CONTENTS

SPE 58710 An Experimental Study of Acid Placement in Variable Inclination Laterals ............. 9
D. Zhu, A. Hansen, R. Bruksas, and A.D. Hill, U. of Texas Austin

SPE 58711 An Optimal Foam Quality for Diversion in Matrix-Acidizing Projects ............... 15
J.M. Alvarez, Hercilio Rivas, and Geidy Navarro, PDVSA-Intevep

SPE 58712 Investigation of Sulfide Scavengers in Well Acidizing Fluids ....................... 23

SPE 58713 Validation of Carbonate Matrix Stimulation Models .......................... 39
C.N. Fredd and M.J. Miller, Schlumberger

SPE 58714 A New Technique to Evaluate Matrix Acid Treatments in Carbonate Reservoirs .... 53
M.N. Al-Dahlan and H.A. Nasr-El-Din, Saudi Aramco

SPE 58715 Carbonate Matrix Acidizing with Acetic Acid ......................................... 65
T. Huang, L. Ostensen, and A.D. Hill, U. of Texas Austin

SPE 58716 The Near-Well State of Stress and Induced Rock Damage .......................... 71
V.N. Nikolaevskyi, United Inst. of Earth Physics, and M.J. Economides, U. of Houston

SPE 58717 Constitutive Law for Permeability Evolution of Sandstones During Depletion .... 81
M.J. Boutéca, J-P. Sarda, and O. Vincé, Inst. Français du Pétrole

SPE 58718 Removing Mechanical Skin in Heavy Oil Wells ........................................ 89
M.B. Dusseauult, B.C. Davidson, and T.J. Spanos, PE-TECH Inc.

SPE 58719 Cavity-Like Completions in Weak Sands .................................................. 103
I.D. Palmer, BP Amoco; J.D. McLennan, TerraTek Inc.; and H.H. Vaziri, Dalhousie U.

SPE 58720 The Nature of the Compacted Zone Around Perforation Tunnels .................... 113
D.S. Arora and M.M. Sharma, U. of Texas Austin

SPE 58721 Sand Production Prediction in High Rate, Perforated and Open-hole Gas Wells ...... 125
Seehong Ong, Baker Atlas; Rico Ramos, Arco E&P Technology; and Ziqiong Zheng, Baker Atlas

SPE 58722 Application of Neural Networks for Improved Gravel-Pack Design ................. 135

SPE 58723 Organic Formation Damage Control and Remediation .................................. 143
M.E. Newberry and K.M. Barker, Baker Petroleum

SPE 58725 Development and Deployment of a Scale Squeeze Enhancer and Oil-Soluble Scale Inhibitor To Avoid Deferred Oil Production Losses During Squeezing of Low-Water Cut Wells, North Slope, Alaska ........................................ 149
M.M. Jordan and C.J. Graff, NEEC, and K.N. Cooper, BP Amoco

SPE 58726 Development of a Downhole Scale-Management Philosophy for Water-Sensitive Reservoirs .......................................................... 167
G.C. Scott and M.J. Littlewood, Amerada Hess E&P

SPE 58727 Iron Release Following Mineral Dissolution Following Scale Inhibitor Application in a North Alaskan Reservoir ............................................ 173
P.I. Hill, G.M. Graham, and S.J. Dyer, Heriot-Watt U.; and J. Coleman, ARCO E&P

SPE 58728 Viscosification of Oilfield Brines: Guidelines for the Prevention of Unexpected Formation Damage .......................................................... 181

SPE 58731 High Angle OHGP’s In Sand/Shale Sequences: A Case History Using a Formate Drill-In Fluid .......................................................... 199
G. McKay, C.L. Bennett, and J.M. Gilchrist, BP Amoco Exploration

SPE 58732 Using Enzymatic Breakers in Horizontal Wells to Enhance Wellbore Clean-up ...... 209
Drew Hembling, ARCO Alaska; Albert Chan, ARCO Technology Services; and Jay Garner and Brian Beall, BJ Services Co.

SPE 58734 Development of a Novel Fluid-Loss Control Pill for Placement Inside Gravel-Pack Screens .......................................................... 225
M.R. Luyster and W.E. Foxenberg, M-I LLC; and S.A. Ali, Chevron Petroleum Technology Co.
SPE 58735 Designing and Completing High-Rate Oil Producers in a Deepwater Unconsolidated Sand .......................... 251
D.A. Porter and R.A. Johnston, BP Amoco, and M.E. Mullen, Mullen & Assocs.

SPE 58736 Flowback Analysis of Acid Stimulation of Seawater Injection Wells:
Case Histories ........................................... 271
K.C. Taylor and H.A. Nasr-El-Din, Saudi Aramco

SPE 58737 Experimental Approach to Characterize Drilling Mud Invasion, Formation Damage
and Cleanup Efficiency in Horizontal Wells With Openhole Completions 281
D.G. Longeron, Inst. Français du Pétrole; J. Alfenoire, Elf Exploration-Production; N. Salehi,
Cénerys; and S. Saintpère, TOTALPNA

SPE 58738 A Laboratory Drilling Mud Overbalance Formation Damage Study Utilising
Cryogenic SEM Techniques ................................ 295
M.T. Byrne, I.S.C. Spark, and I.T.M. Patey, Corex (UK) Ltd., and A.J. Twynam, BP Amoco

SPE 58739 How Effective is Underbalanced Drilling at Preventing Formation Damage? 305
Helio Santos and J. Queiroz, Petrobras

SPE 58742 Evolution of a Damaged Zone Caused by Water-Based Polymeric Drill-In Fluid ... 313
João Queiroz and R.L. dos Santos, Petrobras

SPE 58743 Successful Application of Oil-Based Drilling Fluids in Subsea Horizontal,
Gravel-Packed Wells in West Africa ...................... 319
M.R. Chambers, Mobil Int'l. Drilling Services, and D.B. Hebert and C.E. Shuchart, Mobil
Technology Co.

SPE 58744 Formation Damage Abatement: A Quarter-Century Perspective ..................... 327
Ali Ghalambor, U. of Louisiana, and M.J. Economides, U. of Houston

SPE 58745 Optimizing Production in Fields With Multiple Formation Damage Mechanisms .. 343
J.R. Tague, Chevron U.S.A.

SPE 58746 Predictability of Porosity and Permeability Alterations by Geochemical and
Geomechanical Rock and Fluid Interactions ................ 359
Faruk Civan, U. of Oklahoma

SPE 58747 Colloid Chemistry of In-Situ Clay-Induced Formation Damage ...................... 371
A.A. Tchistiakov, Delft U. of Technology

SPE 58748 Minimising Clay Sensitivity to Fresh Water Following Brine Influx .................. 381

SPE 58749 Factors Affecting the Performance of Enzyme Breakers for Removal of
Xanthan-Based Filter Cakes ................................ 389
M.R. Luyster, M-I Fluids LLC; T.D. Monroe, BJ Services; and S.A. Ali, Chevron Petroleum
Technology Co.

SPE 58750 Microbially Induced Formation Damage in Oilfield Reservoirs ...................... 403
J.M. Wood and I.S.C. Spark

SPE 58753 Monitoring the Solids in Well Streams of Underground Gas Storage Facilities .... 411
M. Megyery, Geoinform Ltd.; T. Miklós, MOL Hungarian Oil and Gas Co.; J. Segesdi,
Geoinform Ltd.; and Z. Tóth, Elcom Ltd.

SPE 58755 Improvements in High-Rate Water Packing with Surface-Modification Agent ..... 419
Syed Ali, Chevron U.S.A. Production Co., and Sanjay Vithal and Jim Weaver, Halliburton
Energy Services Inc.

SPE 58756 Interaction Between Growing Channels in Proppant Packs: Length and Number
of Channels ............................................. 429
S.G. James, Schlumberger; Chengho Lee, Itasca Consulting Group Inc.; P.R. Howard,
Schlumberger; and P.A. Cundall, Itasca Consulting Group Inc.

SPE 58758 Controlled Debris Perforating Systems: Prevention of an Unexpected Source
of Formation Damage .................................... 439

SPE 58759 New Device for Rheology Measurements of Proppant-Laden Fluids With the
Fann 50 Viscometer ....................................... 451
A. Thesing, Halliburton European Research Center
<table>
<thead>
<tr>
<th>Conference ID</th>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 58779</td>
<td>Gravel-Pack Evaluation Using a Memory Gamma-Gamma Density Tool</td>
<td>Kevin Fisher, ProTechnics; Calvin Kessler, Halliburton Energy Services; Fritz Rambow, Shell</td>
<td>611</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Charles Tucker, Shell E&amp;P Co.; and William Madigan, Multiphysics Numerical Research Group</td>
<td></td>
</tr>
<tr>
<td>SPE 58780</td>
<td>High-Pressure Water Jetting: An Effective Method To Remove Drilling Damage</td>
<td>Javed Aslam and Talib Alsalat, Qatar General Petroleum Corp.</td>
<td>625</td>
</tr>
<tr>
<td>SPE 58782</td>
<td>Application of Inflatable Packers for Production Testing and Conformance Problems in Algeria</td>
<td>H. Poitrenaud, Schlumberger Dowell; B.Y. Souilah, Sonatrach; and F.E. Fragachán, Schlumberger Dowell</td>
<td>633</td>
</tr>
<tr>
<td>SPE 58786</td>
<td>Skin Self-Cleaning in High-Rate Oil Wells Using Sand Management</td>
<td>M.B. Dusseauault, Johan Tronvoll, Francesco Sanfilippo, and F.J. Santarelli, Oilfield Rock Mechanics Integrated Services A.S.</td>
<td>657</td>
</tr>
<tr>
<td>SPE 58788</td>
<td>Perforating Requirements for Sand Prevention</td>
<td>A. Venkitaraman and L.A. Behrmann, Schlumberger Reservoir Completions, and A.H. Noordermeer, BP Amoco Exploration</td>
<td>677</td>
</tr>
<tr>
<td>SPE 58794</td>
<td>Use of Micronized Cellulose Fibers to Protect Producing Formations</td>
<td>Robin Verret and Buck Robinson, Turbo-Chem International Inc.; Jack Cowan, Venture Chemicals Inc.; Philip Fader and Mark Looney, Texaco Inc.</td>
<td>699</td>
</tr>
<tr>
<td>SPE 58795</td>
<td>Multiphase Flow and Drilling Fluid Filtrate Effects on the Onset of Production</td>
<td>H.K.J. Ladva, Ph. Tardy, and P.R. Howard, Schlumberger Cambridge Research, and E.B. Dussan V, Schlumberger-Doll Research</td>
<td>711</td>
</tr>
<tr>
<td>SPE 58797</td>
<td>Mechanisms of Mud Cake Removal During Flowback</td>
<td>Z.M. Zain, Petronas Research, and Ajay Suri and M.M. Sharma, U. of Texas Austin</td>
<td>721</td>
</tr>
<tr>
<td>SPE 58800</td>
<td>A New Drill-In Fluid Used for Successful Underbalanced Drilling</td>
<td>Shiyng Luo, Yingfeng Meng, and Hongmin Tang, Southwest Petroleum Inst., and Yongxin Zhou, Tuha Oil &amp; Gas Exploration Bureau</td>
<td>757</td>
</tr>
<tr>
<td>SPE 58803</td>
<td>Formation Damage Resulting From Biocide/Corrosion Inhibitor Squeeze Treatments</td>
<td>H.A. Nasr-El-Din, H.R. Rosser, and M.S. Al-Jawfi, Saudi Aramco</td>
<td>783</td>
</tr>
<tr>
<td>SPE 58804</td>
<td>Successful High-Pressure/High-Temperature Acidizing With In-Situ Crosslinked Acid Diversion</td>
<td>M. Buijse, R. Maier, and A. Casero, Halliburton Energy Services Inc., and S. Fornasari, ENI-AGIP</td>
<td>803</td>
</tr>
</tbody>
</table>