CONTENTS

SPE 49098  Optimization of Stimulation Chemistry for Openhole Horizontal Wells  .......... 11
  Technology Co.

SPE 50687  Drag Reducer Performance Measurement—A Scaled-Up Laboratory Test
  Compared With a Field Trial  .......... 23
  A.A. Hamouda and S. Strand, Stavanger College, and A. Johnson and L. Tebboth,
  BP Research & Engineering

SPE 50703  Field Test of a Unique Phosphonate Scale Inhibitor for Extended-Life Squeeze
  Treatment in Sandstone  .......... 37
  J.L. Przybylinski, R.H. Nguyen, and J.W. Ruggeri, Baker Petroleum

SPE 50704  Squeezing a Multilateral Well Producing Fluids From Different Scaling Regimes . . 45
  H.M. Bourne, TR Oil Services; E. Hibbert, BP Exploration; H. MacDonald, TR Oil Services;
  and P. McHugh, Camco

SPE 50705  New Technology, Invert Emulsion Scale Inhibitor Squeeze Design  .......... 53
  T.A. Lawless and R.N. Smith, Oilfield and Environmental Chemical Technology Ltd.

SPE 50706  Development of an Oil-Soluble Scale Inhibitor for a Subsea Satellite Field  .......... 61
  Rex Wat, Harry Montgomery, and Thomas Hagen, Champion Technologies, and
  Raymond Børreng, H.K. Kollær, and Olav Vikane, Statoil A/S

SPE 50707  Scale Inhibitor Squeeze Treatments in High-Velocity, High-Calcium Wells  .......... 69
  G.D. Fielder, Baker Petroleum

SPE 50709  New Enzyme Process for Downhole Cleanup of Reservoir Drilling
  Fluid Filtercake  .......... 79
  J.E. Hanssen and Ping Jiang, Anchor/M-I Drilling Fluids AS, and H.H. Pedersen and
  J.F. Jørgensen, Novo Nordisk A/S

SPE 50710  Novel Lubricants for Water-Based Drilling Fluids  .......... 93
  F.B. Growcock, T.P. Frederick, and A.R. Reece, Amoco Corp.; G.W. Green, U. of Oklahoma;
  and M.D. Ruffin, U. of Tulsa

SPE 50711  Studies on the Damage Induced by Drilling Fluids in Limestone Cores  .......... 105
  and S. Nicula and G. Gallino, Eni S.p.A/Agip Division

SPE 50712  How do Anions in Water-Based Muds Affect Shale Stability?  .......... 119
  S. Carminati and L. Del Gaudio, EniTecnologie S.p.A., and F. Zausa and M. Brignoli,
  Eni S.p.A/Agip Division

SPE 50713  Application of Computer Simulation Techniques and Solid Divertor to Improve
  Inhibitor Squeeze Treatments in Horizontal Wells  .......... 133
  M.M. Jordan, Nalco/Exxon Energy Chemicals Ltd.; M. Edgerton, Texaco North Sea UK Co.; and
  E.J. Mackay, Heriot-Watt U.

SPE 50714  Dirty Sand Consolidation Technology for Gas Wells  .......... 149
  S. Cobianco, A. Lezzi, and E.P. Massara, EniTecnologie, and E. Pitoni, ENI/Agip Division

SPE 50715  Drill-In Fluid Filter-Cake Behavior During the Gravel Packing of Horizontal
  Intervals—A Laboratory Simulation  .......... 159
  T.E. Becker and N.H. Gardiner, Halliburton Energy Services Inc.

SPE 50717  Factors Affecting the Thermal Stability of Conventional Scale Inhibitors for
  Application in High Pressure/High Temperature Reservoirs  .......... 167
  S.J. Dyer, G.M. Graham, and K.S. Sorbie, Heriot-Watt U.

SPE 50718  Combining Innovative Technologies To Maximize Scale Squeeze
  Cost Reduction  .......... 179
  H.M. Bourne and S.L. Booth, TR Oil Services, and Alan Brunger, Mobil North Sea Ltd.

SPE 50719  Characterization of Corrosion Inhibiting Emulsions for Continuous
  Well Treatment  .......... 191
SPE 50720  Electrical Measurements in the 100Hz-10GHz Frequency Range for Efficient Rock Wettability Evaluation  .................................................. 207
N. Bona and E. Rossi, ENI/Agip Division, and S. Capaccioli, U. of Pisa

SPE 50721  Use of Tracers in Drilling Muds to Allow the Estimation of In-situ Formation Water Compositions From Drilling-Mud-Contaminated Formation Water Samples  .................................................. 219
R.A. McCartney and M.J. de L.G. Solbø, GeoScience Ltd.

SPE 50722  Mechanism of a Novel Shear-Sensitive Plugging Fluid
To Cure Lost Circulation  .................................................. 227
David Quinn, Schlumberger Dowell; Egil Sunde, Statoil A/S; and J.F. Baret, Schlumberger Dowell

SPE 50724  Novel High-Pressure/High-Temperature Fluid Loss Reducer for Water-Based Formulation  .................................................. 235
A. Audibert and L. Rousseau, Inst. Français du Pétrole, and J. Kieffer, SNF Floerger

SPE 50725  High-Pressure/High-Temperature Rheology of Na⁺-Montmorillonite Clay Suspensions  .................................................. 243
S. Rossi, P.F. Luckham, S. Zhu, and B.J. Briscoe, Imperial College of Science, U.K.

SPE 50726  Impact of Synthetic-Based Drilling Fluids on Oilwell Cementing Operations  .................................................. 259

SPE 50727  Changing Chemophysical Properties of Formation and Drilling Fluid Enhances Penetration Rate and Bit Life  .................................................. 273
A. Hayadavoudi, U. of Southwestern Louisiana

SPE 50728  Slaying the Myth of Infinite Reactivity of Carbonates  .................................................. 287
Rick Gdanski and M.S. Van Domelen, Halliburton Energy Services Inc.

SPE 50729  Chemical Structures of Group 4 Metal Crosslinkers for Polygalactomannans  .................................................. 297
D.N. Harry, Benchmark Research & Technology Inc.; D.E. Putzig, DuPont Specialty Chemicals; Ralph Moorhouse, Benchmark Research & Technology Inc.; and Tom DelPesco and Peter Jernakoff, DuPont Specialty Chemicals

SPE 50730  Changing Chemophysical Properties of Formation and Drilling Fluid Enhances Penetration Rate and Bit Life  .................................................. 273
A. Hayadavoudi, U. of Southwestern Louisiana

SPE 50731  Rock Mechanics Evaluation of Resin-Coated Proppants for Screenless Completions  .................................................. 335

SPE 50732  Hydraulic Fracturing-Fluid System Breakers and Their Effect on Proppant-Pack Conductivity  .................................................. 343
M.A. Parker, J.M. Terracina, Mike McCabe, and Billy Slabaugh, Halliburton Energy Services Inc.

SPE 50733  A Stimulation Treatment of a Sub Sea Well Using a Scale Dissolver  .................................................. 353
Raymond Børeng, K.O. Bakken, and Olav Vikane, Statoil, and Atle Angelsen, Nalco Exxon Chemicals Norge AS

SPE 50734  The First Carbonate Field Application of a New Organically Crosslinked Water Shutoff Polymer System  .................................................. 361
Mary Hardy and Wouter Botermans, Halliburton B.V.; Aly Hamouda and Jarl Valdal, Phillips Petroleum Co. Norway; and John Warren, Halliburton Norway

SPE 50735  Stimulation of Water Disposal Wells Using Acid-In-Diesel Emulsion: Case Histories  .................................................. 377
H.A. Nasr-El-Din, H.A. Al-Anazi, and S.K. Mohamed, Saudi Aramco

SPE 50736  Injection Water Treatment at the Source: Biocide-Enhanced Corrosion Inhibitor Squeeze Treatments of Water Supply Wells in a Central Arabia Oilfield  .................................................. 389
H.R. Rosser Jr., H.A. Nasr-El-Din, N.A. Al-Shammari, and A.M. Al-Dhafeeri, Saudi Aramco

SPE 50737  A New Chemical Approach to Mitigate Sulfide Production in Oilfield Water Injection Systems  .................................................. 403
SPE 50767 Interfacial Studies on Dissolved Gas Flotation ............................... 617
R.C.G. Oliveira and G. González, Petrobras, and J.F. de Oliveira, Coppe/UFRJ

SPE 50768 Organic Dye for Subsea Flowline Assessment .............................. 625
C.N. Khalil, Petrobras Research Center, and M.C.K. Oliveira, UFRJ

SPE 50770 Treatment of Salt Affected Soil in the Oil Field ......................... 633

SPE 50771 The Influence of Divalent Cations of the Performance of BaSO₄ Scale
Inhibitor Species ........................................... 643
L.S. Boak, G.M. Graham, and K.S. Sorbie, Heriot-Watt U.

SPE 50772 A Systematic Study of Iron Control Chemicals—Part 2 ..................... 649
K.C. Taylor and H.A. Nasr-El-Din, Saudi Aramco

SPE 50774 Process for the Controlled Precipitation of Inhibitor Scale in a
Subterranean Formation .................................... 657
M.C. Bezerra, F.F. Rosário, F. Prais, and J.R.P. Rodrigues, Petrobras Research &
Development Center

SPE 50775 Low-Scaling-Potential Horizontal Wells and Scale Inhibitor Treatment Strategy ... 661
K.U. Raju, J.D. Lynn, W.N. Al-Nasser, M. Ayub, and J. Hsu, Saudi Aramco

SPE 50777 A Comparison of Freshwater- and Seawater-Based Borate-Crosslinked
Fraturing Fluids ........................................... 671
P.C. Harris and Diederik van Batenburg, Halliburton Energy Services Inc.

SPE 50779 Application of a Mineral-Dispersion System to EOR ....................... 677
Jiyoung Li, Shengli Petroleum Administration Bureau

SPE 50780 Field Test Measures Amount and Type of Iron in Spent Acids ............... 683
K.C. Taylor, H.A. Nasr-El-Din, and M.J. Al-Alawi, Saudi Aramco

SPE 50782 Improvement of Low-Permeable Cement for Zonal Isolation at
High-Temperature Conditions ................................ 691
N. DuBois, Bouygues; Ch. Noik and A. Rivereau, Inst. Français du Pétrole;
and Ch. Vernet, Bouygues

SPE 50785 Application, Efficiency, and Optimisation of Chemical for Injection
Water Treatment ........................................... 695
S. Sevic and M. Solesa, NIS-Naftagas

SPE 50787 A Case Study of Boron Crosslinked Fracturing Fluid in Ultra-Deep Wall .......... 699
Lu Yongjun, Chen Yandong, Zhao Zhongyang, and Wang Zhenduo, Langfang Branch of
Research of Petroleum E&D, CNPC

SPE 50788 Solids-Free H₂S Scavenger Improves Performance and Operational Flexibility ... 709
S.R. Schieman, HCITravis

SPE 50789 Stress Corrosion Cracking: AISI 420, 4140, and 1045 on Alloy Steel Used
in the Oil, Gas, and Geothermal Industry at Elevated Temperatures in a
Hydrogen Sulfide Environment ................................ 713
Rudi Rubiandini R.S., Bandung Inst. of Technology, and P. Subiantono, Aris Buntoro, UPN
"Veteran" Yogyakarta, and Deden Supriyatman, Total Indonesia

SPE 50790 New Water-Soluble Polymer for Drilling Fluids ............................ 723
Danuta Bielewicz and Lucja Kraj, U. of Mining & Metallurgy, and Edgar Bortel and
Ewa Witek, Jagiellonian U.

SPE 50791 Cleaning Wells from Unexpected, Contaminated Polymer Mud:
A State-of-the-Art; Case History ................................ 727
Soran Talabani, Baker Atlas, and Salem Al Jaberi and M.S. Efink, ADCO-UAE

SPE 50796 Improvement of Environmental Properties of Corrosion Inhibitors .......... 735
R.L. Martin, B.A. Alink, J.A. McMahon, and R. Weare, Baker Petrolite

SPE 50798 Laboratory Studies on Polymer Gels for CO₂ Mobility Control at Bati Raman Heavy
Oilfield, Turkey ............................................ 745
N.N.S. Topgüder, Turkish Petroleum Corp.

SPE 53464 Heavy Oil Production in Venezuela: Historical Recap and Scenarios
for the Next Century .......................................... 749
I. Layrisse, PDVSA-Faja
No manuscript received for the following:

SPE 50651  Laboratory Development of a Novel, Simultaneous Cake-Cleanup and Gravel-Packing System for Long, Highly Deviated or Horizontal Openhole Completions  
  M. Parlar, Dowell; R.J. Tibbles, Schlumberger Dowell; and F.F. Chang and D. Fu, Dowell

SPE 50723  New Viscosifier for Water-Based Muds Based on a Genetically Modified Starch  

SPE 50728  A Laboratory Study on the Impact of BFS Addition on Mud Chemistry and Spurt Loss of Water-Based Drilling Fluids  
  U.A. Tare, Baroid Drilling Fluids Inc.; F.B. Growcock, Amoco Corp.; and N.E. Takach, U. of Tulsa

SPE 50737  Alba Northern Platform—Produced Water System Improvements  
  D. Turnbull, Baker Petrolite, and N. MacLeod, Chevron UK Ltd.

SPE 50781  Effect of Water-Soluble Gases on Production Decline, Production Stimulation, and Production Management  
  A. Hayatdavoudi, U. of Southwestern Louisiana

SPE 50786  Optimal Design of Alkaline Oil Recovery for Kuwait Oil Fields  
  A.A. Elgibaly, Kuwait U.

SPE 50792  Chemical Treatment vs. Mechanical Operations in Tank Cleansing: Who Won?  
  S.E. Shaheen, Egyptian General Petro Corp, and M.E. Hassan, Gulf Suez Petroleum Co.