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technology for life



Produced Water Workshop

Wednesday 29 & Thursday 30 April 2009

Training Course A - Oil-in-Produced Water Measurement

Tuesday 28 April 2009

Training Course B - Oilfield Produced Water Management Options and Regulatory Requirements
Friday 1 May 2009

Thistle Aberdeen Airport Hotel, UK

Organised by

TUV NEL Ltd, East Kilbride, Glasgow, UK

BOOKING HOTLINE: +44 (0) 1355 272858

ONLINE BOOKING: www.tuvnel.com/events.aspx

World Class Contributions from:

- Argonne National Laboratory
- BP
- CDS Engineering
- CETCO Oilfield Services Company
- Champion Technologies
- Enviro Voraxial Technology, Inc.
- JM Canty International Ltd
- Jorin Ltd
- Maersk Oil North Sea UK Limited
- Oil Plus Limited
- Shell
- Shell Global Solutions
- Siemens Water Technologies Corp
- State Supervision of Mines
- StatoilHydro
- TOTAL
- TUV NEL
- University of Applied Science Giessen-Friedberg
- University of St Andrews

Produced Water Workshop

29 - 30 April 2009

Thistle Aberdeen Airport Hotel, UK

Introduction

Water production is now a major environmental and economic issue for both operators and regulators from the offshore oil and gas industry worldwide.

Building on the success of its previous Produced Water Workshops, TUV NEL is planning its seventh Workshop on 29th and 30th April in Aberdeen.

This Workshop has invited leading experts in the field to help address the following questions:

- Where will legislation go from here and beyond year 2009 in the North Sea?
- Will we head towards a risk-based approach?
- What is a risk-based approach? What are the options, benefits and implications?
- What are the latest surface treatment technologies?
- How can new on-line monitoring techniques help characterise produced water?
- What experience do operators have in treating water from chemically enhanced oil recovery?
- How do we characterise produced water and its effect on the marine environment?
- Where are we in subsea separation and processing?

The Workshop will be accompanied by two optional training courses. Further details are overleaf.

Workshop Objectives

The objective of the Workshop is for interested parties to find out and to keep abreast of the latest technological and legislative developments as well as current practices and trends in produced water management, treatment and handling.

The Workshop will give delegates the opportunity to network, interact and cross-share experiences with operators, suppliers and contractors from around the globe.

Topics and Themes

The event will cover the following:

- Legislation update and its implications
- New and emerging surface treatment technologies
- Water treatment in new frontier operations such as heavy oil and subsea production
- Risk-based approaches: options, benefits and implications
- Open discussion

Speakers from government bodies, offshore operators, service companies, technology and equipment suppliers as well as consultancy and R&D organisations will present.

There will be open discussion periods which are geared to allow delegates to share their knowledge and gain perspective in this growing industry sector.

Workshop Fees

The registration fee for the Workshop is £800 plus VAT. The fee covers attendance at all technical sessions, lunch, refreshments, and workshop documentation comprising a set of all papers presented and a CD containing all the Workshop proceedings.

A networking dinner will be held on Wednesday 29th April at the hotel at a cost of £40 plus VAT.

The registration fee for Training Course A is £450 plus VAT and Training Course B is £300 plus VAT which incorporates attendance, lunch, refreshments and a set of course notes.

There are discounts available for multiple bookings and for TUV NEL's Club Members. For further details see the booking form.

Accommodation is not included in the registration fee, please contact the hotel directly to book your accommodation.

TUV NEL

TUV 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 in order to reduce production costs and increase profitability, whilst maintaining safety. We provide consulting, training, R&D and laboratory testing services in the following areas:

- Flow Measurement (oil, gas, water, wet gas, multiphase & heavy oil)
- Computational Fluid Dynamics Modelling and Interpretation
- Environmental (produced water, emissions and oil-in-water)
- Erosion Assessment and Validation
- Umbilical Acceleration Life Testing
- Calibration of Metering Systems

TUV NEL is part of the TUV SÜD Group, the leading international service organisation. With over 13,000 employees, it is represented worldwide at more than 600 locations. For further details on how TUV NEL can help your business, please visit our website www.tuvnel.com or contact us directly.

Exhibition Opportunities

Suppliers of equipment and services who attend the Workshop are invited to sponsor and/or exhibit. This will give your company a profile in the final programme in addition to a stand at the Workshop. The cost to exhibit including a delegate place at the Technical Sessions is £1400 plus VAT.

Workshop Discussion Periods

- Legislation and its implications
- Surface treatment technologies
- Risk based approach
- Subsea separation and water issues related to heavy oil production

Technical Programme

Day 1 – Wednesday 29 April

09:00 – 09:30	REGISTRATION AND COFFEE	13:40 – 13:50	Chairman's Introduction Paul Verbeek, Shell Global Solutions – The Netherlands
09:30 – 09:40	Chairman's Welcome and Introduction Gordon Harvey, BP – UK	13:50 – 14:20	Multiphase Cross-Flow Filtration Process for Efficient Treatment of Oil-field Produced Water Using Ceramic Membranes Peter Czermak and Mehrdad Ebrahimi, University of Applied Science Giessen- Friedberg – Germany
09:40 – 10:10	Management of Produced Water – Where Do We Go from Here in the North Sea? Leo Henriquez, State Supervision of Mines – The Netherlands	14:20 – 14:50	Treatment of Produced Water Using Ceramic Membrane – Results of Recent Laboratory Tests Pierre Pedenaud, TOTAL SA – France Samuel Heng, TOTAL Petrochemicals – France
10:10 – 10:40	Integrated Produced Water Management – Experiences & Challenges Keith Robinson, Oil Plus Limited – UK	14:50 – 15:20	COFFEE AND EXHIBITION
10:40 – 11:10	COFFEE AND EXHIBITION	15:20 – 15:50	Development and Application of a Novel Compact Flotation Unit for Meeting Off- shore Oil Discharge Limits Michael Howdeshell, Ed Godeaux and Curt Cooley, Siemens Water Technologies Corp – USA Asad Hayatdavoudi, University of Louisiana – USA
11:10 – 11:40	Water Issues Related to Heavy Oil Production John Veil, Argonne National Laboratory – USA	15:50 – 16:20	Water Treatment Related To Chemical EOR Operations Onshore and Offshore tbc, Shell Global Solutions – The Netherlands
11:40 – 12:10	BP Experience of PWRI Gordon Harvey and Frank Sweeney, BP – UK	16:20 – 17:00	Open Discussion Period
12:10 – 12:40	Open Discussion Period	17:00	Chairman's Closing Remarks
12:40 – 13:40	LUNCH AND EXHIBITION		

Who Should Attend

- Production engineers and chemists
- Environmental engineers/advisers/officers
- Produced water management, treatment, handling specialists
- Process engineers and chemists
- Regulators
- Consultants and researchers

Technical Programme

Day 2 – Thursday 30 April

08:45 – 09:00	COFFEE AND EXHIBITION	13:30 – 13:40	Chairman's Introduction Ming Yang, TUV NEL – UK
09:00 – 09:10	Chairman's Introduction Gordon Graham, Maersk Oil North Sea UK Limited – UK	13:40 – 14:10	Inline Oil in Water Particle Analysis and Concentration Monitoring for Process Control and Optimisation in Produced Water Plants Tod Canty, Alan O'Donoghue and Edward Relihan, J M Canty International Ltd – USA
09:10 – 09:40	Produced Water Treatment on the Sean Papa Gas Installation Danial Leybourne, Shell – The Netherlands Jeroen van den Haak, Champion Technologies – The Netherlands	14:10 – 14:40	Produced Water Optimisation Using Visual Processing Technology Mohammad Farooq Iqbal, Jorin Ltd – UK
09:40 – 10:10	Enhanced Separation and Recovery of Dispersed Oil Lucio Sanchez and Eddie McPhilemy, CETCO Oilfield Services Company – UK	14:40 – 15:10	COFFEE AND EXHIBITION
10:10 – 10:40	COFFEE AND EXHIBITION	15:10 – 15:40	Options and Benefits of the Voraxial Separator Technology Daniel Samela and John A. DiBella, Enviro Voraxial Technology, Inc. – USA
10:40 – 11:10	Basic Principles of Risk Based Assessment and Management Ian Boyd, University of St Andrews – UK	15:40 – 16:10	New Development in Water Treatment Technologies for Subsea Separation Systems Rune Fantoft, CDS Engineering – The Netherlands Marit Storvik, FMC Technologies – The Netherlands
11:10 – 11:40	Application of the Environmental Impact Factor (EIF) as a Risk Management Tool to Discharges of Produced Water on the Norwegian Continental Shelf Tone Karin Frost, Ståle Johnsen, Harald Torvik and Trude Haaskjold, StatoilHydro – Norway	16:10 – 16:40	Open Discussion Period
11:40 – 12:10	Open Discussion Period	16:40	Chairman's Closing Remarks
12:10 – 13:30	LUNCH AND EXHIBITION		

Training Course (A) – Oil-in-Produced Water Measurement

Tuesday 28 April
09:00 - 17:00

Introduction & Objectives

Oil-in-produced water measurement is important both for process control and reporting to the regulatory authorities.

- What is oil-in-produced water?
- Why is measurement of oil-in-produced water important?
- What standard analysis methods are available?
- Where and how should we take samples?
- What field measurement techniques are there?
- How can we accept a method that is different from the officially approved reference method?
- What are the things that we need to be careful of when we do a calibration?
- What are the future trends in oil-in-produced water analysis and measurement?

This training course aims to answer these questions. It will enable delegates to gain a good understanding of the definition of oil-in-produced water, analysis and measurement methods available, issues related to method calibration and acceptance of non-referenced methods, as well as future measurement trends.

Who Should Attend?

- Production engineers and chemists
- Environmental engineers/advisers/officers
- Produced water management, treatment, handling specialists
- Process engineers and chemists
- Regulators, consultants and researchers

Course Instructors

Dr Ming Yang is a Principal Technical Consultant at TUV NEL. Ming has 17 years experience working on oil-in-water analysis, produced water handling and multiphase separation subject areas since he gained his PhD in Chemical Engineering. He was instrumental in launching two of TUV NEL's renowned Clubs (Oil-in-Water Monitoring and Produced Water) which he still manages. Both Clubs have members from government bodies, oil and gas operators, equipment suppliers, and service and R&D organisations. Ming has contributed substantially to drafting the UK and OSPAR Oil-in-Water Measurement Guidelines.

Alick MacGillivray is a Technical Consultant at TUV NEL. He has 21 years experience in a variety of fields, including fluid mechanics, flow measurement, heat transfer and uncertainty analysis. He currently works with Ming Yang in the areas of produced water handling and oil-in-water analysis

Topics Covered

- Definition of oil-in-produced water, discharge limits
- Standard measurement methods
- Field measurement methods
- Calibration, acceptance of alternative methods
- Future trends

Course Fee: £450 plus VAT

Training Course (B) – Oilfield Produced Water Management Options and Regulatory Requirements

Friday 1 May
09:00 - 12:00

Introduction & Objectives

Produced water is the largest volume by-product stream generated by the oil and gas industry. Proper management of produced water can be costly; failure to correctly manage produced water can create serious liability for companies. This training course will focus on technologies and options for managing produced water at offshore and onshore wells. The management options are presented in a pollution prevention framework that first looks at options that can minimise the volume of water that must be managed. A second tier considers options that recycle or reuse produced water. In a third tier, options for produced water treatment and disposal are considered.

A second portion of the course will review regulatory requirements governing produced water discharge and injection. Because the instructor works in the United States, most of the regulatory information relates to U.S. requirements. However, part of this section will be devoted to regulatory requirements in the North Sea and other parts of the world.

Who Should Attend?

The course is intended for persons who need to make decisions concerning regulatory compliance for produced water, and who play a role in selecting treatment equipment for controlling producing water. Those who have environmental management oversight for their companies would also benefit from this course. Examples include:

- Government regulators and policy makers
- HSE staff and managers
- Consultants and researchers
- Environmental engineers/advisers/officers

Course Instructor

The instructor is John Veil, Manager of the Water Policy Program for the Argonne National Laboratory in Washington DC, USA. Mr. Veil has lectured throughout North and South America and Europe on produced water subjects for the past 12 years, including several times before at TUV NEL's Produced Water Workshops. He has almost 30 years of experience working with water quality and water pollution control issues, and has worked with produced water for almost 20 of those years. He is currently serving as a 2008-2009 Distinguished Lecturer for the Society of Petroleum Engineers (SPE). In this capacity, he is travelling around the world giving his lecture on produced water management. This course will include detailed information from his SPE Lecture plus much additional information.

Topics Covered

- Produced water management technologies, practices, and options
- Regulatory requirements relating to produced water discharge and injection
- Introduction to online resources for more detailed information on produced water management

Course Fee: £300 plus VAT

Discounts:	Main Event + Training Course A	- £75
	Main Event + Training Course B	- £60
	Main Event + Training Courses A & B	- £95

7th Produced Water Workshop Booking Form

Please tick the event(s) you will be attending

- Training Course A Training Course B
 Produced Water Workshop

28 April / 1 May 2009
29-30 April 2009

Full name (inc. title)	_____
Preferred Name for Badge	_____
Job title	_____
Company	_____
Address	_____ _____ _____
Postcode	_____
Country	_____
Telephone	_____
E-mail	_____

We expect the event to be heavily subscribed. Places are strictly limited and are allocated on a first come, first served basis. Under UK excise regulations delegates from all countries are required to pay VAT at 15% on any conference/course taking place in the UK. Your place will be confirmed upon receipt of a completed booking form. If you do not receive within five working days please contact TUV NEL.

Method of Payment (Payment must be made by credit card only)

Workshop £800+VAT Training Course A £450+VAT Training Course B £300+VAT Workshop Dinner £40+VAT
 Workshop & Training Course Booking Discount (Details of discounts - see previous page) Club Member Discount (10% - workshop fee only)

Total Payable (including discounts) _____ plus VAT

Visa Mastercard Amex Diners Card Start Date _____ Expiry Date _____

Card No _____ Security Code _____ (3 digits on back of card)

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Invoicing address (if different from above) _____

Company VAT number (EC member states only - COMPULSORY) _____

Where did you hear about this event? _____

<p>Cancellation Policy Any cancellations must be received in writing at least 14 days prior to the commencement of the event. A cancellation fee of 25% will be incurred. Once within this period the booking cannot be cancelled or any fees refunded, but a substitute delegate can be named at any time before the programme begins, provided that TUV NEL Ltd is notified in advance. TUV NEL Ltd reserves the right to cancel the event due to unforeseen circumstances. TUV NEL Ltd is not liable for any expenses incurred by the delegate. This programme may be subject to change due to circumstances beyond the control of the organisers.</p> <p>Venue Details Thistle Aberdeen Airport Hotel, Argyll Road, Aberdeen, AB21 0AF Tel: +44 0870 333 9149 Fax: +44 0870 333 9249 Email: AberdeenAirport@Thistle.co.uk</p>	<p>Please complete and return this form to the Events Team Fax back on: +44 (0) 1355 272999</p> <p>TUV NEL Ltd East Kilbride, Glasgow G75 0QF, UK</p> <p>Booking Hotline: +44 (0) 1355 272858 Email: events@tuvnel.com Online Booking: www.tuvnel.com/events.aspx</p>
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Signed: _____ Date: _____