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The Multi-Lateral Extended Reach Edition

Horizontal Drilling Automation & Advanced Technologies 2025

Prioritizing Immediate Applications That Can be Put Into Practice Today

JANUARY 30 & 31 2025, HOTEL ICON, HOUSTON, Tx

Roadmaps For Strategically Adopting New Automation Technologies In Phases, Minimizing Operational Disruption

Cost Effective Solutions To Control & Monitor Methane & VOC Emissions Throughout Drilling Operations

How New Drilling Methodologies, Tools & Techniques Are Evolving For Extended Reach, U-Shaped, & Curved Laterals

***Plus* Multi-Lateral Well Designs**

Featuring In-Depth Case Studies, Panels, and Roundtables Curated for Large, Mid, and Small-Cap Operator Engagement

Fee Includes Post Conference Report

- **Evaluate Modular & Scalable Automations Solutions That Don't Require Overhauling The Entire System**
- **Enabling Quicker Decision Making On Well Conditions Via Cost-Effective Real-Time Data Analytics Solutions**
- **Finding Efficient Solutions For Extending The Reach Of Laterals & Increasing ROP In Curved Drilling Sectiojns**
- **AFTERNOON BREAKOUT SESSIONS - On CCUS Drilling & Optimal Approaches For High-Pressure, High-Temperature Environments**

American Business Conferences

STRATEGY ENGINEERING RESEARCH GROUP

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Prioritizing Immediate Applications That Can be Put Into Practice Today For Large, Medium & Small Operators

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How Should Operators and Drilling Contractors Adapt to Automation-Driven Opportunities?

The industry's shift towards automation and driller-assisted applications, such as predictive drilling and real-time adjustments, necessitates the adoption of innovative technologies to achieve consistency and peak performance.

At this critical benchmarking forum, you'll gain insights into the latest automation-driven opportunities shaping the future of horizontal drilling. Learn how operators and drilling contractors can adapt to a rapidly changing landscape where automation, digital solutions, and emissions monitoring redefine the industry's strategic priorities. Discover the actionable benefits of advanced technologies across all operator sizes—from small and mid-sized players to large operators pioneering innovations—and understand how new directional drilling techniques and a tighter regulatory environment are driving the adoption of reliable, automated systems that reduce costs and improve efficiency.

The agenda focuses on real applications, tools, and software you can use today to drill smarter, faster, and more consistently—such as the latest automated drilling systems that adjust to rock changes on the fly or advanced monitoring programs for key parameters.

You'll hear from the innovators behind this tech and the drillers testing these applications, giving you a comprehensive view of how automation can be put to practical use.

Additional Focus on Emissions Monitoring and Regulatory Compliance!

With emissions monitoring now a critical aspect of drilling operations, this agenda also evaluates the tools and technologies helping operators meet these demands affordably and efficiently. Explore how emissions control solutions—like methane leak detection and hybrid-powered rigs—align with regulatory requirements without compromising profitability. Hear from industry leaders on cost-effective, scalable technologies that allow smaller operators to comply with environmental standards while enhancing operational outcomes.
Discover affordable automation solutions tailored for unconventional oil and gas sector players aiming to implement emissions control systems with minimal on-site impact.

Venue - Hotel Icon, Houston

Strategies for Scalable and Cost-Effective Automation Adoption

As the industry moves towards increased automation, this conference also offers specific guidance for small and midcap operators on adopting new technologies at a manageable pace. Sessions on edge computing, IoT, and AI-powered monitoring provide a roadmap for effective real-time wellsite management, enabling operators to transition smoothly to data-driven operations. Emphasis will be placed on strategic technology adoption, phased integration plans, and workforce training to prepare field operators for automation's transformative impact. Join us to connect with vendors, discover flexible, customizable solutions, and build the partnerships necessary for sustainable growth in horizontal drilling operations.

Longer Laterals U-Turns & CCUS Drilling

Explore innovative approaches to optimize drilling efficiencies and extend lateral reach. Sessions will focus on advancing rate of penetration (ROP) in curved sections and adapting new tools and techniques for extended reach, U-shaped, and multi-lateral well designs, enabling operators to achieve greater wellbore precision and resource recovery.

CCUS & High Temperature/Pressure Focused Afternoon Streams:
A dedicated session will address Carbon Capture, Utilization, and Storage (CCUS) drilling, with industry experts sharing early insights and best practices for overcoming challenges in this emerging field. This stream will delve into high-pressure, high-temperature well considerations, managed pressure drilling, and the critical role of measurement-while-drilling (MWD) systems to ensure safe, efficient, and effective CCUS well operations.

"I want to see how others are handling multi-lateral designs and getting better penetration rates without compromising wellbore stability—those are the kinds of takeaways I can use right away."

"It's all about learning how to integrate new tech for emissions monitoring while keeping things cost-effective. We're looking for straightforward ways to meet regulations without driving up our operational costs."

"Understanding how managed pressure drilling works in high-temperature wells is key for us. We need real-world insights on equipment and techniques that hold up under those pressures."

"I'm interested in the edge computing solutions people are using to make real-time adjustments on the rig. Having tech that can help us stay on top of well conditions, even with limited bandwidth, is a game-changer."

"The CCUS stream has me curious—everyone's trying to figure out how to get consistent results with CCUS drilling. I want to know what systems and practices are working best in the field so we can start applying those here."

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Day 1 Technologies Focus On

DRILLER ASSISTED APPLICATIONS

- Automated Drilling Control
- Vibration/Torque
- Wellbore Navigation

REAL-TIME DATA ANALYTICS

- Optimal Performance
- Wellbore Stability & Pressure
- Preventative Actions

"BOLT-ON" AUTOMATION

- Workforce Safety/Anti-Collision
- Pipe & Connection Handling
- Smart Rig Systems & Software Apps

EMISSIONS COMPLIANCE

- Real-Time Monitoring
- Methane Leak Detection
- Gas Capture Automation Innovations

Day 2 Innovations Focus On

OPTIMAL U-TURN APPROACHES

- Design Principles
- Tech Considerations
- Integrity Management

EXTENDED LATERAL REACH

- RSS, Motors, Hole Cleaning
- Real-Time Data Analytics
- Torque & Drag reduction

PM BREAKOUT HIGH-PRESSURE, HIGH-TEMP

- New Approaches & Techniques
- Mud Chillers & Thermal Resistant Fluids
- MWD/RSS Systems

PM BREAKOUT CCUS DRILLING

- Specialized Casings
- EPA Stadards & Compliance
- New Tech Innovations

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Day 1 - Automation & Real-Time Data For Horizontal Drilling

"Embracing automation in drilling is about smart, strategic choices, not just following trends. It's selecting technologies that yield results now, not just in the future,"
Drilling Technology Integration VP – Onshore Drilling, Mid-Cap E&P Permian Basin

0845 Chair's Opening Remarks

STRATEGIC-LEVEL OPENING PANEL - DEMONSTRATING THE VALUE OF AUTOMATION

0850 – 1045 Evaluating Practical Applications Of Automation on Today's Drilling Operations and Workforce: *Identifying Immediate Implementations That Are Beneficial Today, As Opposed To Future Speculations*

Dive into the realities of automation implementation for small and large operators —*what truly works, what's still underdeveloped, and how E&Ps of different sizes navigate this technology shift using key metrics to measure success.* The format of this and every panel is a series of 20 to 25-minute presentations followed by an extended Q&A session fully curated with pre-prepared questions.

0850 LARGE OPERATOR VISION ON THE BENEFITS OF MORE DRILLING AUTOMATION
Evaluating Results On Implementing Drilling & Rig Automation To Drive Consistency In Operations By Reducing Human Error, Enhancing Performance & Further Improving Safety

Why is the change towards more drilling automation becoming the norm & understanding the degree of automation and the levels of human intervention required in current systems?

- Exploring how drilling automation has evolved over the years, its current state in the industry, and the trajectory it is expected to follow
- Analyzing the balance between automation and human intervention in modern systems
- Sharing real-world examples where drilling automation has led to significant improvements in operational efficiency, safety, and cost savings
- Discussing practical solutions to overcome these hallenges

0910 SMALL/MID CAP E&P PERSPECTIVE ON OPTIMIZING THE DEGREE OF DRILLING AUTOMATION
Actual Evidence Of Success In Implementing The Optimal Level of Drilling Automation, Considering Personnel Needs, in Smaller-Scale Drilling Operations

"Drilling Automation, to reap the benefits, it needs to be implemented gradually, considering the wide range of personnel involved"

- Customizing drilling automation solutions to fit specific operational needs without the resources of larger corporations
- Workforce Transition: Strategies for upskilling existing teams to work alongside new technologies and minimizing resistance to change
- Scalability and Integration: Identifying automation technologies that can scale with the growth of the company
- Cost vs. Benefit: Evaluating the financial implications of drilling automation investment and the expected ROI

0930 A VENDOR VIEWPOINT ON REAL-WORLD SUCCESS STORIES ACROSS THE WHOLE RANGE OF TECH
Roadmaps For Successfully Adopting New Drilling Automation Technologies In Phases, Minimizing Operational Disruption

Identifying practical and applicable automation technologies that can be integrated into operations with minimal disruption. Assessing solutions can be adopted today to enhance operational efficiency within the year.

0950 FULLY AUTOMATED MANAGED PRESSURE DRILLING – TO AUTOMATE, OR NOT?
Evaluating The Pros, Cons & Cost Considerations Of Transitioning To Fully Automated Managed Pressure Drilling Systems

PROS - Improved drilling precision, enhanced safety, reduced operational costs, and increased adaptability to complex drilling environments.
VERSUS RISKS - High initial investment costs, potential integration challenges, and the need for specialized training and knowledge.

1010 ROADMAPPING WORKFORCE TRANSITION WHEN INTEGRATING DRILLING AUTOMATION
Streamlining Workforce Integration: Combining Traditional Drilling Skills with Automation and Driller-Assisted Applications for Optimal Operational Efficiency

This session will explore how automation's data abundance can paradoxically slow operations due to varying levels of understanding among personnel, from operators to supervisors. It will address the industry's generational divide, examining the challenges and opportunities presented by the mix of young newcomers and experienced veterans in adopting automation technologies.

Day 1 - Automation & Real-Time Data For Horizontal Drilling

STRATEGIC-LEVEL OPENING PANEL CONTINUED

1030 Curated Interactive Discussion & Roundtables – examples of pre-prepared questions

What metrics have proven most effective in measuring the success of drilling automation from a performance, safety, and economic standpoint?

How do you approach integrating new drilling automation technologies in legacy systems, particularly in smaller E&P companies with limited digital infrastructure?

What are the most common challenges encountered when upscaling automation technologies from pilot projects to full-field deployment?

1045 – 1115 Networking refreshment break in the exhibition showcase arena

PANEL - DRILLER ASSISTED TECHNOLOGY APPLICATIONS

1115 - 1230 **Results On Implementing New Tools & Systems That Support Drillers By Automating Specific Taks Or Providing Enhanced Data Insights In Real-Time, Streamlining Complex Drilling Processes**

1115 TOOLS FOR OPTIMIZING TORQUE AND DRAG IN REAL TIME

Innovations In Driller Assisted Tools To Control Torque & Drag For Extended Reach Unconventional Wells

High-spec, fully automated systems provide precise, continuous control suited to large-cap operators, while modular, budget-friendly tools cater to small to mid-cap operators, allowing selective torque and drag management within budget constraints. What are the real-world issues when impleemnting such systems?

- Selecting Scalable Solutions – Compare modular, cost-effective torque and drag management tools for smaller operators, balancing functionality with budget-conscious scalability
- Optimizing Operational Efficiency in Complex Formations – Explore how new sensor-based adjustments can reduce drag in high-torque conditions, minimizing manual intervention for large and small operators
- Calculating ROI Based on Tool Integration Needs – Gain insights on how fully automated versus modular solutions impact cost, efficiency, and integration complexity across different operational sizes and budgets

1135 DRILLER ASSISTED TECHNOLOGIES FOR INSTANT FEEDBACK ON EMISSIONS TO COST EFFECTIVELY MEET REGULATIONS

A High Level Overview On Implementing Automated Systems That Provide Drillers With Alerts & Suggested Adjustments To Stay Within Emission Limits

- Real-time sensors for instant emissions alerts and adjustments
- Automated venting controls to reduce emissions during flaring
- Emission dashboards with alerts for immediate driller response
- AI models predict emissions, enabling proactive adjustments

1155 AUTOMATICALLY ADJUSTING DRILLING PARAMETERS BASED ON DOWNHOLE DATA

New Technologies To Help Cost Effectively Reduce The Risk Of Wellbore Instability & Minimize Manual Corrections

- Learn real-time downhole data use for automated adjustments
- Discover adaptive controls to prevent wellbore instability
- Understand automated systems that reduce manual intervention needs
- Explore cost-effective methods for stable, efficient drilling

1215 Curated Q&A

1230 - 130 pm Networking Lunch Break

130 pm SMALL TO MID-CAP OPERATOR PERSPECTIVE ON BOTTOM-LEVEL AUTOMATION
Adopting Modular, More Affordable Automation Technologies For The Bottom Level, Including Self-Steering Drill Bits Or Adaptive BHA Control, To Improve Efficiency Without A Large Capital Outlay

- How an operator utilized specific tools that can be integrated gradually and adjusted to budget constraints, making automation accessible without overhauling legacy infrastructure
- How this modular setup allowed the operator to focus on areas like reducing torque and drag in laterals or improving performance in curve sections, achieving measurable efficiency gains on a smaller scale
- Insights into reduced non-productive time, operational simplicity, and key savings that align with the financial and resource

150 pm RESULTS FROM AN INTEGRATED BOTTOM LEVEL SYSTEM
Justifying an Integrated Bottomhole Automation System with BHA Control, Closed-Loop, and AI-Driven Predictive Software for Optimized Drilling in High-Risk Formations

- *Investment Justification:* Highlight the substantial upfront investment balanced by the ROI from increased ROP, minimized downtime, and fewer wellbore instability issueS
- *Advanced Automation Benefits*: Emphasize the large operator's ability to maximize efficiency and reduce manual adjustments across multiple, high-production wells, thanks to a fully integrated automation system
- *Performance Outcomes:* Include specific metrics like reduced curve drilling time, improved wellbore stability, and notable cost savings, which resonate with large-scale operational goals

210 pm OPTIMAL MODELLING SOFTWARE SELECTION FOR ON-BOTTOM DRILLING DATA
Harnessing Advanced Modeling Software to Predict Torque and Drag with On-Bottom Data

- Understanding how to integrate modeling software outputs into practical drilling operations for effective decision-making
- Translating complex data and predictions into actionable drilling strategies
- Implementing tailored training programs for operators to utilize and understand the software effectively

210 - 230 pm Curated Q&A

Practical, Actionable Emission Monitoring & Control Strategies

INTEGRATING REAL TIME EMISSIONS CAPTURING AND MONITORING WITH EXISITING SYSTEMS

PANEL - **MANAGE AND REDUCE EMISSIONS WHILE OPTIMIZING DRILLING AND COMPLETIONS PERFORMANCE**

230 - 330 pm REAL-TIME EMISSIONS MONITORING DURING DRILLING AND COMPLETIONS

Maximizing ROP While Achieving Emissions Targets **- Best Practice Integration Of Real-Time Emissions Data & Automated Alerts For Leaks WIth Existing Control Systems To Detect Leaks During Drilling & Completions**

230 pm ENSURING REAL-TIME FEEDBACK AND ACTIONABLE DATA ON FLARING/VENTING DURING DRILLING AND COMPLETIONS
Ensuring Monitoring Systems Provide Actionable Data In Real Time To Limit Venting During Critical Drilling & Completions Stages

230 pm FUGUTIVE EMISSIONS MONITORING AND LEAK DETECTION DURING DRILLING AND COMPLETIONS ACROSS MULTIPLE PADS
Innovations and Best Practices for Managing Emissions on Remote & Multi-Well Pads Without Disrupting Drilling Progress

250 pm INTEGRATION of DRILLING CONTROL SYSTEMS WITH EMISIONS MONITORING AND AUTOMATION
Utilizing Emissions Monitoring Data In A Way That Doesn't Overwhelm The Drilling Control Panel But Instead Integrates Smoothly, Allowing Drillers To Stay Aware Of Emissions Levels While Focusing On Their Primary Drilling Parameters

310 pm Curated Q&A With Rountable Discussion

CURATED Q&A

How o you prioritize emissions control without sacrificing rate of penetration (ROP) in complex drilling environments?

How are automated alert thresholds for venting and flaring calibrated to avoid "alert fatigue" while ensuring regulatory compliance?

What are the most effective strategies for integrating real-time leak detection data across multiple pads, especially in remote locations?

How do you ensure emissions monitoring systems can provide both actionable data and remain user-friendly for drillers focused on operational metrics?

In terms of predictive analytics, what capabilities are most valuable for forecasting emissions events before they occur during drilling and completions?

How can emissions data be leveraged for continuous improvement in drilling efficiency and equipment maintenance planning?

330 -4 pm Afternoon Refreshment Break

"BOLT-ON" AUTOMATION TOOLS FOR RIG SAFETY AND EFFICIENCY OPTIMIZATION

Real World Success in Red Zone Management and Performance Gains

PANEL **SMART RIG SYSTEMS AND "BOLT-ON" TOOLS**

4pm **Red Zone Safety and Process Efficiency with Automated Rig Solutions**

4pm AUTOMATED RIG SYSTEMS

Implementing Smart Rig Systems Like Iron Roughnecks, Automated Pipe Handling, And Process Automation To Improve Operational Efficiency

Achieving the balance between implementing automated rig systems and maintaining optimal crew oversight to ensure that technology integrati translates into tangible safety and performance benefits.

- Evaluating how the latest rig automated systems contribute to a safer working environment by reducing human exposure to hazardous operatio
- Understanding the impact of automation on the workforce, including training needs and the management of change in work practices
- Assessing the upfront costs of automated rig systems against the long-term savings in operational efficiency and reduced accident rates
- Evaluating improvements in safety records, crew morale, and company reputation, which can indirectly contribute to ROI

420pm BOLT-ON AUTOMATION TOOLS THAT CAN BE APPLIED TO EXISTING RIGS

ROI On Bolt-On Tools To Enhance The Existing Capabilities Of Rig Operations, To Reduce Human Exposure To Hazardous Conditions – From Pipe & Connections Handling To Anti-Collision Systems

Each rig has unique configurations and legacy systems, making integration a complex, custom process. How can the latest bolt on innovations help

- Understanding how bolt-on automation tools can be integrated with existing rig systems without compromising functionality
- Evaluate the initial investment against long-term gains in efficiency and reduced accident rates.
- Assess how bolt-on rig automation tools can reduce operational downtime, a key factor in drilling economics
- Conclusions, future outlook, and summary of takeaways

440 pm **Curated interactive discussion includes the following pre-prepared questions:-**

How do automated rig systems like iron roughnecks and automated pipe handling impact the time efficiency of standard drilling operations compared to traditional methods?

Can you provide examples of automated responses that have significantly reduced reaction times in emergency scenarios?

What is the balance between automated solutions and human judgment in current red zone management strategies, and how is this balance achieved in practice?

What are some of the most successful bolt-on automation tools recently implemented in rigs, and how have they enhanced operational efficiency without compromising existing rig functionalities?

Considering the diverse configurations and legacy systems in rigs, what are the key factors to ensure seamless integration of bolt-on automation tools, and how do these factors influence the selection of such tools?

PANEL - OPTIMZING DRILLING PRECISION WITH REAL-TIME ALGORITHIMS AND PREDICTIVE MODELS

5 pm **Advanced Data Integration For Smarter, Faster Decisions**

5 pm PREDICTIVE DRILLING AND AUTOMATED PARAMETER CHANGES

Investigating Algorithms That Can Optimize Drilling Parameters In Real-Time, Moving Away From Older Methods

Insights into the latest algorithms for real-time optimization and how they contribute to operational excellence. Discussion of the potential ROI and payback period for investing in these technologies.

- An overview of how predictive drilling models can reduce uncertainty and improve planning accuracy
- Implement comprehensive monitoring systems that provide the data needed for predictive drilling and parameter optimization
- Demonstrating the successful integration of these technologies into existing drilling operations
- Establishing robust training programs for personnel to adapt to new technology and modified workflows
- The advantages of automated parameter changing in reacting to downhole conditions and minimizing human error

520 pm PRACTICAL APPROACHES TO FIELD DATA INTEGRATION

Empowering Field Teams with Practical Big Data Solutions for Enhanced Drilling Decisions

This session explores how field teams can leverage big data analytics to boost operational performance, with a focus on integrating intuitive, field-ready solutions that improve decision-making without overwhelming personnel. Learn best practices for deploying data-driven insights directly in the field to maximize accuracy, efficiency, and ease of use.

- Incorporating Big Data Analytics into Real-Time Decision-Making on the Rig – Practical steps to ensure analytics support immediate, informed decisions in the field
- Selecting Field-Ready Tools with Simple Interfaces for Enhanced Usability – Identifying intuitive analytics platforms that work seamlessly with field-level tech skills
- Creating Data Visualization Dashboards for Rapid, Accurate Insights – Using clear, accessible visual tools that translate complex data into actionable insights
- Developing Feedback Loops to Refine Data Systems Based on Field Use – Continuously improving data accuracy and relevance through real-time operator feedback
- Upskilling Field Personnel with Training for Analytics-Driven Workflows – Building foundational analytics skills to foster confidence and effectiveness in data use

540 pm Curated Q&A

How does the modeling software differentiate and handle various types of on-bottom drilling data for predicting torque and drag?

What strategies are used to ensure data integrity, especially under challenging drilling conditions?

What are the best practices in training field personnel who need to be more tech-savvy to effectively use big data analytics in drilling operations?

How do visual analytics and simplified dashboards impact the decision-making process in the field?

6 pm Chair's Closing Remarks & Close Of Day 1

610 - 710 pm Networking Drinks Reception

Innovative Solutions for Boosting Drilling Performance in Extended Reach, Multi-Lateral, and HPHT Environments

PM STREAM A - LONGER LATERALS & HPHT | PM STREAM B - CCUS DRILLING

0845 Chair's Opening Remarks

PANEL - U SHAPED LATERAL DRILLING INNOVATIONS

0845 **Maximizing Reservoir Exposure: Design and Execution Insights for Effective U-Turn Drilling**

U-turn drilling technology offers a transformative approach to boost reservoir exposure and enhance production rates, all while reducing environmental impact. This panel will dive deep into real-world design and execution strategies for U-turns, examining both the technical hurdles and commercial advantages. Attendees will gain actionable insights to evaluate the feasibility and benefits of implementing U-turn drilling in their operations.

0845 U-TURN DESIGN

0845 – Optimizing U-Turn Drilling: Design and Execution Strategies to Maximize Resource Extraction

Exploring cutting-edge advancements in U-shaped lateral drilling, this session will focus on strategies for enhancing reservoir contact and production potential through effective U-turn design.

- *Economic and Operational Feasibility*: Analyzing cost-benefit considerations and the operational viability of U-turn drilling versus traditional approaches
- *Precision Design Principles for U-Turn Wells*: Key geological and engineering factors critical to successful U-turn trajectory planning.
- Technology Integration Essentials: Essential tools and technologies for efficient U-turn execution, including:
  - o Advanced simulation software for pre-drill planning
  - o Rotary Steerable Systems (RSS) for precise trajectory control
  - o Real-time monitoring and data analytics
  - o Custom drilling fluids tailored for U-turn hydraulics
- Ensuring Wellbore Stability: Techniques and best practices to maintain stability and prevent structural issues in U-turn wells.

0905 U-TURN CONSTRUCTION AND WELLBORE STABILITY

Advanced U-Turn Drilling: Technical Considerations and Wellbore Stability Solutions

Delving into the technical complexities of U-turn drilling, this session provides a deeper focus on design, stability, and innovative technologies crucia for sustaining well integrity in challenging formations.

- Blueprints for Effective U-Turn Construction: Detailed casing design and structural planning to support U-turn trajectories
- Essential Technologies for U-Turn Precision: Comprehensive look at advanced equipment and technology needs, including:
  - o High-performance RSS for optimized control
  - o Real-time downhole data monitoring systems
  - o Customizable fluid solutions for enhanced stability
- Wellbore Integrity Management: Strategies to address stability issues, with a focus on maintaining wellbore strength throughout U-turn drilling, from planning to execution.

0925 - 0945 CURATED Q&A

What are the primary geological challenges encountered in U-turn drilling, and how do they impact the trajectory design process?

In what ways does Rotary Steerable System technology enhance the accuracy and efficiency of U-turn drilling compared to conventional directional drilling?

How is real-time data from MWD/LWD systems used to optimize drilling parameters and decision-making in U-turn operations?

What are the most effective strategies to maintain wellbore integrity during the complex turns involved in U-turn drilling?

PANEL CONTINUES - **INNOVATIVE TECHNIQUES TO EXTEND THE REACH OF LATERALS**

1110 RSS AND HYDRAULICS OPTIMIZATION

Practicalities Of Optimizing Hole Cleaning Techniques & RSS Integration, With A Focus On The Hydraulics Used To Remove Cuttings From The Wellbore

• Grasping the challenges of hole cleaning in extended wells, where cuttings removal becomes more complex due to longer horizontal reaches and the influence of gravity and wellbore geometry
• Learning about optimizing fluid dynamics, including flow rates, fluid viscosity, and pressure, to enhance cuttings transport and prevent accumulation
• Mastering the integration challenges when deploying RSS in various drilling setups, especially considering the compatibility with existing mud systems, downhole tools, and drilling practices

1130 INNOVATIONS IN TORQUE AND DRAG REDUCTION TOOLS FOR EXTENDED LATERALS

The Latest Advancements In Torque And Drag Reduction Tools And Their Operational Mechanisms

Evaluating the cost benefits and performance of friction-reducing drilling fluids and mechanical tools as well as advanced drill pipe designs.

 Advanced Drill Pipe Designs: Utilizing specially designed drill pipes that can withstand higher torque and reduce friction in extended laterals
 Friction-Reducing Drilling Fluids: Employing advanced drilling fluid formulations that minimize downhole friction
 Mechanical Friction Reduction Tools: Using mechanical tools like roller reamers and stabilizers that physically reduce contact and friction
 Real-Time Monitoring Systems: Implementing sensors and monitoring systems that provide real-time data on torque and drag for on-the-fly adjustments

1150 ANTI-STICK TOOLS TO IMPROVE OPERATIONAL EFFICIENCY AND REDUCE EQUIPMENT WEAR

Application And Benefits Of The Latest Anti-Stick-Slip Innovations To Improve Operational Efficiency, Reduce Equipment Wear, And Extend The Lifespan Of Drilling Equipment

Use of anti-stick slip tools that lead to cost savings, increased drilling speed, and reduced non-productive time.

• Innovations in Anti-Stick-Slip Tool Design: Discussion on the latest advancements in tool technology and design
• Design Optimization: Enhancing the design of anti-stick slip tools for specific drilling conditions and RSS configurations
• Demonstrating the effectiveness of anti-stick-slip tools in various drilling environments
• Regional Success Stories: Insights into how different regions have successfully implemented these tools

1210 Curated Questions and Discussion including the following points

How do large operators assess the ROI of implementing new technologies in extended lateral drilling, considering both short-term and long-term perspectives?

What strategies are employed to ensure that the adoption of new technologies doesn't disrupt existing operational workflows?

How do the drilling efficiency, ROP, and accuracy of RSS compare to conventional motors in different drilling scenarios?

Can we discuss the complexities of integrating RSS into existing drilling systems for curved laterals and the strategies to overcome these integration challenges?

1230 Networking lunch break

STREAM A

Innovative Technologies & Techniques To Enhance Drilling Performance In Extended Reach & High Temperature, High Pressure Environments

PANEL - EXTENDED REACH AND TORQ DRAG OPTIMISATION

130 – 330 **Advanced Solutions & Methods To Elevate Drilling Efficiency in Extended Reach & Challenging Operational Scenarios While Optimizing Torq, Drag & Reliability**

130 ADVANCING LWD/MWD (TOOLS TO MAKE MULTI-LATERAL DRILLING MORE COST-EFFECTIVE

Hi-Tech LWD/WD Advancements - Improving Formation Evaluation In High-Stress Environments

Justifying the higher upfront costs with evidence of improved drilling performance in highly complex environments.

- Advanced Sensor Technologies in MWD/LWD: Understanding the latest sensor advancements for improved formation evaluation
- Utilizing more state-of-the-art MWD/LWD tools with enhanced materials and design to withstand harsh drilling environments
- Real-Time Data Analysis: Implementing systems that provide real-time data analysis for immediate decision-making
- Improved Battery and Electronics: Developing better power sources and electronics that can endure extreme downhole conditions

150 MUD MOTOR VENDOR PERSPECTIVE

Advancements in Mud Motor Technology: Enhancing Reliability and Deciphering Key Factors in Motor Failure and Rubber Durability

A review of the latest technological advancements and their impact on mud motor reliability. Strategies for customizing mud motors to specific drilling environments for maximum efficiency.

- Recognizing the most frequent causes of mud motor failures, focusing on mechanical wear, seal integrity, and bearing issues
- Current advancements in mud motor technology to enhance reliability and efficiency
- Design Improvements: Implementing design modifications to reduce stress concentrations and enhance seal integrity
- Tailoring mud motor designs to specific drilling conditions for optimal performance

210 SMALL TO MEDIUM-SIZED OPERATOR PERSPECTIVE ON COST EFFECTIVE RETROFIT SOLUTIONS

Repurposing Old Technologies For Extended Laterals - Retrofitting Existing Tools And Customizing BHA Technologies and Mud Motors To Avoid The Expense Of High-End RSS & LWT/MWD Systems

Cost comparison with high-tech solutions, performance metrics, and long-term operational benefits.

- Economical Alternatives to High-Tech Solutions: Understanding the benefits and limitations of retrofitting and utilizing cost-effective BHA and mud motor options
- Customization Techniques: Learning how to tailor BHA designs and mud motor settings for specific drilling needs
- Integrating affordable monitoring technologies to enhance decision-making during drilling
- Material Selection: Choosing appropriate materials for BHA components to improve durability and reduce costs

230 FLUID OPTIMIZATION FOR TORQUE AND DRAG PURPOSES

Strategically Optimizing Drilling Fluids To Effectively Manage Torque And Drag, Encompassing The Utilization Of Different Mud Systems Tailored For Both Drilling And Casing Operations

Optimizing drilling fluids: mastering torque and drag reduction for enhanced drilling and casing performance.

250 JUSTIFYING ROI ON HIGH TORQUE DRILL PIPES FOR ERD AND DIRECTIONAL DRILLING OPERATIONS

Leveraging High Torque Drill Pipes in ERD and Directional

310 - 33- Curated Q&A & Audiece Discussion

330 - 4 pm Shared Refreshment Break (Both Streams Together)

STREAM B

Sharing Challenges, Solutions & Early Experiences In CCUS Drilling

PANEL - ROI AND COMPLIANCE AND DRILLING METHODS

130 – 330 **Unlocking the Value of CCUS in Oil & Gas Drilling: Industry Perspectives and ROI-Driven Strategies**

1:30 – 1:50 PM ECONOMIC ANALYSIS AND INVESTMENT JUSTIFICATION:

Evaluating the ROI of CCUS Integration in Drilling Operations

- In-depth assessment of CCUS cost-benefit scenarios within drilling operations
- Insights into global regulatory incentives and trends influencing CCUS adoption
- Exploration of the technical complexities and cutting-edge CCUS innovations
-Analysis of market demand and long-term prospects for CCUS in oil and gas
-Workforce development strategies for equipping teams to manage CCUS operations effectively

1:50 – 2:10 PM REGULATORY COMPLIANCE AND ENVIRONMENTAL IMPACT:

Navigating the Regulatory Landscape for CCUS in Drilling

- Comprehensive review of current regulatory requirements shaping CCUS in drilling
- Examination of CCUS environmental impacts and sustainable management techniques
- Effective strategies for regulatory compliance and adapting to evolving standards
-Best practices in environmental monitoring and risk mitigation for CCUS projects

210 CASING FOCUS

Cost-Benefit Analysis of Specialized Casing in Drilling: Focusing on Chrome-Resistant Solutions

- Insights into the cost analysis of using specialized casings
- Discussion on the operational benefits and challenges of chrome-resistant casings
- Exploration of environmental and safety considerations
- Strategies for managing the additional costs and ensuring ROI

230 CHALLENGES AND INNOVATIONS IN CEMENTING FOR CCUS

Mastering Cementing in CCUS Projects: Achieving Zonal Isolation and Compliance with EPA Standards

- Overview of EPA regulations and their impact on cementing in CCUS.
- Insights into the challenges of achieving zonal isolation in CCUS wells.
- Latest innovations in cement compositions and techniques for CCUS.
- Best practices for monitoring and ensuring cement integrity.
- The importance of industry-regulator collaboration for successful CCUS cementing.

250 TECHNOLOGICAL ADVANCEMENTS IN CCUS DRILLING

Latest Technological Innovations That Facilitate CCUS Drilling & Injection In The Oil And Gas Industry

- Overview of the latest technologies enhancing CCUS drilling and injection
- Strategies for overcoming integration challenges with existing systems
- Insights into the cost-effectiveness and ROI of new CCUS technologies
- Impacts of these technologies on environmental sustainability and operational efficiency

310 - 330 Curated Q&A & Audience Discussion

330 - 4 pm Shared Refreshment Break (Both Streams Together)

STREAM A

Innovative Technologies & Techniques To Enhance Drilling Performance In Extended Reach & High Temperature, High Pressure Environments

DESIGN CONSIDERATIONS FOR EXTENDED REACH CASING

4 pm **Optimization Techniques For Casing & Fluids In Extended Reach Drilling; Techniques And Technologies**

Best practices for integrating advanced casing techniques.

• Casing Design for Extended Reach Wells: Understanding the unique challenges posed by extended reach wells for casing design, including stress, torque, and drag considerations
• Material and Technology Selection: Selecting the right materials and technologies for casings and fluids that can withstand the harsh conditions of extended-reach drilling
o Utilizing high-strength, flexible materials that can endure the stresses of extended-reach drilling
o Optimization techniques including floating casing or using different fluids for a 17,000 foot lateral, for example
• Innovative Casing Installation Techniques: Implementing advanced techniques like floating casings or using different fluid types to reduce friction
• Collaboration between Drilling and Completions: Ensuring a collaborative approach between drilling and completions engineers to optimize casing design and implementation

HIGHLIGHTING SUCCESSFUL WELLSPACING STRATEGIES TO PREVENT COMMUNICATION

420 **Optimal Vertical Spacing For Multi-Well Laterals To Prevent Communication During Fracturing**

You understand that inadequate spacing can lead to well communication, reduced production, and increased environmental impact. Learn best practices for increasing production efficiency, reducing the risk of well interference, and enhancing overall profitability.

• Fracture Behavior in Multi-Well Setups: Insights into how fractures propagate and interact in closely spaced wells
• Technological Innovations in Spacing Analysis: Advancements in simulation and modeling tools for spacing decisions
• Case Studies on Well Spacing: Real-world examples highlighting successful well spacing strategies
• Integrated Project Planning: Collaborative planning among drilling, completions, and reservoir engineers to determine optimal well spacing

DESIGN FOR EFFICIENCY IN UNILATERAL WELLS

440 **Real-World Results And Practices On How To Design Unilateral Wells To Increase Production Efficienc**

500 APPLICATIONS & BENEFITS OF ADOPTING MUD CHILLERS Optimizing **High-Temperature Drilling: Evaluating Mud Chillers in Enhancing Operational Integrity**

Learn about advanced chilling systems and real-time monitoring tools: cost-benefit analysis and operational planning.

530 RSS AND MWD SOLUTIONS FOR HIGH-TEMPERATURE WELLS

Selecting MWD/LWD & RSS Systems for High-Temperature Wells: Best Practices and Reliability Strategies

Case Studies of successful implementations: Examples of successful deployments of these systems in high-temperature wells

540 Extended questions and discussion. Topics to evaluate and share views on include -

6 Pm Chair's Closing remarks & Close Of Day 2

STREAM B

Sharing Challenges, Solutions & Early Experiences In CCUS Drilling

TECHNICAL ADAPTATIONS FOR CCUS

4:00 – 4:30 PM **Advanced Drilling Techniques for CCUS: Insights and Early Experiences**

Explore pioneering drilling techniques specifically designed for Carbon Capture, Utilization, and Storage (CCUS) projects, featuring firsthand industry experiences, practical challenges, and innovations driving early success.

• Precision Drilling for Complex Formations: Strategies ensuring accuracy and integrity in varied geological conditions
• Early Field Results: Real-world insights into cost, time, and operational adjustments from initial CCUS drilling projects
• Enhanced Safety Protocols: Advanced safety measures mitigating risks in high-pressure CO_2 environments
• Scalability of New Techniques: Evaluating the potential for broader deployment of advanced drilling methods in future CCUS projects

REAL-TIME MONITORING TECHNOLOGIES

4:30 – 5:00 PM R**obust Monitoring and Data Analysis Systems for CCUS: Ensuring Efficiency and Safety in Injection Processes**

This session focuses on implementing advanced monitoring and data analysis systems for safe and efficient CO_2 injection, detailing best practices, technology applications, and data-driven approaches.

•
• Data Analytics for Predictive Safety: Using analytics and machine learning to forecast injection outcomes and potential issues
• Safety and Environmental Compliance: Systems that ensure protocol adherence while reducing environmental impact
• Automated Monitoring Advancements: Continuous, low-intervention monitoring to maintain process safety
• Integrating Data with Operations: Real-time data use in operational decisions for enhanced efficiency and responsiveness

5:00 – 5:30 PM **Pan-Audience Roundtable: Innovations in Casing, Cementing, and Zonal Isolation for CCUS**

This roundtable invites all participants to engage in a collaborative discussion on critical material and design decisions for CCUS wells. Moderators will guide discussions through key questions, prompting participants to share experiences and strategies that can inform industry-wide practices.

Roundtable Discussion Questions:

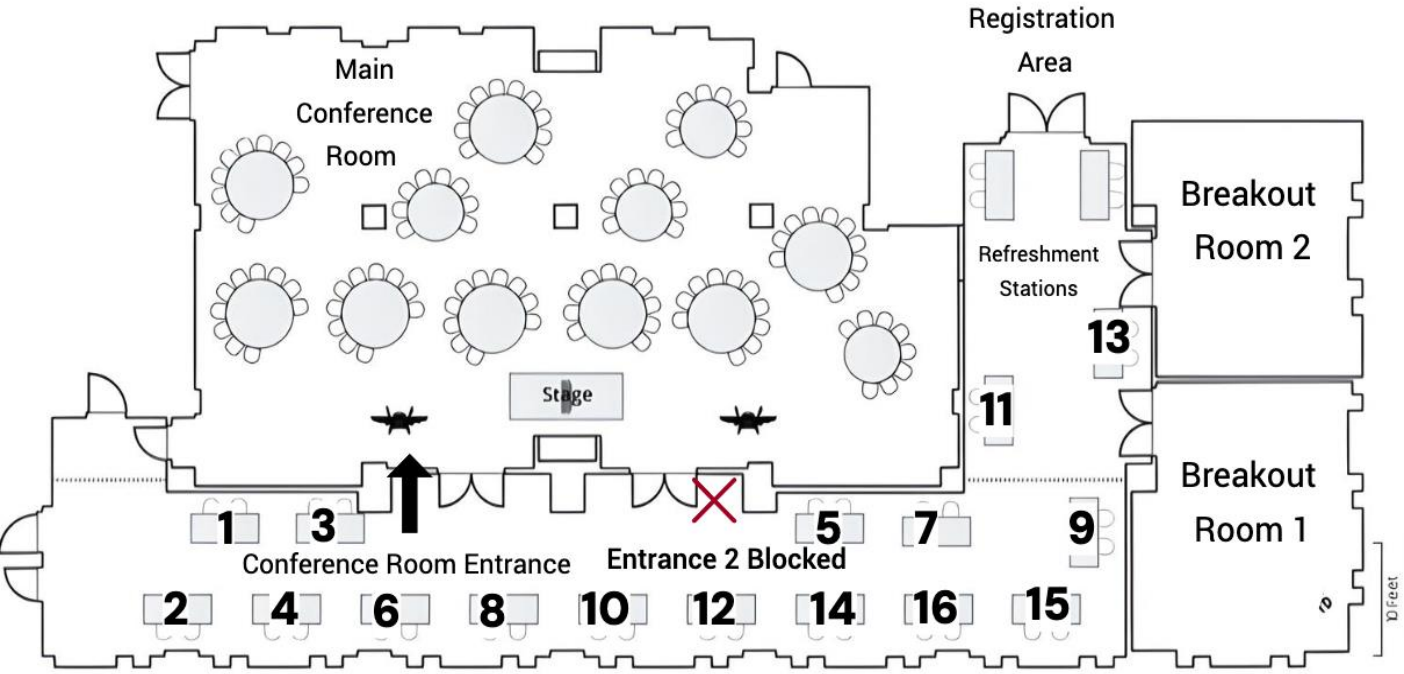
1. Long-Term ROI of Chrome-Resistant Casing
2. Environmental Safety and Chrome-Resistant Casings
3. Adaptations in Cementing Techniques for EPA Compliance
4. Innovative Techniques for Zonal Isolation

Throughout the session, the moderator will ensure each topic is addressed in depth, guiding participants to share practical insights, lessons learned, and forward-looking ideas. This format will allow attendees to leave with actionable takeaways, enhancing their understanding of CCUS casing, cementing, and isolation techniques from multiple perspectives.

6 pm Chair's Closing remarks & Close Of Day 2

Conference, Exhibition, Networking And Breakout Session Plan

Horizontal Drilling Automation & Advanced Technologies 2025

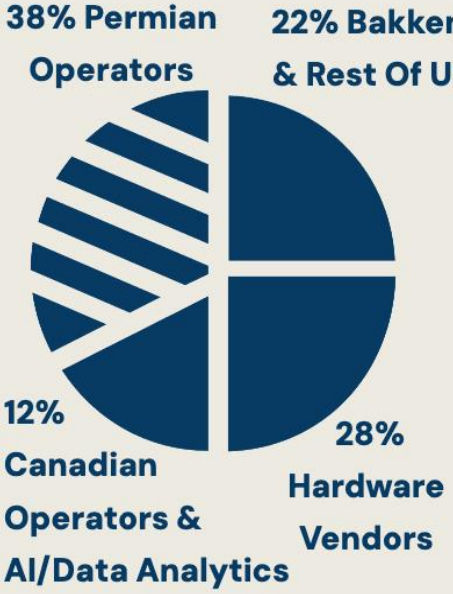


All booths are strategically positioned in high-traffic areas, thanks to their relative close proximity to both the conference room and refreshment stations. However, **booths 3, 4, 6, 11, and 13 are particularly prime locations,** as they are either directly adjacent to the main conference room entrance or immeditaely located near the refreshment station, ensuring maximum visibility and attendee engagement.

Key Solutions Requested By Operators

- Drilling Rig Automation & Driller Assisted Apps
- Real-Time Emissions Monitoring
- Real-Time Data Monitoring & Analytics
- Dashboards, Visualisation & Business Intelligence
- Downhole Drilling
- RSS Providers
- MWD Systems
- MUD Motors
- Wellbore Stability
- Drilling Fluids
- CCUS Specifc Tech
- Simulation Software

23/24 Breakdown



The Multi-Lateral Extended Reach Edition

Horizontal Drilling Automation & Advanced Technologies 2025

Prioritizing Immediate Applications That Can be Put Into Practice Today

For Large, Medium & Small Operators

I Would Like To Register The Delegate(s) Below

Details PLEASE USE CAPITALS - PHOTOCOPY FOR MULTIPLE DELEGATES

Delegate 1
Mr / Dr / Miss / Ms / Mrs (please circle)

Name: .....

Position: .....

Organization: .....

Email: .....

Delegate 2
Mr / Dr / Miss / Ms / Mrs (please circle)

Name: .....

Position: .....

Organization: .....

Email: .....

Telephone: .....

Address For Invoice Purposes: .....

Zip / Postal Code: .....

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PLEASE TICK THE APPROPRIATE BOX DEPENDING ON THE NUMBER OF DAYS TO BE ATTENDED AND THE FORM SUBMISSION DATE

	Super Early Bird *Book By 30 Oct 2024*	Early Bird *Book By 20 Dec 2024*	Standard *Book By 27 Jan 2025*
2 Day Conference Only	$1099	$1299	$1499
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2 Workshops Only	$399	$499	$599
Live Stream Access	$499	$599	$699

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