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SPE Applied Technology Workshop

20–23 February 2007
Hilton Cartagena Hotel
Cartagena, Colombia

A Field Life-Cycle Perspective on Artificial Lift Asset Systems

>> Early registration deadline:
20 January 2007
For early registration
discount, complete the
attached form or register
online at www.spe.org/atws.

Workshop Description

The artificial lift asset system integrates all the components installed in wells, the associated surface facilities and energy sources that are integral parts of the flow system. In many fields, artificial lift is planned in a reactive mode, either when the reservoir is no longer able to perform or when unwelcome formation water increases flowing bottom hole pressures. In other cases, new hydrocarbons are found in very complex operational environments for artificial lift equipment, such as in remote areas or deep waters.

Remaining reserves are also becoming heavier and more difficult to produce worldwide without artificial lift. In addition, just as the fields mature, the workforce responsible for driving the petroleum industry is also getting older and about to retire. New technologies are helping to improve artificial lift performance by providing even more efficient connections between the reservoir and wellbores. In these contexts, we should view artificial lift as a system of assets.

This workshop will review various aspects of artificial lift technologies over the life cycle of a field. Eight sessions will provide the opportunity to cover topics associated with technologies, processes and competencies, as well as socio-technical issues such as supply chain and risk analysis. Presentations as well as posters are welcomed.

Topics

Orientation to a Field Life-Cycle Perspective on Artificial Lift Asset Systems

- Field life-cycle perspective on artificial lift
- Artificial lift as a system of assets

Integrating Artificial Lift Methods Into Reservoir Studies

- Selection of artificial lift methods
- Risk-based analysis for artificial lift options
- Technical and economic evaluation of artificial lift systems

Artificial Lift Oriented Well Design, Construction and Maintenance

- Well completions
- Subsurface equipment
- Maintenance-free artificial lift systems?

Field Optimization

- Artificial lift troubleshooting and correction
- Reliability of artificial lift systems
- Life-cycle cost analysis – service companies vs. operating companies perspectives
- Case studies

State of the Art for Selected Methods

- Gas lift
- Hydraulic pumping
- Electric submersible pumps
- Sucker rod pumps
- Progressive cavity pumps
- Alternative artificial lift systems

Technology Trends

- Oil/water downhole separation
- Sand handling
- Gas handling
- Coiled tubing
- Optimization methods and tools
- Artificial intelligence and neural networks
- Offshore completions

Competencies

- Profile of artificial lift production engineers
- Is artificial lift a specialty?

Supply Chain and Other Socio-Technical Issues

- Supply chain to increase local content and participation
- How to reduce total cost by improving the supply chain
- SHE contribution to improving artificial lift systems
- Can artificial lift systems be designed pollution free?

A Field Life-Cycle Perspective on Artificial Lift Asset Systems

Workshop Format

The workshop features presentations and poster sessions to cover topics integrated along specific themes. Although no formal papers will be published from the workshop, a summary document prepared by the workshop leadership will be available for publication. This document will include highlighted technologies and practices discussed in the workshop, along with conclusions and any consensus recommendations established in the workshop. As with all SPE Applied Technology Workshops, this ATW program is content-driven to emphasize recent experiences and practices. Participants and presenters are encouraged to speak openly and candidly about the issues – the emphasis of the workshop is to share expertise and experiences. While not required, presenters are encouraged to provide “public” versions of their materials for distribution to the participants.

Who Should Attend?

The workshop is a limited-attendance meeting for up to 120 professionals who work directly or indirectly in processes falling under any of these areas:

- Production engineering and operations
- Well engineering (construction, operations and maintenance)
- Reservoir engineering
- Facilities engineering (construction and maintenance)
- Automation and systems engineering
- Project management
- HSE and social development
- Investment analysis and field strategic planning
- Government organizations
- Production engineering with a holistic approach

Sponsorship Support

Sponsorship support helps offset the cost of producing ATWs and allows SPE to keep the attendance price within reach of those who benefit most from these technical workshops – operations-level individuals. Sponsors benefit both directly and indirectly by having their name associated with a specific ATW. Bear in mind that an ATW offers the sponsor unique access to a focused group of key decision makers in the operating community. This is an informed audience discussing state-of-the-art technology and best practices. While SPE prohibits any type of commercialism within the conference hall itself,

the society recognizes that sponsorship companies offer valuable information to attendees outside the technical sessions.

For more information on sponsorship opportunities, including benefits and pricing, please contact Solange Ferreira, SPE Workshops Manager, at sferreira@spe.org.

Location

Hilton Cartagena
Avenida Almirante Brion
El Laguito
Cartagena, Colombia
Phone: +57.5.665.0666
Fax: +57.5.665.0661
www.cartagena.hilton.com

Documentation

Proceedings from the ATW will not be published; therefore, formal papers and handouts are not requested of speakers or panel members. Note-taking by individual attendees is encouraged, but should be limited to ensure participation in the open discussion. A CD or URL with released copies of the workshop presentations will be available to attendees after the workshop. This documentation will not be in the form of SPE papers.

Commercialism

Consistent with ATW objectives and SPE guidelines, excessive commercialism in presentations will not be permitted. Company logos must be limited to the title slide and used only to indicate the affiliation of the presenter and others involved in the work.

Continuing Education Units

The Society of Petroleum Engineers (SPE), through SPE Professional Development, will award Continuing Education Units (CEUs) for participation and completion of SPE Short Courses, distance learning programs, Applied Technology Workshops and sanctioned learning activities. One SPE CEU equals 10 contact hours of participation in SPE continuing education activities. SPE will maintain a permanent record of a participant's involvement and awarding of CEUs, and will provide a copy of the participant's record upon request. Refer to www.spe.org and select Career Development, Continuing Education, then Continuing Education Credits.

For detailed agenda updates, please visit www.spe.org/atws.

Preliminary Technical Agenda of the Workshop

NOTE: While every attempt will be made to adhere to the schedule, the status/availability of speakers and moderators is subject to change.

Tuesday, 20 February 2007

1600–1900 Arrival and Registration

2000–2200 Welcome Reception

Wednesday, 21 February 2007

0700–0745 Continental Breakfast and Registration

0745–0800 Opening Comments

0800–0930 Session 1 – Orientation to a Field Life-Cycle Perspective on Artificial Lift Asset Systems

0930–1000 Coffee Break

1000–1200 Session 2 – Integrating Artificial Lift Methods Into Integrated Reservoir Studies

1200–1330 Lunch

1330–1530 Session 3 – Artificial Lift Oriented Well Design, Construction and Maintenance

1530–1600 Coffee Break

1600–1730 Session 4 – Field Optimization

1730–1830 Integration – Roundtable/Breakout Presentations and Follow-up Discussions (Topics Based on Presentations and Questions)

2000–2200 Keynote Dinner

Thursday, 22 February 2007

0700–0745 Continental Breakfast

0745–0800 Opening Comments

0800–0930 State-of-the-Art for Selected Methods (Part I)

0930–1000 Coffee Break

1000–1200 State-of-the-Art for Selected Methods (Part II)

1200–1330 Lunch

1330–1530 Technology Trends

1530–1600 Coffee Break

1600–1730 Session 7 – Competencies

1730–1830 Integration – Roundtable/Breakout Presentations and Follow-up Discussions (Topics Based on Presentations and Questions)

2000–2200 Keynote Dinner

Friday, 23 February 2007

0700–0745 Continental Breakfast

0745–0800 Opening Comments

0800–1030 Session 8 – Supply Chain and Other Socio-Technical Issues

1030–1100 Coffee Break

1100–1200 Workshop Summary

1200–1330 Lunch

Call for Presentations

The program committee is now accepting presentation proposals on related topics. Please submit your abstract by emailing it to americasworkshop@spe.org. The deadline is **27 December 2006**.

Registration Form

Attendance is limited and is not guaranteed. Early registration is recommended. Please print or type in black ink.

First Name/Forename _____ Middle Name _____

Last/Family Name _____ SPE Member? ☐ Yes ☐ No Member No. _____

Job Title _____ Company/Organization _____

Address _____

City _____ State/Province _____

Zip/Postal Code _____ Country _____

Telephone _____ Facsimile _____

Email (required) _____

Background and experience that qualify you as a participant and contributor: _____

Do you want to present a poster? ☐ Yes ☐ No If "Yes," please provide topic and attach abstract topic: _____

Please identify your primary technical discipline from the six categories below:

- ☐ Drilling and Completions
 ☐ Health, Safety and Environment
 ☐ Production and Operations
☐ Facilities and Construction
 ☐ Management and Information
 ☐ Reservoir Description and Dynamics

APPLIED TECHNOLOGY WORKSHOP FEE	Before 20 January 2007	After 20 January 2007	Applied Technology Workshop fee includes:
ATW fee for SPE Members	<input type="checkbox"/> US \$900	<input type="checkbox"/> US \$1,000	
ATW fee for Nonmembers	<input type="checkbox"/> US \$1,000	<input type="checkbox"/> US \$1,100	

- Registration
- Technical Sessions
- Materials
- Coffee Breaks
- Continental Breakfasts
- Lunches and Dinners

Hotel accommodations are NOT included in the ATW registration fee. Lodging space is limited, so you are encouraged to place your reservation early. SPE will provide attendees a housing form to fax to the hotel. After SPE receives your registration, you will receive a housing form authorizing a discounted SPE rate at Hilton Cartagena Hotel.

CREDIT CARD		No refunds will be granted for cancellations after 20 January 2007.	
<input type="checkbox"/> American Express <input type="checkbox"/> MasterCard <input type="checkbox"/> Visa		Submit your registration online at www.spe.org/atws. (Online payments are secured by VeriSign.)	
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Card Number (Will be billed through the Society of Petroleum Engineers)			
Name of Credit Card Holder (printed)		Signature (required)	Date

Please inform us of mobility or special dietary needs: _____

Mail, fax, or email completed Registration Form with payment or credit card information to: Registrar, SPE Applied Technology Workshop
 Society of Petroleum Engineers
 P.O. Box 833836, Richardson, TX 75083-3836 USA
 Telephone: +1.972.952.9393 Facsimile: +1.972.952.9328

For questions or additional information, contact Solange Ferreira, SPE Senior Manager Latin America/Caribbean Activities, at sferreira@spe.org.