 17. **D. Jiao** and M. M. Sharma, “Mechanism of Cake Buildup in Crossflow Filtration of Colloidal Suspension”, **J. of Colloid and Int. Sci.**, vol 162, 1994.
 18. **D. Jiao** and M. M. Sharma, “Dynamic Filtration of Invert-Emulsion Muds”, **SPE Drilling and Completion**, Sept., 165-169, 1993.
 19. **D. Jiao** and M. M. Sharma, **SPE 26323**, “Formation of Dynamic Mud Cakes: The Concept of Minimum Overbalance Pressure”, 68th Annual Technical Conference and Exhibition, Houston, TX, Oct. 2-6, 1993.
 20. **D. Jiao** and M. M. Sharma, “ An Experimental Investigation of the Resistivity Profile in the Flushed Zone”, **The Log Analyst**, vol. 33, no. 2, 1992.
 21. **D. Jiao** and M. M. Sharma, **SPE 23823**, “Formation Damage due to Static and Dynamic Filtration of Water Based Muds”, SPE Formation Damage Control Symposium, Lafayette, LA, Feb. 26-27, 1992.
 22. B. T. Ngwenya, **O. Kwon**, S. C. Elphick, and I. G. Main, Permeability evolution during progressive development of deformation bands in porous sandstones, **Journal of Geophysical Research**, 108(B7), 2343, doi:10.1029/2002JB001854, 2003.
 23. Grueschow, E., **O. Kwon**, I. G. Main, and J. W. Rudnicki, Observation and modeling of the suction pump effect during rapid dilatant slip, **Geophysical Research Letters**, 30(5), 1226, doi:10.1029/2002GL015905, 2003.
 24. **O. Kwon**, A. K. Kronenberg, A. F. Gangi, and B. Johnson, “Permeability of Wilcox Shale and its Effective Pressure Law”, **Journal of Geophysical Research**, 106, 19339-19353, 2001.
 25. I. Main, K. Mair, **O. Kwon**, S. Elphick, and B. Ngwenya, “Experimental Constraints on the Mechanical and Hydraulic Properties of Deformation Bands in Porous Sandstones: a Review”, in **Nature and Significance of Fault Zone Weakening**, eds., R. E. Holdsworth, R. A. Strachan, J. F. Magloughlin, and R. J. Knipe, Geological Society of London Special Publication No 186, 43-63, 2001.
 26. I. Main, **O. Kwon**, B. Ngwenya, and S. Elphick, “Fault Sealing During Deformation-Band Growth in Porous Sandstone”, **Geology**, 28, 1131-1134, 2000.
 27. **O. Kwon**, and A. K. Kronenberg, “Deformation of Wilcox shale: Undrained Strengths and Effects of Strain Rate”, **Proceedings on 1st North American Rock Mechanics Symposium**, 757-765, 1994.

28. M. Friedman, **O. Kwon**, and V. L. French, "Containment of Natural Fractures in Brittle Beds of the Austin Chalk", **Proceedings on 1st North American Rock Mechanics Symposium**, 833-840, 1994.