## TABLE OF CONTENTS

### SESSION 1: STRATEGIC DECISION MAKING

Horizontal Shale Well EUR Determination Integrating Geology, Machine Learning, Pattern Recognition and MultiVariate Statistics Focused on the Permian Basin

A. Gaurav

Cluster Spacing and Well Spacing Optimization Using Multi-Well Simulation for the Lower Spraberry Shale in Midland Basin

J. Zhu, J. Forrest, H. Xiong, A. Kianinejad

### SESSION 2: LIQUIDS AND GAS-RICH BASINS: PRACTICE AND ACTIVITY

Stacked Pay Pad Development in the Midland Basin

F. Alimahomed, R. Malpani, R. Jose, E. Haddad, E. Arteaga, L. Smith, S. Lati

Analytical Model to Estimate the Fraction of Fracture Hits in a Multi-Well Pad

O. Molina, M. Zeidouni

Niobrara & Codell Horizontal Well Completions: Lessons Learned Through Post-Stimulation Completion Diagnostics and How These Lessons Can Be Employed To Make Better Wells

C. Ramos, M. Warren, S. Jayakumar

Depressurizing Permian Basin San Andres Residual Oil Zones: A Feasibility Study

A. Jamali, A. Etehadtavakkol, M. Watson, O. Zeinuddin

### SESSION 3: PRODUCTION OPERATIONS

A Novel Approach to Distributed Field-Based Gas Lift Facilities

S. Mullick

Production Optimization in the Midland Basin Through Lateral Multiphase Flow Simulation

Y. Pradhan, H. Xiong

Simplifying Wellhead Facilities for Multiphase Production

A. Gupta, J. Pitts

A New, Slickline Accessible Artificial Lift Technology to Optimize the Production Strategy in the Permian Basin

G. Wilkes, D. Kimery, J. Saponja, C. Jensen

### SESSION 4: INTEGRATED COMPLETION AND PRODUCTION MONITORING METHODS

A Two-Phase Flow Model for Fractured Horizontal Well with Complex Fracture Networks:

Transient Analysis in Flowback Period

Z. Chen, W. Yu, X. Liu, X. Zhao, Y. Chen, K. Sepehmoori

An Integrated Approach to Reduce Water Production in the San Andres Formaton

S. Lati, F. Alimahomed, G. Ferrer, T. Pope

Development of an Empirical Equation to Predict Hydraulic Fracture Closure Pressure from the Initial Shut-in Pressure after Treatment

S. Kholy, I. Mohamed, M. Loloi, O. Abou-Sayed, A. Abou-Sayed

### SESSION 6: INTEGRATED COMPLETION AND PRODUCTION MONITORING METHODS

Characterizing the Post Stimulation Time-Dependent Connectivity Between Wells and Across Horizons to Develop a Robust In-Fill Drilling Program

B. Cherian, L. Armentrout, C. Baruah, J. Ballmer, A. Malicse, S. Narasimhan, O. Olaoye

Improving Oil Recovery in Unconventional Liquid Reservoirs by Soaking-Flowback Production Schedule with Surfactant Additives

J. Alvarez, F. Tovar, D. Schechter
SESSION 7: DRILLING AND COMPLETIONS

Hydrogen and Helium Detection for Drilling a Lower-Cost Well .................................................. 264
R. Keller, M. Rowe

Latest Drilling Techniques Applied to Coring Operations of a Complex Subsurface Geology in WCSB
Led to Operational Success and Cost Savings While Setting a Record in North America ....................... 272
A. Hooshmandkoochi, F. Shirkavand, R. Prokopchuk, N. Osayande, A. Sadat, A. Minhas

Improving Drilling Reliability Through Advanced Drilling Dynamics Models ........................................ 286
V. Gandikota, N. Chennoafi

Polyelectrolyte Complex Stabilized CO₂ Foam Systems for Hydraulic Fracturing Application ..................... 293
R. Anandan, S. Johnson, R. Barati

SESSION 8: STIMULATION DESIGN

Accounting for Production Shadow in Infill/DUC Well Hydraulic Fracturing Modeling and Calibration .......... 312
D. Gonzalez, R. Holman, R. Richard, H. Xue, A. Morales, C. Kwok, T. Judd

Low Density Proppant in Slickwater Applications Improves Reservoir Contact and Fracture Complexity - A Permian Basin Case History ................................................................. 326
K. Jackson, O. Orekha

Effect of Dilute Acid on Hydraulic Fracturing of Carbonate Rich Shales – Experimental Study .................... 346

Complex Toe-to-Heel Flooding: A Completion Strategy to Increase Oil Recovery from Sandstone Formations ................................................................. 369
A. Algarhy, M. Soliman, L. Heinze, S. Gorell, S. Henderson, H. Nasr-El-Din

SESSION 10: KNOWLEDGE SHARING POSTERS

Incorporating the Effect of Pyrite on Total Organic Carbon Estimation in Eagle Ford Shale ....................... 382
S. Jiang, M. Mokhtari, D. Borrok

An Experimental Study of Acid Matrix Treatment Performance On Shale Core Samples .......................... 396
R. Khalil, A. Mansour, T. Gamadi

Author Index