IADC WORLD DRILLING 2010
CONFERENCE & EXHIBITION
“Sustaining Margins in an Unconventional World”

16-17 JUNE • CORINTHIA GRAND HOTEL ROYAL • BUDAPEST, HUNGARY

Event Sponsors

Designed to Perform
### Optimising Performance in a High Cost Deepwater Drilling Environment

**Ian Garrett, Alan Dowokpor, Brian Teggart, Tullow Oil**

In the course of the drilling programme a significant learning curve has been realised and an extremely high level of performance achieved placing the Tullow Deepwater Ghana operations at the top of the Rushmore data sets compared with other operators in similar West Africa environments. Recognition of the importance of focussing on every aspect of the performance equation, the correct slip & cut rate, the right BHA design, etc., is leading to further improvements. The improvements were established in rig equipment and drilling methods, are high-calibre and set a new standard for the industry. This can be attributed to the development of a high calibre team focused on HSE and drilling operations performance. This presentation discusses how this has been achieved and highlights the importance of focussing on every aspect of performance given the high cost environment under which we are operating.

### Lower Completion Approach Used to Implement Selective Triple Frac Pack after Production Casing Collapse

**Igor Valle Duarte, Anderson Rapelio dos Santos, Antônio Carlos Massad Campos, Gesus Moreira Padilha, Vinícius Vanzan, PETROBRAS**

The Roncador field was discovered in 1996 by the wildcard well 1-RJS-436 located in northern of Campos Basin at water depths varying between 1500 to 1900 m. The field has been developed through four modules due to its expressive oil in place volume and different oil and geological characteristics. A production casing obstruction avoids lower completion installation on last Well built on Roncador Field Module development stage. The innovative approach used to conclude this Well, the lessons learned and the historical events that occurred during its construction are presented.

### Ton-Miles Calculations in Today’s Operations – How Far Out are we?

**Jaap van der Sijp, KCA DEUTAG Drilling GmbH**

The shortcomings of the API-recommended ton-mile calculation methods used on most rigs in the world, due to the progress made since these were established in rig equipment and drilling methods, are highlighted. New calculation methods are presented which are not only far more accurate, but also far easier to use. In addition some current issues with determining the correct slip & cut rate are addressed.
IADC WorlDDrIllIng 2010

08.25 KEYNOTE PRESENTATION: RUNNING AN OILFIELD AT MINUS 40 DEGREES CHALLENGES, LEARNING’S AND ISSUES WITHOUT ANSWER
Christopher Hyde, Field Manager, Salym Petroleum

Mr. Christopher Hyde is a field manager for Salym Petroleum in the Salym field. Salym, which represents the largest investment in Russia made by an international operator, is extremely remote. Located between Surgut and Tyumen, Salym lies some 3,000 km east of Moscow and at approximately the same latitude as Oslo. The extreme weather environment can produce temperatures as minus 50˚ C in winter and up to plus 30˚ C in summer. Mr. Hyde’s duties include production operations, infrastructure and production facility maintenance. He also has a coordinating function for all other field activity, including drilling, well services, construction and HSE. Mr. Hyde’s presentation will cover the challenges of logistics, HSE and operations in extreme cold weather.

08.45-09.45 ADVANCES IN DRILL PIPE TECHNOLOGY
Session Chairmen: Brett Chandler, NOV Grant Prideco, Hermann Spörker, OMV E&P GmbH

High Breakout Torque: Hypothesis, Investigation, and Evaluation
James N. Brock, NOV Grant Prideco

The continuing development of high-torque rotary-shouldered connections (RSC) has represented an enabling technology for the industry and permitted the continued advancement of drilling deeper, further and more cost-effective wells. Occurrences of high-breakout torque have been reported with API RSC’s and with proprietary high-torque RSC’s from different manufacturers. An analysis and evaluation of the causes of high breakout torque with rotary-shouldered drill stem connections are outlined. Results of torque analysis, ambient stress measurements, finite element analysis, and visual evaluation of connections are presented. The impact of rig running procedures and handling equipment is considered and evaluated.

Realizing the Early-Payback Benefits of Real-Time Evaluation with Wired Drill Pipe
Grant Affleck, Weatherford International

Wired drill pipe and logging while drilling (LWD) are among real-time evaluation technology advancements that can hasten return on investment and project payback by elevating drilling to new levels of accuracy and efficiency. The audience will be familiarized with basic technological features and advantages of LWD and wired drill pipe. It will also explain the crucial relationship that exists between real-time data integrity and management, speed, and successful real-time operations. Finally, a case study from UK Southern North Sea is used to illustrate the positive outcomes that Weatherford and its clients have realized by properly applying these advanced drilling technologies.

10.15-12.00 PANEL SESSION: PERFORMANCE DRILLING: HOLY GRAIL OR OXYMORON?
Session Chairman: Toni Marszalek, President, Schlumberger Italiana Spa

Today we stand on the edge of the most challenging wells ever drilled, constrained economically, yet testing the limits of technology and expertise. Operators budget NPT as high as 35% for deepwater operations. Do processes such as real-time monitoring, visualization centers, drilling wells on paper, collaborative environments really make an impact on our drilling performance? Can “factory drilling” buoy the economics of new endeavors, such as shale gas drilling? The members of the panel will look at these challenges and attempt to answer the question – “Performance Drilling – Oxymoron or Holy Grail?”

Panelists:
• Leo Maekiaho, Head of Drilling, Petrom
• Khalid A. Al-Abdulqader, Manager Northern Area Oil Drilling Department, Saudi Aramco
• Fred E. Dupriest, Senior Global Drilling Advisor, ExxonMobil Drilling Technical Organization
• Peter Vilhelm Balslev, Head of Drilling Engineering, Maersk Oil Qatar AS
• Juan Javier Hinojosa Puebla, Subdirector of Drilling, PEMEX
Linking Real-Time Geomechanics with Managed Pressure Drilling Systems
William Standifird, Halliburton

The basics of the challenge of wellbore pressure control and the value of doing so precisely are covered. The MPD system and the geomechanics modeling system will be presented separately. An outline on how it was integrated and the value to operations is shown.

Workover and Testing of HPHT Deep Gas Wells: Case History of North West Raudhatain 2 and 3
Ali Hussein Safarri, Nayef Al-Anzi, Akshaya Kumar Dhabria, Kuwait Oil Company

A case history is presented about workover wells NWRA#2 & NWRA#3, including initial planning, operational difficulties due to HPHT limitations, milling and fishing equipment details for retrieving 15 K permanent packer, problems associated with cement squeezing, use of latex based gas blocking slurry, operation details including retrieving the collapsed tubing, running two permanent packers and stimulation and test results. The lessons learned and the conclusions will be explained to provide a basis for the planning and realization of future work over operations in these types of wells without any harm to personnel and damage to the environment.

Successful Implementation of Proactive Managed Pressure Drilling and Flow Drilling Techniques in HPHT Exploratory Wells in Southern Mexico
Juan Carlos Beltran, Corrado Lupo, Hermogenes Duno, Fernando Gallo, Erwin Gomez, Leiro Medina, Zaurayze Tarique, Schlumberger-Optimal Pressure Drilling

A specific MPD case history is described where a fault not initially anticipated in the pre-geology column and extreme narrow operating windows were the drivers to switch from a proactive managed pressure drilling to a flow drilling operation to re-gain normal and stable drilling parameters while controlling gas influxes and losses. The challenges of MPD to finally identify the right balance will be discussed.

Enhancing Drilling Economics with Slim Wellbore Design
Tony Furniss, Enventure Global Technology

Utilizing expandable technology to create a slim well design has been proven to add significant value. By definition, slim well design utilizing expandables reduces the architecture above the expandable liner while maintaining (or enlarging) the ID at TD. An overview of the requirements for slim well design, evaluation of candidate wells, and the future application of single-diameter technology to increase the benefits of slim well design is given. Specific case histories, including the above example, will be presented to demonstrate the value-added by incorporating a slim well design.

Using Slimhole LWD to Overcome Horizontal Drilling Limitations in Short-Radius Re-Entry Wells
Hani Qutob, Weatherford International

Historically, logging-while-drilling (LWD) technology has been a limiting factor in producing profitably from short-radius re-entry wells because of the inability of the LWD tools to negotiate severe curvatures in the build section. This presentation will describe the development and application of a slim hole, triple-combo LWD system that has enabled Saudi Aramco to acquire and evaluate data in real time in short-radius wells with doglegs of up to 68º/100ft. The LWD data has been used to control the landing and more effectively geosteer the horizontal section, with significant implications for reducing drilling cost and improving production and safety.

16.00-16.15 NETWORKING BREAK & OPEN EXHIBITION
Sponsored by OMV E&P GmbH

16.15-17.15 ECONOMIC OUTLOOK
Session Chairmen: Bob Warren, Pride International, Marin Koceic, INA Naftaplin

Climbing Out of the Great Recession: Implications for the Oil and Gas Industry
Susan Farrell, PFC Energy

Global demand for oil and gas dropped in 2009 at the same time massive new OPEC capacity came online and LNG plants began exporting to an oversupplied market. The service sector, buoyed by rising prices, ordered new equipment which is now pressuring dayrates and utilization. The uncertainties around the rate of global recovery and implications for spending in the oil and gas industry are addressed.

Can We Expect a Balanced Offshore Rig Market Soon?
Tom Kellock, ODS-Petrodata

Will wholesale retirements bring the size of the jackup fleet down to the level of demand – as some owners claim will happen? Will Brazil’s apparently insatiable demand for deepwater rigs absorb the considerable number of uncontracted rigs approaching completion as well as those that Petrobras is building? What’s the outlook for the 100-strong midwater floater fleet? ODS-Petrodata’s Tom Kellock will provide his views on these and other questions weighing on the minds of operators and drilling contractors trying to formulate their strategies for the years to come.

17.15 ADJOURN