

# **SPE/IATMI Asia Pacific Oil & Gas Conference and Exhibition 2017**

Jakarta, Indonesia  
17 - 19 October 2017

Volume 1 of 5

ISBN: 978-1-5108-5161-0

**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© (2017) by Society of Petroleum Engineers  
All rights reserved.

Printed by Curran Associates, Inc. (2018)

For permission requests, please contact 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](mailto: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: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## VOLUME 1

### SESSION 1: TECHNICAL SESSION 1: FACILITIES AND ASSET INTEGRITY

<b>Cost Effective Method to Maintain Integrity of Non Productive Asset: Case of Tunu GTS-H Preservation</b> .....	1
<i>Marzuki, I.; Junaedy, H.</i>	
<b>Integrated Carbonate Field Management Using Forward Stratigraphic Modelling Approach. Case Study of a Field in Central Luconia</b> .....	10
<i>Uli, D. A.; Mithani, A. H.; Ali, Kartina; Abu Mansur, Roslan B; Masoudi, Rahim; Tewari, Raj Deo; Jirim, Shamsudin; Harith, Z. Z. T.; Mohammad, M. H. H.; Kanesan, T.; Kolupaev, A.; Lee, Y.</i>	
<b>Investigation on the Failure of the Bearing Mechanisms of the Marine Turbine on an FPSO Operating in Vietnam Waters</b> .....	19
<i>Vijayaraghavan, Vijay</i>	
<b>Application of Quantitative RBI on Residual Fluid Catalytic Cracking</b> .....	24
<i>Shuang, Liang; Duhui, Lu; Fangwei, Luo</i>	
<b>Pushing Boundaries Through Simplification of Complex Carbonate Reservoir Modeling: Small Investment, Big Gains</b> .....	31
<i>Khor, Y. Y.; Shrivastava, S. K.; Borhan, N. A.; Baghdadi, F.; Motaie, E.; Kadir, Z.; Supaat, S. F.; Anasir, N.; Mithani, A. H.</i>	
<b>Centrifugal Pump and Centrifugal Compressor Process Containment</b> .....	40
<i>Muthanandan, Sundralingam</i>	
<b>Integrated Reservoir Analysis and Geomodeling on Shallow Zone of Handil Field, a Key to Identify Un-Swept Area for Future Development of Mature Oil Field</b> .....	49
<i>Benidiktus, G. Massuka; Andar, Trianto; Sinto, Yudho; Bayu Setyo, Handoko; Iswahyuni, F. Hayati</i>	
<b>Reservoir Rock Typing for Sweet Spot Identification within Complex Clastic Reservoir: A Success-Story from Northwest China</b> .....	60
<i>Wan, B.; Jiang, B.; Meng, X.; Li, S.; Yang, Y.; Gong, H.; Zhao, H.; Wang, W.; Wei, G.; Zhuang, X.</i>	
<b>Technical Integrity Management System</b> .....	74
<i>Hasanah, Uswatun; Wibisono, Sigit</i>	
<b>Design of Cost-Effective Solution Against Acoustic Induced Vibration through Advanced FE Analysis</b> .....	79
<i>Karim, Hafiz; Ancian, Loic</i>	
<b>Guidelines for the Environmental Monitoring of Oil and Gas Industry in Italy: Seismic, Ground Deformation and Reservoir Pressure Measurements</b> .....	92
<i>Macini, P.; Mesini, E. N.; Antoncicchi, I.; Terlizese, F.</i>	

### SESSION 2: TECHNICAL SESSION 2: SIMULATION, ARTIFICIAL INTELLIGENCE AND MODELLING: ENHANCED SIMULATION WORKFLOWS AND OPTIMISATION

<b>Enhanced History Matching and Prediction Using Integrated Analytical and Numerical Modeling Approach</b> .....	103
<i>Ghadami, Nader; Benayad, Nourreddine; Motaie, Eghbal; Raub, M Razib</i>	
<b>A Dynamic Hybrid Dual Porosity Model to Simulate the Waterflood-Induced Fractures in Low-Permeability Reservoir</b> .....	119
<i>Tianyi, Fan; Shuhong, Wu; Hua, Li; Baohua, Wang; Xiaobo, Li</i>	
<b>Breaking the Barrier of Flow Simulation: Well Placement Design Optimization with Fast Marching Method and Geometric Pressure Approximation</b> .....	129
<i>Zhang, Jianye; Huang, Lan; Liu, Min; Cui, Xiaofei; Jiang, Zhixiang; Bahar, Asnul; Pochampally, Saikiran; Kelkar, Mohan G.</i>	
<b>Massive Fracturing Evaluation to Different Well Patterns for Daqing Tight Oil Reservoirs</b> .....	147
<i>Li, Ang; Zhuang, Xiangqi; Wen, Heng</i>	
<b>Modelling and Analysis on High-Fidelity Fine-Scale Reservoir Simulation in Mature Waterflooding Reservoir</b> .....	159
<i>Shuhong, Wu; Jiangyan, Dong; hua, Li; Qiaoyun, Li; Baohua, Wang; Tianyi, Fan</i>	
<b>Modelling Trapped Gas Expansion in Water-Drive Reservoirs</b> .....	169
<i>Babadimas, J. M.</i>	
<b>New Considerations of Shale Gas CO<sub>2</sub>-EGR from Molecular Simulation</b> .....	205
<i>Xiaoqi, Wang; Xu, Jin; Jianming, Li; Liang, Sun; Xiaodan, Liu; Zengqiang, Zhai</i>	

### SESSION 3: TECHNICAL SESSION 3: PRODUCTION OPTIMISATION IN BROWNFIELDS: FINDING VALUES IN YOUR OWN BACKYARD

<b>Production Optimization of Raageshwari Field Using Network Modelling</b> .....	214
<i>Bhardwaj, Charu; Godiyal, Preeti; Mathur, Mohit; Ranjan, Amit; Verma, Saurabh K.</i>	
<b>Fueling Our Future with Gas through End-to-End Integrated Optimisation of LNG Supplying Gas Fields</b> .....	219
<i>Chuah, S. M. M.; Khor, Y. Y.; Borhan, N. A.; Baghdadi, F.; Adillah, B. J.</i>	
<b>Ultra-Long Stroke and Intelligent Rod Pumping System for Producing Difficult Wells and/or Fluids</b> .....	228
<i>Kennedy, Dave M.; Ghareeb, M.</i>	
<b>A New Concept of Sand Management Philosophy; Revolutionary &amp; Cost Effective Solution</b> .....	239
<i>Hamza, N.; Baghdadi, F.; Yahia, Z.; Madon, B.</i>	

<b>Predicting Start-Up Liquid Loading in a Mature Oil &amp; Gas Field: A Case Study</b> .....	249
<i>Malik, Ankit; Prakash, Ravi; Kumar, Mukesh; Barot, Miten</i>	
<b>Integrated Waterflood Connectivity Analysis in Compartmentalised Reservoir of Windri Area, Asri Basin, Indonesia</b> .....	259
<i>Widiatmo, R.; Gunawan, H.; Afi, F. N.; Waskito, L. B.; Nugroho, P.; Sunarta, J.</i>	

#### **SESSION 4: TECHNICAL SESSION 4: WELL INTERVENTION AND DATA ACQUISITION**

<b>First Fiber-Enabled CT with Reservoir Saturation Tool in Asia to Unlock Behind-Casing Opportunity in Offshore Myanmar</b> .....	271
<i>Mohallem, R.; Jenie, J.; Hami, Z.; Nazri, A. Mohamad; Zaman, N. Kamarul; Salleh, K.; Htun, Y. Min</i>	
<b>Sustaining the Barrels - Making Well Intervention More Affordable</b> .....	280
<i>Mokhtar, S. R. Mohd; Wibisono, R.; Zakaria, M.; Shabudin, A.</i>	
<b>Maximizing the Economic Value of Intelligent Completions through Effective Use of Surveillance</b> .....	286
<i>Gohari, Kousha; Gonzalez, Luis E; Hosseini, Naser; Kazi, Saif; Khateeb, Ashraf; Awid, Abdurrezagh; Jutila, Heikki; Kshirsagar, Atul</i>	
<b>Real-time Surveillance and Analysis Tool for Intelligent Completion - An Ultimate Solution to Oil Recovery and Integrated Operation</b> .....	299
<i>Ramizah, A. R.; Gordon, Goh K. F.; Tina, Lee L. T.; Varma, G.; Muzahidin, M. S.; Willem, S.; Ahmad, S. H.; Sanggeetha, K.; Lester, T. M.; Khairul, Akmal M.; Mabel, Chia P. C.; Tamin, M.; Dipak, M.</i>	
<b>Application of Temperature Surveys to Enhance and Optimize the Limited Entry Hydraulic Fracturing Treatment Design and Placement</b> .....	307
<i>Sidharth, P.; Tiwari, S.; Ranjan, V.; Anand, S.; Goyal, R.; Vijayvargia, U.; Sharma, A.; Johri, N.; Yadav, K. Janardan; Deb, D., Cairn; Tibbles, R.; Pathak, S.</i>	
<b>Extending Life of Liquid Loaded Gas Wells Using Velocity String Application: Case Study &amp; Candidate Selection</b> .....	314
<i>Andrianata, Satria; Allo, Keken Rante; Lukman, Ade; Kramadibrata, Ari Taufiq</i>	
<b>Enhance ESP Performance in Sandy and Gassy Applications</b> .....	326
<i>Quintero, Regulo; Elmahbes, Reda; Malino, Antoni; Larez, Arsenys</i>	

#### **SESSION 5: TECHNICAL SESSION 5: DEEPWATER AND SUBSEA**

<b>Enhanced Efficiency in Deep Water Testing Operations Delivered by Smart DST String</b> .....	334
<i>Patcha, Jayachand; Hamza, Amir Shah; Ahmad, Mior Yusni; Karim, M Aminuddin; Zakariyah, M Al Fatah; Fyfe, David George; Ham, Justin Azlan</i>	
<b>Integrated Stress Calibration by Utilizing Advanced Acoustic Information - A Case Study from Deepwater Malaysia</b> .....	344
<i>Heidari, Babak; Millot, Pascal; Chujo, Kota; Watanabe, Yoshiaki; Yoshiyama, Tomoyuki</i>	
<b>Subsea Technology - Multiphase Pumping</b> .....	356
<i>Anwar, Zeeshan</i>	
<b>Bio-Inspired Superhydrophobic Coatings with High Performance for Subsea Petroleum Equipment</b> .....	382
<i>Jin, Xu; Chen, Yu; Li, Jianming; Wang, Xiaohui; Bi, Lina; Bai, Jie; Wu, Juntao</i>	

#### **SESSION 6: TECHNICAL SESSION 6: NEAR-WELLBORE RESERVOIR ASSESSMENT**

<b>Reservoir Mapping While Drilling Tool Overcomes Geological Uncertainties- Case Studies From Offshore Malaysia</b> .....	388
<i>Yen, Philip Tan Jeng; Yen, Kok Kwi; Hassan, Nur Atiqah; Kyi, Ko Ko</i>	
<b>Field Test Results in Malaysia Wells of a New-Generation Slim Pulsed Neutron Logging Tool</b> .....	399
<i>Millot, P.; Wong, F. K.; Rose, D. A.; Zhou, T.; Grover, R.; Sundaralingam, S.; Amin, F.; Prasodjo, A.; Johare, Dzulfadly; Kwang Hui, Nicholas Foo</i>	
<b>The Characterisation of Differential Depletion in a Thinly Layered Coal Seam Gas Reservoir Using Packer Inflation Bleed Off Tests PIBOTs</b> .....	411
<i>As, D. van; Bottomley, W.; Furniss, J. P.</i>	
<b>Multi-Layer Formation Pressure Determination by Triple-Rate Spectral Noise Logging and Data Verification by Transposed Pressure Deconvolution</b> .....	421
<i>Taipova, V.; Zabbarov, R.; Chirkunov, A.; Aslanyan, A.; Aslanyan, I.; Minakhmetova, R.; Garnyshev, M.; Farakhova, R.; Surmasheva, L.</i>	
<b>Capillary Pressure Drainage Curves: Modelling and Prediction of Capillary Entry Pressure</b> .....	437
<i>Behrenbruch, Peter; Kennaird, Tony; Duy Bui, Khang; Do Huu, Minh Triet</i>	

#### **SESSION 7: TECHNICAL SESSION 7: UPPER COMPLETION**

<b>Study on Non-Contact Connection Separated Layer Production Technology and Its Application Test</b> .....	457
<i>Tong, Guo; Xiaohan, Pei; Yafeng, Ju; Fuwei, Bi; Quansheng, Zhang; Qinghai, Yang</i>	
<b>New Generation Inflow Control Device to Maximize Well Productivity during Every Phase of a Well's Life</b> .....	468
<i>Sharma, Hemant K; Al-Mulhim, Abdulrahman K.; Al-Mutairi, Saad M.; Al-Shammari, Nayef S.</i>	
<b>Gas Lift Techniques Modification to Overcome Evolution in Completion</b> .....	484
<i>Izwardy, Saesarian; Oscar Edy, I Ketut; Wijanarko, Andre; Fedriando, Fedriando; Ibnu Pratomo, Andaru; Firmansyah, Nanang</i>	

<b>Surface Controlled In Situ Gas Lift for Appraisal of Oil Reservoir in a Gas Well</b> .....	493
<i>Hamza, N.; Baghdadi, F.; Ibrahim, S. Y. Syed; Madon, B.</i>	
<b>Advantages of Insert Pump Application through Tubing in SF Field Shallow Reservoir</b> .....	501
<i>Astuti, Helmy Rina Puji; Ernata, Wayan Mahendra; Prasetya, Afriandi Eka</i>	
<b>Closed Loop Speed Control System of ESPCP with Capillary Tube</b> .....	510
<i>Zhu, Shijia; Hao, Zhongxian; Wang, Quanbin; Zhang, Lixin</i>	
<b>Design and Application Evaluation of Vacuum Insulated Tubing for Wax Control in Bohai Oilfield</b> .....	519
<i>Liu, Yigang; Shang, Baobing; Wu, Huaxiao; Bai, Jianhua; Meng, Xianghai; Ma, Jun; Mu, Mei; Jiang, Zhaobiao</i>	
<b>Overcoming Electrical Submersible Pumping Production Challenges in Highly Deviated Wells</b> .....	529
<i>Mahbes, Reda El; Quintero, Regulo; Malino, Antoni</i>	
<b>Innovative Completion Strategy Overcomes Operational Challenges in Total Losses Condition - A Case Study</b> .....	540
<i>Riyanto, Latief; Teng, Chaw Kit; Fabian, Oka; Samuel, Orient Balbir; Madon, Bahrom B; Zaidan B Khalid, M; Rosato, Miguel; Raimi B Johari, M; Md A Jabar, M Zawawi B; A Rashid, Noor Hidayah Bt</i>	

**SESSION 31: TECHNICAL SESSION 31: INTEGRATED FACILITY EVALUATION AND TECHNOLOGY SELECTION**

<b>Unique &amp; Practical Approach in Selection and Classification of Hydrocyclone Desander Technology: Utilizing a Decade of Experience</b> .....	550
<i>Gupta, A.; Kamat, D.; Shahrum, Z.; Firmansyah, A.; Salleh, N. I.; Tan, B. C.; Madon, B.</i>	
<b>Differential Pressure Cone Meter as Meter Solution in FPSO's Facilities</b> .....	564
<i>Simatupang, Ahmad Marzuki; Lalamentik, Ruben</i>	
<b>Comprehensive Sanding Study from Laboratory Experiments, Modeling, Field Implementation, to Real-Time Monitoring, a Case Study for Hai Thach and Moc Tinh Fields, Offshore Vietnam</b> .....	571
<i>Hoang, Son K.; Trinh, Vinh X.; Tran, Tung V.; Dang, Tuan A.</i>	
<b>Investigation of Failed LNG Boil Off Gas Transfer Line Expansion Bellows Using Finite Element Analysis Approach</b> .....	580
<i>Pratama, E. Y.</i>	

**SESSION 36: KNOWLEDGE SHARING EPOSTER SESSION**

<b>Characterising the Dependence of Coal Permeability to Methane Adsorption, Pore Pressure and Stress: Laboratory Testing of Walloon Coals from the Surat Basin</b> .....	590
<i>Bottomley, W.; Furniss, J. P.; Raza, Shabbar Syed; Ge, Lei; Rudolph, Victor</i>	
<b>New Progress of the Offshore Thermal Recovery Technologies in Bohai Bay, China</b> .....	606
<i>Liu, Yigang; Han, Xiaodong; Zou, Jian; Wang, Qiuxia; Wang, Hongyu; Liu, Hao; Jiang, Zhaobiao</i>	
<b>Optimizing Oil Recovery Through Microbial Injection to Support the Increasing Demand for Oil in Indonesia</b> .....	618
<i>Budiharjo, Harry; Suhascaryo, Nur; Nugroho, Handika Agung; Saputra, Benny Ariandy</i>	
<b>Development and Field Application of Proxy Models for Predicting the Shale Barrier Size using SAGD Production DATA</b> .....	627
<i>Kim, Min; Shin, Hyundon</i>	
<b>Experimental Investigation on a Novel Organic-Inorganic Crosslinked Polymer Gel for Water Control in Ultra-High Temperature Reservoirs</b> .....	644
<i>Liu, Yifei; Dai, Caili; You, Qing; Zou, Chenwei; Gao, Mingwei; Zhao, Mingwei</i>	
<b>Development of a High-Temperature Resistant Polymer Gel System for Conformance Control in Jidong Oilfield</b> .....	656
<i>Zhu, Daoyi; Hou, Jirui; Wei, Qi; Chen, Yuguang; Peng, Kewen</i>	
<b>Pushing the Boundaries of Reservoir Characterisation of Ultra Deepwater Turbidites Reservoirs via Formation Testing and Advanced Fluid Sampling; South East Asia</b> .....	670
<i>Zakei, A.; Mahadi, K. A.; Ngan, A.; Kassim, M. S. Ahmad; Haddad, S.; Heng, L. K.</i>	
<b>Successfully Unlocking New Deep Reserves and Overcoming High-Temperature Environment Using Novel Advanced Hostile Wireline Formation Tester in North Malay Basin, Malaysia-Thailand Joint Development Area</b> .....	677
<i>Costam, Y. R.; Fadjarjanto, A.; Zakaria, Z. U.; Setiawan, A. S.; Pushiri, M. F.; Carigali, C. Jiraratchwaro; Lee, C. Y.; Iyer, M. S.; Zuilekom, T. V.; Parashar, S.; Bagir, M.; Ivan, W. Z. M</i>	
<b>Integrated Approach in Determining Residual Oil Saturations to Water Sorw and its Impact on Potential Enhanced Oil Recovery EOR Volume Estimation</b> .....	689
<i>Murugesu, Thanapala S; Masoudi, Rahim; Johare, Dzulfadly B.; Jalan, Shlok; Marzuki, Izral Izarruddin B.</i>	
<b>Design of Experimental Test Method to Investigate the Effect of OBM Contamination on PVT Samples from Gas Condensate Reservoirs</b> .....	704
<i>Bon, J.; Bon, P. J.; Ortega, A. J.; Nalepa, W.; Koo, R.</i>	
<b>Keys to Success in Determination of In-Situ Petrophysical Properties of Unconsolidated Sands by Traced-Coring: A Case Study</b> .....	721
<i>Zulklipli, Siti Najmi Farhan; Mehmet Altunbay, Michael; Gaafar, Gamal Ragab; Shah, Jamari M.</i>	
<b>Research of Floor Horizontal Well Staged Fracturing Technology</b> .....	734
<i>Cao, L.; Yang, X.; Zhang, S.; Wang, H.; Wang, K.; Liu, J.; Zhao, J.</i>	
<b>Integrated Workflow for Fracture Characterization Using Post-Stack Geometrical Attributes, Borehole Image, Core and Wireline Log: Case Study for Fractured Volcanic Reservoir on the Java Area, North West Java Basin, Indonesia</b> .....	750
<i>Prayoga, Ongki Ari; Alvrída, Desy Ayu; Taslim, Muhammad; Ginanjar, Aji Rahmat; Nurhadi, Dhea Rizky; Barkah, Annisa</i>	

<b>Characterisation of Readily Bioavailable Compounds in Surat Basin Walloon Coals for Biomethane Production Using Exogenous Culture</b> .....	764
<i>Chen, Tianyu; Hamilton, Stephanie; Rodrigues, Sandra; Golding, Suzanne D.; Rudolph, Victor</i>	
<b>Influence of Miscible CO<sub>2</sub> Flooding on Wettability and Asphaltene Precipitation in Indiana Lime Stone</b> .....	786
<i>Ali, Muhammad; Al-Ansari, Sarmad; Shakeel, Muzamil; Arif, Muhammad; Dahraj, Naeem Ul. Hussain; Iglauer, Stefan</i>	
<b>Gas-Assisted Gravity Drainage GAGD Huff n Puff Application for Fractured Basement Reservoir - Case Study</b> .....	794
<i>Dinh, H. K.; Le, N. V.; Peter, M. G.; Nguyen, V. T.; Dang, T. S.; Nguyen, V. Q.; Hoang, N. D.; Truong, T. A.; Tran, H. M.; Nguyen, K. B. N.</i>	

## VOLUME 2

<b>Resistivity Wave for Monitoring Foam Flood Propagation</b> .....	813
<i>Permatasari, Karina Aryanti; Reekhi, Gurveen Singh; Irawan, Sonny; Lubis, Luluana Almana</i>	
<b>Foam-Assisted WAG: Injection Strategies to Optimize Performance</b> .....	824
<i>Groenenboom, Jeroen; Kechut, Nor Idah; Mar-Or, Assaf</i>	
<b>WAG Cycle Dependent Hysteresis Modelling through an Integrated Approach from Laboratory to Field Scale, Malaysia Oil Fields</b> .....	840
<i>Belazreg, Lazreg; Raub, M Razib A; Hanifah, M Azri B; Ghadami, Nader</i>	
<b>How to Revive Mature Oilfield Production from Surface Aspect, Case Study: Venting System to Gas Scrubber Project in XBU Fields</b> .....	849
<i>Dondo, M. E.; Effendi, A. S.; Afi, F. N.; Hadi, W.; Noviansyah, M.; Gunawan, H.</i>	
<b>Well Placement Optimisation in Gas-Condensate Reservoirs Using Genetic Algorithms</b> .....	868
<i>Abdul-Latif, Benson Lamidi; Edem, Tsikplornu Daniel; Hikmahtiar, Syouma</i>	
<b>Hydraulic Fracture Design and Well Spacing Optimization for Gas-Condensate Reservoirs</b> .....	880
<i>Abdul-Latif, Benson Lamidi; Hikmahtiar, Syouma</i>	
<b>Revisiting EOR Projects in Indonesia through Integrated Study: EOR Screening, Predictive Model, and Optimisation</b> .....	897
<i>Hartono, A. D.; Hakiki, F.; Syihab, Z.; Ambia, F.; Yasutra, A.; Sutopo, S.; Efendi, M.; Sitompul, V.; Primasari, I.; Apriandi, R.</i>	
<b>Best Practice of Increasing the Income and Reducing the Expenditure, Lowering Cost and Improving Benefit on the Brown Oilfields</b> .....	917
<i>Liu, H.; Meng, S.; Zhao, Z.; Yan, J.; Yao, Z.</i>	
<b>Study on Remaining Oil Distribution Characteristics and Water Flooding Efficiency Improvement Technology after Polymer Flooding</b> .....	925
<i>Deli, Jia; Xiaohong, Tang; Fuchao, Sun; Tie, Chen; Yongzhi, Zhu; Tong, Guo</i>	
<b>A Case Study of Shallow Water Flexible Pipe Project Execution for Maintaining Production in Marginal Field, Offshore North West Java Indonesia</b> .....	933
<i>Sinulingga, E; Yananto, H</i>	
<b>Automatic Control Surface Safety Valve: Low Cost Solution to Optimise Production</b> .....	942
<i>Moelyono, S. P.; Kusuma, P. F. K.</i>	
<b>Review of Coal Bed Methane Prospect in Indonesia</b> .....	951
<i>Irawan, C.; Nurcahyanto, D.; Azmy, I. F.; Paju, J. A.; Ernata, W. M.</i>	
<b>Methodology of Compartmentalization Analysis for Modelling - Mereenie Field, Northern Territory</b> .....	959
<i>Nguyen, T. T. T.; Nguyen, L. A. T.; Perdomo, G. E. M.</i>	
<b>Planning and Execution of ERD Development Wells Project in Myanmar</b> .....	971
<i>Atemin, Azizul; Ramasamy, Kesavan; Jainuddin, Mohamad Nor Rafie; Ong, Chongyew</i>	
<b>Bekapai 2B Brownfield Modification Project: Challenges, Execution Strategy and Lesson Learned</b> .....	985
<i>Budiarko, A; Setyawan, H</i>	
<b>Maximizing More Barrels in Brownfield Rejuvenation through Integrated Collaboration</b> .....	998
<i>Mohd Sharir, N. A. J.; Mohamad Nordin, N. F.; Abdul Latif, A. H.; Wan Khairul, W. M. A.; Mohamed, T. A.; Johar, Z.</i>	
<b>Redevelopment of Mature Combination Drive Reservoir to Enhance Ultimate Recovery in Asri Basin, Indonesia</b> .....	1009
<i>Widiatmo, R.; Waskito, L. B.; Afi, F. N.; Nugroho, P.; Gunawan, H.</i>	
<b>Developing Enhanced Mechanical Properties of Solid Expandable Systems and Its Evaluation Method for Well Drilling Preparation</b> .....	1022
<i>Qiang, Chen; Shouzhi, Huang; Dabiao, Wang; Tao, Li; Weiye, Han; Qiang, Sun</i>	
<b>Improvement and Prospect of Ultrashort Radius Lateral Drilling Technique</b> .....	1028
<i>Ming, Eryang; Li, Yiliang; Li, Tao; Huang, Shouzhi</i>	
<b>Study and Application of Snubbing Technology for Low Pressure Gas Well</b> .....	1041
<i>Han, Weiye; Li, Tao; Wang, Dabiao; Ming, Eryang; Huang, Shouzhi</i>	
<b>The Study and Application of a Electric Intelligent Well Completion System with Electrically Driven Inflow Control Device and Long-Term Monitoring</b> .....	1051
<i>Liao, Chenglong; Zhang, Weiping; Huang, Peng; Zhang, Guowen; Qian, Jie; Shen, Zejun; Pei, Xiaohan</i>	
<b>Open-Hole Multistage Completion System using Improved Water-Swellable Packers in Tight Sandstone Gas Reservoir – A Case History from East Sulige Field, China</b> .....	1060
<i>Tong, Zheng; Wang, Yongming; Wei, Ran; Xue, Jianjun; Li, Ming; Qian, Jie; Shen, Zejun; Zhang, Yanming</i>	
<b>A Cable-Controlled Pressure Testing Technology for Separate-Layer Production</b> .....	1072
<i>Qinghai, Yang; Shujin, Zhang; Yaning, Liang; Qingfeng, Yue; Renyong, Liu</i>	
<b>Multiple Stage Vane Pump, a New Production Technology Used in Thermal Recovery Well</b> .....	1079
<i>Quanbin, Wang; Lixin, Zhang; Shijia, Zhu; Hongmei, Huang; Tong, Guo; Yongxin, Li</i>	

<b>A Downhole Constant Flow Nozzle Research in Waterflooding Wells</b> .....	1087
<i>Hongwei, Zhang; Jinzhong, Wang; Jiaqing, Yu; Fuchao, Sun; Jiuzheng, Yu</i>	
<b>Highly Efficient Nano Boron Crosslinker for Low-Polymer Loading Fracturing Fluid System</b> .....	1093
<i>Wang, Kun; Wang, Yanling; Ren, Jinheng; Dai, Caili</i>	
<b>Successful Application of Expandable Liner Hanger in HT Sidetracking Well Completion: A Case Study in Liaohe Oilfield, China</b> .....	1104
<i>Huang, Shouzhi; Chen, Qiang; Han, Weiye; Li, Tao; Ming, Eryang; Sun, Qiang</i>	
<b>Successful Implementation of Improved Cementing Workflow in Heavily Depleted Brown Field through Advanced Integrated Cement Evaluation</b> .....	1115
<i>Lau, C.; Ahmad Tajalie, A.; Wa, W.; Abdul Rahman, N.; Chabernaud, T. J.; Saidin, S.; Pasteris, M.; Johan, Z. J.; Cavallini, A.; Abd Rahim, A.; Shah Zainudin, A. B M</i>	
<b>A Performance Comparison between Two Novel Multistage Completion Methods in Tight Gas Sandstone Formation from Ordos Basin</b> .....	1129
<i>Hao, Geng; Tengze, Ge; Chuanqing, Liu; Xiaojie, Yu; Liu, Yuan; Wang, Weikan; Liu, Hai; Niu, Li; Yang, Baibing; Liu, Xiaoli</i>	
<b>Improve Production in Unconventional Oil Wells Using Artificial Sump Pumping System</b> .....	1145
<i>Elmahbes, Reda; Quintero, Regulo</i>	
<b>Unlocking Common Approach of Well Control Equipment for Mechanical Well Service</b> .....	1155
<i>Suprihono, Sanny</i>	
<b>Large-Scale Visual Experiment and Numerical Simulation of Acid Fingering during Carbonate Acid Fracturing</b> .....	1163
<i>Li, Xiaogang; Chen, Yusong; Yang, Zhaozhong; Chen, Fei</i>	
<b>Real-Time Sanding Assessment for Sand-Free Fluid Sampling in Weakly Consolidated Reservoirs, A Case Study from Bohai Bay, China</b> .....	1175
<i>Zhang, Guoqiang; Tan, Zhongjian; Khaksar, Abbas; Gui, Feng; Wang, Shanshan; White, Adrian; Lei, Guowen</i>	
<b>HPHT Test Packer for Use in WBCU Applications; Reduce Trips, Increase Performance, Protect the Wellbore</b> .....	1188
<i>Oberg, Levi; Holloway, Lan; Harrington, Kevin</i>	
<b>Downhole Production Logging for Locating Water Sources in Open Hole Completion Oil Producer Wells</b> .....	1191
<i>Yaakob, Amirul Afiq; Hutamin, Nurhidayah; Sa'aid, Hasanah; Salleh, N Hajjar; Nor, M Hafizuddin; Anas, W M; Setiawan, Agus; Azraai, M; Mariam, Siti; Alam, Bambang N; Iless, N Afifah; Rahman, M Zhafran; Amin, M Farid; Mohamed, Tatmimiddin A</i>	
<b>Occurrence of Particulate Mercury in Flowback Fluids After Well Workover</b> .....	1217
<i>Yamada, Junya; Kobayashi, Kenta; Shibuya, Takehiro; Kawasaki, Midori; Nakayama, Tomofumi; Maruta, Hideyuki; Kobayashi, Atsushi</i>	
<b>Temperature Dependent Influence of Nanoparticles on Rheological Properties of VES Fracturing Fluid</b> .....	1228
<i>Sangaru, Shiv Shankar; Yadav, Prahlad; Huang, Tianping; Agrawal, Gaurav; Chang, Frank F.</i>	
<b>Fracture Height Determination Using Pulsed Neutron Capture in Near Vertical Wells of Deep Tight Gas Volcanic Reservoir of Western India: Case Study</b> .....	1236
<i>Goyal, Rajat; Tiwari, Shobhit; Tibbles, Raymond Joseph; Anand, Saurabh; Ranjan, Vishal; Sidharth, Punj; Sharma, Anurag; Vijay, Utkarsh; Manish, Kumar; Agrawal, Gaurav; Budugu, Sangeetha; Verma, Vibhor; Kumar, Ajit</i>	
<b>Coiled Tubing Gas Lift with Unloader-A Case History in Cemented Monobore Completion</b> .....	1245
<i>Fedriando, Fedriando; Edy, I Ketut Oscar; Izwardy, Saesarian; Wijanarko, Andre; Pratomo, Andaru Ibnu; Firmansyah, Nanang</i>	
<b>Evaluation of Factors Influencing the Effectiveness of Passive and Autonomous Inflow Control Devices</b> .....	1254
<i>James, E. J.; Hossain, M. M.</i>	
<b>Benefit of Better Understanding by Production Logging Tool: A Case Study of A Malaysia Reservoir</b> .....	1269
<i>Hutamin, Nurhidayah; Yaakob, Amirul Afiq; Sa'aid, Hasanah; Salleh, Nor Hajjar; Nor, M. Hafizuddin M.; Anas, W. M.; Setiawan, Agus; Rahman, M. Zhafran A.; Iless, Nur Afifah; Azwan, M. Hafiz; Chun, A. Kok Kin; Mohamed, Tatmimiddin Alhasani</i>	
<b>Application of Allocation Algorithm for Surveillance and Optimization of Intelligent Wells</b> .....	1280
<i>Chuen, C. Mabel Pei; Nukman, M. Agus; Mandal, Dipak; Salim, A. S. H. Ahmad; Sepulveda, W.; Vaca, J. C.; Goh, K.</i>	
<b>Extreme Underbalanced HPHT Coiled Tubing Conveyed Perforating: KN-Ultra Deep Field Study</b> .....	1294
<i>Rosato, Miguel; Bakar, Mohd Farris; Azmi, Fadzlina</i>	
<b>Pilot In-Situ Inflow Control Device ICD Waterflood Injector Transformation- A Case Study from Platong</b> .....	1307
<i>Pakdeesirote, A.; Ackagosol, S.; Lewis, K.; Kitvarayut, N.; Pritchett, J.; Goh, K. F. Gordon</i>	
<b>Dissolvable Tools in Multistage Stimulation</b> .....	1321
<i>Jin, Ningjing; Zeng, Qijun</i>	
<b>Injection Flow Rate Control in Multiplayer Packer Well Using Bridge Eccentric Injection Mandrel</b> .....	1331
<i>Fakhruzan, Ahmad; Apriadi, Ferry; Septian, Meldi; Akbar, M.; Wicaksono, Unggul</i>	
<b>Unlocking Depleted and Low-Modulus Telisa Sandstone Reservoir with Pillar Fracturing Technique: Well Performance Improvement Comparison with Conventional Fracturing</b> .....	1344
<i>Azhari, M.; Prakoso, N. F.; Ningrum, D.; Soetikno, L.; Maknun, A.</i>	
<b>Application of Well Factory Drilling Technology in Shale Gas Development in the Sichuan Basin</b> .....	1356
<i>Yang, Liu; Ping, Chen; Shou, Ma Tian</i>	
<b>Managing Risks in Relief Well Operations: From Planning to Execution</b> .....	1366
<i>Poedjono, B.; Macresy, L.; Sikal, A.</i>	
<b>An Innovative Methodology to Assess Cement Blend Flowability and Proneness to Segregation—A Step Forward to Higher Quality</b> .....	1384
<i>Bourlon, Arnaud Joseph Gino; Roy-Delage, Sylvaine Le; Taoutaou, Salim</i>	
<b>Transient Thermal Model of Drilling Fluid in Wellbore under the Effect of Permafrost Thaw During Drilling in Arctic Region</b> .....	1394
<i>Xuerui, Wang; Baojiang, Sun; Zhiyuan, Wang; Yang, Zhao; Jintang, Wang; Zhennan, Zhang; Gao, Yonghai</i>	
<b>Triggering Cavitation in Multilateral Coiled Tubing Drilling by High Pressure Water Jet</b> .....	1412
<i>Peng, Kewen; Li, Gensheng; Tian, Shouceng; Huang, Zhongwei; Zhang, Zhenxiang; Zhu, Bin; Nie, Xiaokang</i>	

<b>Preventing, Mitigating, or Stopping Lost Circulation in Dammam Formation, South Rumaila Field, Iraq; Requires Engineering Solutions, the Best Treatments Strategies, and Economic Evaluation Analysis</b> .....	1424
<i>Al-Hameedi, Abo Taleb T.; Dunn-Norman, Shari; Alkinani, Husam H.; Flori, Ralph E.; Torgashov, Evgeniy V.; Hilgedick, Steven A.; Almohammedawi, Maitham M.</i>	
<b>Now It is the Time to Forget Potassium Based Shale Inhibitors by Developing Nano Silica-Alumina Based Drilling Fluid; Laboratory Study Proves Improvement in Shale Inhibition and Temperature Stability</b> .....	1447
<i>Taraghikhah, Shervin; Mohammadi, Mojtaba Kalhor; Nowtaraki, Koroush Tahmasbi</i>	
<b>An Integrated Geomechanical Approach for Successful Drilling through Coal in Peninsular Malaysia and Offshore Vietnam</b> .....	1458
<i>Chatterjee, Avirup; Ghosh, Amitava; Bordoloi, Sanjeev</i>	
<b>Understanding Multi Zone Single Trip Gravel Pack Performance Improvement Process Using Technical Limit Methodology in Mahakam Delta</b> .....	1479
<i>Wijaya, R.; Muryanto, B.; Wahyudhi, F.; Stryward, B.; Sinaga, H. A.; Masrur, M.; Syafrudin, M.; Kundoko, B.; Daris, M. F.; Nugroho, H. M.; Ridhonmas, A.</i>	
<b>Planning and Preparation of a Viable Pore Pressure Prediction in a Wild Cat High Pressure, High Temperature HPHT Exploration Well in Offshore Sarawak, Malaysia</b> .....	1489
<i>Chatterjee, Avirup; Ghosh, Amitava; Bordoloi, Sanjeev; Mustapha, Anifadora Bt.</i>	
<b>Shallow Light Architecture: A Viable and Cost-Effective Solution for Marginal Reserves in Tunu Shallow Development</b> .....	1503
<i>Handoko, A. I.; Bimastianto, P.; Maulana, M. D.; Agriawan, C.; Brahmantio, R. A.; Abidiy, I.; Setiawan, T.</i>	
<b>Trials of New Designs Lead to Optimized Bit Selection for Drilling through Hard Carbonates in South Mahakam</b> .....	1510
<i>Fidiansyah, Ardho; Noviesta, Bonar</i>	
<b>Rock Strength Analysis and Integrated FEA Modelling Optimise Bit Selection for Deepwater Exploration Drilling</b> .....	1520
<i>Mardiana, M. R. Yoan; Noviesta, Bonar</i>	
<b>Design and Application of Aerated and Foam Drilling Fluid, Case Study in Drilling Operation in Indonesia</b> .....	1532
<i>Nugroho, WA; Sumantri, M; Wibisono, D</i>	
<b>Development and Application of Pulley-Free Directly-Connected Hydraulic Pumping Unit</b> .....	1543
<i>Ye, Qinyou; Wang, Feng; Wang, Yucai; Zhu, Yongzhi; Xu, Jianguo; Li, Xingke; Yang, Gao</i>	
<b>Investigation and Application of Reciprocating Direct-Drive Electric Submersible Plunger Pump Lifting Technology</b> .....	1551
<i>Guoxing, Zheng; Weishan, Du; Qi, Wang; Lin, Wang; Fengshan, Wang; Yanan, Sun; Guoqing, Wang; Weike, Wang; Yang, Gao</i>	
<b>Optimising Operation Oversight of Oil and Gas through Aerial Surveillance</b> .....	1564
<i>Prasetya, Afriandi Eka; Sufiadi, Eri; Sadik, Hermawan Umar</i>	
<b>Mechanism of Scaling Corrosion for Water Injection System and Its Solution through Nonmetallic Composite Tubing</b> .....	1577
<i>Qiang, Chen; Weiye, Han; Shouzhi, Huang; Tao, Li; Qiang, Sun</i>	
<b>Study on Enhanced Oil Recovery of Water-Based Nanofluid with Functional Silica Nanoparticles</b> .....	1583
<i>Yuyang, Li; Caili, Dai; Xinke, Wang; Wenjiao, Lv; Hongda, Zhou; Mingwei, Zhao</i>	
<b>Evaluation of the Kinetics of Asphaltene Flocculation during Natural Depletion and CO<sub>2</sub> Injection in Heptane-Toluene Mixtures</b> .....	1591
<i>Kord, Shahin; Dashti, Hossein; Zanganeh, Peyman; Ayatollahi, Shahab</i>	
<b>Modeling Coupled Transport, Aggregation, and In Situ Gelation of Nanoparticles in Porous Media</b> .....	1603
<i>Abdelfatah, Elsayed; Pournik, Maysam; Shiau, Bor-Jier Ben; Harwell, Jeffrey</i>	

### VOLUME 3

<b>Thixotropic Conformance Sealant for Horizontal or Highly Deviated Wellbores</b> .....	1632
<i>Vasquez, Julio; Eoff, Larry; Lewis, Chris</i>	
<b>Optimization Chemical Flooding Methods to Enhance Oil Recovery of Strong Heterogeneity, High Temperature and High Salinity Reservoirs - Case Study of Shengli Oilfield</b> .....	1639
<i>Lu, Nu; Hou, Jian; Liu, Yongge; Guo, Lanlei; Yuan, Fuqing; Wei, Cuihua; Liu, Yifei</i>	
<b>Improving Parameter Uncertainty Constraints for Coal Seam Gas Reservoir Simulation using Single Well Models with Particular Emphasis on Relative Permeability Assumptions</b> .....	1649
<i>Furniss, J. P.; Hodgkinson, J.; Bottomley, W.; Luo, Y.</i>	
<b>Formation Evaluation by Sourceless Logging While Drilling: NMR Case Study from Bohai Bay</b> .....	1669
<i>Xu, Jinxiu; Tan, Lv; Cui, Yunjiang; Liu, Xiaogang; Liu, Huan; Coman, Radu; Tietjen, Holger; Wei, Gang</i>	
<b>Improve the Stability of Sand Feeding Process for Liquid CO<sub>2</sub> Fracturing with Synergetic Multi Disciplinary Systems</b> .....	1678
<i>Meng, Siwei; Liu, He; Yang, Qinghai; Xu, Jianguo; Duan, Yongwei; Chen, Shi</i>	
<b>Review: Uncertainty Analysis and Design Optimisation of Gas-Condensate Fields</b> .....	1685
<i>Abdul-Latif, Benson Lamidi; Hikmahitar, Syouma; Edem, Tsikplornu Daniel</i>	
<b>Coalbed Methane Development in China: Engineering Challenges and Opportunities</b> .....	1696
<i>Li, Hangyu; Lau, Hon Chung; Huang, Shan</i>	
<b>Heavy Oil Sampling Using Wireline Formation Tester - Case Studies of Highly Viscous Oils from Bohai Bay</b> .....	1721
<i>Zhang, Guoqiang; Tan, Zhongjian; Hao, Zhongtian; Lei, Guowen; Hardikar, Nikhil P.</i>	
<b>Economic Comparison of Hydrocarbon Recovery under Injection of Different Polymers</b> .....	1735
<i>Cenk, Temizel; Dike, Putra; Henny, Anggraini; Raul, Moreno</i>	



## **SESSION 2: SPECIAL SESSION 2: RATE TRANSIENT ANALYSIS: A RAINBOW OF REAL-LIFE CASES**

<b>Production Data Analysis for Reservoir Characterization in Conventional Gas Fields: A New Workflow and Case Study</b> .....	1778
<i>Ezabadi, Mehdi Ghane; Ataei, Abdolrahim; Liang, Tan Kok; Motaie, Eghbal; Othman, Tg Rasidi Tg</i>	
<b>Enhanced Reservoir Characterisation Using Integrated Production Data Analysis</b> .....	1798
<i>Motaie, E.; Ataei, A.; Yazdi, E.; Khor, Y. Y.; Faiz, M.</i>	

## **SESSION 8: TECHNICAL SESSION 8: PROCESS OPTIMISATION AND OPERATIONS EXCELLENCE**

<b>Application of Enhanced Gel Strength Concept for PPD Chemical Optimization in Banyu Urip Export Pipeline</b> .....	1806
<i>Dwitawidi, Alinda</i>	
<b>Maintaining Operation Excellence in Simultaneous Operation at Offshore and Delta Area</b> .....	1813
<i>Marzuki, I.; Junaedy, H.</i>	
<b>From Sandface to Processing Plant, an Integrated View of an Operating Envelope in a Gas Condensate System</b> .....	1825
<i>Sueiro, M.; Lanchimba, A.; Bilbao, C.; Tavera, R.; Canchucaja, R.; Espinoza, P Repsol</i>	
<b>Oilfield Microbiology: Effective Evaluation of Biocide Chemicals</b> .....	1848
<i>Bennet, Douglas</i>	
<b>Design of Jumper Lines to Unlock Potential of Wells - A Success Story</b> .....	1858
<i>Siboro, M.; Widitya, A.; Prabowo, A.</i>	
<b>Downhole Permanent Magnet Synchronous Motor PMSM Drive PCP - Wide Range of Speed, Output and High Efficiency</b> .....	1865
<i>Zhongxian, Hao; Guobin, Zhang; Shijia, Zhu; Lixin, Zhang</i>	
<b>Experimental Analysis of Discontinuities in Single Phase Flow - Vibration and Pressure Fluctuation Measurements</b> .....	1872
<i>Karim, Hafiz; Ancian, Loic</i>	

## **SESSION 9: TECHNICAL SESSION 9: EOR - SURFACTANT**

<b>A Study of Methane Foam in Reservoir Rocks for Mobility Control at High Temperature with Varied Permeabilities: Experiment and Simulation</b> .....	1882
<i>Kamarul Bahrin, R. Z.; Zeng, Y.; Vincent Bonnieu, S.; Groenenboom, J.; Mohd Shafian, S. R.; Abdul Manap, A. A.; Tewari, R. D.; Biswal, S. L.</i>	
<b>A Fit of Art of Dynamic Monitoring Technology for Chemical Flooding in Daqing Oilfield</b> .....	1899
<i>Liu, He; Yang, Siyu; Wei, Chenji; Yao, Zixiu; Ye, Peng</i>	
<b>Fit-for-Purpose Chemical EOR ASP Modeling Strategy to Guide Pilot Development Decisions for a Giant Reservoir in North Kuwait</b> .....	1908
<i>Al-Dhuwaili, A. S.; Abdullah, M. B.; Tiwari, S.; Al-Murayri, M. T.; Al-Mayyan, H.; Shahin, G. T.; Shukla, S.</i>	
<b>History Match to Support Interpretation of Surfactant Flooding Pilot Test in Tanjung Field</b> .....	1941
<i>Aslam, B. M.; Ulitha, D.; Swadesi, B.; Fauzi, I.; Marhaendrajana, T.; Purba, F. I.; Wardhana, A. I.; Buhari, A.; Hakim, R.; Hasibuan, R.</i>	
<b>The Study of a Novel Modified Silica Nanofluid for Pressure-Decreasing Application in the Ultra-Low Permeable Formation</b> .....	1952
<i>Zhao, Mingwei; Gao, Mingwei; Dai, Caili; Li, Yuyang; Lv, Wenjiao</i>	
<b>Retention of Silica Nanoparticles in Limestone Porous Media</b> .....	1961
<i>Al-Anssari, Sarmad; Nwidae, Lezorgia. N.; Ali, Muhammad; Sangwai, Jitendra S.; Wang, Shaobin; Barifcani, Ahmed; Iglauer, Stefan</i>	
<b>Success and Lessons Learned from ASP Flooding Field Tests in China</b> .....	1972
<i>Guo, Hu; Ma, Ruicheng; Kong, Debin</i>	
<b>An Experimental Study to Determine Optimal Injection Strategies for Water-Alternating-Solvent Process in Green and Brownfields</b> .....	1987
<i>Babadagli, T.; Cao, N.</i>	

## **SESSION 10: TECHNICAL SESSION 10: DRILLING DESIGN AND CASE STUDIES**

<b>Drilling of HPHT High Angle Well in a Fractured Reservoir-A Case Study</b> .....	2009
<i>Al-Mohailan, Mohammad; Sounderrajan, Mahesh; Al-Azmi, Salah; Patil, Dipak Pralhad; Nellayappan, Karthik; Aljarki, J.</i>	
<b>Drilling Optimisation of Extended Reach Multilateral Wells to Maximise Reservoir Contact in Carbonate</b> .....	2036
<i>Verma, Chandresh; Rodriguez, Fernando; Qasin, Qazi Mohammed; Chaaouri, Aramco Mohsen; Akel, Sami; Akiki, Ghassan; Afolabi, Jonathan</i>	
<b>Integration of Casing Wear in Casing Design and Stress Analysis Workflow</b> .....	2049
<i>Soong, Alfred; Arriffin, Muhammad Faris; Rosland, Habil Akram</i>	
<b>BD Field Development: First Kujung Horizontalnear HPHT - Critical Sour Wells Offshore Indonesia</b> .....	2059
<i>Lian, J.; Tian, Y.; Yang, Z.; Yustendi, K.; Rizkiani, D.; Nurdin, S.; Mcken, D. R.; Etuhoko, M. O.; Jiang, K.; Diemert, A. P.; Fadil, M.; Utomo, P. P.; Mahry, A.; Yudento, S. D.</i>	
<b>Optimization Method for Casing Design Based on Coordination Mechanism of Drilling Risk and Cost</b> .....	2077
<i>Sheng, Ya-Nan; Guan, Zhi-Chuan; Wei, Kai; Zhao, Ting-Feng</i>	

<b>Collaborative Advanced Planning Leads to a Three Month Early Start Up of the First Fully Integrated Drilling Project in Kuwait</b> .....	2091
<i>Al-Enezi, Dakhil; Al-Wehaidah, Talal; Goswami, Bijan; Takate, Yogesh; Muqaddes, Zahraa; Dundin, Alexander; Hariry, Haitham El; Hosein, Feraz; Torres, Maria Andrea</i>	

### **SESSION 11: TECHICAL SESSION 11: SIMULATION AND HYDRAULIC FRACTURING**

<b>Successful Re-Fracturing Application Using Temporary Gelled Isolation System in a Vertical Well in China</b> .....	2098
<i>Wheeler, Richard; Mayor, J.; Williams, V.; Kotov, S.; McDonald, T.; Guo, X.; Zhao, Z.</i>	
<b>First Application of Residue-Free Fluid System for High Temperature Fracturing Treatment in Saudi Arabian Carbonate Formations</b> .....	2110
<i>Rahim, Zillur; Al-Kanaan, Adnan; Zeghouani, Mohamed; Khalifa, Mohamed; Krich, Driss</i>	
<b>Lessons Learnt During Hydrofracturing Campaign in Tight Retrograde Gas Condensate Reservoir – A Case Study</b> .....	2117
<i>Anand, Saurabh; Tiwari, Shobhit; Tibbles, Raymond Joseph; Pathak, Shashank; Siddharth, Punj; Goyal, Rajat; Vijayvargiya, Utkarsh</i>	
<b>The Characteristics of Hydraulic Fracture Growth in Woodford Shale, the Anadarko Basin, Oklahoma</b> .....	2133
<i>Hai, Qu; Ying, Liu; Chuande, Zhou; Liancheng, Ren; Qinwen, Wei; Yancang, Lv; Jun, Hou</i>	
<b>Novel Single-Trip Well Re-Stimulation Technology Enables Exact Treatment Placement While Significantly Decreasing Intervention Time</b> .....	2142
<i>Castro, Luis; Nasir, Ehsaan; Wilbourn, Maurice</i>	
<b>A Semi Analytical Model for Predicting Proppant Screen-Out During Hydraulic Fracturing Unconventional Reservoirs</b> .....	2156
<i>Cai, Xiao; Guo, Boyun; Li, Gao; Yang, Xu</i>	
<b>A Comparative Workflow for Different Hydraulic Fracturing Techniques in the Western Desert Oil Fields of Egypt</b> .....	2172
<i>ElHamid, Ahmed Abd; Abbas, Mohamed; Hamed, Eslam; Ghareeb, Mohamed; ElSebaee, Mohamed; Sweedan, Ahmed; Sabet, Ahmed</i>	
<b>Technological Process Reengineering and Optimization of Liquid CO<sub>2</sub> Fracturing Based on Fluid Phase Control</b> .....	2198
<i>Meng, Siwei; Liu, He; Yang, Qinghai; Xu, Jianguo; Duan, Yongwei; Chen, Shi</i>	

### **SESSION 12: TECHNICAL SESSION 12: ECONOMIC EVALUATION AND DECISION MAKING**

<b>The Integrated Environment for Real-Time Decisions: Delivering Excellence in Brunei Drilling Operations</b> .....	2207
<i>Rowe, Shawn; Keasberry, Shawn; Hunt, Jeffrey; Arias, Alex</i>	
<b>Sisi Nubi Dashboard: Implementation of Business Intelligence in Reservoir Modelling &amp; Synthesis: Managing Big Data and Streamline the Decision Making Process</b> .....	2227
<i>Sukapradja, Aldyth; Clark, Jesse; Hermawan, Hermawan; Tjiptowiyono, Soegianto</i>	
<b>Techno-Economic Evaluation of Carbon Capture Storage Ready for Coal-Based Power Generation in Indonesia</b> .....	2241
<i>Sugihardjo, Usman; Sismartono, Danang; Lubad, Aziz M.; Hedriana, Oki; Sugiyanto, Arief</i>	
<b>A New Practical Approach to Building Tight Reservoir Development Integration Data Model in China</b> .....	2256
<i>Liu, He; Yan, Jianwen; Yao, Zixiu; Zhao, Zhe</i>	
<b>Binomial Probability Theory Supporting a Learning System Applied to Exploration Decision Making</b> .....	2264
<i>Morrison, G. R.</i>	

### **SESSION 13: TECHNICAL SESSION 13: RATE TRANSIENT ANALYSIS: AN INTEGRATED PRODUCTION ANALYSIS AND RESERVOIR CHARACTERISATION**

<b>Reservoir Characterisation Using Permanent Distributed Temperature Sensing in Coal Seam Gas Development: Success and Challenges in the Surat Basin</b> .....	2312
<i>Bottomley, W.; Furniss, J. P.; Oguche, I.; Konopczynski, M.</i>	
<b>Novel Application of Capacitance-Resistance Model for Reservoir Characterisation and Zonal, Intelligent Well Control</b> .....	2330
<i>Prakasa, Bona; Shi, Xiang; Muradov, Khafiz; Davies, David</i>	
<b>Integration of Time-Lapse Pressure Transient Analysis in Reservoir Characterization and Reducing Uncertainty of Initial Gas-in-Place Estimation: A Case Study in Gas Condensate Reservoir</b> .....	2356
<i>Rushatmanto, M.; Sianturi, J.; Suwito, E.; Priskila, L. M.</i>	
<b>A Workflow from Seismic to Forecast for Tight-Oil Reservoir Development Using a Semianalytical Well-Testing Model with Boundary Element Method</b> .....	2379
<i>Chen, Zhiming; Liao, Xinwei; Zang, Jiali; Zhao, Xiaoliang; Peng, Kewen; Wang, Shaoping; Yu, Wei</i>	

### **SESSION 14: TECHNICAL SESSION 14: UNCONVENTIONAL – DRILLING AND COMPLETIONS**

<b>200 and Counting: Unlocking CBM Potential with High-Strength, Low-Density Cement Slurry</b> .....	2402
<i>Talong, Dharmesh; Kumar, Animesh; Sarma, Arindam; Priyamvada, Kuhu; Tyagi, Vaibhav; Gupta, Gaurav; Sairam, P. K. S.; Ganjoo, Tushar</i>	

<b>Stimulated Reservoir Volume of Multi-Stage Fracturing in Horizontal Shale Gas Well: Modeling and Application</b> .....	2413
<i>Lin, Ran; Ren, Lan; Zhao, Jinzhou; Huang, Jing</i>	

#### VOLUME 4

<b>CBM Fluvial Depositional Facies Modelling and Static Upscaling Workflow: A Case Study Based on Integration of Cores, Logs and Deposition Environment in Surat Basin</b> .....	2431
<i>Zhang, Ming; Thomas, Gan; Yang, Yong; Stephan, Tony; Sibgatulin, Artem; Mazumder, Saikat; Chen, Wei</i>	
<b>Active Tag Control Sliding Sleeve Fracturing Technology</b> .....	2444
<i>Lichen, Zheng; Jiaqing, Yu; Yucui, Wang; Yang, Gao; Xiaohan, Pei; He, Liu</i>	
<b>Evaluating Natural Fracture Effectiveness to Optimize Well Stimulation Method for HTHP Tight Gas Reservoir</b> .....	2452
<i>Yang, Xiangtong; Xu, Jianhua; Teng, Qi; Abbott, William E.; Zhang, Yang; Zhao, Meng; Zhang, Chen; Gu, Xiao; Li, Wei; Fan, Wentong</i>	
<b>Hydraulic Fracture Geometry in Highly Laminated Tight Oil Formation: Implication from Large-Scale Rock Experiments and Field Multi-Well Pilot Projects</b> .....	2466
<i>Yi, Peng; Yun, Xu; Dingwei, Weng; Bo, Huang; Bin, Xie; Jiaqi, Li; Guobin, Jiang; Bo, Song</i>	
<b>Does the Horizontal Fracture Limit the Fracture Height Growth in Jubaila Source Rock?</b> .....	2481
<i>Lubis, Wirdansyah; Mulhim, Nayef; Al-Sultan, Ali; Asiri, Khalid; Buraiki, Muhammed; Bartko, Kirk; Alvarez, Angelica Rios</i>	

#### SESSION 15: TECHNICAL SESSION 15: GEOMECHANICS AND SAND FACE COMPLETION

<b>Geomechanical Study at An Onshore Central Sumatra Field: The Investigation of Casing Restriction and Deformation in Shallow Sand Formation</b> .....	2500
<i>Tjengdrawira, Marius Agustuhong; Khaksar, Abbas; Ong, See Hong; Sjari'at, Raihan Intan; Suhadi, Annur</i>	
<b>Multiple Sand Control Solution to Adapt Well Productivity and Reserves by Using Mahakam Sand Control Tool Box</b> .....	2519
<i>Styward, B.; Muryanto, B.; Wahyudhi, F.; Wijaya, R.</i>	
<b>Expanding the Innovative Approach of Sand Production Well Remedial - Case Study of First Downhole Ceramic Sand Screens for a Gas Well in Malaysia</b> .....	2530
<i>Musa, M. Nizar; Ismail, W. Rokiah; Roh, Cheol Hwan; Zulkifli, Shahrul Anwar; Hui, Nicholas Foo Kwang; Jackson, R.; Gundemoni, B.; Barth, P.</i>	
<b>Cutting Edge Completion Design for KNUUD: Pioneering HPHT Field Development in Malaysia</b> .....	2540
<i>Bakar, Mohd Farris; Miguel, Rosato; Fadzliana, Azmi; Sofian, Anas M.</i>	
<b>ICDs for Uncertainty and Heterogeneity Mitigation: Evaluation of Best Practice Design Strategies for Inflow Control Devices</b> .....	2554
<i>Lim, Michelle</i>	

#### SESSION 16: TECHNICAL SESSION 16: PORTFOLIO MANAGEMENT

<b>Digital Revolution: How Digital Technologies Will Transform E&amp;P Business Models in Asia-Pacific</b> .....	2575
<i>Volkenborn, Arnold; Lea-Cox, Andrew; Tan, Wei Yi</i>	
<b>Breaking Boundaries in Portfolio Management</b> .....	2583
<i>Gama, B.; Macmillan, F.; Roithinger, J.; Gieles, T. R.; Bulgariu, R.</i>	
<b>Project Specific Risk Consideration from a Portfolio Perspective</b> .....	2589
<i>Allan, Paul D.; D'Arcy, Mark</i>	
<b>Indonesian Milestone in Production-Sharing Contract in Perspective of Government Take, Contractor Take, Cost Recovery and Production Target</b> .....	2600
<i>Daniel, Harimurti</i>	
<b>Proposed Modification of Abandonment and Site Restoration Mechanism in Gross Split PSC for Marginal Field in Indonesia</b> .....	2618
<i>Kurniawan, Temmy Surya; Jaenudin, Jemi</i>	
<b>Accelerated Depreciation Increase the Economical of PSC Contractors Project in Indonesia</b> .....	2627
<i>Jaluakbar, Wisnu; Putra, Iswahyudi Sondi</i>	

#### SESSION 17: TECHNICAL SESSION 17: RESERVOIR CHARACTERISATION - SANDSTONE

<b>Pressure Transient Analysis for Cold Water Injection into a Reservoir with a Coupled Analytic Wellbore Model</b> .....	2636
<i>O'Reilly, D. I.; Haghighi, M.; Flett, M. A.; Sayyafzadeh, M.</i>	
<b>Classification and Combination Characteristics of Fractures in Superdeep Tight Sandstone Reservoir with and Its Effect on the Control of the Reservoir in Kelasu Structural Belt in Kuqa Depression</b> .....	2646
<i>Zhou, Lu; Lei, Ganglin; Tang, Yangang; Jin, Xu; Wang, Zhenhong; Ye, Yu; Jiang, Jun; Zhang, Qi</i>	
<b>Application of Thin-Bed Analysis in Reservoir Modelling to Unlock Further Development Potential of Thinly-Bedded Marginal Reservoirs</b> .....	2659
<i>Chong, E. E.; Azam, M. N. H. Mohd; James, P. B.; Rae, S. F.; Flew, S.</i>	
<b>Optimal Zonation of Geological Formations and Identification of Pore Structures for Sandstone Reservoirs, Including Variation in Cementation and Fining Sequences</b> .....	2675
<i>Behrenbruch, Peter; Hoang, Tuan G.; Huu, Minh Triet Do; Bui, Khang D.</i>	

<b>Study on the Application of Whole Process Monitoring and Control Technology for Separated Layer Water Injection to Block</b> .....	2695
<i>Jia, Deli; Pei, Xiaohan; Zhu, Zhenkun; Zhu, Shaogong; Liu, Chongjiang; Guo, Tong</i>	

## **SESSION 18: TECHNICAL SESSION 18: WELL INTEGRITY AND CEMENTING**

<b>Hydrostatically Underbalanced Managed Pressure Cementing Enables Zonal Isolation in Narrow-Margin HPHT Exploration Well</b> .....	2702
<i>Lau, C.; Prasetya, A. K.; Yun, L.; Saidin, S.; Kumar, A. K.; Nor, M. Abshar; Jain, P.</i>	
<b>Development of Well Integrity Management Tool in Mahakam Block</b> .....	2716
<i>Priwanza, H.; Saputra, R.; Manalu, D.; Muryanto, B.; Nuryanto, Y.; Dirgantoro, A.; Maharano, M.; Sari, K.; Sayogyo, B.; Hutahean, R.; Dewanta, D.; Wibowo, A.; Limawan, V.; Darma, R.</i>	
<b>Enhancing Well Construction for More Efficient Well Abandonment</b> .....	2730
<i>Dahmani, L.; Hynes, L.</i>	
<b>Flexible Cement Extends Wellbore Life with an Integrated Approach to Zonal Isolation</b> .....	2739
<i>Kumar, Animesh; Gupta, Gaurav; Mehra, Rohit; Tambe, Romana; Ahuja, Gopal</i>	
<b>Dynamic Analysis of Surface Casing During Assembling and Installation</b> .....	2763
<i>Yamamoto, Marcio; Takagi, Ken; Wada, Ryota; Agostini, Cristiano; Malta, Edgard B.</i>	
<b>Evaluation of LCMs in Cement to Seal Wide Natural Fractures</b> .....	2772
<i>Lewis, Sam; Tambe, Romana; Dumbre, Maithili; Ahuja, Gopal; Sharma, Abhishek</i>	
<b>Effect of Casing Coating Materials on Shear-Bond Strength</b> .....	2780
<i>Jadhav, Rahul; Palla, Venkata Gopala Rao; Datta, Amlan; Dumbre, Maithili</i>	

## **SESSION 19: TECHNICAL SESSION 19: PORE PRESSURE, WELLBORE STABILITY AND DRILLING FLUIDS**

<b>From 3D Seismic Inversion to Drilling Engineering: A Multidisciplinary Approach to Resolve Wellbore Stability Issues Offshore West Madura</b> .....	2786
<i>Mulders, F.; Lemanczyk, R.; Johnstone, K.; Spencer, S.; Castillo, E.; Sorrentino, Y.; McDonald, A.; Mawira, A.; Rubyanto, D.; Nugraha Khadafi, A.</i>	
<b>Customization of Fit for Purpose WBM Opens New Opportunities for Significant Cost Savings, Well Construction Optimization, and Environmental Footprint Reduction</b> .....	2804
<i>Ghandi, Muataz S.; Saleh, Rami F.; Yami, Fahad M.</i>	
<b>Ultra-Low-Invasion Fluid Technology Increases Operational Window to Enhance Drilling, Reduce Damage in Unstable Venezuela Formations</b> .....	2813
<i>Herdas, Miguel; Aguilar, Katuska; Fernandez, Daniel; Garcia, Jose; Moreno, Jose; Maldonado, Reinaldo</i>	
<b>Integrated 3D Pore Pressure Characterisation and Modeling: Methodology &amp; Application in Sisi Nubi Field, Mahakam - Indonesia</b> .....	2826
<i>Sukapradja, Aldyth; Herdianto, Roni; Clark, Jesse; Adam, Cepi; Ashari, Untung; Saragih, Baginda; Sitorus, Rio; Giriandiyah, Bayu</i>	
<b>The Reversible Emulsion Controlled by Inorganic Salt at High Temperature or Low Permeability Reservoir</b> .....	2838
<i>Ren, Jinheng; Wang, Yanling; Jin, Jiafeng; Wang, Kun; Guo, Baoyu; Wang, Xudong</i>	
<b>Understanding Shale Petrophysics Helps in Drilling Stable Boreholes: Case Studies</b> .....	2849
<i>Al-Arfaj, Mohammed; Al-Kharraa, Hamad</i>	
<b>Monitoring Imbibition of Water Into Shale Pore System: State of the Art</b> .....	2859
<i>Al-Arfaj, Mohammed; Al-Osail, Mohamed; Sultan, Abdullah</i>	

## **SESSION 20: TECHNICAL SESSION 20: MANAGING RISK AND ENVIRONMENT PERFORMANCE**

<b>Managing the Known and Unknown Risks - An Old Well Reabandonment Story</b> .....	2868
<i>Mohd Mokhtar, S. R.; Ardi, A. B.; Wibisono, R.; Zakaria, M.; Shabudin, A.</i>	
<b>Maintaining Safety Performance in the Context of High Drilling and Completion Activities - A Lesson Learnt from More than 2 Years without LTI</b> .....	2882
<i>Therademaker, Ricky; Siswanto, Agus; Hidayat, Ramadhan</i>	
<b>Remanufacturing Abandoned Tubing Based on Self-Propagating High Temperature Synthesis, Its Progress and Field Application Summary</b> .....	2894
<i>Qiang, Chen; Tao, Li; Shouzhi, Huang; Weiye, Han; Qiang, Sun</i>	
<b>An Analytical Approach for Evaluating the Capillary Trapping during CO<sub>2</sub> Storage in Aquifers</b> .....	2902
<i>Zhu, Langtao; Liao, Xinwei; Chen, Zhiming; Mu, Lingyu; Wang, Tianyi</i>	
<b>Right of Way Surveillance, Maintenance, and Higher Production Opportunities on Banyu Urip Export Pipeline</b> .....	2916
<i>Amanu, D. K.; Kartika, R.</i>	
<b>A Clean and Efficient Development Mode Boosts Community Development and Environment Protection: Development of Keshen Gas Field, Western China</b> .....	2928
<i>Jiang, Tongwen; Liu, Hui Feng; Yang, Xiangtong; Xu, Zhixiong; Zhou, Lixia; Wang, Kelin; Li, Songlin</i>	

## **SESSION 21: TECHNICAL SESSION 21: EOR – HEAVY OIL**

<b>Microbial Huff and Puff Project at Mangunjaya Field Wells: The First in Indonesia Towards Successful MEOR Implementation</b> .....	2938
<i>Ariadji, T.; Astuti, D. I.; Aditiawati, P.; Purwasena, I. A.; Persada, G. P.; Soeparmono, M. R.; Amirudin, N. H.; Ananggadipa, A. A.; Sasongko, S. Y.; Abqory, M. H.; Ardianto, R. N.; Subiantoro, E.; Aditya, G. H.</i>	
<b>Cost Effective EOR in Heavy-Oil Containing Sands by Gas Injection: Improvement of the Efficiency of Foamy Flow and Pressurization</b> .....	2987
<i>Soh, Ye Ji; Babadagli, Tayfun</i>	
<b>Evaluation of the First Cycle of Steam Stimulation in North Kuwait Heavy Oil Thermal Pilots</b> .....	3014
<i>Al-Ali, Yacob; Wang, Guojuan; Al-Mula, Yousef; Hussein, Mahmoud; Choudhary, Pradeep; Ahmed, Fatma</i>	
<b>Water Control of Horizontal Wells Using Foam-Gel: Lessons Learnt in a Heavy Oil Reservoir with Strong Waterdrive</b> .....	3033
<i>Deng, Bo; Liu, Wei</i>	
<b>A Comprehensive Preparation Study for Microbial Nutrient Injection of Microbial Enhanced Oil Recovery: Reservoir Screening and Laboratory Analysis – Case Study Bentayan Field</b> .....	3041
<i>Astuti, D. I.; Ariadji, T.; Aditiawati, P.; Purwasena, I. A.; Persada, G. P.; Ananggadipa, A. A.; Dewi, U. R.; Khendarsyah, D. D.; Rizki, R.; Abqory, M. H.; Ardianto, R. N.</i>	
<b>Screening of Chemicals for Low Cost Heavy Oil Recovery through Microemulsion Stability Tests</b> .....	3051
<i>Lee, Jungin; Babadagli, Tayfun</i>	
<b>Investigation on In-Situ Combustion in D66, a Multilayered Heavy Oil Reservoir, Liaohe Oilfield</b> .....	3071
<i>Teng, L.; Song, H.; Zhang, S.; Wu, F.; Xu, D.; Gong, Y.; Jiang, Z.; Gao, H.; Wang, C.; Zhong, L.</i>	

## **SESSION 22: TECHNICAL SESSION 22: FIELD DEVELOPMENT PLANNING – CASE STUDIES**

<b>Successful Parallel Appraisal and Development in a Complicated Gas Cap Field, A Case Study</b> .....	3082
<i>Ruifeng, Wang; Fengjun, Mao; Li, Wang; Qizhi, Huang; Xintao, Yuan</i>	
<b>What to Do When Simulation Gone Wrong: Brownfield Production Optimization Using Analytical Approach</b> .....	3092
<i>Alfarizi, M. A. S.; Sukotrihadiono, T.; Malau, A.; Sutalilima, E. D.; Miswar, D.; Lugijandoko, B. S.; Dasrul, Y.; Ultra, D.; Anggoro, H.; Rusliputra, R. J.</i>	
<b>An Integrated Approach to Understand the Variable Fluid Contacts in a Giant Carbonate Field of Middle East - A Case Study</b> .....	3105
<i>Nandwani, S.; Kumar, P. D.; Singhal, M.; Gogoi, J. M.</i>	
<b>Unlocking Reservoir Potential through Rigorous Surveillance and Field Review Post FDP: Case Study on Central Luconia Carbonate Gas Field</b> .....	3114
<i>Sow, Chia Shen; Bashir, Aamir; Chowdhury, Utpal; Hajizadeh, Alireza; Ridzuan, Ahmad Idrisuldin B</i>	

## **SESSION 23: TECHNICAL SESSION 23: WELL ARCHITECTURE, PRODUCTION AND FLOW ASSURANCE**

<b>Comprehensive Analysis of Time Lapsed Well Productivity Index for Characterizing Well Behavior in Tight Volcanic Gas Reservoir</b> .....	3125
<i>Vijayvargia, Utkarsh; Goyal, Rajat; Anand, Punj Sidharth Saurabh; Tiwari, Shobhit</i>	
<b>First Open Hole Horizontal Near HP/HT Critical Sour Gas Wells Completion in Indonesia: Lesson Learned from BD Field Development Project in Kujung Formation</b> .....	3138
<i>Nurdin, M. S.; Etohoko, M. O.; McKen, D. R.; Lian, J.; Syapari, A.; Nuryadi, H.; Fadil, M.; Utomo, P. P.</i>	
<b>Reservoir Damage Removal by Zero-Cost Hydraulic Fracturing in a Water Injector, Offshore Vietnam</b> .....	3150
<i>Huy, Vu Huu; Sutherland, John; Thuy, Pham Thi</i>	
<b>An Analytical Model for Multilayer Well Production Evaluation to Overcome Cross-Flow Problem</b> .....	3162
<i>Hakiki, Farizal; Wibowo, Aris T.; Rahmawati, Silvy D.; Yasutra, Amega; Sukarno, Pudjo</i>	
<b>Solids Production Prediction and Management in a High Porosity Carbonate Reservoir - A Case Study from Offshore Vietnam</b> .....	3175
<i>Asadi, M. S.; Khaksar, A.; Nguyen, H. Q.; Manapov, T. F.</i>	
<b>Production Allocation Challenge with Presence of Apparent Down Flow ADF Phenomenon: A Case Study in Malaysia Wells</b> .....	3189
<i>Rosli, M. Aliff Safwan; M. Nordin, Norintan Farina; Abdul Latif, Azad Hafiz; Hashim, Haziq; Nurzahira M. Shuib, Siti; Farid, M.; Amin, M.; Hamid, Afiq A.; Ramli, Anis Salwa</i>	
<b>Management of Downhole Organic and Inorganic Scale Agglomeration for the Survival of a Marginally Economic Field</b> .....	3201
<i>Hamid, Mohd Hisham Abd; Johar, Zurita; Razali, Mohd Ramdzan</i>	
<b>Change Casing Removal to a Simple and Dependable Method</b> .....	3214
<i>Melder, J. E.; Hartman, C. J.; Hern, G.</i>	

## **SESSION 4: SPECIAL SESSION 4: CARBONATE RESERVOIR DEVELOPMENT**

<b>Development of Carbonate Buildups and Reservoir Architecture of Miocene Carbonate Platforms, Central Luconia, Offshore Sarawak, Malaysia</b> .....	3219
<i>Janjuhah, Hammad Tariq; Ahmed Salim, Ahmed Mohammad; Ali, Mohammad Yamin; Ghosh, Deva Prasad; Amir Hassan, Meor Hakif</i>	

## VOLUME 5

<b>Refactoring Carbonate Reservoir Architecture through Real-Time LWD Measurement</b> .....	3231
<i>Hassan, N. A.; Syailendra, A. A.; Hanalim, L.; Santoso, G. I.; Alang, K. A.</i>	
<b>Wireline Logging under Pressurized Mud Cap Drilling Condition - A Challenging Operation</b> .....	3245
<i>Mohammad, Suria Melanie; Nathan, Kumar; Kyi, Ko Ko</i>	
<b>Drilling Problems Mitigation in Geothermal Environment, Case Studies of Stuck Pipe and Lost Circulation</b> .....	3254
<i>Nugroho, W. A.; Hermawan, S.; Lazuardi, B. H.; Mirza, R.</i>	

### **SESSION 24: TECHNICAL SESSION 24: CORROSION AND FLOW ASSURANCE**

<b>Understanding Crude Properties to Optimize Corrosion Inhibitor Selection and Usage</b> .....	3265
<i>Novitasari, R. A.; Wincana, M. N.</i>	
<b>Quantitative Assessment of Preferential Weld Corrosion in Operator Supplied Weight Loss Coupons Using White Light Interferometry</b> .....	3277
<i>Leahy, Michael; Cook, Stuart; Mok, Wai Yeung</i>	
<b>Corrosion Control in Oil &amp; Gas Installations</b> .....	3289
<i>Okasha, Q.; Aladasani, A.; Ameen, A.; Aravind, N.; Sen, K.; Al-Dushaishi, M.</i>	
<b>Corrosion Under Insulation CUI Management on Idle LNG Process Train</b> .....	3300
<i>Haga, Gren</i>	
<b>Stress Corrosion Cracking on an Insulated Austenitic Stainless Steel Pressure Vessel</b> .....	3310
<i>Hapsoro, Padang Wikar</i>	

### **SESSION 25: TECHNICAL SESSION 25: UNCONVENTIONAL – RESERVOIR CHARACTERISATION**

<b>Imaging of Oil/Water Migration in Tightsand with Nuclear Magnetic Resonance and Microscope during Dynamic Surfactant Imbibition</b> .....	3319
<i>Sun, Yongpeng; Dai, Caili; Fang, Yanchao; Sun, Xin; You, Qing; Wu, Yining; Zhao, Mingwei; Zhao, Guang</i>	
<b>In-Situ Stress and Fracture Controls on Permeability Distribution within Walloon Subgroup, Surat Basin</b> .....	3336
<i>Mukherjee, Saswata; Copley, Jeff; Esterle, Joan</i>	
<b>Production Controlling Factors of the Longmaxi Shale Gas Formation - A Case Study of Huangjingba Shale Gas Field</b> .....	3359
<i>Weixu, Wang; Chenggang, Xian; Xing, Liang; Heng, Wen; Cheng, Niu; Lizhi, Wang</i>	
<b>Numerical Simulation Method and Laboratory Experiments of Starting Pressure Gradient in Tight Sandstone Oil Reservoirs</b> .....	3378
<i>Wang, Shuai; Tan, Xianhong; Zhang, Shaohui; Jiang, Haipei; Jiang, Donglei; Ruan, Hongjiang; Zhang, Xiaoxia</i>	
<b>Method of Characterization of Complex Fracture Network with Combination of Microseismic using Fractal theory</b> .....	3390
<i>Wang, Wendong; Su, Yuliang; Zhou, Zhiwei; Sheng, Guanglong; Zhou, Rui; Tang, Meirong; Du, Xianfei; An, Jie</i>	

### **SESSION 26: TECHNICAL SESSION 26: MATURE FIELDS OPTIMISATIONS THROUGH SURFACE AND SUBSURFACE INTEGRATION**

<b>Development and Operational Implementation of Scale Management Strategy in a Mature Field</b> .....	3402
<i>Tiwari, Amitosh; Fartiyal, Prashant; Malik, Ankit; Sharma, NeelMani; Manickavasagam, Chandran; Lele, Sarang; Sharma, Aastha; Sabhapondit, Anindya</i>	
<b>Advanced Methods for Determining the Value of Information of Surveillance Data Acquisition Using Predictive Analytics</b> .....	3415
<i>Kechut, Nor Idah; Hassan, Abd Azim; Izyan, Wan Fatim; Zamri, W M; Raub, Mohd Razib A; Tewari, Raj Deo; Kuzmichev, Dmitry N.; Mironenko, Yulia; Buoy, Rina; Alessio, Laurent D.</i>	
<b>Real-Time Application of Integrated Well and Network Models through Smart Workflows for Optimizing and Sustaining Production Targets in an Area of Kuwait's Greater Burgan Oil Field</b> .....	3432
<i>Al-Shammari, B.; Rane, N. M.; Desai, S. F.; Al-Rabah, A. A.; Pandey, M.; Shankhdhar, S.; Chacko, R.; Jagannathan, R.</i>	
<b>Maximising Production of Low Injectivity Steam Flood Reservoir through Pressure Balance Approach</b> .....	3448
<i>Pasaribu, Rinaldi; Roma, Rony; Wicaksana, Yana; Muharam, Cece; Aksehirli, Attila</i>	
<b>Using Business Intelligent Tool to Gain Insight into Well Integrity, Surveillance and Production Data</b> .....	3461
<i>Haris Hamzah, M; Hui, Nicholas Foo Kwang; Ismail, W Rokiah Bt; Zulkifli, Shahrul Anwar B; Redzuan, Sdn Bhd. Mohd; Zahid, Ahmad Syafiq</i>	
<b>Well and Inflow Performance Relationship for Heavy Oil Reservoir under Heating Treatment</b> .....	3475
<i>Hakiki, F.; Aditya, A.; Uliha, D. T.; Shidqi, M.; Adi, W. S.; Wibowo, K. H.; Barus, M.</i>	
<b>Perforation Portfolio Management in Tunu Mature Giant Gas Field by Implementation of Intensive Well Review and Its Application in Production Forecast Improvement and Optimization of Well Intervention Planning</b> .....	3501
<i>Purwanto, Eko Yudhi; Herawati, Suhesti; Rau, Irfan Taufik; Anggoro, Jodi; Suwito, Edy</i>	

<b>Value Creation of Digital Oilfield Technology, Study Case Duri Field Well Monitoring</b> .....	3512
<i>Achmad, Zuam</i>	
<b>Integrated Work to Deliver 4,000 BPD Oil from Gas Dominant Field: A Case History from Rejuvenated Brown Field Gas Lift Development</b> .....	3516
<i>Muhammad Kahfie, Rizky, Kurniawan, Farid; Yahya, Musyoffi; Oscar Edy, I Ketut, Izwardy, Saesarian</i>	
<b>Review of 20 Years Hydrocarbon Gas Cycling in the Arun Gas Field</b> .....	3525
<i>Suhendro, Suhendro</i>	

### **SESSION 27: TECHNICAL SESSION 27: WELL CONTROL AND MANAGED PRESSURE DRILLING**

<b>Application of Controlled-Influx Mud Cap Drilling Techniques in Exploiting the Marine Pre-Salt Carbonates in Santos Basin: Case Study</b> .....	3533
<i>Yaqoob, Tanveer; Bello, Opeyemi; Oppelt, Joachim</i>	
<b>Eliminating Underground Blow Out Risk with Constant Bottom Hole Pressure CBHP MPD Technique in Kalimantan Offshore, Indonesia</b> .....	3544
<i>Zein, Joydi; Iskandar, Yoshua; Fadlin, Fadlin; Usmar, Ray</i>	
<b>An Effective Method in Determining Pore Pressure by Controlling Bottomhole Pressure While Drilling Narrow Window Wells in the Gulf of Thailand</b> .....	3551
<i>Rubianto, Irwan; Prasetya, Andi Eka; Detrizio, Pasquale; Charnvit, Kerati; Srisai, Wanchana; Follett, Meth; Dejdamrongpreecha, Warapong; Kudsiri, Rapee; Meghmani, Manoj; Loux, Fabrice; Phonpuntin, Visarut; Eawprasert, Somphop</i>	
<b>Augmenting Deepwater Well Control with Managed Pressure Drilling Equipment</b> .....	3566
<i>Johnson, Austin; Piccolo, Brian; Pinkstone, Henry; Anderson, Bo; Fraczek, Justin</i>	
<b>Eliminating Non Productive Time While Drilling in Southern Sumatra Field with Pressurized Mud Cap Drilling</b> .....	3583
<i>Zein, Joydi; Iskandar, Yoshua; Dharma, Dion; Ali, Ali</i>	

### **SESSION 28: TECHNICAL SESSION 28: BUILDING LEADERSHIP AND TECHNICAL COMPETENCY**

<b>Service Level Agreement: An Effective Communication Flow in the Implementation of Manpower Contract Management</b> .....	3588
<i>Hidayatullah, Aulia S.; Ismail, M. Hasan; Jaya, M. Utama</i>	
<b>Supervisor Performance Assessment Method Based on AHP</b> .....	3592
<i>Zhang, Shaohui; Wang, Shuai; Wang, Ling; Liu, Xiaochen; Teng, Xinxing</i>	
<b>A New Approach for Downhole Tools Deployment Training</b> .....	3603
<i>Gonzalez, Roberto E.; Chapman, Lawrence D.; Geer, Ronny K.</i>	
<b>Essential Leadership Attributes for Engineering Managers in the Petroleum Industry</b> .....	3617
<i>Lau, Hon Chung</i>	
<b>Delivering an Effective and Efficient Contract Transfer in Manpower Contract Management to Maintain the Stability of Daily Operation</b> .....	3632
<i>Meiraharyanti, Astri; Hidayatullah, Aulia S.; Kusumasari, Novita</i>	
<b>Fit for Purpose Behaviourism; a Design Culture</b> .....	3638
<i>Siboro, M.; Prabowo, A.</i>	

### **SESSION 29: TECHNICAL SESSION 29: EOR – WATERFLOOD OPTIMISATION**

<b>Online Monitoring and Automatic Control for Zonal Polymer Injection Wells</b> .....	3644
<i>Fuchao, Sun; Xiaohan, Pei; Deli, Jia; Guanglei, Gao; Guoqin, Li; Xiaoyan, Wang; Chongjiang, Liu</i>	
<b>Modelling the Impact of Reservoir CO<sub>2</sub> on Polymer Flood Performance in Aishwariya Field</b> .....	3652
<i>Mishra, Sudhakar; Pandey, Amitabh</i>	
<b>A New Approach of Pressure Profile and Oil Recovery during Dual and Single Carbonate Core Flooding by Seawater and CO<sub>2</sub> Injection Process at Reservoir Conditions</b> .....	3667
<i>Zhou, Xianmin; AlOtaibi, Fawaz; Kokal, Sunil; Alhashboul, Almohannad; Al-Qahtani, Jassi</i>	
<b>Low pH and Salinity Induced Wettability Modification of Hybrid EOR as Polymer-Assisted Carbonated Low Salinity Waterflood in Calcite Cemented Sandstone Reservoir</b> .....	3681
<i>Lee, Ji Ho; Kim, Gwan-woo; Lee, Kun Sang</i>	
<b>Smart Nanoparticles for Conformance Improvement in Waterflooding</b> .....	3700
<i>Temizel, Cenk; Putra, Dike; Zhang, Ming; Moreno, Raul</i>	
<b>Waterflooding Optimization: A Pragmatic and Cost-Effective Approach to Improve Oil Recovery from Mature Fields</b> .....	3711
<i>Lu, X. G.; Xu, J.</i>	

### **SESSION 30: TECHNICAL SESSION 30: UNLOCK THE POTENTIAL OF MATURE FIELDS THROUGH PROACTIVE SURVEILLANCE AND MONITORING**

<b>Integrated Portfolio Analysis of Gas Field Clusters: How to Make Fast, Yet Informed Decisions</b> .....	3725
<i>Kumar, Gyanendra; Bezemer, Taco Den; Chima, Chima; Dewil, Stoffel; Trivedi, Bhaskar</i>	

<b>How to Solve High Water Cut Well Problem in Mature Oil Field, Case Study: Application of Modified Completion Fluid Treatment in WW D-29, WW H-12, II A-22 Wells</b> .....	3735
<i>Afi, F. N.; Gunawan, H.; Widiatmo, R.; Waskito, L. B.; Nugroho, P.; Luthfan, M.; Prayogo, R.; Suryana, A.</i>	
<b>Real Time Optimisation in Gas Constrained System Results in Production Gain</b> .....	3754
<i>Choudhary, Manish Kumar; Lai, Suan-Loong; Sahu, Sambit Kumar; Arfie, MezLul</i>	
<b>Proactive Reservoir Surveillance That Leads to Prudent Reservoir and Asset Management: A Pleasant Surprise in Understanding AB Field</b> .....	3765
<i>Zakariah, A.; Mahmoud, H. A.; Rosland, E. A.; Mandal, D.</i>	
<b>Staying Ahead through Built-in Automated Approach for Well Modelling in Gas Fields</b> .....	3777
<i>Baghdadi, F.; Yin, K. Yin; Madon, B.</i>	
<b>A Simplified and Robust Approach to Integrated Asset Modeling for Performance Forecasting of a Large Dry Gas Field in East Coast of India</b> .....	3795
<i>Kumar, Amit; France, Brandon; Talukdar, Ramen</i>	
<b>Reactivation and Production Optimisation of Teluk Berau A TBA Field, Salawati Basin, West Papua</b> .....	3806
<i>Suwandhika, Bayu; Mubaraq, Mumajat; Suhendro, Suhendro</i>	

### **SESSION 32: TECHNICAL SESSION 32: DRIVING BUSINESS EFFICIENCY**

<b>Driving Efficiency in Idle Wells Restoration through Risk Sharing Integrated Operations</b> .....	3816
<i>Mohd Mokhtar, S. R.; Wibisono, R.; Zakaria, M.; Shabudin, A.</i>	
<b>Managing Mature and Unconventional Fields</b> .....	3830
<i>Ahmad, Aladasani; Qutaiba, Okasha; Nandkumar, Aravind; Ali, Ameen; Kunal, Sen; Al Dushaishi, Mohammed</i>	
<b>Small is Beautiful: Why Small Fields are the Next Big Thing in South East Asia and How to Capitalise on Them</b> .....	3839
<i>Volkenborn, Arnold; Lea-Cox, Andrew; Sun, Bo</i>	
<b>Target Cost Setting Model for Indonesian PSC amid Low Oil Price</b> .....	3846
<i>Nugraha, Candra</i>	
<b>Statistical Analysis and Mapping of Oil and Gas Operating Cost Based on Field Development Plan in Indonesia</b> .....	3859
<i>Azizurrofi, A. Abdul; Asnidar, A. A.; Galih, D. R.; Hermawan, A. H.; Buana, Y. S.; Firdaus, R. R.</i>	

### **SESSION 33: TECHNICAL SESSION 33: CARBONATE RESERVOIR CHARACTERISATION**

<b>Reservoir Mapping while Drilling in Vuggy and Heterogeneous Carbonate Reservoir - A Success Story from East Java Basin</b> .....	3866
<i>Muhammad, F.; Othman, T. R.; Pujiriyanto, A.; Setyadi, A. L.; Ardikani, N.; Azwar, O.; Pasaribu, I. T.; Permanasari, D.</i>	
<b>Porosity Facies Identification with LWD Nuclear Magnetic Resonance NMR Factor Analysis in Karstified Carbonate Reservoir - Case Study from East Java Basin</b> .....	3880
<i>Budi, Abrar; Rachman, Tubagus Reggie; Othman, Tengku Rasidi B Tengku; Ihsan, Pasaribu</i>	
<b>Low Field Cryoporometry NMR for Mesopores Distribution in Shale</b> .....	3893
<i>Jin, Xu; Wang, Xiaoli; Liu, Xiaodan; Jiao, Hang; Sun, Liang; Su, Ling; Bi, Lina; Chen, Yu</i>	

### **SESSION 34: TECHNICAL SESSION 34: FIELD DEVELOPMENT PLANNING IN INDONESIA**

<b>Brownfield Redevelopment Strategies in Offshore North West Java</b> .....	3898
<i>Arachman, F.; Utami, F.; Wasonoaji, A.; Tobing, D.</i>	
<b>Shallow Reservoir Development in Mature Field - From Hazard to Resources</b> .....	3907
<i>Setiawan, T.; Putra, A.; Az-Zariat, A.; Rinjani, K.; Brahmantio, R.; Herawati, S.</i>	
<b>Managing Offshore Oil Field to Enhance Ultimate Recovery in Asri Basin, Southeast Sumatera, Indonesia</b> .....	3919
<i>Waskito, L. B.; Widiatmo, R.; Afi, F. N.</i>	
<b>New Development Method to Enhance Production Recovery on Mature Field - Success Story from Semberah Field, East Kalimantan, Indonesia</b> .....	3938
<i>Kramadibrata, A. T.; Permana, R. C.</i>	

### **SESSION 35: TECHNICAL SESSION 35: DRILLING PERFORMANCE AND TOOLS**

<b>Development of a Remotely Activated Liner Hanger System While Minimizing Operational Risks</b> .....	3949
<i>Munshi, A. A.; O'Connor, K.; McMahon, S.; Carmody, M.</i>	
<b>Implementation of a Drilling Microchip for Downhole Data Acquisition</b> .....	3956
<i>Li, Bodong; Gooneratne, Chinthaka P; Badran, Mohammed S; Shi, Zhaorui</i>	
<b>Drilling and Completion Fluids Customization to Achieve Maximum Well Productivity in Lower Burgan Reservoir, Case Study from Kuwait Field</b> .....	3965
<i>Al-Ajmi, Abdullah; Al-Rushoud, Abdulaziz; Gohain, Ashis; Khatib, Faiz I; Al-Gharib, Majed; Al-Ajmi, Ali; Al-Mekhlef, Alanoud Mahdi; Mustafa, Mohammed Abdulla Hasan; Mago, Ankit; Rossi, Arnaldo; Rane, Praful</i>	
<b>Drilling Optimization to Overcome High Torque Problem: Lesson Learned on Kujung First Offshore-Near HPHT-Horizontal-Critical Sour-Slim Hole Development</b> .....	3977
<i>Rizkiani, D.; Yustendi, K.; Rusli, B.; Mbouw, A. N.; Mcken, D. R.; Effendi, H.; Zulkarnain, S.; Soufanny, A.; Yang, Z.; Tian, Y.; Lian, J.; Maladi, A.; Diemert, A. P.; Fadil, M.; Utomo, P. P.; Yudento, S. D.; Mahry, A.</i>	
<b>Prediction and Analysis of PDC Bit Downhole Behavior Provides Insights and Efficiencies for Directional Drilling</b> .....	3998
<i>Cuillier, B.; Al-Enezi, D.; Goswami, B.; Al-Salamin, M.; Al-Shelian, J.; Sayed, S.; Mikhail, B.; Genidy, E. El; Reboul, S.</i>	



<b>Breaking Records Using an Innovative Organophilic Clay-Free Invert Emulsion Fluid OCF-IEF to Drill the Longest Well to Date in the United Arab Emirates 35,800 ft .....</b>	<b>4017</b>
<i>Nasrallah, Mena; Vinci, Matteo</i>	
<b>Optimal and Fast Drilling Technology for Shale Gas Horizontal Well and Its Application .....</b>	<b>4031</b>
<i>Zhang, Jincheng; Zhou, Haobo; Zang, Yanbin; Niu, Xinming</i>	
<b>Author Index</b>	