TABLE OF CONTENTS

Safety and Operations Measures Taken by One Company to Conduct Onshore Rigless Critical Well Intervention Operations in Water, Oil, and Gas Wells .................................................. 1
H. Hasan, Al Jabran, A. Shaker, Al Bu Hassan

Deepwater Workover Experience With Extreme Hydrostatic Overbalance, 2002–2009 .......................................................... 12
G. Myers, D. Cahill, P. Clay, B. Esquinance, B. Smith, R. Zeringue, C. Davis, T. Kenney

Application of CT-Conveyed Perforating With the Sand Jetting Technology on North Sea Deep Horizontal Tight Gas Producer ................................................................. 18
R. Fryzowicz, R. Naughton-Rumbo, E. Schrama

Coiled Tubing Operations From a Work Boat .................................................................................. 35
N. Long, R. Raj, S. Srisa-Ard, N. H. Son

Live Fiber-Optic Telemetry Downhole Measurements on Coiled-Tubing-Enabled High-Efficiency Sand Cleanout in a Subhydrostatic Well for the First Time in the Gulf of Mexico ....................................................................... 44
A. Rudnik, C. Foinquinos

Multifunctional Compact Well Maintenance System ........................................................................ 61
G. Tail, I. Smith

Results of a New Coiled-Tubing Assessment Tool ......................................................................... 70
R. K. Stanley

Use of Salt-Tolerant Friction Reducer for Coiled-Tubing Applications in Unconventional Shale Formations ................................................................................................. 78
S. D. Lindsay, P. McNell, M. J. Sackash, J. E. Bryant

Well Integrity Analysis in Gulf of Mexico Wells Using Passive Ultrasonic Leak Detection Method ......................................................................................................................... 90
J. E. Johns, Seawell, F. Aloisio

CT-Conveyed Sand Jetting Perforation on Deep, Tight Gas Well: Treatment Fluid Selection and Application Perspective .................................................................................. 105
R. Fryzowicz, Baker Hughes; T. Maas

Merging Coiled Tubing and Swellable Packer Technologies ............................................................ 117
R. T. Brooks

Combining Elastic and Plastic Fatigue Damage in Coiled Tubing ..................................................... 124
C. Bridge

World’s First Production Logging With Fiber-Optic-Enabled Coiled Tubing (CT) ......................... 133
V. Noya, A. R. Adil, K. Wolf, S. S. Chee, J. Stuker, F. Rodriguez

“The Seven Pillars of Well Integrity Management”: The Design and Implementation of a Well Integrity Management System ........................................................................................................ 141
J. C. Dethlefs, B. Chastain

Operational Benefits of Coiled Tubing Enabled With New Real-Time Data Communication System .......................................................................................................................... 157
Michael Taggart, Niall Murray, Trevor Sturgeon

Best Practices for Multizone Stimulation Using Composite Plugs ................................................... 169
D. J. Lehr, D. D. Cramer

New Hybrid System Brings the Flexibility of Coiled Tubing to Long, Extended-Reach Wells .......... 194
F. McNell, S. D. Lindsay, R. Lyons, R. P. Gracey

Assessing Well Integrity Risk: A Qualitative Model ........................................................................ 214
J. C. Dethlefs, B. Chastain

Downhole Safety Valve for Well-Intervention Operations: Design, Testing, and Successful Case History ......................................................................................................................... 225
A. Ehtesham, D. Reesing, J. Gillet

Use of High-Strength Coiled Tubing in High-Pressure/High-Temperature Perforating Operations ................................................................................................................................. 235
K. Makris, D. A. Barclay, W. D. Vanarnam

New Higher-Strength Coiled Tubing Developed To Extend Coiled Tubing Operating Envelopes .............................................................................................................................. 246
W. D. Vanarnam, C. Hargis

Heavy Duty Wireline Fishing Operations in a HP/HT Sour Gas Well: A Case Study ....................... 253
G. Purwakaatana, I. Yusuf, S. Ghany, J. M. Vincent

The Application of Heavy Duty Wireline Fishing Techniques Retrieves Wellbore Obstruction and Allows Well To Be Plugged and Full Integrity To Be Regained ................................................. 263
C. Flett, R. Macaulay, J. M. Vincent

First Successful Coiled-Tubing Intervention Operation on the Helideck of a Normally Unmanned Installation in Offshore India .................................................................................... 271
A. Savoshkova, A. Turner, K. Lavan
HWO/Snubbing Unit Used Effectively for Subsea Flowline Fishing and Cleanout at Nansen Spar ..........282
J. D. Ford, R. McDaniel, G. P. Barbee

Cased-Hole Multistage Fracturing: A New Coiled-Tubing-Enabled Completion..........................293
J. E. Ravensbergen, Baker Hughes

Unconventional P&A Intervention With Coiled Tubing Below a School Building: Comodoro Rivadavia, South Argentina Case History ..........................................................300
H. Graterol, T. Calvo

Influence of Downhole Fluid Behavior Changes on Slickline Operations in Burgan and Magwa Oil Fields, Kuwait .................................................................311
M. Busnand

Well Interventions in Depleted Gas Wells Made Economical With Use of Small Size (3/4 in.) Coiled Tubing .................................................................321
W. Jelinek, K. El-Mabrouk, E. Biezen, D. Leybourne, R. M. De Jonge

Success From Subsea Riserless Well Interventions .................................................................330
L. Fjortoft, G. Sæstøbel

Installation of Velocity Strings (VS) Without Loading-Killing the Well ......................................339
Manuel Chavez

Hurricane Contingency for Stuck Coiled Tubing: Preparing for Platform Evacuation and Allowing a Safe Recovery Maurice, Louisiana, North Gulf Coast ..........................................................343
Carlos Torres, Carl Cregpel, Charles H. Kelm, William Meekamp, Kris Cuttingham

Optimization of Operational Time and Workover Resources With the Alternate Use of Coiled Tubing and Pulling Unit for Well Abandonment ......................................357
A. Pando, L. Silva, B. Lopes, G. Cardona, O. Acevedo

Innovative Use of Inflatable Packer and ROV To De-Oil Damaged Subsea Pipeline: Case Histories .................................................................368
R. A. Murphy, S. Neves

Pushing the Boundaries of Concentric Coiled Tubing Technology To Resurrect Sub-Hydrostatic Gas Wells on an Unmanned Offshore Installation .......................................372
A. Davies, M. J. Dunning, M. P. Kuchel, T. Roberts, M. J. Taggart

Ultrasound Logging Techniques for the Inspection of Sand Control Screen Integrity .................387

Backpressure Valve for Subhydrostatic Wells .................................................................405
Z. R. Xu, G. Tunc, D. A. Pipchak, D. Morbelli

Revolutionary Matrix Stimulation Process in Offshore Mexico Using Coiled Tubing Equipped With Optical Fibers (CT-EOF) and Distributed Temperature Survey (DTS) ........................................415
S. Garcia, E. Franco, M. Gerardo, L. Davila, B. Ortiz, M. Castillo, R. Miranda, J. Perez

Innovative Method to Control Acid Placement During the Stimulation of Wells With High Water Cut ..................................................................................................431

Inversion of DTS Logs To Measure Zonal Coverage During and After Wellbore Treatments With Coiled Tubing .................................................................443
P. M. J. Tardy, P. Ramondenc, X. Weng, R. Burgos, F. Baez, K. Yekta Ganjeh

High-Temperature Downhole Motor Facilitates Cleanout of Obstructed Thermal Well, Saving Production Downtime .................................................................455
J. Thompson, M. Rossing

Initial Deployment of a New Design One-Trip Straddle System Resolves High Pressure Cross-Flow Problem in Water Injection Well in Algeria .................................................................462
M. Addoun, K. Maraf, M. Tighe, J. Bramwell, A. Snaas

Determination of Optimum N2 Rate for Unloading Gas Wells With Coiled Tubing .................471
Y. Zhou, E. Smalley, S. Opel

Automated Direct Fired N2 Vaporizer ..................................................................................483
T. Peigh, J. Roberts, Hydra Rig

New Innovative Top-Side Solutions To Provide Beneficial Offshore Well Intervention ..........500
K. I. Torgersen

Coiled Tubing Milling Operations: Successful Application of an Innovative Variable-Water Hammer Extended-Reach BHA to Improve End Load Efficiencies of a PDM in Horizontal Wells .................................................................509
J. C. Castaneda, C. E. Schneider, D. Brunskill

Skin Monitoring and Well Testing Utilizing Fiber-Optic Telemetry-Enabled Coiled Tubing ..........528

Development of a Laser Scan Inspection Tool for Coiled Tubing ............................................575
S. Kilawibi, S. M. Tipton

Coiled-Tubing-Conveyed Perforating in Shale .................................................................596
T. Lograngen, J. Barton, L. Andrich