## CONTENTS

<table>
<thead>
<tr>
<th>Paper ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 35236</td>
<td>Low Cost Solutions for Well Interventions Through Advanced Slickline Services</td>
<td>D.R. Larimore, J.J. Goiffon, and R.I. Bayh III, Halliburton Energy Services</td>
</tr>
<tr>
<td>SPE 35422</td>
<td>Best Practice for the Distribution and Metering of Two-Phase Steam</td>
<td>K.C. Hong and S. Griston, Chevron U.S.A. Production Co.</td>
</tr>
<tr>
<td>SPE 35586</td>
<td>Case History of Successful Coiled Tubing Conveyed Jet Pump Recompletions Through Existing Completions</td>
<td>M.J. Hrachovy, M. McConnell, and M. Damm, Unocal Corp., and C. Wiebe, Dowell Schlumberger</td>
</tr>
<tr>
<td>SPE 35587</td>
<td>Recent Applications of Coiled Tubing in Remedial Wellwork at Prudhoe Bay</td>
<td>K.R. Loveland, BP Exploration (Alaska) Inc., and A.J. Bond, Arco Alaska Inc.</td>
</tr>
<tr>
<td>SPE 35592</td>
<td>The Resurgence of ECP's at Prudhoe Bay/North Slope</td>
<td>H. Gai, BP Exploration; G. Walz, Arco Alaska; and D. Nakamura and M. Burnham, BP Exploration</td>
</tr>
<tr>
<td>SPE 35658</td>
<td>A Case History of Reservoir Subsidence and Wellbore Damage Management in the South Belridge Diatomite Field</td>
<td>B.A. Dale, G.M. Narahara, and R.M. Stevens, Exxon Company, U.S.A.</td>
</tr>
<tr>
<td>SPE 35660</td>
<td>“Closing the Flood Gates”—History of the South Belridge Field Steam Drive Aquifer Project</td>
<td>J.H. Frarn and R.M. Palermo, CalResources LLC</td>
</tr>
<tr>
<td>SPE 35664</td>
<td>The Use of Slimhole Drilling and Monobore Completions To Reduce Development Costs at the Kuparuk River Field</td>
<td>C.M. Pearson, D.K. Petrash, J.T. Zernell, and Mike Zanghi, Arco Alaska Inc.</td>
</tr>
<tr>
<td>SPE 35665</td>
<td>Designing Under and Near Balanced Coiled Tubing Drilling Using Computer Simulations</td>
<td>Hongren Gu and I.C. Walton, Schlumberger Dowell</td>
</tr>
<tr>
<td>SPE 35666</td>
<td>Reduction of Drill String Torque and Casing Wear in Extended Reach Wells Using Non-Rotating Drill Pipe Protectors</td>
<td>N.B. Moore, P.W. Mock, and R.E. Krueger, Western Well Tool</td>
</tr>
<tr>
<td>SPE 35668</td>
<td>Planning the First Horizontal Well for the Shallow Oil Zone of Elk Hills Field, Kern County California</td>
<td>Lt. James Hardin, DOE; Jim Martin and Joe Davidson, Bechtel Petroleum; and Martin Paulk, Baker Hughes INTEQ</td>
</tr>
</tbody>
</table>
SPE 35669  Horizontal Well Production Optimization Using Production Logs Run on Coiled Tubing in the 26R Sand Reservoir, Stevens Zone, Elk Hills Field, California .......... 197
C.W. Walker, Bechtel Petroleum Operations Inc.; S.A. Garcia, GeoQuest; E.M. Querin, U.S. DOE; and D.M. Moore, B.P.O.I.

SPE 35672  Data Integration Case Study: Using Cased Hole Saturation Measurements and Sub-Layer Pressures To Find Bypassed Oil In The Shallow Oil Zone, Elk Hills Field, CA ................................................................. 211
W.E. DeRose and D.P. Katragadda, Bechtel Petroleum Operations Inc.

SPE 35673  Case History of the 31S Peripheral Waterflood Project, Stevens Zone, Elk Hills Field, California ................................................................. 227

SPE 35674  Three Phase Well Level Production Allocation at Prudhoe Bay ................................................................. 235
F.E. Bergren, S. Feldman, and D. Lagerlef, Arco Alaska Inc.

SPE 35675  Results of Using Formaldehyde in a Large North Slope Water Treatment System . . . 245
W.G. McLelland, Arco Alaska Inc.

SPE 35676  Experimental Study and the Development of a Mechanistic Model for Two-Phase Flow Through Vertical Tubing ................................................................. 255
R.N. Chokshi, CEALC Inc., and Zelimir Schmidt and D.R. Doty, U. of Tulsa

SPE 35677  Field Test of Tapered-Bore Chokes for Steam Flow Control ................................................................. 269
Suzanne Griston and Tom Abate, Chevron U.S.A. Production Co.

SPE 35679  Development of New Wall Friction Factor and Interfacial Friction Factor Correlations for Gas-Liquid Stratified Flow in Wells and Pipelines ................................................................. 285
L.-B. Ouyang and Khalid Aziz, Stanford U.

SPE 35680  Well Preparation—Essential to Successful Video Logging ................................................................. 297
J.L. Whittaker and G.D. Linville, DHV Intl. Inc.

SPE 35681  Neutron Logs Improve Interpretation of Foamed Cement, Even in Concentric Casing ................................................................. 309

SPE 35682  Determining Oil, Water and Gas Saturations Simultaneously Through Casing by Combining C/O & Sigma Measurements ................................................................. 321
D.R. Schnorr, Schlumberger Wireline & Testing

SPE 35683  Laboratory NMR Relaxation Measurements for the Acquisition of Calibration Data for NMR Logging Tools ................................................................. 329
H.A. Ohen and A.O. Ajufo, Core Laboratories, and P.M. Enwere, Consulting Petroleum Engineer

SPE 35684  Infill Well Water-Cut Estimates Based on Open Hole Log Data in a Mineralogically Complex Reservoir: Kuparuk River Field, Alaska ................................................................. 343
P.L. Hedges and S. Moothart, Arco Alaska Inc.

SPE 35685  A Field Trial To Test Fiber Optic Sensors for Downhole Temperature and Pressure Measurements, West Coalinga Field, California ................................................................. 351

SPE 35686  Insulated Ice Pad Technology Enables Extended Season Drilling on Alaska’s North Slope ................................................................. 359
M.J. Stanley, BP Exploration (Alaska) Inc., and Bee: Hazen, Northern Engineering & Scientific

SPE 35687  Environmentally Safe Burner for Offshore Well Testing Operations ................................................................. 369
T.M. Young, Halliburton Energy Services

SPE 35688  A Description of Summer and Winter Environmental Conditions Within Cook Inlet, Alaska ................................................................. 381

SPE 35689  North Slope Halon Replacement Strategies ................................................................. 393
R.A. Valantas, BP Exploration (Alaska)

SPE 35690  Reassessment of Cook Inlet Platform Facilities ................................................................. 403
R.C. Visser, Belmar Engineering
SPE 35691  Unique Simulation Development Enhances Safer Operation for Downhole Well Test Tools  .............................................. 413
Kent Beck and Ken Schwenemann, Halliburton Energy Services

SPE 35692  A Technical and Economical Evaluation of Steam Foam Injection Based on a Critical Analysis of Field Applications  .............................................. 423
E. Delamaide and F. Kalaydjian, Inst. Français du Pétrole

SPE 35693  Improved Recovery of Light/Medium Heavy Oils in Heterogeneous Reservoirs Using Air Injection/In situ Combustion (ISC)  .............................................. 435
M. Greaves, A. Wilson, M. Al-Honi, and A.D. Lockett, U. of Bath

SPE 35694  Effect of Pore Pressure on Conductivity and Permeability of Fractured Rocks  .............................................. 445
Sergio Berumen, Pemex E&P, and Djebbar Tiab, U. of Oklahoma

SPE 35695  Stimulation by Defoaming Increases Thermal Oil Production  .............................................. 461

SPE 35697  Proppantless Fracture Stimulations in Injection Wells—A Case History  .............................................. 471
T.T. Palisch and L.G. Griffin, Arco Alaska Inc., and X. Weng, Arco E&P Technology

SPE 35698  Kuparuk Large Scale Enhanced Oil Recovery Project  .............................................. 483

SPE 35699  Developing and Implementing a Failure Analysis Process to Optimize Well Servicing Operations  .............................................. 495
C.L. Yonke, F.G. Araujo, K.D. Koehler, and T.T. Strawn, CalResources LLC

SPE 35700  Aligned Interest Business Concept Utilizes Innovative Technologies To Extend the Useful Life of a Cook Inlet Oilfield  .............................................. 507
Lee Dewees, MI Drilling Fluids; Jeff Wahleithner, S.W.E.P.L.; Derry Thompson, Anadrill; Jerry Johnson, Inlet Drilling; Lew Balest, Halliburton; Troy Miller, Baker; Rick Cashion, Weatherford; and Brian Schwaintz, Schlumberger

SPE 35701  Critical Evaluation of Options for Utilizing Alaska North Slope Natural Gas  .............................................. 521
D.A. Lannom, D.O. Ogbe, A.S. Lawal, and D.G. Hatzignatiou, U. of Alaska Fairbanks

SPE 35702  Options for Alaska North Slope Natural Gas Utilization  .............................................. 531

SPE 35705  An Expert System for Analyzing Well Performance  .............................................. 545

SPE 35707  Asphalt Formation and Precipitation: Experimental Studies and Theoretical Modelling  .............................................. 555
Muhammad Sahimi and Hossein Rassamdana, U. of Southern California, and Bahram Dabir, Amir Kabir U.

SPE 35708  Ribbon Rod—Improvement in Sucker Rod Technology Shows Need to Re-Evaluate Current Artificial Lift Installations  .............................................. 573
W.L. Foley, Chevron Petroleum Technology Co., and H.N. Hensley, Axelson Inc.

SPE 35711  Multilateral Well Performance Prediction  .............................................. 591
J.R. Salas, BP Exploration; P.J. Clifford, BP Exploration (Alaska) Inc.; and D.P. Jenkins, BP Exploration Co. Ltd.

SPE 35712  Optimal Configurations of Multiple-Lateral Horizontal Wells  .............................................. 609
A. Retnanto, Texas A&M U.; T.P. Frick and C.W. Brand, Mining U. of Leoben; and M.J. Economides, Texas A&M U.

SPE 35713  A Simple Productivity Equation for Horizontal Wells Based on Drainage Area Concept  .............................................. 617
S.A. Elgaghah, S.O. Osisanya, and Djebbar Tiab, U. of Oklahoma

SPE 35714  Optimization of Horizontal Well Placement  .............................................. 629
T. Wagenhofer and D.G. Hatzignatiou, U. of Alaska Fairbanks
SPE 35715 Water Cresting Behavior Under High Angle Wells:
An Experimental Investigation ........................................ 641
P. Permadi, Inst. Teknologi Bandung

SPE 35718 Gas-Oil Relative Permeability of Prudhoe Bay .................. 653
G.R. Jerauld, Arco E&P Technology

SPE 35719 Interference Pressure Behavior in Multilayered Faulted Reservoirs .............. 671
A. Sahni, D.G. Hatzignatiou, and D.O. Ogbe, U. of Alaska Fairbanks

SPE 35721 Neural Networks for Field-Wise Waterflood Management in Low Permeability,
Fractured Oil Reservoirs .............................................. 681
M. Nikravesh and A.R. Kovscek, Lawrence Berkeley Natl. Laboratory; A.S. Murer, Mobil E&P
U.S., and T.W. Patzek, U. of California and Lawrence Berkeley Natl. Laboratory

SPE 35737 CT Scan and Neural Network Technology for Construction of Detailed Distribution
of Residual Oil Saturation During Waterflooding ....................... 695
A. Garg, U. of California; A.R. Kovscek and M. Nikravesh, Lawrence Berkeley Natl. Laboratory;
L.M. Castanier, Stanford U.; and T.W. Patzek, U. of California and Lawrence Berkeley Natl.
Laboratory

SPE 35738 Find Thermal Diffusivity from Temperature Surveys .................. 711
Mike O'Dell, P.M. O'Dell & Assocs. Inc.

SPE 35741 An Investigation Into The Use of High Pressure Nitrogen Breakdown Treatments
Prior to Hydraulic Fracturing ........................................ 713
C.M. Pearson and E.W. Reinbold, Arco Alaska Inc.

SPE 35742 Sources of Gas From the C Shale and D Shale Reservoirs, Stevens Zone,
Monterey Formation, Elk Hills Field, California ...................... 719
T.J. Hampton, T. Reid, and J. McIntyre, Bechtel Petroleum Operations Inc., and M.E. Querin,
U.S. DOE

SPE 35743 Case History: 31S C/D Shale Reservoirs, Monterey Formation, Elk Hills Field, California ............. 721
T.J. Hampton, Bechtel Petroleum Operations Inc.; M.E. Querin, U.S. DOE; and W.J. McCabe,
Inst. Nuclear Sciences

SPE 35744 Increasing Hydrocarbon Production Through Liner Replacements in the Shallow
Oil Zone, Elk Hills Field, California .................................. 723
M.G. Drown and Juan Chacon, Bechtel Petroleum Operations Inc., and M.S. Stratton,
Baker Hughes INTEQ

SPE 35745 Acid Stimulation Increases Production in 31S C/D Shale Reservoirs, Monterey
Formation, Elk Hills Field, California ................................ 725
W.D. McCabe and T.J. Hampton, Bechtel Petroleum Operations Inc., and M.E. Querin,
U.S. DOE

No manuscript received for the following:

SPE 35656 Planning, Geology, Engineering, and Results of a Simulation-Based Infill
Drilling Program in a Mixed Gravity Drainage/Waterflood Environment
in Prudhoe Bay’s Upstructure Romeo Sands
F.K. Paskvan, Arco Intl. Oil & Gas Co.; P. Cheung, Arco Alaska Inc.; J. Lawrence, Exxon Co.
U.S.A.; M. Haqijadeh, British Petroleum; R.S. Tye and R. Levinson, Arco Alaska Inc.; D. Puls,
Exxon Production Research Co.; and T.S. Lo and R. Newsom, Arco Oil & Gas Co.

SPE 35657 Development Drilling in a Gas-Affected Reservoir: Kuparuk River Unit, Drill Site 1B
G. Foster, C.M. Pearson, and S.R. Moothart, Arco Alaska Inc.

SPE 35661 A Geological Approach to Horizontal Well Prospect Evaluation in Atuel
North Field, Argentina—A Case Study
J.C. Colina and S.O. Osisanya, U. of Oklahoma

SPE 35663 Field History of Coil Tubing Drilling in the WOA of Prudhoe Bay
B. Williams, C. Parker, and T.O. Stagg, BP Exploration (Alaska) Inc., and J.C. Pursell,
Camco Coiled Tubing Services,