



## The Americas Workshop 25<sup>th</sup>- 28<sup>th</sup> April 2011

### Workshop Information

#### Workshop Details

In the dynamic and economically challenging world of oil and gas production, it is important that developments in technology, new regulation and best practice are shared among the practitioners who operate within upstream production and measurement.

#### Track Record

Since its launch three years ago, the Americas Workshop has now been established as one of the major forums in the continent to facilitate this sharing of knowledge within a focused environment. The Workshop has brought together international operators, regulators, equipment suppliers, engineering contractors, service companies and researchers to examine the flow measurement challenges that the oil & gas industry faces, and to share knowledge and experience. The previous three events have been highly successful, attracting positive feedback from industry experts who attended each of the workshops.

#### 2011 Workshop

Building on the success of the previous three events, the 2011 Workshop will continue to address the changes in flow measurement practice which affect North, South and Central America. The Workshop will examine the relevant issues relating to complex fluids, measurement technologies, allocation and verification.

#### Why Should I Attend This Event?

- Technical presentations by industry experts mean you will improve your knowledge and understanding, making you better equipped to meet the challenges faced by the industry now and in the future.
- Discussion on the latest topics and issues in the Industry today means you can make informed decisions within your business quicker and more efficiently.
- Strong support from local companies and operators in the oil & gas sector means you can develop your own business interests in the region by making new contacts through networking at this event.
- Manufacturers from around the world will be exhibiting the latest in cutting edge technology allowing you to make informed choices on equipment and service requirements, faster and more effectively.

#### Who Should Attend

- Metering and instrumentation engineers
- Hydrocarbon accountants
- Metering system vendors
- Researchers
- Production and reservoir engineers
- Product suppliers
- Government regulators



## The Americas Workshop 25<sup>th</sup> - 28<sup>th</sup> April 2011

### Workshop Information

#### Technical Programme

##### **Tuesday 26<sup>th</sup> April**

0830 – 0900 Delegate Registration and Coffee

0900 – 0910 Welcome Address  
[Norman Glen, NEL - UK](#)

0910 – 0930 Keynote Speech

##### **Session 1 Field Experience/Heavy Oil**

[Chairman: Joe Shen, Chevron & Don Miller, NEL](#)

0930 – 1000 Field Validation and Long-term Performance Monitoring of MPFM at Very High GVF and High Pressure Conditions

[Abdullah Al Obaidani, Petroleum Development Oman - Oman](#)  
[Junjie Ye, Qianhui Li and Charles J Chen, Haimo Technologies Inc. - China](#)

1000 – 1030 Performance of a Multi-Energy Gamma Ray/Venturi Multiphase Flowmeter in Heavy Oil and Pumping Well in Venezuela

[Bruno Pinguet and Jose Adalberto Fernandez, Schlumberger - USA](#)  
[Ramon Tineo, Luis Villahermosa and Víctor Perez, PDVSA - USA](#)

1030 – 1100 Coffee and Exhibition

1100 – 1130 Assessing the Performance of Conventional Flow Meters in Viscous Fluids with Entrained Gas

[Norman Glen, Chris Mills and Bob Belshaw, NEL - UK](#)

1130 – 1200 Results from the RPSEA Deepwater Measurement Project

[Chip Letton, Letton-Hall Group - USA](#)

1200 – 1230 Validation of MPFM Performance on Gas Lifted Wells

[Junjie Ye, Yanzhi Pan, Panny Y Pan and Charles J Chen, Haimo Technologies Inc. - China](#)  
[Ibrahim Mahrooqi and Abdullah Al Obaidani, Petroleum Development Oman - Oman](#)

1230 – 1330 Lunch and Exhibition

##### **Session 2 Wet Gas**

[Chairman: Norman Glen, NEL & Chip Letton, Letton-Hall Group](#)

1330 – 1400 The Development of and Initial Data from a New Multiphase Wet Gas Meter

[Mark Tudge, Alistair Collins, Jin-Lin Hu and Carol Wade, Solartron ISA - UK](#)

1400 – 1430 Testing of Small Differential Pressure Cone Meters on Wet Gas

[Phil Lawrence, Cameron Valve and Measurement Systems - USA](#)



## The Americas Workshop 25<sup>th</sup> - 28<sup>th</sup> April 2011

### Workshop Information

[Tom Madden and Christopher Braid, Cameron's Measurement Systems - USA](#)

#### **Tuesday 26<sup>th</sup> April**

- 1430 – 1500 Coffee and Exhibition
- 1500 – 1530 Adaptation of a Cone Type Meter for Wet Gas Measurement  
[Jonathan Hollist and Marcus Davis, McCrometer Inc. - USA](#)
- 1530 – 1600 The Influence of Natural Gas Wetness on Measurement Error and Stability of Clamp-On Ultrasonic Gas Flow Meters  
[Izzy Rivera, FLEXIM Americas Corporation - USA](#)  
[Bernhard Funck, FLEXIM GmbH - Germany](#)  
[Peter Baldwin, FLEXIM - UK](#)
- 1600 – 1630 Discussion Session
- 1900 Dinner

#### **Wednesday 27<sup>th</sup> April**

- Session 3      General**  
[Chairman: Robert Webb, BP America](#)
- 0800 – 0830 The Next Generation Flow Measurement Engineer - A Cross-Discipline Super Hero or a Well-Equipped Engineer?  
[Eric Toskey and Eric Kelner, Letton-Hall Group - USA](#)
- 0830 – 0900 Entrained Air, Particles And Wet Gas - Myths And Truth In Coriolis Flow Measurement  
[Michael Nuber, Endress+Hauser Flowtec AG - Switzerland](#)
- 0900 – 0930 Design and Maintenance Considerations for Online Gas Chromatographs  
[Steinar Fosse, Norwegian Petroleum Directorate - Norway](#)
- 0930 – 1000 Virtual Metering System Application in the Ceiba Field, Offshore Equatorial Guinea  
[Anton Petukov, Luigi Saputelli, Jeffrey Hermann, Alex Traxler Kim Boles and Obiageli Nnaji, Hess Corporation - USA](#)  
[Bruno Vrielynck and Deepak Venugopal, Belsim - Belgium](#)
- 1000 – 1030 Coffee and Exhibition



## The Americas Workshop 25<sup>th</sup> - 28<sup>th</sup> April 2011

### Workshop Information

#### Wednesday 27<sup>th</sup> April

##### **1030 - 1300      Poster and Manufacturer Session**

1045 – 1115      Presentation 1

1130 – 1200      Presentation 2

1215 – 1245      Presentation 3

1300 – 1400      Lunch and Exhibition

##### **Session 4      Subsea**

[Chairman: Charlie Tyrrell, Shell International Exploration & Production](#)

1400 – 1430      Development and Testing of an ROV-Deployed Deepwater Subsea Sampling System  
[Eric Kelner and Thomas B Morrow, Letton-Hall Group - USA](#)

1430 – 1500      ROV-Assisted Subsea Measurement - A First Attempt  
[Moussa Kane, Total E&P Research and Technology - USA](#)

1500 – 1530      Coffee and Exhibition

##### **Session 5      Allocation**

[Chairman: Angela Floyd, ConocoPhillips](#)

1530 – 1600      Crude Oil Measurement and Allocation  
[Rajan Batra, Chevron Corporation - USA](#)

1600 – 1630      A System Approach to Production Allocation Measurement  
[Robert Webb, BP America Production Company Inc. - USA](#)

1630 – 1700      Discussion Session

1900              Workshop Dinner - The Forest Deck



## The Americas Workshop 25<sup>th</sup> - 28<sup>th</sup> April 2011

### Workshop Information

#### Thursday 28<sup>th</sup> April

- Session 6      Multiphase/CFD/Ultrasonic**  
Chairman: Joel Rodger, Weatherford International & Moussa Kane, TOTAL E&P Research and Technology USA
- 0830 – 0900      Blind Testing of a Multiphase Meter with Simplified Field Configuration Needs and In-Situ Measurement of Fluid Properties  
Gordon Stobie, ConocoPhillips - UK  
Arnstein Wee, MPM - Norway
- 0900 – 0930      Erosion in Sub-Sea Multiphase Flow Meters  
Neil Barton and Mark MacLeod, NEL - UK  
Gordon Stobie, ConocoPhillips - UK  
Klaus Zanker, Letton-Hall Group - USA
- 0930 – 1000      Multiphase Flow in Coriolis Mass Flow Meters - Error Sources and Best Practices  
Joel Weinstein, Emerson Process Management - Micro Motion, Inc. - USA
- 1000 – 1030      Coffee and Exhibition
- 1030 – 1100      First Ever Successful Complete Evaluation of a Multiphase Flow Meter in SAGD, and Development of the Performance Against Conventional Equipment  
Bruno Pinguet, Schlumberger Testing - Venezuela  
Frenando Gaviria, Laurie Kemp and Cal Coulter, SUNCOR - Canada  
Karima Amel Benrelm, Schlumberger Testing - Canada  
Carlos Emilio Damas, Schlumberger Technology Center - Canada
- 1100 – 1130      Validation of the CFD Method for Determining the Measurement Error in Flare Gas Ultrasonic Meter Installations  
Jeff Gibson, NEL - UK
- 1130 – 1200      Clamp-On Ultrasonic Flowmeter Diagnostics Used to Determine Root Cause of +/-15% Line Imbalance in a Crude Oil Pipeline  
Pamela Moore, Chevron Energy Technology Company - USA
- 1200 – 1230      Discussion Session
- 1230 – 1245      Closing Comments  
Norman Glen, NEL - UK
- 1245              Close and Lunch



## The Americas Workshop 25<sup>th</sup> - 28<sup>th</sup> April 2011

### Workshop Information

#### Training Courses/Sessions

Two optional training courses will be held simultaneously on Monday 25<sup>th</sup> April and a complimentary Training Session on Flaring Challenges will be held in the afternoon of Thursday 28<sup>th</sup> April.

#### Optional Training Courses

##### **Measurement Uncertainty Training Course - Monday 25<sup>th</sup> April, 08:30-16:00 Fee: \$630**

##### **Introduction & Objectives**

Measurement is fundamental to the control of quality, efficiency and safety. It is vital that all those using industrial measurement recognise that measurement is not an exact science. Understanding the magnitude of the uncertainty associated with any measurement is the first step to improving accuracy. This interactive training course aims to provide an understanding of the concepts and terminology of uncertainty, the development of uncertainty budgets and their practical application.

##### **Who Should Attend?**

- Research and development engineers
- Instrumentation engineers
- Quality managers
- Technical managers

##### **Knowledge Outcomes**

By the end of this course each delegate will have:

- An understanding of the concepts and terminology of uncertainty.
- Appreciation of sources of uncertainty and how to obtain appropriate data.
- Knowledge of how to combine input uncertainties to produce a final output uncertainty.
- The ability to construct uncertainty budget tables.
- An understanding of how to use uncertainty budget tables to target process improvements, inform investment decisions and demonstrate regulatory compliance



## The Americas Workshop 25<sup>th</sup> - 28<sup>th</sup> April 2011

### Workshop Information

#### Complimentary Training Session on Flaring Challenges - Thursday 28<sup>th</sup> April, 13:45-16:45

##### Introduction & Objectives

This complimentary session will give an overview of the legislation surrounding monitoring and reporting of atmospheric emissions and the issues facing operators, metering engineers and regulators alike in the face of ever-tightening legislation. Case studies will be presented – e.g. what methods are used to determine emissions, what parameters are important and how errors may occur if metering systems are wrongly configured or installed.

##### This informal session will cover the following topics:

- Current issues with flare and vent gas measurement and reporting
- Worldwide environmental legislation
- Open discussion session

##### Who Should Attend?

The session is intended for metering engineers working on the oil and gas facilities. It will also be of interest to operators, pipeline engineers, production engineers, R&D managers and graduate engineers.

#### Registration Fees

There are several attendance options available to suit those with local commitments and those travelling from further afield:

**Delegate Attendance at Workshop Only** – This option allows delegates to attend on a day-only basis, it includes attendance at all technical sessions, a copy of the Workshop proceedings, lunches and light refreshments for the three days. This delegate registration fee is \$1375.

**Presenting Author and /or Committee Attendance at Workshop Only** – This option allows authors to attend on a day-only basis, it includes attendance at all technical sessions, a copy of the Workshop proceedings, lunches and light refreshments for the three days. This registration fee is \$650.

#### Workshop Dinner

This dinner takes place at 1900 hrs on Wednesday 27<sup>th</sup> April on the Forest Deck. Fee for all Attendance at Workshop only delegates is \$80.

Please note that payment is required by credit card only.



## The Americas Workshop 25<sup>th</sup> - 28<sup>th</sup> April 2011

### Workshop Information

#### Venue Details

The Workshop and training courses will be held at The Woodlands Resort & Conference Center, 2301 N Millbend Drive, Texas 77380, USA. Tel: + 1 281 367 1100 Fax: + 1 364 6345  
[www.woodlandresort.com](http://www.woodlandresort.com)

#### Registration, Enquiries & Administration

Bookings can be made online using Book Now option within Event Details Page, alternatively if you have any queries on the Workshop or associated events, please contact the Events Team at [events@tuvnel.com](mailto:events@tuvnel.com) or +44 (0) 1355 272858.

#### Exhibition and Sponsorship Opportunities

Suppliers of equipment services are invited to sponsor and/or exhibit at the Workshop. New for 2011, we are introducing a Manufacturers Session where a limited number of exhibitors can showcase their products and services to interested or invited delegates during the scheduled sessions on Wednesday 27<sup>th</sup> April. For further details on our Exhibitor Packages see the separate Exhibitor Booking page on our website [www.tuvnel.com](http://www.tuvnel.com).

#### NEL

NEL is a leading provider of pipeline fluid management services to the global petroleum industry. We have an impressive track record in the development, design and application of leading-edge technology. We provide consulting, training, R&D and laboratory testing services in the following areas:

- Consultancy in all key flow measurement areas
- Flow Measurement (oil, gas, water and complex fluids)
- Computational fluid dynamics modelling and interpretation
- Thermal engineering & heat transfer
- Erosion assessment and validation
- Flow calibrations in the UK national test facility
- Environmental (produced water, oil-in- water, emissions and carbon capture & storage)

NEL is part of the TÜV SÜD Group, a leading international technology services organisation. Around 15,000 employees are represented at more than 600 locations throughout the world.

#### Members of the Technical Committee

The Committee have input to the content and direction of the Workshop. Papers selected by the Committee are based on their relevance to industry and the quality of content.

- Dr Norman Glen (Chairman), NEL (UK Office), [nglen@tuvnel.com](mailto:nglen@tuvnel.com)
- Ms Angela Floyd, ConocoPhillips
- Mrs Hazel Hampson, NEL
- Dr Moussa Kane, TOTAL E&P USA
- Dr Chip Letton, Letton-Hall Group
- Mr Don Miller, NEL (Houston Office)
- Mr Joel Rodger, Weatherford
- Dr Joseph Shen, Chevron
- Mr Charlie Tyrrell, Shell International E&P
- Mr Robert Webb, BP America