

Coiled Tubing & Well Intervention Conference & Exhibition 2013

**The Woodlands, Texas, USA
26-27 March 2013**

ISBN: 978-1-62748-140-3

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© (2013) by the Society of Petroleum Engineers
All rights reserved.

Printed by Curran Associates, Inc. (2013)

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

SPE 163880 Successful Application of Aqueous-Based Formation Consolidation Treatment Introduced to the North Sea	1
<i>R. Bhasker, A. F. Foo-Karna, I. Foo</i>	
SPE 163881 Hydrate Remediation During Well Testing Operations in the Deepwater Campos Basin, Brazil	9
<i>Joao Vitor De Assis, Raphael Mohallem, Sascha Trummer, Ernesto Franco</i>	
SPE 163883 Investigation of Low Frequency Water Hammer for Extended Reach Applications	12
<i>R. Macdonald, B. Jennings, G. Vecseri</i>	
SPE 163884 Development of a New CT Life Tracking Process	23
<i>Kenneth R. Newman</i>	
SPE 163885 Unlocking Wellbore Access Through Coiled Tubing: Confronting Well Intervention Limitations in Deepwater Completions and a Semisubmersible Rig	35
<i>M. F. Mohd Shariff, A. Reinaldo Hutabarat, A. Tzarina, W. Jon</i>	
SPE 163887 Restoring Monobore Well Life with Novel Coiled Tubing Gas Lift Dip Tube in a Highly Corrosive Environment	47
<i>Chaipayong Manatrakool, Stephen Dyer, Nguyen Hoang Son</i>	
SPE 163890 Electric-Line Pipe-Cutting Operation Optimizes Completion Removal, Offshore Russia	58
<i>Howard Otten, Bill Connon, Alex McKay, Kirill Kirsanov, Moray McGillivray</i>	
SPE 163891 Successful Case Histories for the Next Generation 3D CFD-Derived Fluidic Oscillator	67
<i>Robert Howard, Ismael Martinez, Tim Hunter</i>	
SPE 163892 Innovative Coiled Tubing Technology to Improve Performance in Horizontal Completions	73
<i>Garry McClelland</i>	
SPE 163893 Successful Oriented Hydrajet Perforation and Fracture Stimulation of a Highly Deviated Tight-Gas-Producer Well Completed in the Casing/Liner Overlap Section	80
<i>Francisco Gomez, Mohammed Al-Asiri, Talal Al-Mutary, Hazim Abass, Leopoldo Sierra, Jose R. Vielma</i>	
SPE 163894 Combining Tools to Increase Efficiency in Challenging Wellbore Cleanouts	99
<i>J. Li, B. J. Lindsey, K. Rahimov, S. Smith</i>	
SPE 163895 Solids Cleanout Analysis Reduces Screen Out Risk	115
<i>B. Aitken, J. Li</i>	
SPE 163896 Selectively Retrievable Coiled-Tubing Whipstock Provides Retrieval Options Without Loss of Production	136
<i>Anthony Mack, Mark Glaser, Mike Rossing</i>	
SPE 163898 Qualification of Specialized Cement to Inflate Bridge Plug for Water Shutoff Application in Horizontal Wells	143
<i>Salim Taoutaou</i>	
SPE 163899 Factors Affecting Effective Millout of Multistage Fracturing Sleeves in Horizontal Wellbores	152
<i>Rick Tompkins, Nick Smith, Ben Wellhoefer, Silumesii Yuyi, Bob Rhodes, Patrick Stivers</i>	
SPE 163901 Through-Tubing Inflatable Straddle Packer Assembly Enables Selective Treatment of Multiple Zones and Improves Productivity	161
<i>M. D. Kothiyal, A. Parasher, A. H. Qutob, R. J. Cooper, G. R. Forsyth</i>	
SPE 163902 Evolution of a Pinpoint Stimulation Technology and the Benefits Thereafter	166
<i>J. Hartley, D. Holden</i>	
SPE 163904 First Field Application of 2-7/8" Scale Removal Tool for Offshore Well Abandonment	175
<i>Navneet Birk</i>	
SPE 163905 Extending the Operating Life of Mature North Sea Assets by Big-Scale Offshore Installation of Large-Diameter Chrome Coiled-Tubing Velocity Strings	179
<i>R. M. De Jonge, D. Ambergen, U. A. Tousis, K. Veeken, L. Hoekstra, S. Gesterkamp</i>	
SPE 163907 Lessons Learned: Unconventional Intervention on a Ship-Damaged Caisson Well	188
<i>Corey Hoffman, John S. David, Elizabeth Bozeman</i>	
SPE 163908 Well Intervention Challenges in Mega-Reach Wells with Coiled Tubing and the Application of the Latest Technologies in Tackling These Challenges, Saudi Arabia	198
<i>M. Dhufairi, J. Arukhe, T. Elsherif, F. Baez, W. Kharrat, M. Bal, R. E. Krueger Jr.</i>	
SPE 163909 First Real-Time DTS Inversion Job Worldwide	205
<i>Victor H. Lopez, Marco A. Castillo, Rafael Custodio, Sarah Worden, Miguel Gerardo Romandia, Pierre Ramondenc, Felipe L. Rueda</i>	

SPE 163910 Coiled-Tubing Jet Cutting Multiple Stage Fracture Treating Improves Fracture Treatment Techniques to Unlock Bypassed Reserves in Cotton Valley Sands, Dorcheat Macedonia Field, Magnolia Arkansas	216
<i>R. W. Pomrenke, Jim Strain, R. Davis, Chuck Bell</i>	
SPE 163911 The First Implementation of Well Interventions by a Full Catenary Coiled-Tubing System With a Dynamic Positioning Vessel With Compensated Gangway	227
<i>R. Wattanasuwankorn, S. Ashby, F. Hammer, N. Long, Y. Song, J. A. B. Ahmed</i>	
SPE 163912 Real-Time Abrasive Perforation on Coiled Tubing Saves Operation Time, Improves Cost Efficiency and Boots Reservoir Production in Delta Mahakam Field's Low-Porosity Reservoirs	237
<i>I. M. Purwitaningtyas, S. O. Mezie-Okoye, T. Sugiarto, R. A. Wardhana</i>	
SPE 163913 Application of Sand Jet Perforations for Multizone Fracturing in CBM Wells, India.....	252
<i>Nikita Kothari, Mahesh Mahajan, Shahvir Pooniwalla, Jateen Panjwani</i>	
SPE 163914 Stuck Coiled Tubing: Addressing the Risks in a Complex Operating Environment	264
<i>Rex Burgos, Robin Mallalieu</i>	
SPE 163915 A Coiled-Tubing Perforating Solution Incorporating a Gun Deployment System and Dynamic Underbalanced Technique Improves Well Production in High-Angle Deep-Gas Wells in Saudi Arabia	275
<i>H. A. Jubran, J. Leal, S. A. Al Buhassan, S. Bolarinwa, W. Kharrat, D. M. Polson, M. T. Barnawi</i>	
SPE 163916 Job Planning and Execution when Fishing Live Perforating Guns with 8,000-psi Surface Pressure	295
<i>E. Sredensek, H. Sanders</i>	
SPE 163919 A New Approach for CT Interventions in High-Permeability-Contrast Wells of Cupiagua Field, Colombia.....	304
<i>D. A. Fernández Castaño, N. Ruiz, J. Muñoz, R. Zabala, O. F. Botero, E. Mora, D. J. Nava</i>	
SPE 163920 Real-Time Evaluation of a Velocity String: Case History of a Suitable Solution for Well Recovery	315
<i>D. A. Fernández Castaño, N. Ruiz, R. Zabala, E. Mora, D. J. Nava</i>	
SPE 163921 Rheological Properties of Surfactant-Based and Polymeric Nano-Fluids.....	321
<i>M. F. Fakoya, S. N. Shah</i>	
SPE 163922 Zone Abandonment with E-Line Inflatable Bridge Plug Provides Work-Around for Platform with Coiled-Tubing Access Limitations	338
<i>Alejandro Osorio, Ray Frisby</i>	
SPE 163923 Enhanced Jetting Tool Integrated With Sand/Well Vacuuming Technology Optimizes Cleaning and Stimulation for Heavy-Oil Wells.....	344
<i>E. D. Duque, J. D. Diaz, R. Pineda, C. Marin, M. Núñez</i>	
SPE 163925 Optimal Sand Cleaning Algorithms for Planning and Executing Electric Wireline Suction Tool Operations	361
<i>W. Nunez, L. Perez, B. Schwanitz</i>	
SPE 163926 Fiber-Enhanced Proppant Plugs Ensure Zonal Isolation During Multistage Coiled Tubing Abrasive Perforation and Stimulation in Horizontal Sidetracks.....	370
<i>K. V. Burdin, M. V. Oparin, A. R. Adil, M. A. Popov, V. Klimenko, P. V. Bravkov, A. Klyubin, M. Novikov, A. A. Potryasov, V. N. Kovalev</i>	
SPE 163927 Successful Coiled-Tubing Application for Milling, Cleanout, and Kickoff Operations of Horizontal Wells Completed With Liner for Multistage Hydraulic Fracturing Project on Priobskoe Oil Field	381
<i>K. V. Burdin, S. S. Sitdikov, I. V. Bataman, N. A. Mogutov, A. N. Nikitin, V. A. Shvayko, A. N. Serdyuk, S. A. Vereschagin, A. Yudin, P. Bravkov, D. Serikov</i>	
SPE 163928 Break the Friction: Chew the Plug for Faster Completions on Coiled Tubing	392
<i>Landry G. Gilbert, Lane P. Skyles, Lee M. Smith, Gary W. Davis, Kevin G. Medlin</i>	
SPE 163929 Accelerating the Learning Curve: Adapting Global Expertise to Coiled-Tubing Operations in Argentina Shale Development	405
<i>Sergio J. García R., Juan M. Moll, José Olivas, Martin Mauro Nebiolo</i>	
SPE 163930 A Metallurgical Look at Coiled Tubing.....	414
<i>M. Coloschi, G. Gomez, J. Mitre, T. Nguyen, B. Reichert, M. Valdez</i>	
SPE 163931 Using Electric-Line Tools To Clean Wellbore Laterals and Perforate Toes.....	423
<i>L. D. Gomez, N. Miller, K. Binnion</i>	
SPE 163932 Feasibility Study of Underbalanced Drilling Using Coiled Tubing (CT-UBD): A Case Study Field “A”, Indonesia	431
<i>B. T. H. Marbun, L. Arliyando, S. Z. Sinaga, G. V. I. Arimbawa</i>	
SPE 163933 Plug Alternatives To Prevent Fluid Loss and Formation Damage During Extreme Hydrostatic Overbalance Well Interventions in Deepwater Wells	452
<i>Namir Salazar</i>	

SPE 163934 First Offshore Coiled Tubing Drilling with Ultra Slim BHA in Matured Malay Basin	465
<i>Zahidi Ibrahim, Nurul Ezalina, Sivakumaran Krishnan, Lim Kien Ming, Thanasekaran Maniam</i>	
SPE 163935 Reducing Water Volume in Multistage Fracturing Using Sliding Sleeves and Coiled-Tubing-Deployed, Resettable Frac Isolation	473
<i>Daniel Schlosser, Craig Lane, Lyle Laun</i>	
SPE 163936 To Mill or Not to Mill: A Fully Retrievable Multistage Fracturing System	482
<i>John Griffin, Rair Barraez, Sean Campbell</i>	
SPE 163937 A Chronological Review of Concentric Coiled Tubing Vacuum Technology: Past, Present and Future	491
<i>Rodolfo Pineda, B. J. Lindsey, Michael Taggart, Simon Smith, Mounir Ababou</i>	
SPE 163938 Strategic Rigless Approach in Identifying and Curing Complex and Multiple Completion Leaks in Malaysia	511
<i>S. A Syed Mohd Shahril, M. Ariff Shazwan, O. Mohd Zulkifli, C. Nussbaum, B. Sathish Kumar</i>	
SPE 163939 Electric-Line Milling System Removes Stuck Frac Sleeve without Damaging the Subsurface Safety Valve Landing Nipple	524
<i>Josiah Igwe, Carl Diller, Robert Harris, Jeremy Albright, Jesper Lykkebo</i>	
SPE 163940 New Coiled Tubing Pipe Failure Mechanism Identified in Severe Dynamic Conditions - The Potential Effects of Running Speed on Pipe Performance	530
<i>Valeriano Cano, Bruce Reichert, Carmen Grimaldo, Ryan Addison</i>	
SPE 163942 Plug and Abandonment of a Deep High-Pressure and High-Temperature Gulf of Mexico Well Using Coiled Tubing: A Case History	544
<i>Brendon Webb, Alexander Rudnik, Burt Bonin, Luke Lefort</i>	
SPE 163943 Retrieval of an Inflatable Plug Using Only Slickline and Electric-Line Technology	553
<i>Ben Smith, Jeffrey Stricker, Kevin Reckert, Floyd Thibodeaux, Angel Luviano, Duane Kent</i>	
SPE 163944 Pressure Activated Sealants-Non-Rig Solutions in Mature Fields in Alaska	557
<i>J. Y. Julian, J. C. Jackson, B. C. Ellis, D. N. Cary</i>	
SPE 163945 State-of-the-Art Portable Measurement and Defect Detection Technology for Coiled Tubing String	563
<i>Andrew Zheng, Zhanke Liu, Mirjam Zwanenburg, Rex Burgos, Nicolas Scuadroni, Aaron Stayer</i>	
SPE 164577 An Evaluation of Well Deployment Aspects Affecting Well Flow Performance on Horizontal Production Log Results	571
<i>Duncan Heddleston</i>	
Author Index	