

Latin American and Caribbean Petroleum Engineering Conference 2010

(LACPEC 10)

**Lima, Peru
1-3 December 2010**

Volume 1 of 2

ISBN: 978-1-61782-183-7

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2010) by the Society of Petroleum Engineers
All rights reserved.

Printed by Curran Associates, Inc. (2011)

For permission requests, please contact the Society of Petroleum Engineers
at the address below.

Society of Petroleum Engineers
P. O. Box 833836
Richardson, Texas 75083-3836

Phone: (800) 456-6863
Fax: (972) 952-9435

books@spe.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

VOLUME 1

SPE 114044 A Quadratic Cumulative Production Model for the Material Balance of an Abnormally Pressured Gas Reservoir	1
<i>F.E. Gonzales, D. Ilk, T.A. Blasingame</i>	
SPE 118970 A Novel Method to Identify Pore Fluid in Low Porosity/Low Permeability Gas Zones	34
<i>Xiao-peng Liu, Xiao-xin Hu</i>	
SPE 121313 Petrophysical Analysis Method to Identify “Sweet Spots” in Tight Reservoirs: Case Study from Punta Rosada Formation in Neuquen Basin, Argentina	40
<i>C. Naides</i>	
SPE 122069 Development of a Methodology to Predict Solids Concentration Profile Along the Time During Pumps-off Periods	56
<i>G. Pinto, R.A. Gandelman, A.L. Martins</i>	
SPE 122071 Experimental Evaluation of the Effect of Drillstring Rotation in the Suspension of a Cuttings Bed	67
<i>B.V. Loureiro, R.S. de Paula, M.B. Serafim, A.L. Martins</i>	
SPE 122856 Effects of Wellbore Density Changes on Downhole Pressure During Buildup Analysis in Gas/Condensate Reservoirs	81
<i>R. Palacios</i>	
SPE 123009 Using Step-Rate Test to Prove Gradient of Propagation Equations	91
<i>J. Suzart, R. Ludovice, R. Moreto</i>	
SPE 126764 Sustainable Development: Rainwater Capture and Exploitation in a Macaé Facility	102
<i>T. Tinoco, E.R. De Souza, L.V. Araujo</i>	
SPE 126830 An Epidemiological Surveillance System for Employees Exposed to Extreme Temperatures	107
<i>Adalberto Alvarez, Joyce Martins, Ana Maria Rincon</i>	
SPE 128569 Integrated Approach: Perforation System Optimization for Sand Prevention	119
<i>Mohd Zahirin B. Ruslan, M. Frydman, German Garcia, Marcia Benavides, Willem Sepulveda, Alejandro Matulevich Arevalo</i>	
SPE 136581 Two Novel Multistage Fracturing Processes for Unconventional Reservoirs: Unique Approach for Branch-Fracturing Stimulation	138
<i>M. Stanojic, K. Rispler</i>	
SPE 136681 Uncertainty Analysis Considering the Production History: Evaluation of a Real Field	149
<i>E. Lisboa, R. Duarte</i>	
SPE 136756 Microbiologically Influenced Corrosion of Electrical-Submersible- Pumping-System Components Associated With Acid-Producing Bacteria and Sulfate-Reducing Bacteria: Case Histories	160
<i>D.L. Adams</i>	
SPE 136805 Pore-Type Determination From Core Data Using a New Polar-Transformation Function from Hydraulic Flow Units	175
<i>B. Rodolfo Soto, Duarry Arteaga, Cintia Martin, Freddy Rodriguez</i>	
SPE 136811 The Correct Shale-Volume Characterization Increases Hydrocarbon Reserves: Case Study of Cretaceous Formation, Lake Maracaibo, Venezuela	181
<i>B. Rodolfo Soto, Duarry Arteaga, Cintia Martin, Freddy Rodriguez</i>	
SPE 136874 Hydraulic Analysis of Gas-Oil-Sand Flow in Horizontal Wells	190
<i>O. Bello, I. Udong, G. Falcone, C. Teodoriu</i>	
SPE 136999 Application of Concentric Coiled-Tubing and Well-Vacuuming Tool With Chemical Sand-Consolidation Resins for Controlling Sand Production in Wells With Damaged Screens or Slotted Liners: A Rigless Well-Repair Alternative	209
<i>N. Medina, J. Diaz, L. Pachon</i>	
SPE 137368 Prediction of Bubblepoint Pressure and Bubblepoint Oil Formation Volume Factor in the Absence of PVT Analysis	217
<i>S. Elmabrouk, A. Zekri, E. Shirif</i>	
SPE 137763 The Marlim Field: Incorporating Time-Lapse Seismic in the Assisted History Matching	226
<i>D. de Brito, R. de Moraes, A. Emerick</i>	
SPE 137777 Methods and Benefits of Knowledge Sharing in the Petroleum Industry	239
<i>A. Shadravan, M. Amani, D. Molinari, J.N. Hugall</i>	

SPE 137945 A New Methodology for PVT Sampling Optimization and Producibility Determination From Nuclear Magnetic Resonance	248
<i>J. Pazos, O. Morales, X. Goddyn, J. Angel</i>	
SPE 138103 Reducing Exploration and Appraisal Risk in Low Permeability Reservoirs Using Microseismic Fracture Mapping—Part 2	253
<i>C. Cipolla, M. Mack, S. Maxwell</i>	
SPE 138127 A Mechanistic Analysis of Viscous Fingering in Low-Tension Polymer Flooding in Heavy-Oil Reservoirs	277
<i>B. Jamaloei, R. Kharat, F. Torabi</i>	
SPE 138229 Performance Model Analysis for Candidate Recognition	283
<i>J.S. Tan, Y. Del Castillo, R.D. Reese, C. Pinzon</i>	
SPE 138244 Integrated Monitoring of Radon and NORM Scale for HSE: Case Study of Well Surveillance	296
<i>A. Nengkoda, M. Hajri, A. Kindy, A. Bulushi, Z. Yazeedi, R. Kiran Velagapudi</i>	
SPE 138259 The Influence of the Production Lines Pressure Drop in the Definition of the Oilfield Drainage Strategy	305
<i>D.F. Bento, D.J. Schiozer</i>	
SPE 138264 Reducing Formation Damage in Open Hole Standalone-Screens (OH-SAS) Completion for New Wells	314
<i>W.A. Mohamad, M.A. Wahba, M. Jadid</i>	
SPE 138282 An Equation to Predict Two-Phase Relative Permeability Curves in Fractures	325
<i>A. Chima, E. Chavez, Z. Calderon</i>	
SPE 138316 Monitoring and Optimizing Oil Fields by a Real-Time Production Operation (RTPO) System	336
<i>Thiago Dutra, Leonardo Machado, Miguel Rodriguez, Inae Almeida, Breno Montanha, Marcelo Manzali, Marcelo Dinis, Leonardo Carbone, Marcos Fabricio de Souza, Marco Herdeiro</i>	
SPE 138318 A Finite-Mixture Approach for Drilling Optimization Using Formation Density Information	346
<i>Gang Li, Mao Bai</i>	
SPE 138321 A New Approach for Gas Separation in Pumped Directional Wells	353
<i>L.E. Ortiz Vidal, O.M.H. Rodriguez</i>	
SPE 138333 Mercury Removal Process is Applied to Crude Oil of Southern Argentina	363
<i>C. Salva, D. Gallup</i>	
SPE 138338 Subsidence Prediction and Casing Integrity With Respect to Pore-Pressure Depletion With 3-D Finite-Element Method	370
<i>Xinpu Shen</i>	
SPE 138339 Study for Improving the In-Situ Combustion of Venezuela Extra-Heavy Crude Oil Using Unconventional Additive	381
<i>A.J. Mendoza, H. Perozo, D. Oliveros, N. Reyes</i>	
SPE 138366 The Influence of Wettability on Oil Recovery From Naturally Fractured Oil Reservoirs Including Non-Equilibrium Effects	391
<i>H. Salimi, J. Bruining</i>	
SPE 138372 Laboratory Investigation on Light Oil Air Injection	414
<i>N.K. Dubey</i>	
SPE 138431 Rapid Optimization of Development Scenarios for Multiple Exploration Prospects Using an Integrated Asset Model	425
<i>John Smyth, Piotr Rusin, Jhairo Garcia, Stan Cullick</i>	
SPE 138434 An Evaluation of the Impact of Reactive Perforating Charges on Acid Wormholing in Carbonates	446
<i>N.J. Diaz, M.R.G. Bell, J.T. Hardesty, A.D. Hill, H.A. Nasr-El-Din</i>	
SPE 138436 Integrated Optimization System for Short-term Production Operations Analysis	457
<i>Jordani Rebeschini, A. Garcia, Andre Lima, Suryansh Purwar, Leonardo Carbone, Marcelo Dinis, Marco Herdeiro</i>	
SPE 138490 Pressure-Transient Analysis for Naturally Fractured Reservoirs With Transition Period Before and After the Radial-Flow Regime	469
<i>F.H. Escobar, J.A. Martinez, J.H. Cantillo</i>	
SPE 138495 An In-House Experiment About PVT Impact on Multiphase Metering Accuracy	486
<i>C. Correa Feria</i>	
SPE 138589 Long Horizontal Gravel Pack With the Lightest Gravel Ever Used	502
<i>H. Trujillo, J.A. Tengono, A. Hernandez, R. Castano, E. Ortiz, W. Charry, L.A. Anaya, F. Portela, R. Castillo, M. Lopez, C. Calderon</i>	

SPE 138604 Overview: Slug-Flow Characterization for Heavy-Oil Fields	513
<i>J. Marquez, J. Trujillo</i>	
SPE 138623 Laboratory Evaluation of Acid Refracturing Performance	521
<i>M. Pournik, B.T. Smith, L. Li, G. Wang, H.A. Nasr-El-Din</i>	
SPE 138632 Analysis of the Orinoco Oil Belt Development Through a Dynamic Simulation Model	535
<i>S. Diaz, E. Quintero, H. Hernandez, O. Jenkins</i>	
SPE 138728 Preliminary Assessment of Tambaredjo Heavy Oilfield Polymer Flooding Pilot Test	548
<i>R. Manichand, J.L. Mogollon, S. Bergwijn, F. Graanoogst, R. Ramdajal</i>	
SPE 138752 Drilling Optimization Using 3D Geomechanical Modeling in the Llanos Orientales Basin, Colombia	562
<i>E. Araujo, Rene Alcalde, D. Mateus, F. Fernandez-Ibanez, Judith Sheridan, Chris Ward, M. Brudy, J. Alvarelllos, Luz Yamile Ordonez, F. Cardona</i>	
SPE 138798 Cementing, Perforating and Fracturing Using Coiled Tubing: Rigless Completion Technique Developed for a Marginal Field in Peru	574
<i>V. Salazar, V. de la Rosa, J. Gomez, J. Quintana</i>	
SPE 138804 Rigorous Drilling Nonproductive-Time Determination and Elimination of Invisible Lost Time: Theory and Case Histories	582
<i>Eric Maidla, William Maidla</i>	
SPE 138809 Breaking Old Paradigms With the Use of High Performance Water Base Mud Systems	591
<i>Sandra Rodriguez, Ricardo Arenas, Carlos Montoya, Mario Serrano</i>	
SPE 138813 Beyond the Mud-Weight Window: A Geomechanical Approach to Evaluating and Achieving Drilling Goals	599
<i>Juan G. Vargas, Jefferson Mateus, Mario Serrano</i>	
SPE 138814 Field Application of a Rig Less Practical Method for Stimulation of Beam Pumping Wells	608
<i>M.G. Jaimes</i>	
SPE 138846 Effect of Mobile Water-Saturation on Thermal Efficiency of Steam-Assisted Gravity-Drainage Process	624
<i>S. Javad P. Oskouei, B. Maini, R.G. Moore, S.A. Mehta</i>	
SPE 138860 World's First Fracturing-Stimulation Application Through Selective-Injection Completion: Casabe Field	633
<i>P. Olarte, R. Amaya, G. Cortes, P. Artola, R.Yeguez</i>	
SPE 138864 A Study of the Impact of 4D-Seismic Data on TSVD-Based Schemes for History Matching	643
<i>F. Dickstein, P. Goldfeld, G.T. Pfeiffer, E. Amorim, R.W. dos Santos, S.G. Gomez</i>	
SPE 138869 3D Geomechanical Modeling for the Apiay and Suria Oil Fields (Llanos Orientales Basin, Colombia): Insights on the Stability of Reservoir-Bounding Faults	654
<i>F. Fernandez-Ibanez, F. Cardona, M. Holland, E. Araujo, M. Brudy, J. Alvarelllos, Y. Ordonez, D. Mateus</i>	
SPE 138872 Challenges and Solutions to Optimize the Operation of Heavy Oil Fields in Remote Environmentally Sensitive Wetland Areas	668
<i>R.J. Dodson, E. Anthony, A. Schuitemaker</i>	
SPE 138875 Environmental Governance in Oil-Producing Developing Countries: The Case of Peru	677
<i>E. Mayorga Alba</i>	
SPE 138883 Techniques to Improve Flow Profiling Using Distributed Temperature Sensing	688
<i>X. Wang, T. Bussear, Baker Hughes, A.R. Hasan</i>	
SPE 138885 Carbon Footprint and Principle of Additionality in CO₂-EOR Projects: The Weyburn Case	698
<i>J. Condor, J. Suebsiri, M. Wilson, K. Asghari</i>	
SPE 138886 Gas Condensate Field Development Plan by Means of Numerical Compositional Simulation	707
<i>V.A. Huerta, A. Lanchimba, L. Villagra, R. Chacon, E. Savoy, P. Colonos</i>	
SPE 138888 Integrated Production Modeling: Advanced but, not Always Better	722
<i>C. Correa Feria</i>	
SPE 138907 First MPD Automated System Application in Offshore Gulf of Mexico Well Confirms Method, Huge Benefits	742
<i>S. Ramirez, R. Aguilar, R. Herrera, V. Vallejo, E. Perez, L. Giral, G. Castiblanco, H. Sanchez</i>	
SPE 138910 Fiber-Assisted Self-Diverting Acid Brings a New Perspective to Hot, Deep Carbonate Reservoir Stimulation in Mexico	752
<i>F. Martin, M. Quevedo, F. Tellez, A. Garcia, T. Resendiz, O. Jimenez Bueno, G. Ramirez</i>	
SPE 138914 Geomechanics Aspects of the Oriente Basin, Ecuador, South America	762
<i>Manuel Ernesto Torres, M. Frydman, X. Goddyn, Raul Medina, Andy Baker, Oscar Bravo</i>	

SPE 138918 Innovative Methodology to Revitalize a Heavy-Oil Mature Field by Identifying Opportunities to Apply New Cycles of Steam Injection	780
<i>J.P. Uribe, J.F. Pinilla, D. Cabrera</i>	
SPE 138926 A New Approach to Hydraulic Fracturing With Relative Permeability Modifiers	786
<i>F. Armirola, M. Machacon, R. Romero, G. Perez, M. Laestre, A. Ortega, A. Milne</i>	
SPE 138933 Seismic Innovation Challenges for Developing Stratigraphically Complex Mature Oil Fields: An Example From VMM, Colombia	799
<i>A. Reyes-Harker, W.M. Agudelo, S.E. Guevara, J.R. Sandoval</i>	
SPE 138934 A New Inflow Model for Extra-Heavy Crude Oils: Case Study Chichimene Field, Colombia	807
<i>F. Guarin Arenas, C.A. Garcia, C.A. Diaz Prada, E. Cotes Leon, N. Santos</i>	
SPE 138935 A Reliability-Based Systemic Method for Water Production Analysis, Diagnosis and Solution Design	818
<i>C.M. Reyes, J.L. Ortiz Volcan, E. Azuaje</i>	
SPE 138938 Surge and Swab Pressure Predictions for Yield-Power-Law Drilling Fluids	829
<i>Freddy Crespo, Ramadan Ahmed, Arild Saasen</i>	
SPE 138946 Influence of Stress Field in the Productivity of Naturally Fractured Reservoirs in Metamorphic Basement: A Case Study of the San Pedro Field, Amotape Group	840
<i>O.E. Meza, V. Peralta, E. Nunez</i>	
SPE 138951 Drilling Process Creates Data Issues Requiring Innovative Data-Gathering and Interpretation Techniques	852
<i>Robert W. Pope, Charles H. Smith, Tahereh Mirzadeh, Sandeep Ramakrishna</i>	
SPE 138956 Potential Economic Value-Added Model Using Formation Sampling-While-Drilling in Development Fields	860
<i>M. Djefel, C. Tigre, M. Proett, S. Eyuboglu, C. Naupari, G. Beck</i>	
SPE 138957 It Is All About Pressure: Drilling a High-Pressure Well in Record Time Using Real-Time Tools	872
<i>Gustavo Santos, Mario Serrano, Leonardo Villa, Eduardo Nieto</i>	
SPE 138963 Evolution of Rotary Steerable BHA Designs in Mexico Offshore: Solution to Stop Multiple Drillstring Failures in High-Vibration Environment	879
<i>S. Ramirez, R. Aguilar, Luis Felipe Gonzalez, William Lopez, Omar Bautista, Ivan Noriega</i>	
SPE 138965 Novel Approach for Fracture Characterization in a Metamorphic Reservoir	890
<i>E. Velez, J. Vasquez, M. Frydman, H. Janampa, O. Meza</i>	
SPE 138979 Massive Optimization Technique Improves Production of Mature Fields: San Francisco, Colombia	900
<i>Andres Felipe Suarez, David Soto, Hubert Borja, Remi Daudin</i>	
SPE 139004 Gas-Diffusivity Measurement in Reservoir Fluid at Elevated Pressures Systems for Transient Shut-In Modeling	911
<i>S. Zainal, H.V. Yee, I.M. Saaid</i>	

VOLUME 2

SPE 139020 Casing-Drilling Application in the Depleted La Cira Infantas Mature Field, Colombia	922
<i>E.A. Lopez, P. Antonio Bonilla</i>	
SPE 139035 Drilling Optimization of Wells From Crater Field: Decreasing Drilling Times and Operational Risks	928
<i>Carlos Perez Tellez, Hector Mandujano Santiago, Ferney Puentes, Jose Isacci, Luis Marino, Rodolfo Obediente</i>	
SPE 139040 Practical Modelling of Asphaltene Related Damage in Volatile Oil Reservoirs	936
<i>A. Restrepo, M. Ruiz, N. Rendon, S. Lopera</i>	
SPE 139054 Unconventional Heavy Oil Exploitation for Waste Energy Recovery	953
<i>A. Limpasurat, G. Falcone, C. Teodoriu, M.A. Barrufet</i>	
SPE 139056 A Systematic Approach to Modeling Condensate Liquid Dropout in Britannia Reservoir	965
<i>B. Goktas, N.A. Macmillan, T.S. Thrasher</i>	
SPE 139062 Relative Permeability Hysteresis Effects in the Near-wellbore Region During Liquid Loading in Gas Wells	974
<i>He Zhang, G. Falcone, C. Teodoriu</i>	
SPE 139065 Casing-Drilling Technology (CwD) Mitigates Fluid Losses in Peruvian Jungle	988
<i>H. Gallardo, J.P. Cassanelli, S. Barret, P. Romero, A. Mufarech</i>	

SPE 139105 Use of Natural Gas as a Driving Force in a Diluent-Gas Artificial-Lift System Applied to Heavy Oils	999
<i>F. Brito, L. Garcia, J. Brown</i>	
SPE 139134 Challenging Complex Deltaic Reservoirs on the Orinoco Heavy-Oil Belt Aided by New-Generation Azimuthal Deep-Resistivity Tools and Advanced Real-Time Geosteering Techniques: Successful Case Study from the Eastern Venezuela Basin	1012
<i>Celia Bejarano, Ely Castillo, Pierre Germain, Hector Mendoza, Carlos Manrique, Luis Chacin, Giser Pineda, Osbadis Mendez</i>	
SPE 139135 Application of an Artificial Neural Network (ANN) for the Correction of NMR Total Porosity, Effective Porosity and the Bulk Volume Irreducible Water Data Obtained from a Heavy Oil Reservoir using an Oil Based Mud Drilling Fluid in the Samaria: Tertiary on the Southeastern of Mexico	1027
<i>L.M. Granado, J.C. Sosa, J.A. Galicia, R. Rodriguez-Monroy, G. Escamilla, B. Ponce, M.C. Rueda, J. Quirein</i>	
SPE 139141 Analysis of Operative Variables for Establishing a Procedure to Obtain Representative Fluid Samples in Gas/Condensate Fields	1037
<i>T.R. Olmos Torres</i>	
SPE 139147 A New Methodology for Prediction of Bottomhole Flowing Pressure in Vertical Multiphase Flow in Iranian Oil Fields Using Artificial Neural Networks (ANNs)	1046
<i>M. Mohammadpoor, K. Shahbazi, F. Torabi, A. Qazvini</i>	
SPE 139155 Microseismic Hydraulic Fracture Monitoring to Determine the Fracture Geometry in Coyotes Field, Chicontepec	1056
<i>G. Gutierrez, A. Sanchez, A. Rios, L. Arguello</i>	
SPE 139165 Improvements in Routine Core Analysis on Whole Core	1065
<i>E. Perez, J.F. Zapata, M. Gonzalez, M. Herrera</i>	
SPE 139167 Wellbore Strengthening – Where Field Application Meets Theory	1082
<i>S. Barrett, J.P. Cassanelli, G. Manescu, G. Vasquez, F. Growcock</i>	
SPE 139169 New High Density Phosphate-Based Completion Fluid: A Case History of Exploration Wells: KRE-1, BOP-1, TBR-1 and KRT-1 In Indonesia	1094
<i>N.B.Sangka, H. Budiman</i>	
SPE 139170 Planning and Interpretation of Offshore-Field Tracer Tests Using Accurate and Refined Tracer Simulations	1104
<i>Olaf Huseby, Jan Sagen, Magnus Wangen, Sissel Opsahl Viig</i>	
SPE 139175 Analysis of the Effect of Different Forchheimer’s Beta Correlations in the Results of Numerical Simulation of Gas Flow in Naturally Fractured Reservoir	1120
<i>G. Souza, A.L. Zacchi Jr., A.B. Barretto Jr., A.P. Pires</i>	
SPE 139181 Detailed Facies Definition and 3D Static Model: Reservoir Management of the Eocene Producing Units in Block X of the Talara Basin in Northwest Peru	1135
<i>Fabio Laverde, Gerardo Pozo, Flavio Miranda, Gonzalo Carrillo, Kevin Torres, William Sanchez, Jose Luis Alvarez, Fabio Contreras</i>	
SPE 139190 Added Value by Resistivity Images for Wellbore-Strengthening Strategy Development in Cashiriari Field, Peru	1156
<i>R. Uribe, R. Carrillo, J.P. Cassanelli, S. Barret, C. Airoidi</i>	
SPE 139195 Brazilian Pre-Salt: The Challenges of Coring at a New Frontier	1170
<i>F.T. Peixoto Filho, I.S. de Souza Neto</i>	
SPE 139197 Deepwater Equipment for Flooding, Cleaning, Gauging, and Strength Tests	1177
<i>C. Guimaraes, F. Machado, L. Gasparini</i>	
SPE 139199 Enhanced Oil Recovery (EOR) Status – Colombia	1184
<i>R. Castro, G. Maya, D. Mercado, M. Trujillo, C. Soto, H. Perez</i>	
SPE 139200 Dina Cretáceos Field Chemical EOR: From Screening to Pilot Design	1191
<i>J.R. Sandoval, H. Perez, G. Maya, R. Castro, E. Munoz, K. Colmenares, J. Leon, F. Sanchez, D. Villadiego, E. Manrique, J. Romero, M. Izadi</i>	
SPE 139204 Unsteady and Pseudo-steady State Characterization of Matrix and Fracture Systems for Multiple Size Blocks with the Use of Empirical Correlations	1202
<i>Gabriela Morales-German, Edgar Rangel-German, Fernando Samaniego-Verduzco, Heber Cinco-Ley</i>	
SPE 139211 Using Intelligence to Improve Efficiency in Remote-Oilfield Operations: Case Histories	1223
<i>R. Tirado, B. Haapanen, J. MacLeod</i>	
SPE 139215 Cuttings Injection and Monitoring Operations: Cashiriari Gas Field, Peru III	1237
<i>D. Pierce, L. Dunlap, C. Suar, K. Zaki, A. Elfayoumi, M. Loloi, A. Abou-Sayed, S. Marinello, J.P. Cassanelli</i>	
SPE 139222 Selection Methodology for Screening Evaluation of Enhanced-Oil-Recovery Methods	1249
<i>M. Trujillo, D. Mercado, G. Maya, R. Castro, C. Soto, H. Perez, V. Gomez</i>	

SPE 139234 Managing Downhole Vibrations for Hole-Enlargement-While-Drilling in Deepwater Environment: A Proven Approach Utilizing Drillstring Dynamics Model	1259
<i>Molly Compton, Fernando Verano, Gail Nelson, Sean Xianping Wu</i>	
SPE 139236 Multidisciplinary Workflows Applied in Reservoir Characterization: A Heavy Oil Field Case Study During Early Stages of the Asset Life-Cycle	1272
<i>D. Astudillo, J. Porlles</i>	
SPE 139237 Numerical Transient Testing Deconvolution as a Reservoir Modeling Tool for Gas Fields in Early Development Phase	1288
<i>J. Quispe, V.A. Huerta, D. Quispe</i>	
SPE 139247 Indexing and Normalizing Natural Gas Endowment	1300
<i>R.F. Aguilera, R. Aguilera</i>	
SPE 139250 Analysis of Mechanisms of Flow in Fractured Tight-Gas and Shale-Gas Reservoirs	1310
<i>G.J. Moridis, T.A. Blasingame, C.M. Freeman</i>	
SPE 139254 Producing the Intelligent Riser: Advances in Fiber-Optic Monitoring and Visualization Applications Within Flexible Risers	1332
<i>B. Andersen, C. Staveley, J. Worsley, D. Watley, G. Naldrett, P.J. Bennett</i>	
SPE 139261 Production Allocation in Multi-Layers Gas Producing Wells Using Temperature Measurements	1342
<i>Reda Rabie, Ahmed Daoud, El-Sayed El-Tayeb, Mohamed Abdel Dayem</i>	
SPE 139267 Effect of Liquid-Liquid Extraction Process by Using a Paraffinic Solvent in the Removal of Acidity in Colombian Heavy Crude Oil	1368
<i>Hector J. Picon, Haydee Quiroga, Eivarth F. Caballero, Jesus A. Castro, Diana M. Poveda, Jenny R. Gutierrez</i>	
SPE 139280 Maximum Horizontal Stress and Wellbore Stability While Drilling: Modeling and Case Study	1380
<i>S. Li, C. Purdy</i>	
SPE 139283 Talara Basin, Peru: Structural and Stratigraphic Characterization Based on 3D-Seismic Data	1391
<i>S.H. Diniz, F.R. De Sa, C. Rodriguez, C.G. Santos, J. Cruz, W.E. Beas</i>	
SPE 139284 LWD Bimodal Acoustic Tool Delivers Full Range of Sonic-Wave Arrivals	1399
<i>Carlos Llorente, Giser Pineda, Joel de la Fuente, Javier Contreras</i>	
SPE 139287 Real-Time Drilling Optimization in Sihil Field With Remote Operation Center	1405
<i>Enrique Loo, Fidel Arango, Angel Millan</i>	
SPE 139299 Controlling Oil Production in Smart Wells by MPC Strategy with Reinforcement Learning	1408
<i>Alvaro Lopez, Y.J. Tupac, Marley M. B. Rebutzi</i>	
SPE 139300 Hole Enlargement in Brazilian's Pre-Salt Reservoirs: A New Technology Frontier	1420
<i>Leonardo P. Silva, Diogo G. Paixao, A. Kishi, R. Adriano</i>	
SPE 139303 Computational Fluid Dynamics for Enhanced Environment Protection and Water Management	1430
<i>M.A. Daas, T.S. Golczynski, M. Agrawal</i>	
SPE 139306 Gas Production From Hydrates Dissociation in Marine Sediments	1436
<i>M.A. Llamedo, D. Provero, A. Vilorio, F.E. Yanez</i>	
SPE 139307 New Design of High-Performance Cement Systems for Zonal Isolation: Influence on Porosity, Rheological Parameters and Chemical and Mechanical Resistance	1456
<i>C.R. Miranda, R.D. Toledo Filho, E. Fairbairn, C. Thaumaturgo, A.A. Vargas, G. Oliveira, K.C. Teixeira</i>	
SPE 139308 Laboratory Development and Successful Field Application of a Conformance Polymer System for Low-, Medium-, and High-Temperature Applications	1468
<i>J. Vasquez, L. Eoff</i>	
SPE 139311 Proposed Brazilian Fiscal System for Pre-Salt Production Projects: A Comparative Study of Gain and Loss of Government and Companies	1478
<i>Gaspar Ravagnani, D.J. Schiozer</i>	
SPE 139319 Economic Evaluation of Steam and Nitrogen Injection on SAGD Process	1487
<i>V.S. Rios, P. Laboissiere, O.V. Trevisan</i>	
SPE 139321 Multilateral Well Drilling Using Imaging Logs in Mature Field Near Tampico, México	1493
<i>V.M. Lopez-Solís, D. Velazquez-Cruz, G. Espinosa-Castaneda</i>	
SPE 139322 Residual-Oil Saturation for a Very Long Unconsolidated Core, With Live Oil at Reservoir Conditions	1499
<i>R. Moreno, E.J. Bonet, S. Iatchuk, M.R. Vieira, A.C. Correa</i>	
SPE 139328 BC-10 Brazil: Successful Deepwater 3D ERD Directional-Drilling Strategy Using Seismic Inversion and Point-the-Bit Rotary-Steerable System	1512
<i>L. Stockwell, S. Zambrano, F. Bezerra, Y. Arevalo</i>	

SPE 139336 An Integrated Methodology for Water Management Under Operational Restrictions	1519
<i>Eduin O. Munoz Mazo, Gaspar Ravagnani, Carlos Eduardo Barreto, D.J. Schiozer</i>	
SPE 139338 The Value of Flexibility to Expand Production Capacity for Oil Projects: Is it Really Important in Practice?	1530
<i>Costa Lima, Gaspar Ravagnani, M.A. Sampaio Pinto, D.J. Schiozer</i>	
SPE 139339 First Retrievable Directional Casing While Drilling (DCwD) Application in Peruvian Fields Generates Time Reduction and Improves Drilling Performance Preventing Potential Non-Planned Downtime	1540
<i>E. Beaumont, L. de Crevoisier, F. Baquero, J. Sanguino, D. Herrera, E. Cordero</i>	
SPE 139342 Integrated SAGD Thermal Stress Modeling	1555
<i>Adolfo C. Gonzales, Faris J. Bajwa</i>	
SPE 139344 Methodology for Cementing Low-Fracture-Gradient Gas Wells: Application in Cashiriari Field, Block 88	1585
<i>M.A. Santisteban, J.R. Mendoza, S. Barrett, J.P. Cassanelli</i>	
SPE 139345 A Methodology to Assess Uncertainties and Risks in Heavy Oil Projects	1599
<i>J.L. Ortiz Volcan, R.A. Iskandar</i>	
SPE 139347 Phase Implementation to Real Time Well Testing Using Fiber Optical Sensing Technology, San Alberto San Antonio Fields: Case Study – Part I	1612
<i>C.G. Ferraris, L.E. Gonzalez</i>	
SPE 139357 Traditional Material-Balance Analysis from a Stochastic Point of View: Predicting Reservoir Performance	1625
<i>R.A. Galecio, V.A. Huerta</i>	
SPE 139360 A Unique Sand Control Screen that Enhances Productivity	1642
<i>G. Woiceshyn, T. Russell, I. Caulfield</i>	
SPE 139366 Influence of Non-parallel SAGD Well Pairs and Permeability Heterogeneities on Recovery Factors from Warm Heavy Oil Reservoirs	1655
<i>Jose Luis Bashbush, Jose Antonio Pina</i>	
SPE 139369 Integrated Project Management Applied in Word-Class Gas-Field Development Projects: From Theory to Practice	1666
<i>E.B. Safra, S.B. Antelo</i>	
SPE 139370 Optimization of Completions in Unconventional Reservoirs for Ultimate Recovery	1677
<i>D.J. Snyder, R. Seale, R. Hollingsworth</i>	
SPE 139374 Turbidite Chicontepec Formation, Channel Chicontepec, Mexico: A Diagenetic and Petrophysical Study to Optimize the Completions Corralillo Area	1689
<i>E. Estrada, M. Vielma, J. Morales, J. Estrada, F. Tineo, G. Gomez</i>	
SPE 139376 Marlim Field: An Optimization Study on a Mature Field	1714
<i>Dirceu Bampi, Odair Jose Costa</i>	
SPE 139378 Integrated Sand-Production Management in a Heterogeneous and Multilayer Mature Field with Water Injection	1723
<i>G. Nunez, M. Amaya, J. Hernandez, O. Agudelo</i>	
SPE 139382 Regreening of Arid and Semiarid Areas by Using Produced Water from Oil Production in the Development of Agroindustrial Projects of Biodiesel Production	1730
<i>L.E. Farfan, D.F. Brinez, G. Perez, R.A. Pachon, Jorge I. Chavarro</i>	
SPE 139391 Application of Multiphase Meters in Gas Condensate Wells with High Flow	1736
<i>C. Navarrete, E. Gamboa</i>	
SPE 139404 Intelligent Completions and Horizontal Wells Increase Production and Reduce Free-Gas and Water in Mature Fields	1746
<i>J.C. Rodriguez, A.R. Figueroa</i>	
SPE 139424 Microporosity and Laminations in Non-Archie Reservoirs Create Challenges for Water-Saturation Computation and Reserves Evaluation: Camisea, Peru	1765
<i>M. Markley, F. Seminario, J. Gabulle, J. Luquez</i>	
SPE 139435 Optimization of Inflow Control Device Placement and Mechanical Conformance Decisions Using a New Coupled Well-Intervention Simulator	1772
<i>K. Thornton, M.Y. Soliman, R. Jorquera</i>	
SPE 139440 New Inert Tubing-Conveyed Large-Bore Sampling System for Deep-Water Cased-Hole Applications	1782
<i>R. Barros, C. Irani, F. Delano, P. Araripe, H. Filho</i>	
SPE 139460 Sand-Control Project for the First Receiving Lateral Well (U-Well) in the World	1794
<i>Carlos Alberto Pedroso, Carlos Borges, Luiz Paixao</i>	
SPE 139461 First Campos Basin Raw-Water-Injection Well: Sand Control and Stimulation	1809
<i>Carlos Alberto Pedroso, Nilson Jose Denadai, Eduardo Lopes Duarte</i>	
Author Index	