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### Tuesday, April 16

- 7:00 am – 8:15 am Breakfast
- 8:15 am – 8:30 am **Welcome:** Matt Offenbacher and John Trener, Conference Chairs
- 8:30 am – 9:30 am **Keynote Speaker:** Jeff Krimmel - Krimmel Strategy Group  
*The Changing Shape of Oil & Gas Markets: How Macro Forces are Driving Mergers, Acquisitions, and Other Transformations*
- 10:00 am – 5:00 pm Technical Sessions
- 12:00 pm – 5:30 pm Student Presentations
- 12:00 pm – 1:15 pm **Luncheon:** Remarks from AADE National President, Robert Chavez  
*Awards Presentation during luncheon:*
- Wayne Bryant AADE Service Award
  - AADE Fluids Hall of Fame Induction

### Wednesday, April 17

- 7:00 am – 8:15 am Breakfast
- 8:30 am – 9:30 am **Plenary Panel:** *Regulatory Matters*
- 10:00 am – 5:00 pm Technical Sessions
- 10:00 am – 12:00 pm Student Interactive with Industry and HR
- 12:00 pm – 1:15 pm **Luncheon:** Speaker: David Bat - President of Kimberlite International Oilfield Research  
*The Service Companies' Perspective*  
*Awards Presentation during luncheon:*
- Sandy Purdy Gold Medal for Best University Student Presentation
- 3:00 pm – 3:30 pm **Afternoon Break** & Best Exhibitor Award

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On behalf of the American Association of Drilling Engineers (AADE), welcome to the 2024 Fluids Technical Conference and Exhibition. Whether you live near or far, we're thrilled you can join us in the Energy Capital of the World to see the latest innovations in fluids technology.

Drilling, completion, cementing, and fracturing fluids are essential to well delivery – and safe, affordable energy is essential to human flourishing. The advancements presented in this conference provide another step towards better efficiency, environmental stewardship, and sustainability in pursuit of energy to fuel our global society.

The AADE Fluids Technical Conference committee would like to extend its gratitude to the speakers, authors, sponsors, and attendees for being a part of this year's conference. This conference thrives from your enthusiastic support and commitment.

We hope that everyone appreciates the learning, innovation, collaboration, and friendships that develop over the next two days. Please enjoy the conference, the city, and the time spent with new connections and old colleagues.

Sincerely,



**John Trenery**  
Conference Co-Chair



**Matt Offenbacher**  
Conference Co-Chair

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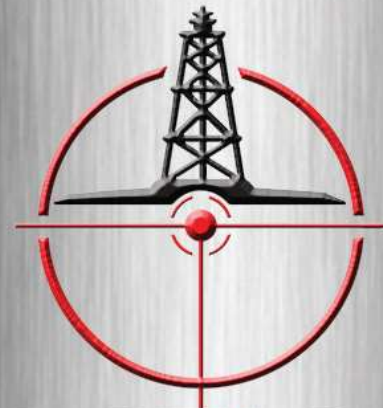
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**Tuesday 8:30 am – KEYNOTE SPEAKER**

**The Changing Shape of Oil & Gas Markets:  
How Macro Forces are Driving Mergers, Acquisitions, and Other Transformations**

**Jeff Krimmel**

*Krimmel Strategy Group*

Jeff Krimmel uses data to tell the story of energy and industrial markets, with a focus on oil & gas. He earned his PhD in mechanical engineering from Caltech in 2010. Since 2011, he has been dedicated to market research and commercial strategy. He has extensive oilfield service experience, having worked at both Baker Hughes and Key Energy Services. Most recently, he was Chief Strategy Officer at Pinnacle, a mid-market industrial reliability services company. Today, Jeff runs Krimmel Strategy Group, a consulting firm that helps energy & industrial leaders design, test, and strengthen their business strategies through the use of data.

Jeff Krimmel founded KSG in 2023 to bring his unique brand of data-focused, first principles analysis to more energy and industrial business leaders. Jeff has a broad array of in-house energy services experience across commercial strategy, market intelligence, and data analytics. While earning his PhD at Caltech, Jeff learned how to pose foundational questions, peel back complexity, and pursue rigorous analysis – the tools he uses today to resolve high-level corporate strategy challenges.



**Wednesday 12:00 pm – LUNCHEON SPEAKER**

**The Service Companies' Perspective**

**David Bat**

*Kimberlite International Oilfield Research*

David Bat is President of Kimberlite International Oilfield Research and brings over 30 years of extensive energy and oil & gas experience. Mr. Bat began his career as a geologist with Chevron and later held executive and general management roles with Chevron Corporation where he led the creation of Chevron Energy Solutions to address energy transition and served as Vice-President. In 2003 he departed Chevron to lead Constellation New Energy Texas to become the second largest provider in the emerging Texas deregulated energy market. He returned to his upstream roots in 2007 and has been involved in leading oilfield research, tracking all facets of the upstream industry including technologies and supplier performance.

Kimberlite Oilfield Research is an international market research and consulting company that uses data collected from one-on-one interviews with professionals to assess current market trends and establish performance benchmarks for oilfield equipment and service suppliers. The company serves as a third party to collect and evaluate feedback from industry professionals. This offers an unbiased review of the services and technologies E&P companies use in their daily operations. Kimberlite provides anonymity to all participants allowing them to provide candid feedback on issues most important to them. The company produces reports and analysis on market shares, supplier performance, regional reports and product line reports, and other specialty services that are used by E&P companies, OFS providers, and the financial community.



**Brian Boyer**  
**Owner of BTGap, LLC**

Brian Boyer is the owner of BTGap, L.L.C., an environmental consulting firm located in Lafayette, LA. His services focus on environmental issues for onshore and offshore oil and gas operators and service companies. He specializes in air quality issues such as air emission inventories, air permitting, environmental compliance, and air emission control systems. He focuses on preparing greenhouse gas emission reports to comply with ESG and corporate standards. He also is an advisor to Tachyus for their Aurion greenhouse gas inventory management system. He has four decades of experience in the environmental sector, covering air quality, water quality, and waste management.



**Laura Capper**  
**President of EnergyMakers Advisory Group & CAP Resources**

Laura Capper is President of consulting firms EnergyMakers Advisory Group, and CAP Resources, specializing in emerging market issues, opportunities and technology in upstream and midstream water, and environmental management. Laura is also President of Cloudburst International, a novel, high-throughput, low-cost desalination technology company suitable for difficult to process oilfield waste. Laura's expertise includes water management planning, treatment technologies, beneficial reuse, carbon sequestration, disposal well health and risk management, seismicity, regulatory permitting strategies and policymaking, landowner development strategies, geothermal resource harvesting, and due diligence and M&A support. EnergyMakers has compiled their proprietary analytics into 2022-2025 Water Management Balance, ESG, and Disposal Market reports which provide in-depth insights into disposal formation trends, PW available for beneficial reuse, carbon sequestration, and hydrogen transmission, ESG water metrics, formation pressure indices, and well health and future injection capacity for U.S. oil and gas operations, including the Permian. The EnergyMakers team has reviewed over 400 water treatment technologies, contributed to the design of 100+ fixed treatment facilities, assessed the disposal capacity of the entire U.S. disposal well system, and is actively advising market-leading clients on Beneficial Reuse permitting and operational strategies. The firms collectively have provided strategic guidance to over 600 client companies in the oil and gas industry for twenty-plus years, and contributed to \$4 B in transactions. Laura is a current Director of the Produced Water Society, serves as an advisor to the New Mexico Produced Water Recycling Consortium and the Texas Produced Water Recycling Consortium, and is a member of the U.S. DOE Produced Water Optimization Board.



**Mark Hafle**  
**Global Drilling Engineering Advisor at Respol**

Mark, a Petroleum Engineering graduate from Marietta College in 1986, launched his drilling career with Sohio in Lafayette, LA, later transitioning to Houston after BP's acquisition in 1987. With a 28-year tenure at BP, he specialized in drilling engineering, particularly focusing on the deepwater Gulf of Mexico. Since joining Repsol in 2014 as a Global Drilling Engineering Advisor, Mark has contributed his expertise to well projects in over a dozen countries, showcasing his adaptability and global perspective in the oil and gas industry.



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7:00 – 9:30		<b>Conference Opening and Keynote Speaker</b>	
7:00 – 8:15	<b>Breakfast</b>   Foyer		
8:15 – 8:30 Texas D-E	<b>Welcome</b>   Conference Chairs: John Treney (Chevron) and Matthew Offenbacher (AES Drilling Fluids)		
8:30 – 9:30 Texas D-E	<b>Keynote</b>   Jeff Krimmel   Krimmel Strategy Group The Changing Shape of Oil & Gas Markets: How Macro Forces are Driving Mergers, Acquisitions, and Other Transformations		
9:30 – 10:00	<b>Break</b>   Exhibits and Student Posters Open <i>Sponsored by Enventives</i>		
10:00 – 12:00		<b>Morning Technical Sessions</b>	
Texas A	<b>Drilling Fluids</b>   Session Chairs: Nancy Zhou (CNPC USA) and Juan Pinzon (The Competency Alliance)		
10:00 – 10:30	<b>Enhancing Electrical Stability in Invert-Emulsion Drilling Fluids: A Focus on Aqueous Phase Composition</b> Matthew Miller, Will Petty, and Leigh Gray (AES Drilling Fluids). [079]*		
10:30 – 11:00	<b>Emulsion Stability in Nonaqueous Drilling Fluids</b> Dimitri Khramov and Chao-Yu Sie (SLB). [041]		
11:00 – 11:30	<b>Stabilizing the Complex Ultra Extended Reach Depleted Reservoir Wellbores using Nano Particles in Water Base Mud System</b> Muhammad Khan, Zahid Karajagi, Vincent Pradet, Fernando Molina, and Ndaru Yahyono (North Oil Company); Ajay Addagalla, Vitalii Cho, and Ahmed Gad (Baker Hughes). [008]		
11:30 – 12:00	<b>Activated Proteinaceous Component of Uintaite Provides Clay Inhibition Properties: Case Histories</b> Katuska Aguilar, Corey Webb, Ghery Sotomayor, and Ashley Reimann (American Gilsonite Company); Jason Nelson (Basin Fluids). [089]		
Texas B	<b>Rheology &amp; Hydraulics</b>   Session Chairs: Chau Nguyen and Tatiana Conn (SLB)		
10:00 – 10:30	<b>The History of Flat Rheology Drilling Fluids</b> James Friedheim (Jim Friedheim PhD); Arthur Hale (Aramco Americas). [027]		
10:30 – 11:00	<b>The 5th Mile: A Review of the Limiters to Reaching Further in Unconventionals</b> Richard Toomes and Matthew Offenbacher (AES Drilling Fluids). [059]		
11:00 – 11:30	<b>Influence of Loss Circulation Materials on the Rheology of Spacers and Cements</b> Afshin Ahmady, Ronnie Morgan, Paul Jones, and William Pearl (Halliburton). [005]		
11:30 – 12:00	<b>Novel Dispersant for Enhanced Rheology Control in High-Temperature High-Density Water-Based Drilling Fluids</b> Linus Sebelin, Pawilai Hallmark, and Bala Panamarathupalayam (SLB). [043]		
Texas C	<b>Test Equipment</b>   Session Chairs: Rafael Pino (Saudi Aramco) and Sharath Savari (Halliburton)		
10:00 – 10:30	<b>Modernizing Aqueous Fluid Analysis at the Rig: Introducing Chemical Analyzer as a Novel Mud Analysis Technology</b> Bala Panamarathupalayam, Sharath Mahavadi, Linus Sebelin, and Pawilai Hallmark (SLB). [021]		
10:30 – 11:00	<b>Synthetic Insoluble Organic Matter in Cement and Elastic Stiffness Estimation</b> Thomas Heinold and Abdullah Salman (Saudi Aramco); Elizabeth Contreras and Stacey Althaus (Aramco Americas). [032]		
11:00 – 11:30	<b>Revisiting Solids Analysis in Unconventional Formations: Bridging the Gap Between Traditional Assumptions and Laboratory Insights</b> Greg Terpenning, Chong Dai, and Leigh Gray (AES Drilling Fluids). [076]		
11:30 – 12:00	<b>Particle Size Analysis: Leveraging New Techniques Yields Better Data</b> Sanjit Roy (OFI Testing Equipment); Peter Bouza (Vision Analytical). [002]		
12:00 - 1:15 Texas D-E	<b>Luncheon   Award Presentations</b> Remarks from AADE National President, Robert Chavez • Wayne Bryant AADE Service Award • Hall of Fame Class of 2024 Ryan Caenn     Dan T. Mueller David E. Clark     Ronald F. Scheuerman Arthur Hale		<i>Sponsored by Champion X</i> 

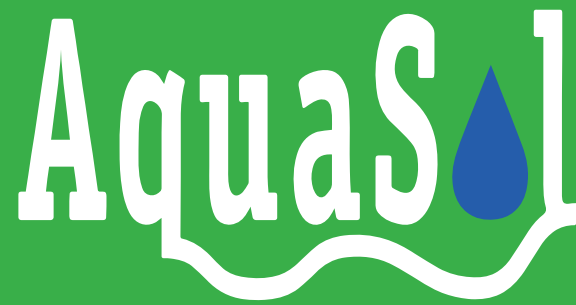
<b>1:30 - 5:00</b>		<b>Afternoon Technical Sessions</b>	
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Texas A		<b>Lost Circulation</b>   Session Chairs: Paul Scott (ConocoPhillips) and Jim Friedheim (Jim Friedheim PhD)	
1:30 – 2:00	<b>Use Of Eutectic Metal Alloys to Seal Problematic Permeable Formations</b> Arthur Hale (Aramco Americas); Ahmed Amer (Newpark Fluids); Munir Aldin and Sudarshan Govindarajan (Metarock Laboratories). [067]		
2:00 – 2:30	<b>Self-Adaptive Behavior of Shape Memory Particles During Lost Circulation Prevention</b> Weibin Zha, Songbing Yan, Meng Lu, Janine Shipman, and Fuchen Liu (CNPC USA); Xianbin Zhang (Bohai Drilling Technology). [006]		
2:30 – 3:00	<b>Synthetic-Based Drilling Fluid with Nanoscale Particles Successfully Drills Through Instable and Brittle Formation in Southern Europe</b> Roberto Terra and Jonathan Brege (Shell); Alessandro Cascone, Lucio Bussaglia, Salvatore Buononato, Constantin Grama, Ahmed Amer, and Franco Arpini (Newpark Drilling Fluids). [066]		
<hr/>			
Texas B		<b>Automation</b>   Session Chairs: Ashok Santra (Aramco Americas) and Dimitri Khramov (SLB)	
1:30 – 2:00	<b>Extending the Limits of Lab Testing to Deliver Wells in Challenging Environments</b> Jonathan Brege, Kenneth Oyler, Brad Wiggins, Jacob Komaromy and Peter Bradley (Shell). [061]		
2:00 – 2:30	<b>AI Enabled Software Program to Help Calculate Shear Stress of Drilling Fluid at Realistic Bottomhole Conditions</b> Milap Goud (Knnamp Drilling Fluids Services). [016]		
2:30 – 3:00	<b>Case History: How the Mature Application of Real-Time Digitalized Drilling Fluids Properties Beneficially Contributes to Drilling Operations</b> Pål Johannessen, George Smith, Henrik Sveinall, Thomas Sætre, and Reagan James (Intelligent Mud Solutions). [022]		
<hr/>			
Texas C		<b>Student Presentations:</b> Chair: Jessica Ramirez-Angulo	
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3:00 – 3:30	<b>Break</b>   Exhibits and Student Posters Open <i>Sponsored by Enventives</i>		
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Texas A		<b>LC Pills</b> Session Chairs: Khalid Al-Noaimi (Saudi Aramco) and Jay Deville (Halliburton)	
3:30 – 4:00	<b>Shear Activated Cross-Linking Lost Circulation Pill</b> Jeremy Smith, Lynn Foster, Josh Sheldon, Katherine Price Hoelscher, Steve Young, Clint Falgout, and Joseph Powell (SLB). [070]		
4:00 – 4:30	<b>Engineered Reinforced Composite Mat Pills to Effectively Combat Losses While Drilling in Qatar</b> Muhammad Khan, Vincent Pradet, and Zahid Karajagi (North Oil Company); Surya Pallapothu and Thein Phyo (SLB). [009]		
4:30 – 5:00	<b>Paving the Road While Driving: Changing Mud Design While Drilling</b> Hugo Osorio, Rafael Pino, Yassen Alsaleh, and Abdulaziz Aleidhi (Saudi Aramco). [064]		
<hr/>			
Texas B		<b>Reservoir Drill-In Fluids</b>   Session Chairs: Ken Oyler (Shell) and Preston May (Halliburton)	
3:30 – 4:00	<b>Mixed Metal Oxide Fluid’s Applicability to Naturally Fractured Zones Including Reservoirs</b> Sara Evans and Arthur Hale (Aramco Americas); Ahmed Amer (Newpark Fluids Systems). [011]		
4:00 – 4:30	<b>Significance of using All-Oil Fluids as a Specialized Water-Free RDF Fluid for Preserving Rock Wettability &amp; Obtaining Native-State Core Samples with Improved Reservoir Protection</b> Mohamed Galal Elbakly (TBC-Brinadd LLC). [091]		
4:30 – 5:00	<b>Innovative High-Performance Spacer Fluid: A Breakthrough for Ensuring Precise Zonal Isolation in Complex Reservoir Drilling and Completion</b> Mootasem Chtay, Kai He, Humberto Soto, Chad Gilmer, and Youseffi Crick (ChampionX); Thomas Sodhi and Xiangyu Liu (formerly ChampionX). [048]		
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Texas C		<b>Student Presentations:</b> Chair: Jessica Ramirez-Angulo	

\* [xxx] refers to the AADE paper number.  
The full paper number is AADE-24-FTCE-xxx

7:00 – 8:15	<b>Breakfast</b>   Foyer	
8:30 - 9:30	<b>Plenary Panel</b>   <i>Regulatory Matters</i> Mark Hafle, Repsol - Moderator   Brian Boyer, BTGap   Laura Capper, EnergyMakers Advisory Group and CAP Resources	
9:30 - 10:00	<b>Break</b>   Exhibits and Student Posters <i>Sponsored by Genesis Fluids</i>	
10:00 - 12:00	<b>Morning Technical Sessions</b>	
Texas A	<b>ESG Initiatives</b>   Session Chairs: Eric van Oort (University of Texas – Austin) and Lynn Foster (SLB)	
10:00 – 10:30	<b>Emulsifier Powders for Oil-Based Muds</b> Devin Granger, Alexandria Hernandez, and Shoshana Sakolsky (Ingevity). [024]	
10:30 – 11:00	<b>Fluid Loss Control in Water and Oil-Based Drilling Fluids Using Amphipathic Star Shaped Polymer</b> Guoqing Jian, Ashok Santra, and Georgesha Ross (Aramco Americas). [087]	
11:00 – 11:30	<b>High-Performance Polymer Systems for Drilling and Completing Challenging Formations</b> Abdelmjeed Mohamed, Farag Muhammed, and Bruno Giovannetti (SNF). [012]	
11:30 – 12:00	<b>Sustainability and Localization of Suppliers – A Strategic Approach</b> Tatiana Conn, Sarah Moradi, and Chau Nguyen (SLB); James Friedheim (Jim Friedheim PhD). [083]	
Texas B	<b>Cementing, Zonal Isolation, and Well Integrity</b>   Session Chairs: Jonathan Brege (Shell) and Meng Lu (CNPC USA)	
10:00 – 10:30	<b>Thixotropic Cement for Lost Circulation at Greater Mooses Tooth Alaska</b> Michael Redburn, Brad Gorham, Dan Mueller, Dale Doherty, Paul Scott, and Joseph Longo (ConocoPhillips); Stephen Lauper (SLB). [069]	
10:30 – 11:00	<b>Evolution of Resilient Cements to Prevent Sustained Casing Pressures in Al-Shaheen Oil Field Qatar</b> Muhammad Faraz Khan, Vincent Pradet, and Zahid Karajagi (North Oil Company). [039]	
11:00 – 11:30	<b>Resin Sealant Remediates Annular Gas Flow to Surface Allowing Completion of Four Colorado Wells</b> Jordan Tansiongco and Matt Woltz (Chevron); Jason Winegarden, Cody Michel, Paul Petrie, and Douglas Townsend (NexTier); Brad Pruett (Riteks). [088]	
11:30 – 12:00	<b>Achieving Zonal Isolation with Three-Stage Cementing Using Multiple Mechanically Activated External Sleeve Inflatable Packer Collars in Washed-Out Deviated Hole Under Total Losses, Qatar Offshore</b> Muhammad Khan, Zahid Karajagi, Vincent Pradet, and Sudish Bhat (North Oil Company); Gaurav Gupta, Priyadarshini Chaudhary, Francois Missiaen, and Javier Urdaneta (Halliburton). [040]	
Texas C	<b>Student Interactive with Industry Leaders</b>   Chair: Jessica Ramirez-Angulo	
10:00 - 12:00	<b>STUDENT – INDUSTRY INTERACTIVE</b>	
12:00 – 1:15 Texas D-E	<b>Luncheon   Award Presentations</b> Speaker: David Bat (Kimberlite Research) <i>“The Service Companies’ Perspective”</i> • Student Awards Presentation • Sandy Purdy Award for Best University Student Presentation	
1:30 - 3:00	<b>Early Afternoon Technical Sessions</b>	
Texas A	<b>Brines &amp; High Salinity Fluids</b>   Session Chairs: Mark Hafle (Repsol) and Bala Panamarathupalayam (SLB)	
1:30 – 2:00	<b>Formulating High-Performance Well Construction Fluids Based on Formate Brines – Lessons Learnt Over 30 Years</b> Stuart Leon, Zhao Anderson, Anna Ioannou, and Siv Howard (Sinomine Specialty Fluids). [047]	
2:00 – 2:30	<b>The Design of a New Class of Drilling Fluid Lubricant Specifically Optimized for High Salinity Brines</b> Jay Brockhoff, Matthew Taylor, Stuart Dubberley, Kuangbiao Ma, and Cory Jaska (Secure Energy). [051]	
2:30 - 3:00	<b>Assessment of Sized-Salt Systems and Their Application in Completions and Workovers</b> Kimberly Dobson, Kim Tresco, and Leslie Escobar (TBC-Brinadd). Raoul Razzouk (Energy Middle East); Johnnie Cohorn (consultant). [090]	

1:30 - 3:30		<b>Early Afternoon Technical Sessions (Continued)</b>
Texas B	<b>Wellbore Stability</b>   Session Chairs: Eric van Oort (University of Texas – Austin) and Vence Sei (SLB)	
1:30 – 2:00	<b>Navigating the Complex Structure of Hassi Messaoud: Challenges and Innovations in Hydrocarbon Exploration</b> Mohamed Galal Elbakly, Kim Tresco, and Tyler Ritenour (TBC-Brinadd). [100]	
2:00 - 2:30	<b>A Nanoindentation Method to Evaluate Sealing and Plugging Agents Used in Water-Based Drilling Fluids for Shale Formations</b> Nancy Zhou, Meng Lu, and Janine Shipman (CNPC USA); Yuanzhi Qu, Yuan Gen, Fuchen Liu, and Songbing Yan (CPET); Gouping Zhang (University of Massachusetts Amherst). [028]	
2:30 - 3:00	<b>Improved Laboratory Methods for Understanding Lubricity, Torque and Drag in Non-Aqueous Drilling Fluids</b> Shawn Lu (SciDev); Don Van Slyke (Shell). [026]	
Texas C		<b>Solids Control</b>   Session Chairs: Daniel Salinas (NOV) and Ahmed Amer (Newpark)
1:30 – 2:00	<b>Barite Quality and Retort Low Gravity Solids Analysis: Making a Case for Accurate Reporting</b> Paul Scott (ConocoPhillips). [102]	
2:00 - 2:30	<b>New Industry Standards Simplify Drilling Fluid Processing System Evaluation</b> Sam Bridges (Derrick); Mike Morgenthaler (Cutpoint); Paul Scott (ConocoPhillips). [062]	
2:30 - 3:00	<b>Understanding the Impact of Two-Phase Flow on Coriolis Mass Flowmeter Measurements During Managed Pressure Drilling Operations</b> Nitin Kulkarnia, Bob Pilko, and Landon Hallmon (Blade Energy); Chris Russell (Micro Motion). [010]	
3:00 - 3:30	<b>Break</b>   Exhibits and Student Posters Open – Best Exhibitor Award (On Exhibit Floor) <i>Sponsored by Genesis Fluids</i>	
3:30 - 5:00		<b>Late Afternoon Technical Sessions</b>
Texas A	<b>Specialty Fluids – Gravel Packing, CT &amp; Screen Running Fluids</b>   Leigh Gray (AES) and Mohammed BaGeri (Newpark)	
3:30 - 4:00	<b>Designing and Managing Screen Running Fluids (SRF)</b> Jessica Ramirez-Angulo and David Harley (Baker Hughes). [025]	
4:00 - 4:30	<b>Harnessing the Biosurfactant Trifecta to Mitigate Organic Solids Deposition</b> Sivaram Pradhan, Megan Pearl, Erna Kakadjian, and Joshua Hancock (Locus Bio-Energy). [073]	
4:30 - 5:00	<b>Advanced Premium Lubricant Solution to Reduce Drill String Weight Stacking at Under Balance Coiled Tubing Drilling Operations</b> Tulio Olivares and Rafael Pino (Saudi Aramco). [023]	
Texas B		<b>Environmental &amp; Regulatory Matters</b>   Session Chairs: Travis Patterson (Halliburton) and Brittany Thibodeaux (Newpark)
3:30 - 4:00	<b>2023 Best Practices for Produced Water Management Associated with Shale and Unconventional Gas Developments in U.S.</b> Martin Pilko and Arthur Hale (Aramco Americas); Laura Capper (Energy Makers Advisory Group). [013]	
4:00 - 4:30	<b>Geothermal Drilling Fluid Meets Performance, Environmental, and Regulatory Challenges in the Alps</b> Nathan Olry (EnergeO); Alessandro Cascone, Marcel Eils, Lucio Bussaglia, and Vance Smith (Newpark Drilling Fluids). [072]	
4:30 - 5:00	<b>Responsible Sourcing – Addressing Banned Substances in Oilfield Chemical Products</b> Tatiana Conn and Theresa Stineman (SLB); Jim Friedheim (Jim Friedheim PhD). [082]	
Texas C		<b>Shale Inhibition</b>   Session Chairs: Mohammed Al Dushaishi (Oklahoma State University) and Richard Toomes (AES)
3:30 - 4:00	<b>Successful Field Deployment of Nano-Silica Based Shale Inhibitors</b> Tulio Olivares and Rafael Pino (Saudi Aramco); Ashok Santra and Nicolas Osorio (Aramco Services). [033]	
4:00 - 4:30	<b>A New Shale Stabilizer for Water Based Muds to Meet the Highly Faceted Demands of Drilling</b> Chris Waller, Youseffi Crick, Mootasem Chtay, Chad Gilmer, Mehrnoosh Moradi (ChampionX). [030]	
4:30 - 5:00	<b>New Shale Inhibitor Tracking Technology for High-Performance Water-Based Drilling Fluids</b> Ayten Rady, Preston May, Hui Zhou, Jay Deville, Jeffrey Miller, and Mohamed Metwally (Halliburton). [056]	

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The full paper number is AADE-24-FTCE-xxx



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**Cement Job Real Time Data Acquisition, Analysis and Visualization**

Don Lawrence and Jasem Alqassab (Saudi Aramco); Manuel Yanes (SLB). [017]

**Integral Drilling Technique for Heterogeneous Formation Sections: Converting Challenges into Success**

Nelson Alfonzo, Juan Minda, and Hector Gonzalez (Saudi Aramco). [020]

**Novel Fluid Technology Used to Overcome Induced Losses While Cementing in the Permian Basin**

Jason Winegarden and Neal Johnson (NexTier); Francisco Bermudez and John Hightower (Impact Fluid Solutions). [060]

**Consistent Successful Delivery of HPHT ERD Wells Through NAF Drilling Fluids Strategy Optimization**

Jovani Contreras Obando, Juan Lujan, Mikhail Presniakov, Rufino Alonzo, Jaime Valero, Otoniel Gomez, and Azury Toldedo (SLB). [074]

**Sustained Lubricity: New Case Studies Using a Novel Invert Emulsion Lubricant**

Jordan Benge, Matthew Offenbacher, and Richard Toomes (AES Drilling Fluids). [080]

**High-Performance Water-Based Drilling Fluid Engineered to Target Deeper Horizontal Section in Onshore Middle East Field**

Lucio Bussaglia, Alessandro Cascone, Aurelio Pinheiro, Dario D'Angelo, and Ahmed Amer (Newpark Drilling Fluids); Ali Hamza (Bapco Upstream). [084]

**Ultra Heavy-High Performance Water Base Fluid Improves Wellbore Stability While Drilling Unstable and Pressurized Formation in an Explorative Offshore Well**

Lucio Bussaglia, Franco Arpini, Salvatore Buononato, Constantin Grama, Cascone Alessandro, and Vance Smith (Newpark Drilling Fluids). [085]

**The Importance of Novel Manufacturing Technology in Oil-Based Mud Mixing**

Kevin Williams (Bard & Bard); Kent Chaney, Steven Cochran, Steven Rodriguez, Mark Warnack, and Keri West (Chemjet). [103]

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## STUDENT PAPERS

<p><b>Experimental Characterization of Linear Swelling of Reactive Clays Dominated Wells: Comparison of Drilling Fluid Systems</b> Nabe Konate (University of Oklahoma – Norman). [01]**</p>
<p><b>Experimental Visualization of the Effect of Flow Rate on Downhole Drilling Vibration</b> Eshan Maitra (Oklahoma State University). [02]</p>
<p><b>Fly Ash as an Eco-Friendly Alternative Weighting Agent in Drilling Operations</b> Pranav Imangala Mutt (Texas Tech University). [03]</p>
<p><b>Improving Water-Based Drilling Fluid Properties with a Blend of Aluminum and Silica Nanoparticles</b> Vasanth Gokapai (University of North Dakota). [04]</p>
<p><b>Investigating the Mechanisms, Impact, and Mitigation of Stick-Slip Vibrations in Drilling Operations</b> Immanuel Obuobi (University of Oklahoma). [05]</p>
<p><b>Long-Term CO<sub>2</sub> Storage: An Experimental Investigation on Nano Silica GEL Parameters in Remediating Integrity Issues in CO<sub>2</sub> Geological Storage</b> Olatunji Olayiwola (University of Louisiana, Lafayette). [06]</p>
<p><b>Maximizing Geothermal Heat Recovery: Microfluidic-Based Evaluation of the Reversibility of Ionic Liquids in Enhanced Geothermal Systems (EGS)</b> Christian Akhilome (Oklahoma State University). [07]</p>
<p><b>Nuclear Magnetic Resonance Based Geopolymer Slurry Characterization</b> Cameron Devers (University of Oklahoma). [08]</p>
<p><b>Optimizing Shale Drilling with Silica and Graphene Nanoparticles Composites</b> Garrett Cox (University of Wyoming). [09]</p>
<p><b>Screening Plugging and Abandonment Wells Technique Using Machine Learning</b> Tang Nguyen (New Mexico Institute of Mining and Technology). [10]</p>
<p><b>Software Development with Industrial Application for Monitoring and Correcting Properties in Drilling Fluids in Real Time</b> Moacyr Nogueira Borges Filho (Universidade Federal do Rio de Janeiro). [11]</p>
<p><b>Thermal Expansion Coefficient Measurements with a Unique Equipment for Wellbore Integrity and Geothermal Purposes</b> Alberto Toledo Velazco (University of Oklahoma). [12]</p>
<p><b>Time Domain Modeling of Torsional Stick-Slip in Vertical Wells: A Comprehensive Evaluation with WellScan Simulator</b> Chinedu Ejike (University of Oklahoma). [13]</p>
<p><b>What Drives Geothermal Drilling Efficiency: Enhanced Mechanical Specific Energy (EMSE) Analysis and Machine Learning Validation</b> Ayat Alasadi (University of Wyoming – Laramie). [14]</p>

\*\* [xx] refers to the AADE student paper number. The full paper number is AADE-24-NTCE-SPP-xx.

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