This workshop introduces participants to completions engineering design and operational alternatives as it relates to thermal completions and well servicing in SAGD and CSS depletion schemes. The workshop format will be unique as it will examine topics from both an engineering and operational point of view.

Presentations on day one will address various design options such as wellbore completions, wellhead design, instrumentation and artificial lift technologies. Operational topics to be discussed on day two will include completions execution, casing remedial options, stimulations and secondary liner performance optimizations. These discussions over the two days will help maximize value while still meeting technical requirements necessary for effective project delivery.
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TECHNICAL AGENDA

TUESDAY, 15 MARCH

0730-0830 | Registration and Breakfast
Foyer and Grand Theatre

All technical sessions are located in the Ballroom.

0830-1000 | Session 1: Subsurface Design & Optimization
Session Chairs: Jonathan Heseltine, C-FER Technologies
Mark Droessler, C-FER Technologies
This session will examine subsurface design and optimization achieved through engineering analysis, modelling and testing.

- Presentation 1: Social License and the Canadian Oil and Gas Industry
  Jared Wynveen, McDaniel & Associates Consulting

- Presentation 2: Leveraging Technology Development for Lower Cost Well-Integrity Solutions
  Simon Iremonger, Sanjel

- Presentation 3: Wrap-On Vs. Slip-On, Better Wire-Wrapped Screen Choice For Thermal Completions?
  Michael Ma, Baker Hughes

1000-1030 | Coffee Break
Foyer

1030-1200 | Session 2: Logging Technologies
Session Chairs: Chris Walsh, Weatherford
Jim Koch, Statoil Canada
This session will focus on innovative thermal applications of logging technologies to identify and provide remediation solutions for gas migration, surface casing vent flows, casing...

GENERAL INFORMATION

Accessibility
Our events and functions are accessible to all attendees with wheelchairs. If you require special arrangements, please contact our staff at the registration desk.

Alcohol Policy
SPE recognizes the legitimate serving of alcoholic beverages in the process of conducting business and social activities. We also recognize that the use and consumption of alcohol carries with it the requirement for all attendees to consume those beverages responsibly.

Commercialism
In remaining consistent with workshop objectives and SPE guidelines, commercialism in presentations will not be permitted. Company logos should be used only to indicate the affiliation of the presenter(s).

Continuing Education Units
Attendees will receive 1.6 CEUs. One CEU equals 8 contact hours of participation. CEUs will be awarded through SPE Professional Development for participation and completion of SPE workshop. A permanent record of a participant’s involvement and awarding of CEUs will be maintained by SPE.

Documentation
The workshop online community will contain released copies of the workshop presentations.

Electronic Devices
As a courtesy to the speakers and your fellow registrants, please turn off all electronic devices during presentations.

Name Badges
Please wear your badge at all times. It is a courtesy to your fellow registrants, speakers and sponsors. Identification will be required upon check-in.

Photography and Recording Policy
SPE reserves the exclusive rights to all video/audio recording or reproductions of the workshop.

Unauthorized video/audio recording is expressly prohibited in the session room(s) or poster area, whether by video, still or digital camera, mobile phone, or any other means or form of reproduction.

Any person attending may be photographed or videotaped, and by your attendance, you give permission to use your image in possible future marketing publications including print, online, and video.

Workshop Format
Workshops maximize the exchange of ideas among attendees and presenters through brief technical presentations followed by extended Q&A periods. Focused topics attract an informed audience eager to discuss issues critical to advancing both technology and best practices.

Many of the presentations are in the form of case studies, highlighting engineering achievements and lessons learned. In order to stimulate frank discussion, no proceedings are published and members of the press are not invited to attend.
deformation, cement bond, and casing and cement integrity. This will improve abandonment, completions, and workover operational efficiencies.

- **Presentation 1:** Wellbore Leakage Detection—Best Practices for a Successful Intervention  
  Rose McPherson, Weatherford

- **Presentation 2:** Evaluating Casing Deformation as a Function of Metal Loss, Pipe Ovality, and Trajectory Shifts—A Proactive Approach to Well Integrity  
  Munir Sharar, Weatherford

- **Presentation 3:** Integrity eXplorer™—A Radical Change in the Evaluation of Cement Integrity  
  Michel Farah, Baker Hughes

**1200-1330 | Keynote Luncheon:** Changing the Way Thermal Oilsands Does Development  
Doug Hollies, Codeco Oilsands Engineering Inc.  
Ballroom

**1330-1500 | Session 3: Instrumentation**

Session Chair: Aidin Sadr, Canadian Natural Resources  
Downhole instrumentation has become a critical tool in production optimization in Thermal Applications. This has been a major area of continuous improvement for both operators and service providers, and as a result this session will discuss current technology and challenges experienced by both operators and service providers.

- **Presentation 1:** Advancements in Reservoir Monitoring: Distributed Acoustic Sensing (DAS) and Fiber Optic Pressure Gauge for SAGD Wells  
  Ben Banack, Pinnacle

- **Presentation 2:** DTS Accuracy Validation for SAGD Operations  
  Brad Hiscock

- **Presentation 3:** How to Avoid Your Data Headaches of the Future  
  Mark Bedry, OPCON

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**Are you pushing the limits of your well designs?**

We can help you assess the risk and improve the reliability of your operations by investigating alternative completion designs, evaluating new well designs, analyzing well failures, and performing independent qualification testing of your wellbore equipment.

C-FER's engineers use advanced modeling, analysis, and custom full-scale testing to advance thermal well designs and integrity management.

**Learn more!**

For more information on our wellbore integrity projects, visit our website at www.cfertech.com.

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**C-FER Technologies**

Advancing Engineering Frontiers
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>1500–1530</td>
<td>Coffee Break</td>
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<tr>
<td>1530-1700</td>
<td><strong>Session 4: Artificial Lift—New Technology</strong></td>
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<td>Session Chairs: <strong>Jacques Botha</strong>, Statoil</td>
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<td><strong>Fred Uwaifo</strong>, Statoil</td>
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<td></td>
<td>Primary methods of artificial lift and emerging new technologies, an</td>
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<td>oil sands perspective.</td>
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<td>- <strong>Presentation 1</strong>: Advanced Coiled Deployed ESP Systems</td>
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<td><strong>Clint Jones</strong>, PetroSpec</td>
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<td>- <strong>Presentation 2</strong>: The Use of Intelligence in Artificial Lift</td>
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<td>Systems Leading to Increased Production and Decrease</td>
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<td>of Total Operating Costs</td>
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<td><strong>Dave Kennedy</strong>, SSI Lift</td>
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<td>- <strong>Presentation 3</strong>: How an Improved Understanding of the Underlying</td>
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<td>Mechanisms Coupled With Field Data and Engineering Tools Can Be</td>
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<td>Used to Optimize Thermal Artificial Lift Performance, Reliability</td>
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<td>and Economics</td>
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<td><strong>Todd Zahacy</strong>, C-FER Technologies</td>
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<tr>
<td>1700–1830</td>
<td>Reception</td>
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<td>0730–0830</td>
<td>Breakfast</td>
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<td>0830–1000</td>
<td><strong>Session 5: Project Execution</strong></td>
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<td>Session Chairs: <strong>Colby Sutton</strong>, RGL</td>
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<td><strong>Doug Goda</strong>, ConocoPhillips</td>
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<td>The Project Execution Section will focus on the methodologies &amp;</td>
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<td>learnings for efficient thermal completions &amp; workovers. Topics</td>
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<td>extended horizontal completions and slant well operational</td>
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<td>learnings.</td>
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<td>- <strong>Presentation 1</strong>: Extended-Reach Float-in Tubing Deployment Using</td>
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<td>Burst-Disk Technology</td>
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<td><strong>Pat Webb</strong>, Devon</td>
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<td>1000–1030</td>
<td>Coffee Break</td>
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<td>1030–1200</td>
<td><strong>Session 6: Well Servicing</strong></td>
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<td>Session Chairs: <strong>Niteen Odedra</strong>, Imperial</td>
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<td><strong>Nick Chouinard</strong>, Statoil</td>
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<td>Safe and efficient execution of thermal wells is critical for</td>
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<td>maintaining ‘license to operate’ and profitability. This session</td>
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<td>looks at the impact new technologies and creative thinking have</td>
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<td>had on well servicing.</td>
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<td>- <strong>Presentation 1</strong>: Well Servicing Automation</td>
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<td><strong>Dave Strang</strong>, ProStars</td>
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<td>- <strong>Presentation 2</strong>: Snubbing Hot Wells</td>
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<td><strong>Blake Johnson</strong>, Johnson Well Servicing</td>
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<td>- <strong>Presentation 3</strong>: Modelling Circulating Fluid Temperatures</td>
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<td>When Redrilling a Well In Thermal EOR Applications</td>
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<td><strong>Mark Woitt</strong>, RPS</td>
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<td>1200–1330</td>
<td>Lunch</td>
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<td>1330–1500</td>
<td><strong>Session 7: Flow Control Devices</strong></td>
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<td>Session Chairs: <strong>Matt Crockett</strong>, Suncor</td>
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<td><strong>Blair Neil</strong>, Weatherford</td>
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<td>Flow control devices (FCDs) are becoming a popular technology in</td>
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<td>thermal applications and operators are gaining more experience in</td>
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<td>the FCD implementation process. This session will focus on the</td>
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<td>challenges and practical aspects of FCD installations,</td>
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<td>including implementation strategies, designs, operation, and</td>
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<td>removal of FCDs.</td>
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<td>- <strong>Presentation 1</strong>: Mackay River FCD Install: Challenges,</td>
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<td>Successes, and Learnings</td>
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<td><strong>Kris Rupert</strong>, Suncor</td>
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Presentation 2: Benefits of FCD Workovers in Injectors Vs. Producers in Problem SAGD Well Pairs
Bruce James, Suncor

Presentation 3: Startup of the Heavy-Oil SAGD Well Pair With Outflow Control
Rick Stahl, Northern Blizzard

1500–1530 | Coffee Break
Foyer

1530–1700 | Session 8: Emerging Technology for Thermal Wellbore Remediation
Session Chairs: Ryan Tracy, Serafina Energy
Ian Rugg, Canadian Natural Resources
Ability to remediate a damaged or problematic wellbore to allow for continued operation to maximize oil recovery can be a very effective way to minimize capital maintenance. This session will focus on some of the new technologies emerging that are helping in successful remediation of thermal wellbores.

Presentation 1: MHE Thermal Casing Patch for CSS Wells
Mitchell Gamble, Schlumberger

Presentation 2: Well Solutions: Putting the Pieces Together!
Curtis Jerrom, EV Cam

Presentation 3: Wireline Applied Stimulation Pulsing (WASP)
Mike Perri, Blue Spark

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Optimizing new and re-completed well operations

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2016 SPE CANADA EVENTS AND TRAINING COURSES

5 April
SPE/CHOA Slugging it Out
BMO Centre, Calgary

7-8 June
SPE Canada Heavy Oil Technical Conference
BMO Centre, Calgary

9 June
SPE Oilsands Workshop: Competitive Strategies for In-Situ Well Pad Development
BMO Centre, Calgary

20-21 Sept
SPE Caprock Integrity for Thermal Applications Workshop
Civic on Third, Calgary

28 Nov-1 Dec
SPE Thermal Well Integrity & Design Symposium
Banff Springs Hotel, Banff

Upcoming Training Courses:

5-6 April
Screening and Field Piloting for EOR Project Development
Calgary, Alberta

12-14 April
Unconventional Resource Assessment and Valuation
Calgary, Alberta

18-22 April
Evaluation of Canadian Oil and Gas Properties
Calgary, Alberta

3-12 May
Complex Well Core Competency
Calgary, Alberta

For more information visit www.spe.org/canada

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