This workshop is part of an international series that discusses implementation of the revised 2018 SPE/WPC/AAPG/SPEE/SEG/SPWLA/EAGE Petroleum Resource Management System (PRMS).

In two days of informal sessions, participants will review changes to the 2007 PRMS and compare this new guidance to disclosure requirements, under US Securities and Exchange Commission (SEC) and the (Albert Securities Commission’s) Canadian Securities Administrators’ NI 51-101, which references the recently updated Canadian Oil and Gas Evaluation Handbook (COGEH).

While each regulatory and government agency defines specific guidelines, the underlying principles of assessment and reporting used are based upon PRMS which is internationally accepted as a basis for internal project and portfolio management.

In Lieu of Speaker and Committee Gifts...

On behalf of Invited Speakers and the Workshop Committee, SPE Canada is pleased to make a donation of $500 to support Roots to STEM. This non-profit organization provides in-school and extra-curricular Engineering programs for youth.

For more information about Roots to STEM, visit: [http://roots2stem.ca/](http://roots2stem.ca/)
## Schedule Overview

### Wednesday, 22 May 2019

**0700–0800**
Registration and Breakfast

**0800–0825**
Opening Remarks

**0825–0845**
**Keynote:** The Role of SPE in Petroleum Resources Management

**0845–1000**
**Session 1:** 2018 PRMS – Building on Global Consensus

**1000–1030**
Coffee Break

**1030–1145**
**Session 2:** 2018 PRMS – Building on Global Consensus (con’t)

**1145–1300**
Networking Lunch

**1300-1430**
**Session 3:** In Pursuit of the Common Code

**1430–1500**
Coffee Break

**1500–1630**
**Session 4:** Applying PRMS

**1630–1800**
Networking Reception

### Thursday, 23 May 2019

**0730–0830**
Breakfast

**0830–1000**
**Session 5:** Stakeholder Perspectives – External Needs

**1000–1030**
Coffee Break

**1030–1200**
**Session 6:** Stakeholder Perspectives – Internal Needs

**1200–1330**
Networking Lunch

**1330–1500**
**Session 7:** Assessment Methods

**1500–1530**
Coffee Break

**1530–1700**
**Session 8:** Sticky Issues

### 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 equal 8 contact hours of participation. CEUs are 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

Following the workshop, a URL containing released copies of the workshop presentations will be available to all attendees.

#### 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.

#### 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.
Day 1: Wednesday, 22 May

0800–0825
Welcome Remarks by Chair, John Etherington
Moderators: John Etherington Attila Szabo, Sproule

0825–0845
Opening Keynote: The Role of SPE in Petroleum Resources Management
Darcy Spady, Independent Director, 2018 SPE President
From a global perspective, the SPE Petroleum Resource Management System (PRMS) is one of the most tangible things that SPE does for the industry.

Darcy W. Spady, is an active independent director and strategic advisor. He is currently Chair of the board of Green Imaging Technologies (MRI core analysis), and MNP Petroleum. He advises HEAL systems (owned by Schlumberger), General Magnetic, Fluid Energy, and Broadview Energy. He is also acting in the global position as 2018 President of the Society of Petroleum Engineers (SPE).

0845–1000
Session 1: 2018 PRMS – Building on Global Consensus
Session Chairpersons: John Etherington Attila Szabo, Sproule
The development of petroleum reserves and resources classification systems in North America is traced from 1873 through to the most recent PRMS update in 2018.

The first SPE guidance was published in 1965 and was focused on Proved Reserves only. Beginning in early 1990, the SPE and partner organizations issued a series of updates that refined and expanded petroleum reserves and resources classifications. This session will outline the process to gather global feedback on the early drafts and achieve consensus among OGRC members and the co-sponsoring organizations.

• Presentation 1: Creating Globally Recognized Reserves and Resources Definitions
  Dave Haugen, Ryder Scott
• Presentation 2: History of Reserves Classifications
  Ian McDonald, CNOOC International

1030–1145
Session 2: Building on Global Consensus
Session Chairpersons: John Etherington Attila Szabo, Sproule
Since its publication in 2007, the SPE Petroleum Resources Management System (PRMS) has been broadly adopted by the petroleum industry as the international standard reference for reserves and resources classification and reporting. The SPE Oil and Gas Reserves Committee (OGRC) continues its commitment to periodically update the PRMS to accommodate changes in technology, commercial arrangements, and, as required, to address evolving industry needs.

The 2018 PRMS update, released in July 2018, is an evolutionary progression that maintains the foundation principles contained in the 2007 PRMS.

During this session, key changes from the 2007 to the 2018 PRMS will be presented and discussed with attendees.

• Presentation 1: What’s New with PRMS 2018
  Dan Olds, Ryder Scott
**1300–1430**
**Session 3: In Pursuit of the Common Code**
**Session Chairpersons:** Dave Perrott, Suncor Energy Inc.  
Richard Leslie, Husky Energy

This session will highlight the major changes made in a recent revision to the Canadian Oil and Gas Evaluation Handbook (COGEH) and compare and contrast the current version of PRMS to COGEH as well as to the NI 51-101 and SEC regulatory requirements. An overview of social and environmental considerations in resource classification will also be provided.

- **Presentation 1: Overview of the COGEH Updates**  
  Doug Wright

- **Presentation 2: Petroleum Resources Reporting: A Comparison of the Three Main Standards**  
  John Etherington

- **Presentation 3: Social and Environmental Considerations in Resource Classification**  
  David Elliott

**1500–1630**
**Session 4: Applying PRMS**
**Session Chairpersons:** Caroline Kauffmann, Royal Bank of Canada  
Catalin Moldoveanu, Repsol Oil & Gas Canada

The focus of this interactive session is to understand the application of the PRMS 2018 Update to internal project and portfolio management while adhering to the regulatory and government agency guidelines. Please join us for a discussion on the global uses of PRMS, an example of a company’s experience in moving from SEC to PRMS based reporting, and a practical approach of applying SPEE Monograph 4 consistent with SPEE PRMS guidance to predict value on unexplored regions of an unconventional resource play.

- **Presentation 1: Global Use of PRMS**  
  Barry Hanson, Sproule

- **Presentation 2: Predicting Economic Value in Unexplored Regions of an Unconventional Liquids Rich Play**  
  Patrick Miller, Repsol Oil & Gas Canada

- **Presentation 3: A Company’s Experience Moving from SEC to PRMS Based Reporting**  
  Robert Wilson, Repsol Corporation, Spain

**1630–1800**
**Networking Reception**

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**1000–1200**
**Session 6: Stakeholder Perspectives – Internal Needs**
**Session Chairpersons:** Ian McDonald, CNOOC International  
Joan Simmins, Scotia Bank

This session provides real life examples of how PRMS is used for managing resource portfolios and improving business choices and decisions. Companies require estimation and validation processes to generate reliable estimates for business needs. This includes the use of type curves, stage gate processes and business assurance models to improve estimates confidence. How do companies compare projects for business decisions? How comparable are your estimates? How have companies approached these concepts?

- **Presentation 1: Type Curve Best Practices**  
  Katherine Crerar, Encana Corporation

- **Presentation 2: Resources Classification and Decision Gate Processes**  
  Tracy Bellingham, GLJ Petroleum Consultants  
  Richard Chan, Suncor Energy

- **Presentation 3: Canadian vs USA Evaluations – How Aligned Are We?**  
  Caralyn Bennett, GLJ Petroleum Consultants

**1330–1500**
**Session 7: Assessment Methods**
**Session Chairpersons:** Katherine Crerar, Encana Corporation  
Attila Szabo, Sproule

In this session, a number of methodologies for developing type wells will be presented. The final session will highlight uses of type wells in the stage gate play assessment process as well as methodologies for tracking well performance.

- **Presentation 1: Comparing Two PRMS Deterministic Reserve Estimation Methods – Scenario vs. Incremental**  
  Doug MacDonald, Aucerna

- **Presentation 2: Creating Value Through Stage Gating Unconventional Resource Development**  
  Jim Gouveia, Rose & Associates

- **Presentation 3: Aggregation, Risk and Portfolio Effect in Unconventional Reserves and Resources**  
  Tyler Schlosser, McDaniel & Associates Consultants

**1530–1700**
**Session 8: Sticky Issues**
**Session Chairpersons:** John Etherington  
Catalin Moldoveanu, Repsol Oil & Gas Canada

What is the difference between commercial and economic? What if 2P is economic but Proved standalone is not? What is the economic impact of Abandonment, Decommissioning and Reclamation (ADR) liabilities? Should reported reserves include quantities consumed in operations (CIO)? What is the difference between Estimated Ultimate Recoverable (EUR) and Technically Recoverable Resources (TRR)? These and related topics will be the focus of this session.

- **Presentation 1: Commercial vs Economic - Understanding the Difference**  
  Phil Chan, Chance Petroleum Ltd.

- **Presentation 2: Estimated Ultimate Recoverable (EUR) vs Technically Recoverable Resources (TRR)**  
  Ian McDonald, CNOOC International

- **Presentation 3: Maintaining Mass Balance in Resources Assessments**  
  John Etherington

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**0830–1000**
**Session 5: Stakeholder Perspectives – External Needs**
**Session Chairpersons:** Phil Chan, Chance Petroleum Ltd.  
Joan Simmins, Scotia Bank

This session examines how external stakeholders including management, lenders, investors and regulators rely on Reserves and Resources reporting standards in decision making and oversight. It gives insights in how the standards are used in estimating Net Asset Values, establishing loan values, managing oversight. It gives insights in how the standards are used in establishing loan values, managing oversight. It gives insights in how the standards are used in estimating Net Asset Values, establishing loan values, managing company portfolios and regulating capital markets.

- **Presentation 1: Comparison of Abandonment Disclosure Requirements (COGEH, PRMS and SEC) to Actual Costs**  
  Mike Verney, McDaniel & Associates Consultants

- **Presentation 2: Perspectives on Commerciality**  
  Craig Burns, Alberta Securities Commission

- **Presentation 3: Perspectives on Lending**  
  Joan Simmins, Scotia Bank

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**DAY 2: Thursday, 23 May**