

| 7:00 – 9:30 Conference Opening and Keynote Speaker |                                                                                                                                                                                                                                                                                                                                         |
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| 7:00 – 8:15                                        | Breakfast   Foyer                                                                                                                                                                                                                                                                                                                       |
| 8:15 – 8:30<br>Texas D                             | <b>Welcome</b>   Conference Chairs: Neil Trotter (Chevron) and Ahmed Amer (Newpark Fluids Systems)                                                                                                                                                                                                                                      |
| 8:30 – 9:30<br>Texas D                             | <b>Keynote</b>   Richard Spears   Managing Director (Spears & Associates)<br><i>How Extreme Financial Discipline Impacts Drilling Activity in 2022 and 2023</i>                                                                                                                                                                         |
| 9:30 – 10:00                                       | Break   Exhibits Open<br>Sponsored by <b>ChampionX</b>                                                                                                                                                                                                                                                                                  |
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| 10:00 – 12:00 Morning Technical Sessions           |                                                                                                                                                                                                                                                                                                                                         |
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| Texas A                                            | <b>ESG</b>   Session Chairs: David Horton (Schlumberger) and Les Skinner (Consultant)                                                                                                                                                                                                                                                   |
| 10:00 – 10:30                                      | <b>Developing the Origin of Raw Materials to Achieve Environmentally Responsible Products Without Sacrificing Performance</b> – Charles Landis and Tim Haggerty (Integrity); Mark Luyster and Kim Tresco (TBC-Brinadd). [040]*                                                                                                          |
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| Texas B                                            | <b>High Temperature Fluids</b>   Session Chairs: Paul Scott (ConocoPhillips) and Jim Friedheim (Consultant)                                                                                                                                                                                                                             |
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| 11:00 – 11:30                                      | <b>New Rheological Duo System for HTHP Drilling</b> – Brett Cramer and Rick Bennett (BYK). [021]                                                                                                                                                                                                                                        |
| 11:30 – 12:00                                      | <b>Targeted Improvements in Chemistry of Common Fluid Additives Increase Temperature Stability of Non-Aqueous Drilling Fluids</b> – Dimitri Khramov and Bala Panamarathupalayam (Schlumberger); Evgeny Barmatov (Schlumberger Cambridge Research). [054]                                                                                |
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| Texas C                                            | <b>Digital Solutions</b>   Session Chairs: John Oliver (Petroconnex) and Mario Bouguetta (M-I SWACO)                                                                                                                                                                                                                                    |
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| 10:30 – 11:00                                      | <b>Bringing Drilling Fluids into the Digital Era</b> – Katherine Price Hoelscher, Ethan Peterson, and Caleb Rabon (M-I SWACO). [079]                                                                                                                                                                                                    |
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|                                                    |                                                                                                                                                                                                                                                                                                                                         |
| 12:00 -1:30<br>Texas D                             | <b>Luncheon   Award Presentations</b><br>Remarks from AADE National President - Sharon Moore (Halliburton)<br>• Wayne Bryant AADE Service Award<br>• Hall of Fame Presentations – Class of 2020   Inducted 2022:<br>– Glen Benge – Hallan N. Marsh<br>– Lindsay J. Fraser – Larry J. Remont<br>– George E. King – Christopher A. Sawdon |

| 1:30 - 5:30 Afternoon Technical Sessions |                                                                                                                                                                                                                                                                                                                                     |
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| Texas A                                  | <b>Cementing</b>   Session Chairs: Cory Arceneaux (Chevron) and Brittany Granger (Newpark Fluids Systems)                                                                                                                                                                                                                           |
| 1:30 – 2:00                              | <b>Performance Testing of Cement Defoamers</b> – Allen Kelley, Kristina Fontenot, and Cornell Stanciu (Sasol). [042]                                                                                                                                                                                                                |
| 2:00 – 2:30                              | <b>Distribution of Stresses to Improve Mechanical Properties of the Oil Well Cement</b> – Hasmukh Patel, Roland Martinez and Kenneth Johnson (Aramco Americas). [065]                                                                                                                                                               |
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| Texas B                                  | <b>Geothermal Fluids</b>   Session Chairs: Eric van Oort (University of Texas at Austin) and Saleh Haidary (Saudi Aramco)                                                                                                                                                                                                           |
| 1:30 – 2:00                              | <b>Latest Developments in Geothermal Drilling &amp; the Path to Geothermal Anywhere</b> – Eric van Oort (University of Texas at Austin).                                                                                                                                                                                            |
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| Texas C                                  | <b>Student Presentations</b>                                                                                                                                                                                                                                                                                                        |
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| 3:00 – 3:30                              | Break   Exhibits Open<br>Sponsored by <b>ChampionX</b>                                                                                                                                                                                                                                                                              |
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| 8:00 - 12:00  | Morning Technical Sessions                                                                                                                                                                                                                                   |
|               |                                                                                                                                                                                                                                                              |
| Texas A       | <b>Zonal Isolation</b>   Session Chairs: John Trenery (Chevron) and Nils Kaageson-Loe (Baker Hughes)                                                                                                                                                         |
| 8:00 – 8:30   | <b>A Novel Bench-Scale Experimental Setup to Evaluate Cement Sealability to Mitigate Gas Migration</b> – Abdelmjeed Mohamed and Saeed Salehi (University of Oklahoma); Farag Muhammed and Bruno Giovannetti (SNF). [081]                                     |
| 8:30 – 9:00   | <b>Sealing Challenging Fracture with Acid Soluble Fluid Loss Control Pill</b> – Anna Wei, Joyce Zhang, Josh Sheldon, and Benjamin Merceron (M-I SWACO). [069]                                                                                                |
| 9:00 – 9:30   | <b>Successful Application of Thixotropic LCM Technology for Zonal Isolation in Magdalena Medio Basin Colombia</b> – Sebastian Mesa, Felipe Quissak, and Carlos Toro (Baker Hughes). [050]                                                                    |
|               |                                                                                                                                                                                                                                                              |
| Texas B       | <b>Completion Fluids</b>   Session Chairs: Chris Detiveaux (Newpark Fluids Systems) and Cedric Manzoleloua (M-I SWACO)                                                                                                                                       |
| 8:00 – 8:30   | <b>Extending the Temperature Window for Formate Drilling and Completion Fluids with Cellulose Nano Fibrils</b> – Siv Howard, Zhao Anderson, and Christian Busengdal (Sinomine Specialty Fluids); Simen Prang and Hugo Harstad (Norske Skog Saugbrugs). [026] |
| 8:30 – 9:00   | <b>Novel Zinc-Free Heavy Clear Brine Fluid for HPLT Applications</b> – Eric Liimatta and Yunqi Liu (Albemarle); David Messler (Acme Fluids Training). [030]                                                                                                  |
| 9:00 – 9:30   | <b>Evaluation of New Equipment to Measure Pressurized Crystallization Temperatures of High-Density Brines</b> – Hui Zhou, Chesnee Davis, Preston May, and Jay Deville (Halliburton). [056]                                                                   |
|               |                                                                                                                                                                                                                                                              |
| Texas C       | <b>Student Interactive with HR</b>                                                                                                                                                                                                                           |
| 8:00 - 9:30   | HR Leader Panel: Denise Espinoza (Marathon); Amanda Kite (Baker Hughes); Teresa Demoura (Surge Energy)                                                                                                                                                       |
| 9:30 - 10:00  | Break   Exhibits Open                                                                                                                                                                                                                                        |
|               |                                                                                                                                                                                                                                                              |
| 10:30- 12:00  | Mid-Morning Technical Sessions                                                                                                                                                                                                                               |
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| Texas A       | <b>Pills &amp; Squeezes</b>   Session Chairs: Mark Luyster (TBC-Brinadd) and Ingrid Velasco (Newpark Fluids Systems)                                                                                                                                         |
| 10:00 – 10:30 | <b>Low Density Lost Circulation Plug for Low Temperature Applications</b> – Besmir Hoxha, Pranjal Sarmah, Vishnue Ramnarine, and Mario Villalobos (Baker Hughes). [024]                                                                                      |
| 10:30 – 11:00 | <b>Unconventional Reservoir Depletion Generates the Need for a Dissolvable Cased Hole Sealant</b> – Zachary Turi and Brandon Hayes (DrillChem). [015]                                                                                                        |
| 11:00 – 11:30 | <b>Implementing Manufacturing-Style Workflow to Resin Sealant Squeeze Applications Reduces Cost and NPT</b> – Matt Spirek (American Cementing), Casey Bristow, Larry Watters, and Fred Sabins (Riteks). [020]                                                |
| 11:30 – 12:00 | <b>A New High Fluid Loss Squeeze: Design to Delivery in the Field</b> – Jordan Benge and Richard Toomes (AES Drilling Fluids). [055]                                                                                                                         |
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| Texas B       | <b>Non-Aqueous Fluids</b>   Session Chairs: Dimitri Khramov (Schlumberger) and Fred Growcock (Consultant)                                                                                                                                                    |
| 10:00 – 10:30 | <b>Novel Torque Reduction Technology for Invert Emulsion Fluids in ERD Wells</b> – Tulio Olivares, Walid Al-Zahrani, Rami Sindi, and Abdullah Abahussain (Saudi Aramco). [070]                                                                               |
| 10:30 – 11:00 | <b>Improved OBM System for North Dakota</b> – William Connell (Baker Hughes) and Tim New (Geo Drilling Fluids). [071]                                                                                                                                        |
| 11:00 – 11:30 | <b>A Flat-Rheology Invert Emulsion System Resulted in Operational Excellence and Nonproductive Time Reduction</b> – Rami Sindi, Tulio Olivares-Antunez, and Rafael Rojas (Saudi Aramco); Sunil Sharma (M-I SWACO). [028]                                     |
| 11:30 – 12:00 | <b>A Versatile Flat Rheology Invert Emulsion System Optimized Long Horizontal Drilling and Complex Completions</b> – Hugo Osorio, Abdullah Abahussain and Walid Alzahrani (Saudi Aramco); Sunil Sharma and Ahmed ElBatan (M-I SWACO). [#085]                 |
|               |                                                                                                                                                                                                                                                              |
| Texas C       | <b>Student Interactive with Industry Panel</b>                                                                                                                                                                                                               |
| 10:00 - 12:00 | Industry Leader Panel: Jonathan Lindsey (Talos Energy); Patricia Vega (Quantum New Energy); Tywon Veazie (Halliburton-Baroid); Sumitra Mukhopadhyay (TETRA Technologies).                                                                                    |

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| 12:00 – 1:15 | <b>Luncheon   Award Presentation</b><br>Speaker: Dr. Lynn Frostman   VP Engineering (Syzygy Plasmonics)<br><i>Reframing Challenges as Opportunities: Sustainability, Hydrogen and the Houston Innovation Ecosystem</i><br>Student Award   Sandy Purdy Gold Medal for Best University Student Presentation                                                                                                                                                                                                                                                                          |
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| 3:00 - 3:30  | Break   Best Exhibitor Award   Exhibits Open                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| 3:30- 5:30   | Technical Sessions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| Texas B      | <b>Lost Circulation</b>   Session Chairs: Arthur Hale (Aramco Americas) and Kim Tresco (TBC – Brinadd)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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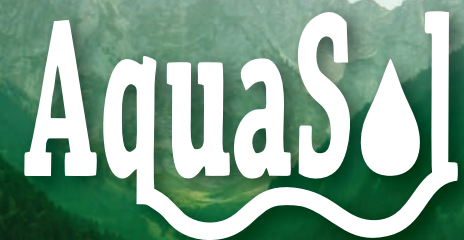
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| 7:00 – 8:15   | Breakfast   Foyer                                                                                                                                                                                                                                            |
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| 8:00 - 12:00  | Morning Technical Sessions                                                                                                                                                                                                                                   |
|               |                                                                                                                                                                                                                                                              |
| Texas A       | <b>Zonal Isolation</b>   Session Chairs: John Trenery (Chevron) and Nils Kaageson-Loe (Baker Hughes)                                                                                                                                                         |
| 8:00 – 8:30   | <b>A Novel Bench-Scale Experimental Setup to Evaluate Cement Sealability to Mitigate Gas Migration</b> – Abdelmjeed Mohamed and Saeed Salehi (University of Oklahoma); Farag Muhammed and Bruno Giovannetti (SNF). [081]                                     |
| 8:30 – 9:00   | <b>Sealing Challenging Fracture with Acid Soluble Fluid Loss Control Pill</b> – Anna Wei, Joyce Zhang, Josh Sheldon, and Benjamin Merceron (M-I SWACO). [069]                                                                                                |
| 9:00 – 9:30   | <b>Successful Application of Thixotropic LCM Technology for Zonal Isolation in Magdalena Medio Basin Colombia</b> – Sebastian Mesa, Felipe Quissak, and Carlos Toro (Baker Hughes). [050]                                                                    |
|               |                                                                                                                                                                                                                                                              |
| Texas B       | <b>Completion Fluids</b>   Session Chairs: Chris Detiveaux (Newpark Fluids Systems) and Cedric Manzoleloua (M-I SWACO)                                                                                                                                       |
| 8:00 – 8:30   | <b>Extending the Temperature Window for Formate Drilling and Completion Fluids with Cellulose Nano Fibrils</b> – Siv Howard, Zhao Anderson, and Christian Busengdal (Sinomine Specialty Fluids); Simen Prang and Hugo Harstad (Norske Skog Saugbrugs). [026] |
| 8:30 – 9:00   | <b>Novel Zinc-Free Heavy Clear Brine Fluid for HPLT Applications</b> – Eric Liimatta and Yunqi Liu (Albemarle); David Messler (Acme Fluids Training). [030]                                                                                                  |
| 9:00 – 9:30   | <b>Evaluation of New Equipment to Measure Pressurized Crystallization Temperatures of High-Density Brines</b> – Hui Zhou, Chesnee Davis, Preston May, and Jay Deville (Halliburton). [056]                                                                   |
|               |                                                                                                                                                                                                                                                              |
| Texas C       | <b>Student Interactive with HR</b>                                                                                                                                                                                                                           |
| 8:00 - 9:30   | HR Leader Panel: Denise Espinoza (Marathon); Amanda Kite (Baker Hughes); Teresa Demoura (Surge Energy)                                                                                                                                                       |
| 9:30 - 10:00  | Break   Exhibits Open                                                                                                                                                                                                                                        |
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| 10:30- 12:00  | Mid-Morning Technical Sessions                                                                                                                                                                                                                               |
|               |                                                                                                                                                                                                                                                              |
| Texas A       | <b>Pills &amp; Squeezes</b>   Session Chairs: Mark Luyster (TBC-Brinadd) and Ingrid Velasco (Newpark Fluids Systems)                                                                                                                                         |
| 10:00 – 10:30 | <b>Low Density Lost Circulation Plug for Low Temperature Applications</b> – Besmir Hoxha, Pranjal Sarmah, Vishnue Ramnarine, and Mario Villalobos (Baker Hughes). [024]                                                                                      |
| 10:30 – 11:00 | <b>Unconventional Reservoir Depletion Generates the Need for a Dissolvable Cased Hole Sealant</b> – Zachary Turi and Brandon Hayes (DrillChem). [015]                                                                                                        |
| 11:00 – 11:30 | <b>Implementing Manufacturing-Style Workflow to Resin Sealant Squeeze Applications Reduces Cost and NPT</b> – Matt Spirek (American Cementing), Casey Bristow, Larry Watters, and Fred Sabins (Riteks). [020]                                                |
| 11:30 – 12:00 | <b>A New High Fluid Loss Squeeze: Design to Delivery in the Field</b> – Jordan Benge and Richard Toomes (AES Drilling Fluids). [055]                                                                                                                         |
|               |                                                                                                                                                                                                                                                              |
| Texas B       | <b>Non-Aqueous Fluids</b>   Session Chairs: Dimitri Khramov (Schlumberger) and Fred Growcock (Consultant)                                                                                                                                                    |
| 10:00 – 10:30 | <b>Novel Torque Reduction Technology for Invert Emulsion Fluids in ERD Wells</b> – Tulio Olivares, Walid Al-Zahrani, Rami Sindi, and Abdullah Abahussain (Saudi Aramco). [070]                                                                               |
| 10:30 – 11:00 | <b>Improved OBM System for North Dakota</b> – William Connell (Baker Hughes) and Tim New (Geo Drilling Fluids). [071]                                                                                                                                        |
| 11:00 – 11:30 | <b>A Flat-Rheology Invert Emulsion System Resulted in Operational Excellence and Nonproductive Time Reduction</b> – Rami Sindi, Tulio Olivares-Antunez, and Rafael Rojas (Saudi Aramco); Sunil Sharma (M-I SWACO). [028]                                     |
| 11:30 – 12:00 | <b>A Versatile Flat Rheology Invert Emulsion System Optimized Long Horizontal Drilling and Complex Completions</b> – Hugo Osorio, Abdullah Abahussain and Walid Alzahrani (Saudi Aramco); Sunil Sharma and Ahmed ElBatan (M-I SWACO). [#085]                 |
|               |                                                                                                                                                                                                                                                              |
| Texas C       | <b>Student Interactive with Industry Panel</b>                                                                                                                                                                                                               |
| 10:00 - 12:00 | Industry Leader Panel: Jonathan Lindsey (Talos Energy); Patricia Vega (Quantum New Energy); Tywon Veazie (Halliburton-Baroid); Sumitra Mukhopadhyay (TETRA Technologies).                                                                                    |

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## ALTERNATE TECHNICAL PAPERS

**Investigating the Caking Phenomena of a Novel Dual Emulsifier and Fluid Loss Additive to Establish Control Specifications for Storage**  
– Shadaab Maghrabi, Devin Granger, Jennifer Henry, Aaron Engel, and Thomas Sisson (Ingevity). [012]

**Increasing Value Using a Specialized Weighting Agent for Challenging Operations in Oil and Gas Well Drilling**  
– Christopher Steele, Ole Jacob Prebensen, Yohnny Gonzalez, and Rahul Dey (Elkem). [013]

**Don't Lose your Hydrostatic Head - Intelligent Fluids Approach to Curing Loss Circulation and Minimizing NPT**  
– Tulio Olivares and Walid Al-Zahrani (Saudi Aramco); Chidiebere Anioke (Baker Hughes). [032]

## STUDENT PRESENTATIONS

**Thermal Effects on Wellbore Stability and Fluid Loss in High-Temperature Geothermal Drilling. #01\*\***  
– Mubarek Alpkiray (New Mexico Institute of Mining and Technology)

**Optimized Three-Mile Lateral Design. #02**  
– William Benson (Colorado School of Mines)

**Experimental Investigation of Strain-Rate Effect on Cement-Steel Bond Measurement. #03**  
– Jose Bocanegra-Yanez (Oklahoma State University)

**A Study of Lost Circulation Materials in Massive Fractures Networks. #04**  
– Nicholas Bryan (Colorado School of Mines)

**Geopolymer Compatibility with API Cement Mixing Standards. #05**  
– Cameron Devers (University of Oklahoma)

**Model Predictive Control for Automated Drilling Fluid Maintenance. #06**  
– Ivan Feng (University of Texas - Austin)

**Modeling and Transient Simulation of Foam-Assisted Bullheading Processes in MPD and UBD Applications. #07**  
– Hazem Fleifel (Louisiana State University - Baton Rouge)

**Data Analysis to Explore the Effect of Drillstring Natural Vibration on Drill Bit Dynamics. #08**  
– Faraz Khan (Oklahoma State University)

**Evaluations of Polyacrylamide Water-Based Drilling Fluids for Horizontal Drilling in the Permian Basin. #09**  
– Mohamed Metwally (New Mexico Tech)

**The Application of Nano-Silica Particles in Sealing Well Cement Channeling. #10**  
– Olatunji Olayiwola (University of Louisiana - Lafayette)

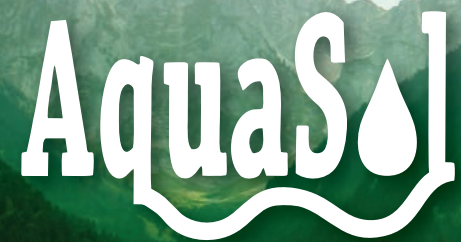
**A Comparative Analysis and Look into Alternative Drilling Fluid Systems. #11**  
– Saba Sadiq (University of Wyoming)

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