



SPE Artificial Lift Conference and Exhibition-Americas

28-30 August 2018 The Waterway Marriott Hotel and Convention Center The Woodlands, Texas, USA

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Conference Program









Axip automated electric drive compressors

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John Snow

Sr. Manager, Strategic Business Development 918.519.5438 jsnow@axip.com



Dear Colleagues,

Welcome to the SPE Artificial Lift Conference and Exhibition—Americas!

The theme of this year's conference is "Pushing the Limits of Artificial Lift." The event seeks to establish a record of technologies and practices that are expanding the application range and reliability of artificial lift systems. This knowledge will be made available globally to industry professionals via OnePetro.

The conference will begin with panelists offering their own perspective on "Artificial Lift and Digital Oilfield." I encourage attendees to share their own thoughts during that session's question and answer period. At Tuesday's Legends in Artificial Lift Awards luncheon, 2017 SPE President Janeen Judah will recognize and honor five outstanding individuals for their technical contribution to the artificial lift community. The keynote luncheons on Wednesday and Thursday will feature speakers from both ConocoPhillips and Occidental Petroleum, respectively, that you will not want to miss.

Remember to visit the sold-out exhibition featuring cuttingedge technology from leading companies from around the world.

I would like to thank the program committee for their work in putting together this great technical program. The people that work in artificial lift are the best at coming together to share new ideas and lessons learned.

On behalf of the program committee, thank you for attending this event, and enjoy the conference!

Sincerely, Greg Stephenson Program Committee Chairperson

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About the Society of Petroleum Engineers

The Society of Petroleum Engineers (SPE) is a not-for-profit professional association. Income from this event helps provide opportunities for industry professionals to enhance their technical and professional competence. Scholarships, certification, the Distinguished Lecturer program, and SPE's energy education program Energy4me are just a few examples of programs that are supported by SPE at www.spe.org.

Occidental Petroleum

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Occidental Petroleum

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In Fond Memory of Chip Ollre 1961-2018

His contributions to the artificial lift community will be remembered with the highest admiration.

Schedule of Events (as of 07 August 2018)

Waterway 4 Technical and Plenary Sessions
ust
Welcome Coffee Waterway 4 Foyer
Conference Registration Town Center North Foyer
Plenary Session: Artificial Lift and the Digital Oilfield
Coffee Break on Exhibit Floor Town Center North
Exhibition Town Center North
Technical Session 01: Sucker Rod Pumps I
Dessert and Coffee on Exhibit Floor Town Center North
Technical Session 02: Electric Submersible Pumps I
Coffee Break on Exhibit Floor Town Center North
Technical Session 03: Gas Lift: Application in Unconventional Wells
Networking Reception on Exhibit Floor Town Center North
August
Welcome Coffee Waterway 4 Foyer
Conference Registration Town Center North Foyer
Technical Session 04: Gas Deliquification
Coffee Break on Exhibit Floor Town Center North
Exhibition
Technical Session 05: Progressing Cavity Pumps
Dessert and Coffee on Exhibit Floor Town Center North
Technical Session 06: Sucker Rod Pumps II
Coffee Break on Exhibit Floor Town Center North
Technical Session 07: Electric Submersible Pumps II
gust
Welcome Coffee Waterway 4 Foyer
Conference Registration Waterway 4 Foyer
Technical Session 08: Intermittent Gas Lift and Gas-Assisted Plunger Lift
Coffee Break Waterway 4 Foyer
Technical Session 09: Designing Artificial Lift for the Life of the Well
Coffee Break Waterway 4 Foyer
Technical Session 10: Artificial Lift Optimization

Schedule of Events (as of 07 August 2018)

Waterway Foyer	Waterway 1–3 Luncheons	
		Tuesday, 28 August
	Welcome Coffee Waterway 4 Foyer	0730-0830
Coi	nference Registration Town Center North Foyer	0700-1700
		0830-1000
Knowledge Sharing ePosters		1000-1030
Co	ffee Break on Exhibit Floor Town Center North	1000-1830
	Exhibition Town Center North	1000-1830
		1030-1200
	Legends of Artificial Lift Awards Luncheon	1200-1315
Desse	rt and Coffee on Exhibit Floor Town Center North	1315-1400
		1400-1530
Knowledge Sharing ePosters		1000-1030
Co	ffee Break on Exhibit Floor Town Center North	1530-1600
		1600-1730
Networ	king Reception on Exhibit Floor Town Center North	1730-1830
	Wed	inesday, 29 August
	Welcome Coffee Waterway 4 Foyer	0730-0830
Cor	nference Registration Town Center North Foyer	0700-1700
		0830-1000
Knowledge Sharing ePosters		1000-1030
Co	ffee Break on Exhibit Floor Town Center North	1000-1830
	Exhibition	1000-1600
		1030-1200
	Keynote Luncheon: Unconventional Reservoirs - A Technology Driven Revolution of Enormous Scale and Global Impact	1200-1315
Desse	ert and Coffee on Exhibit Floor Town Center North	1315-1400
		1400-1530
Knowledge Sharing ePosters		1530-1600
Co	ffee Break on Exhibit Floor Town Center North	1530-1600
		1400-1530
	Т	hursday, 30 August
	Welcome Coffee Waterway 4 Foyer	0730-0830
	Conference Registration Waterway 4 Foyer	0700-1400
		0830-1000
	Coffee Break Waterway 4 Foyer	1000-1830
		1030-1200
	Keynote Luncheon: Just Evacuate the Wellbore! Innovation is the Key to Doing the Impossible with Artificial Lift Daily in a Continuously Changing and Challenging Landscape	1200-1315
	Coffee Break Waterway 4 Foyer	1315-1400
		1400-1600

General Information

Registration and Badge Pick-Up

Located in Town Center North Foyer, Level 1

Monday, 27 August 1300–1700 Tuesday, 28 August 0700–1700 Wednesday, 29 August 0700–1700

Located in Waterway Foyer

Thursday, 30 August 0700–1400

Exhibition

Located in Town Center North, Level 1

Tuesday, 28 August 1000-1830 Wednesday, 29 August 1000-1600

Speaker Check-In

Located in Cochran's Crossing, Level 2. Speakers are requested to check in prior to reporting to their assigned session room.

Monday, 27 August 1500–1700
Tuesday, 28 August 0700–1730
Wednesday, 29 August 0730–1730
Thursday, 30 August 0730–1600

Coffee Breaks

Located on the exhibit floor or outside the technical session rooms.

Tuesday, 28 August and Wednesday, 29 August 0700-0830 | 1000-1030 | 1530-1600

Thursday, 30 August 0700-0830 | 1000-1030 | 1315-1400

Dessert and Coffee Breaks

Located in Town Center North, Level 1

Tuesday, 28 August and Wednesday, 29 August 1315–1400

Tuesday Night Welcome Reception

Located in Town Center North, Level 1

1730-1830

Tuesday Legends in Artificial Lift Awards Luncheon

Located on Waterway 1-3

1200-1315

The State of the State of the

Located on Waterway 1-3

1200-1315

1 Thursday Keynote Luncheon

Located on Waterway 1-3

1200-1315

Wi-Fi Available in Session Rooms and Lobby Space

SSID: 18ALCE Password: 2018alce

Ticketed event, separate registration required

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Plenary: Artificial Lift and the Digital Oilfield

Panelists will share how digital oilfield techniques and technologies are being applied to artificial lift systems. Topics covered during this session will include what solutions have been deployed today, the trade-offs between using solutions developed in-house vs. off-the-shelf products, and what new products and technologies are needed to make the next great leap in digital oilfield applications for artificial lift. This interactive session is sure to bring insight to how such a frequently discussed topic is actually being implemented today.

Tuesday, 28 August 2018 | 0830-1000

Waterway 4

Moderator



Anthony Paul Allison

Occidental Petroleum Corp.

Speakers



Atika Said Al-Bimani
Petroleum Development
Oman



Melissa Folz **Oasis Petroleum Co.**



Eugenio Ferrigno

YPF SA

Technical Program

Tuesday, 28 August | 1030-1200

Waterway 4

01 Sucker Rod Pumps I

Session Chairpersons: Imran Md Hashim, Newfield Exploration Company; Blake Myers, EP Energy

When producing a horizontal well with a sucker rod pump, gas entering the pump may result in more than just inefficiencies; it may also lead to increased failure rates due to compression. The papers presented in this session will recommend both downhole design changes and changes to operational practices in an effort to reduce the negative impacts of gas entering the sucker rod pump.

Time	Paper#	Presentation
1030	190938	Evaluating Tailpipe Systems Designed to Optimize Artificial Lift Performance in Horizontal Wells C.R. Humphreys, B.N. Vangolen, A.P. Allison, D. Yin, C. Yicon, Occidental Petroleum Corp.
1100	190942	Quantitative Analysis of the Packer-Style Gas Separator Through Laboratory and Field Trials L. Thompson, A. Monk, G. Oddie, Schlumberger
1130	190936	Solving Gas Interference Issues with Sucker Rod Pumps in the Permian Basin A.P. Allison, C.F. Leal, M.R. Boland, Occidental Petroleum
Alternate	190958	SRP Equipment Customization Creating Value by Increasing Run Life in a Low Oil Price Environment M. Hoy, OMV E&P B. Kometer, OMV Austria E&P P.C. Buerssner, OMV Petrom; G.A. Puscalau, Weatherford International; S. Eder, AC2T research
Alternate	190932	Downhole Plunger Speed Study in Sucker Rod High GOR and High Friction Wells E. Ferrigno, D. El Khouri, YPF; G. Moreno, YPF Tecnologia

1 Legends in Artificial Lift Awards Luncheon

Janeen Judah, 2017 President, Society of Petroleum Engineers will speak at the Legends luncheon and conduct the awards presentation for the 2018 recipients. SPE recognizes the importance of artificial lift to the industry and the valuable contributions of those who made their careers advancing the technology and transferring their knowledge to the next generation.

Tuesday, 28 August 2018 | 1200 - 1315

Waterway 1-3

2018 Legends of Artificial Lift Award Recipients



Ken Decker



Cleon Dunham



Bill Lane



Tony Podio



Lyle Wilson

Technical Program (as of 07 August 2018)

Tuesday, 28 August | 1400-1530

Waterway 4

02 Electric Submersible Pumps I

Session Chairpersons: Jeff Dwiggins, Artificial Lift Solutions Pte Ltd; Keith Russell, Silixa

Looking for better economics for your ESP operations? This session will focus on the use of permanent magnet motor technology to reduce ESP power consumption and enable ESP installation in wells with smaller casing sizes.

Time	Paper#	Presentation
1400	190934	Energy Management Applied to Electric Submersible Pumping (ESP) E.R. Martinez Villarreal, A.D. Caicedo, L. Paredes, Repsol; M. Guevara, E. Álvarez, Baker Hughes a GE company
1430	190951	Efficiency Study in Vizcacheras Field and Implementation of PMM Motors to Increase Production Capability A.L. Tiofiolo, J.J. Dotta, YPF S.A.; R.H. Teves, GE Oil & Gas-Artificial Lift
1500	190960	Permanent Magnet Motors/Powder Metallurgy Pump Stages: Increasing Profit Margins, Reserves, and Economic Limits through Efficient ESP Design J. Lucas, Novomet USA; S.C. Donham, T. Wrobel, Merit Energy Company

Tuesday, 28 August | 1600-1730

Waterway 4

03 Gas Lift: Application in Unconventional Wells

Session Chairpersons: Steve Pohler, Pohler Consulting; Eduardo Pereyra, University of Tulsa

The production characteristics of unconventional wells pose special challenges for artificial lift systems. Gas lift, known for its flexibility, is well suited to this environment and has gained popularity in recent years. This session explores the fundamentals and applications of gas lift that lead to successful deployment in unconventional wells.

Time	Paper#	Presentation
1600	190923	Chamber Gas Lift in Horizontals C.N. Hardegree, B.A. Gerrard, S.L. Wildman, K.S. McKenzie, Occidental Oil and Gas Corp.
1630	190959	Life-of-Well Gas Lift Installations for Unconventional Resources B. Latif, K.S. McKenzie, W.M. Rodgers, G.B. Stephenson, S.L. Wildman, Occidental Petroleum Corp.
1700	190965	End of Tubing and Packer Placement Effects on Gas Lift Operations in Toe Down Gas Wells J.V. Nair, E. Pereyra, C. Sarica, University of Tulsa
Alternate	190929	Gas Lift Annulus Pressure K.L. Decker, Retired; R.P. Sutton, Consultant
Alternate	190950	Impact of Gas Lift Design in Unconventional Wells-A Delaware Basin Operators Perspective S.K. Kannan, M. Boyer, J. Dufresne, Anadarko Petroleum Corp; L.E. Gonzalez, Xenon Lift Services

Technical Program (as of 07 August 2018)

Wednesday, 29 August 2018 | 0830-1000

Waterway 4

04 Gas Deliquification

Session Chairpersons: Bruce Gerrard, Occidental Petroleum; Barry Labrecque, Shell Canada

Lifting gas in unconventional wells is key to recognizing the entire value of the well. Typical challenges include determining liquid loading rates and velocities and applying the best artificial lift method to produce the well. This session will focus on understanding liquid loading and lifting liquid-loaded gassy shale wells effectively.

Time	Paper#	Presentation
0830	190921	A Simple Critical Gas Velocity Equation as Direct Functions of Diameter and Inclination for Horizontal Well Liquid Loading Prediction: Theory and Extensive Field Validation A.S. Nagoo, Nagoo & Associates; P.M. Kulkarni, Equinor; C. Arnold, Escondido Resources; M. Dunham, Bravo Natural Resources; J. Sosa, Jones Energy; P.O. Oyewole, Proline Energy Resources
0900	190947	Unconventional Lift for Unconventional Wells B. Jackson, Tech-Flo Consulting
0930	190930	Novel Approach in Digital Diagnostic for Plunger Lift in Non Conventional Wells at Vaca Muerta J. Barros, YPF; J. Alvarez Claramunt, YPF SA; E. Ferrigno, YPF
Alternate	190941	Efficacy of Surfactants in Rich Gas Shale Wells Y. Alzhanov, University of Tulsa; H. Karami, University of Oklahoma; E. Pereyra, University of Tulsa; J.A. Gamboa, Chevron Corporation
Alternate	190919	Surfactant Batch Treatment Efficiency as an Artificial Lift Method for Horizontal Gas Wells C. Gcali, Petroleum Abstracts/The University of Tulsa; H. Karami, The University of Oklahoma; E. Pereyra, C. Sarica, University of Tulsa

Technical Program (as of 07 August 2018)

Wednesday, 29 August 2018 | 1030-1200

Waterway 4

05 Progressing Cavity Pumps

Session Chairpersons: Darin Austin, Innovative Production Inc.; Laura Labrador, Ecopetrol

This session will explore the latest developments in progressing cavity pump materials, geometries, and technologies. These developments, coupled with innovative solutions and challenging applications, improve the run life of PCP systems.

Time	Paper#	Presentation
1030	190945	One Company's Experience using Metal to Metal PCPs as the Primary Artificial Lift Method in a SAGD Operation O. Becerra, PetroChina Canada; J. Sheldon, C-Fer Technologies
1100	190933	Identifying Analogue Fields in PCP Applications using Classification Trees J. Sheldon, F.J. Alhanati, P. Skoczylas, C-FER Technologies
1130	191118	Increased Run Life in Progressive Cavity Pumps From Characterization of High Nitrile Elastomers in the Orinoco Oil Belt M.J. Han, PDVSA Petropiar; E. Guerra, Chevron Global Upstream; S.V. Rangel, I.B. Gamez, A. Delgado, PDVSA Petropiar
Alternate	190964	Successful Application of an Innovative Geometry of Progressing Cavity Pump in Application With High Sand and Gas Content: Colombian Successful Case L.S. Labrador, P.A. De Sales, Ecopetrol S.A; L.F. Valderrama Arias, J. Molina, J. Ferrer, Apergy
Alternate	190948	System Run Life Improvement for Rod Driven PCP in High Deviation Well S. Khadev, S. Agarwal, P. Kumar, N. Pandev, A. Parasher, S. Kumar, V. Agarwal, S. Tiwari, Cairn Oil & Gas
Alternate	190944	Challenging Sand Producer Well Handling with PCP in Eastern Desert, Egypt K.A. Al-Sawi, M.I. Hegazy, K.M. El-Hady, M.S. Abd-Elhamed, Kuwait Energy Egypt

Wednesday Keynote Luncheon: Unconventional Reservoirs—A Technology **Driven Revolution of Enormous Scale and Global Impact**

The unconventional reservoir revolution disrupted the status quo that existed within the oil & gas industry at the start of the 21st century, creating both considerable opportunity and significant challenges. Industry's understanding of unconventional reservoirs is still evolving rapidly, with the technical insights achieved over the past ten years having been remarkable, yet there is still much for industry to learn. This talk will summarize progress made to date and speculate about the likely impact of future technology advancements, including those related to artificial lift.

Wednesday, 29 August 2018 | 1200-1315

Waterway 1-3



Greg Leveille ConocoPhillips

Greg Leveille is chief technology officer for ConocoPhillips. During his career, he has held leadership positions in technology, exploration, operations, portfolio management, asset management, project management, and commercial organizations.

Leveille is a member of the Executive Committee of the Unconventional Resources Technology Conference (URTeC), serves on the Dean's Advisory Board for the University of Houston's College of Natural Sciences and Mathematics, and has led several United Way fund raising campaigns.

Technical Program (as of 07 August 2018)

Wednesday, 29 August 2018 | 1400-1530

Waterway 4

06 Sucker Rod Pumps II

Session Chairpersons: Sergio Gonzales, ConocoPhillips;

Michael Poythress, ConocoPhillips

Tubing failures in sucker rod pumping applications have become problematic in many basins around the world, especially in unconventional wells. Two papers in this session will detail how we can closely examine the product delivered by the drilling department, as we attempt to cycle a sucker rod string more than 7,000 times per day for many years without a failure. The third presentation will share a case history that focuses on getting more from our rod pump controllers, in the way of inferred production, to assist with the validation of well tests.

Time	Paper#	Presentation
1400	190935	Rod-Guide Placement Based on High-Resolution Tortuosity Analysis of Production Tubing O. Jegbefume, J. Bang, A.G. Ledroz, R. Shoup, Gyrodata Inc.; R.S. Vincent, PL Tech LLC; J. Earley, EOG Resources
1430	190920	Visualizing Rod Design and Analysis Through the Wave Equation W. Phillips, 3dwellbore.com
1500	190955	Enabling Autonomous Well Optimization Using IoT-Enabled Devices and Machine Learning in Bakken Horizontal Wells J. Freeman, P.M. Kulkarni, Statoil; R. Benoit, J. Filipi, B. Arnst, Ambyint

Technical Program (as of 07 August 2018)

Wednesday, 29 August 2018 | 1600-1730

Waterway 4

07 Electric Submersible Pumps II

Session Chairpersons: Barry Nicholson, Occidental Petroleum; Steven Kennedy, EOG Resources Inc.

Science and math triumph over rules of thumb. In this session, three papers will be presented featuring exciting new models to simulate and predict ESP performance over a range of fluid characteristics, thereby enabling better ESP design, operational performance, and troubleshooting.

Time	Paper#	Presentation
1600	190926	Centrifugal Pump Head Prediction using Affinity Laws Modified for Viscosity A.R. Patil, G. Morrison, A. Delgado, Texas A&M University; H.I. Casillas, Royal Dutch Shell
1630	190927	A Mechanistic Model to Predict Flow Pattern Transitions in Electrical Submersible Pump under Gassy Flow Condition J. Zhu, J. Zhang, H. Zhu, H. Zhang, The University of Tulsa
1700	190956	A First Principles Model for Virtually Sensing Operational Parameters in an ESP Well E. Aceros, Universidad Del Zulia; E. Camargo, Universidad de los Andes; J.I. Canelon, Universidad Del Zulia; A. Verde, Easy Oil, LLC
Alternate	190939	Material Overview for Electric Submersible Pumps: Part I-Metallic and Ceramic Materials J. Xiao, Saudi Aramco PE&D R.A. Lastra Melo, Saudi Aramco PE&D EXPEC ARC; B.A. Roth, Saudi Aramco PE&D W. Lee, Alkhorayef Petroleum Company

Technical Program (as of 07 August 2018)

Thursday, 30 August 2018 | 0830-1000

Waterway 4

08 Intermittent Gas Lift and Gas-Assisted Plunger Lift

Session Chairpersons: Bill Hearn, ConocoPhillips Co; Clint Mason, Definitive Optimization

Gas lift is increasingly used as the primary lift method on new unconventional wells. Key to its success is the deployment of intermittent gas lift (IGL) and gas-assisted plunger lift (GAPL) later in the well's life to reduce lift gas requirements and optimize flowing bottomhole pressure. This session will focus on the transition from continuous gas lift to IGL and GAPL and its implications on production, pressure, and operations.

Time	Paper#	Presentation
0830	190916	Modeling Transient Inflow Performance Relationship in Artificial–Lift Systems Z. Xiang, C. Kabir, University of Houston
0900	190937	Plunger–Assisted Gas Lift and Gas–Assisted Plunger Lift M. Burns, XTO Energy
0930	190966	Innovative Well Designs for HGOR Wells: Extending Gas Production with Common Gas Well Deliquification Techniques N.J. Clifton Goldney, B. Mohando, G. Perez Cometto, M. Ballarini, R.D. Mazzola, Pan American Energy LLC

Technical Program (as of 07 August 2018)

Thursday, 30 August 2018 | 1030-1200

Waterway 4

09 Designing Artificial Lift for the Life of the Well

Session Chairpersons: Michael Parker, Surge Energy Inc; Gonzalo Perez Cometto, Pan American Energy

Critical to managing costs as wells decline is having a strategy to ensure that the correct artificial lift type can be applied at the right time during a well's life with minimal intervention costs. This session focuses on applying artificial lift throughout the life of a well and preparing the initial completion for the low-cost introduction of artificial lift later on.

Time	Paper#	Presentation
1030	190954	Innovative Downhole Design for Optimize ALS Installation at Shale Oil Wells I. Cuneo, YPF SA; J.M. Ardito, G. Garcia Rivero, YPF
1100	190928	Reducing Artificial Lift Surface Conversion Costs In A Unconventional Oil Field C.L. Weiss, Tourmaline Oil Corp; V. McGee, QCl; K. McAdam, Western Oil Tools
1130	190961	Getting Wells Back to Production Using an Innovative Artificial Lift System for Recovering Inactive Wells A.F. Vargas, Pump Best Services Colombia; J. Duran, Ecopetrol SA; A. Simpson, Veretek; R. Santos, Schlumberger; J.M. Doval, L. Muñoz, Ecopetrol SA; A.E. Patino Jerez, Schlumberger Surenco S.A.; C. Rativa, N. Hernandez, A. Rozo, Ecopetrol SA; D. Rios, Ecopetrol
Alternate	190922	Wellbore Modeling and Reservoir Characterization for the Application of Artificial Lift in Deep Horizontal Wells in the Unconventional Reservoirs P. Pankaj, K. Patron, L. Haidan, Schlumberger

• Thursday Keynote Luncheon: Just Evacuate the Wellbore! Innovation is the Key to Doing the Impossible with Artificial Lift Daily in a Continuously Changing and Challenging Landscape

Artificial Lift was not easy back in the vertical well days and today it is more challenging with the ever changing and complex horizontal wellbore construction designs with solids and gas added to the mix. In other words, to make Artificial Lift even more fun, we pump millions of pounds of sand and water into our horizontal wells, we reduce the liquid inflow from day one, we increase the gas to liquid ratio almost continuously, and we likely have crooked wells with kinks throughout the wellbore. We also have heavy oil steam floods that add heat and more sand into the mix. Never forget, as we work to lower the bottom hole flowing pressure as low as possible we have to do this as cheaply as possible with a declining failure rate curve! Artificial Lift today is equivalent to playing 3D chess with the other player, board, pieces and room moving around us while everything is on fire! The good news is the SPE Artificial Lift Conference and Exhibition–Americas is attended by change agents who love to innovate and ask themselves and others "why are we doing it this way" every day! Some of these change agents have built and are selling better mousetraps right out in the exhibition. This talk will review all the above and propose how we dominate the way forward with innovation!

Thursday, 30 August 2018 | 1200-1315

Waterway 1-3



Tom J. Walker
Occidental Petroleum

Tom J. Walker is chief production engineer for Occidental Petroleum. Based in Houston, Tom supports nearly 400 Oxy production engineers (PE) in Texas, Oman, Qatar, and Columbia. In addition to PE mentoring and development, he is also responsible for protecting the company's base production, providing technical production engineering oversight to all the global business units and adding traction to innovative ideas from PE's.

Walker has over 29 years of broad experience managing production operations around the world in locations including Brazil, Colorado, Wyoming, North Dakota, Montana, Utah, Oman, Qatar, California, and Alaska. His specialty includes production engineering support of oil and dry gas unconventional shale plays, coal bed methane gas, heavy oil steamflood, and waterfloods in conventional sandstone and carbonate reservoirs.

Technical Program (as of 07 August 2018)

Wednesday, 29 August 2018 | 1400-1600

Waterway 4

10 Artificial Lift Optimization

Session Chairpersons: Bill Hearn, ConocoPhillips Co; Ken Saveth, Baker Hughes, a GE company

Once artificial lift has been introduced, optimization and reliability become the key focus for achieving maximum value. This session focuses on the optimization workflows and the measurement and optimization of reliability in artificial lift.

Time	Paper#	Presentation	
1400	190940	Tuning VSDs in ESP Wells to Optimize Oil Production–Case Studies L.A. Camilleri, H. Gong, Schlumberger; N.H. Al–Maqsseed, A.M. Al–Jazzaf, Kuwait Oil Company	
1430	190949	Plunger Fall Velocity Studies in Vertical Wells R. Acosta, E. Pereyra, C. Sarica, The University of Tulsa	
1500	190962	Use of Run-Life Measures in Estimating Artificial Lift System Reliability P. Skoczylas, F.J. Alhanati, J. Sheldon, C-FER Technologies; F. Trevisan, N/A	
Alternate	190963	Cultural Change in ALS Real Time Operation and Optimization in Vaca Muerta Through CWE J. Alvarez Claramunt, P.E. Bizzotto, F.D. Sapag, YPF SA; E. Ferrigno, J.L. Barros, G.D. Martinez, YPF	
Alternate	190952	Production Optimization for Progressive Cavity Pumps by Interconnecting a Steady–State Flow Simulator and a Black Oil Reservoir Model through Integrated Asset Management Software M. Ali, K. Escobar, S. Cui, V. Salinas, Schlumberger	
1530	Closing Ren	narks	

Knowledge Sharing ePosters

Knowledge Sharing ePosters allow one-on-one interactions with presenters and opportunities to study a particular concept at an appropriate level of detail. Subject matter varies, but topics are consistent with the other technical sessions.

Knowledge Sharing ePosters I

Session Chairpersons: Bill Hearn, ConocoPhillips; Ken Saveth, Baker Hughes, a GE Company

Time	Paper #	Presentation
Tuesday, 28	August	1000-1600 Station I Waterway Foyer
1000-1015	190958	SRP Equipment Customization Creating Value by Increasing Run Life in a Low Oil Price Environment M. Hoy, OMV E&P B. Kometer, OMV Austria E&P P.C. Buerssner, OMV Petrom; G.A. Puscalau, Weatherford International; S. Eder, AC2T research
1015-1030	190932	Downhole Plunger Speed Study in Sucker Rod High GOR and High Friction Wells E. Ferrigno, D. El Khouri, YPF; G. Moreno, YPF Tecnologia
1530-1545	190941	Efficacy of Surfactants in Rich Gas Shale Wells Y. Alzhanov, University of Tulsa; H. Karami, University of Oklahoma; E. Pereyra, University of Tulsa; J.A. Gamboa, Chevron Corporation
1545-1600	190919	Surfactant Batch Treatment Efficiency as an Artificial Lift Method for Horizontal Gas Wells C. Gcali, Petroleum Abstracts/The University of Tulsa; H. Karami, The University of Oklahoma; E. Pereyra, C. Sarica, University of Tulsa

Knowledge Sharing ePosters II

Session Chairpersons: Peter Oyewole, Proline Energy Resources; Steve Pohler, Pohler Consulting

Time	Paper #	Presentation
Tuesday, 28	August 10	000–1600 Station II Waterway Foyer
1000-1015	190929	Gas Lift Annulus Pressure K.L. Decker, Retired; R.P. Sutton, Consultant
1015-1030	190950	Impact of Gas Lift Design in Unconventional Wells-A Delaware Basin Operators Perspective S.K. Kannan, M. Boyer, J. Dufresne, Anadarko Petroleum Corp; L.E. Gonzalez, Xenon Lift Services
1530-1545	190964	Successful Application of an Innovative Geometry of Progressing Cavity Pump in Application With High Sand and Gas Content: Colombian Successful Case L.S. Labrador, P.A. De Sales, Ecopetrol S.A; L.F. Valderrama Arias, J. Molina, J. Ferrer, Apergy
1545-1600	190948	System Run Life Improvement for Rod Driven PCP in High Deviation Well S. Khadev, S. Agarwal, P. Kumar, N. Pandev, A. Parasher, S. Kumar, V. Agarwal, S. Tiwari, Cairn Oil & Gas

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Knowledge Sharing ePosters III

Session Chairpersons: Marcelo Hirschfeldt, Oil Production Consulting;

Robert Navo, Baker Hughes, a GE company

Time	Paper #	Presentation		
Wednesday	, 29 August	1000-1545	Station I Waterway Foyer	
1000-1015	190944	Challenging Sand Producer Well Handling with PCP in Eastern Des K.A. Al-Sawi, M.I. Hegazy, K.M. El-Hady, M.S. Abd-Elhamed, Kuwait	,	
1015-1030	Material Overview for Electric Submersible Pumps: Part I-Metallic and Ceramic Materials J. Xiao, Saudi Aramco PE&D R.A. Lastra Melo, Saudi Aramco PE&D EXPEC ARC; B.A. Roth, Saudi Aram PE&D W. Lee, Alkhorayef Petroleum Company			
1530-1545	190952	Production Optimization for Progressive Cavity Pumps by Intercol Simulator and a Black Oil Reservoir Model through Integrated Asse M. Ali, K. Escobar, S. Cui, V. Salinas, Schlumberger	•	

Knowledge Sharing ePosters IV

Session Chairpersons: Michael Poythress, ConocoPhillips

Time	Paper #	Presentation	
Wednesday	, 29 August	1000-1030 Station II Waterway	Foyer
		Wellbore Modeling and Reservoir Characterization for the Application of Artificial Lift in Deep	
1000-1015	190922	Horizontal Wells in the Unconventional Reservoirs	
		P. Pankaj, K. Patron, L. Haidan, Schlumberger	
1015-1030	190963	Cultural Change in ALS Real Time Operation and Optimization in Vaca Muerta Through CWE	
1015-1030	190963	J. Alvarez Claramunt, P.E. Bizzotto, F.D. Sapag, YPF SA; E. Ferrigno, J.L. Barros, G.D. Martinez, YPF	

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