



a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Science

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Regarding: Natural Gas Research Roundtable

The University of British Columbia, through the Faculties of Science and Applied Science, has been conducting extensive research around BC's shale gas play. As a result, we are pleased to host a **Natural Gas Research Roundtable** scheduled for November 13 and 14, 2014. This Roundtable will bring together representatives from all the BC research universities, government and industry to discuss research priorities and explore various mechanisms to promote collaborative engagement and research.

Unconventional energy will be an important driver of British Columbia's economy over the coming years, but there are many environmental, social and technological challenges ahead. By setting shared research priorities, building networks and finding opportunities for collaboration, this roundtable will build a foundation for "*made-in-BC solutions*" to the challenges facing this growing industry.

The Roundtable is co-sponsored by BC Oil & Gas Commission, Calfrac, Canbriam, Genome BC, Geoscience BC, MITACS, NSERC, Progress Energy, Shell and URG. We expect the participation of researchers from across the province and see this gathering of academics and professionals as an opportunity for all parties to connect and engage in a meaningful and productive manner.

The Roundtable will be moderated by Don Avison, former president of the Research Universities Council. A registration form and agenda are attached. For additional information please contact Anton Kuipers at anton.kuipers@ubc.ca or 604-827-4464.

We look forward to your input and participation on November 13 and 14.

Yours sincerely,

Dr. Simon Peacock
Dean, Faculty of Science
University of British Columbia

Dr. John Hepburn
Vice President, Office of Research
University of British Columbia



August 14, 2014

The Canadian Society for Unconventional Resources (CSUR) is proud to sponsor and support the 2014 Research Roundtable for Shale Gas in B.C.

In the past few years, there has been a definitive shift by industry to horizontal wells and multistage hydraulic fracturing, the hallmark of today's shale gas development. There is also an increasing public awareness, including expectations for inclusion in the dialogue about how and where those resources are developed, as well as an escalating need for understanding about the technologies and processes used to develop those resources. CSUR itself continues to be a communications bridge between the non-technical public, governments and First Nations and the increasingly technical geology, geophysics and engineering disciplines that underpin unconventional resource development.

The importance of these technologies cannot be overstated. The natural gas industry is on the cusp of liquefied natural gas exports, providing access to markets outside North America for the first time. In a few short years the application of increasingly sophisticated drilling and completion technologies has resulted in a resource base that has grown to the point that it provides a natural gas resource life of more than 200 years at current rates of production.

However, ongoing dialogue needs to be supported by an informed and collaborative process – we at CSUR believe that will be achieved through the Research Roundtable. We see the event as a means of prioritizing critical industry/regulator challenges while simultaneously responding to operational and environmental concerns. This will be accomplished by bringing together B.C.'s research/science communities with the regulators/industry entities.

I look forward to collaborating with all of you at the Roundtable – thank you in advance for your support of this important initiative.

Executive Vice President, CSUR
dallan@csur.com

About the Canadian Society for Unconventional Resources (CSUR)

CSUR is a not for profit industry association that was created in 2002 to be a source of technical information about unconventional resources for stakeholders, communities and First Nations. Membership is corporate based and draws from E&P producers, Service Sector providers, Academia and Government. The Society focuses on tight gas & oil, shale gas, natural gas from coal and gas hydrates. CSUR prides itself on being one of the premier sources of technical knowledge and disseminates this information through a newsletter, the wide number of technical events organized throughout the year, media material as well as the association's website at www.csur.com.



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Natural Gas in British Columbia Research Roundtable November 13 & 14





NATURAL GAS IN BRITISH COLUMBIA RESEARCH ROUNDTABLE

On November 13 and 14, join us to discuss the scientific research needs of British Columbia's growing natural gas play.

This event will bring together industry leaders, regulators and academics for a strategic discussion of the scientific research priorities in the natural gas industry over the next decade. Join us and add your voice.

Universities offer reliable, objective scientific research that the public trusts. This research takes time. The research agenda established now, as BC's natural gas industry is expanding, will yield important—even revolutionary—information over the mid- and long-term. This roundtable will offer

an opportunity to discuss the scientific research needs, gaps and opportunities in natural gas in order to develop action items to best address the technical, environmental and social challenges ahead as the industry grows.



Over the coming decade, the natural gas industry will become increasingly important in BC. The predicted three-fold increase in production will cause challenges for industry, regulators and other stakeholders alike. The industry is interested in ways to reduce costs, increase well performance and minimize risk. Technical, environmental and social questions will continue to arise.

Universities can help answer these questions with impartial, publically trusted scientific answers.

As the natural gas industry grows, fact-based and trusted research into all elements of resource extraction will be increasingly important. This roundtable will provide an overview of research expertise and a chance for industry, regulators and academics to meet and strategize about research needs over the coming years.

Anticipated outcomes for this roundtable include:

- Define and prioritize challenges, gaps and opportunities in BC's natural gas play
- Encourage dialogue and collaboration between industry technical experts and university researchers
- Identify opportunities for industry, regulators and researchers to establish and leverage collective research efforts and networks
- Establish a mid- and long-term research agenda to meet industry and regulator needs
- Develop clear, actionable next steps

Join us, and contribute your perspective on the needs and opportunities for scientific research in British Columbia's natural gas industry.

This event has been graciously sponsored by: BC Oil and Gas Commission, Canbriam Energy, Canadian Society for Unconventional Resources, Calfrac, Genome BC, Geoscience BC, MITACS, Natural Sciences and Engineering Research Council of Canada, Pacific Institute for the Mathematical Sciences, Progress Energy Canada Ltd, Shell, and Unconventional Gas Resources

ROUNDTABLE AGENDA

This roundtable will be governed by Chatham House Rule.

November 13, 2:00 PM to 9:30 PM

Chan Centre for the Performing Arts, 6265 Crescent Road

2:00—2:30 PM

Opening Remarks

Simon Peacock, Dean, Faculty of Science, University of British Columbia

Marc Parlange, Dean, Faculty of Applied Science, University of British Columbia

Don Avison, Lawyer and Consultant, Avison and Associates

2:30—5:20 PM

Industry, Regulators and Academia: Defining a Framework for Collaboration

Role of the Regulator When Addressing Stakeholder Concerns

Paul Jeakins, Commissioner and CEO, BC Oil and Gas Commission

Response to Council of Canadian Academies Report

Alex Ferguson, Vice President, Policy & Performance, Canadian Association of Petroleum Producers

Industry Research Priorities

Wally Kozak, Chair, Canadian Society for Unconventional Resources

Developing Perspectives to Create a Legacy of Innovation

Robin Ciceri, President, The Research Universities' Council of British Columbia

Building Bridges Between Researchers in Canada's Energy Sector

Monica Gattinger, Associate Professor, University of Ottawa

Research Initiatives Between Universities

Carlos Salas, Vice President Oil & Gas, Geoscience BC

The Business Case for Leveraging Research Opportunities

Laurence Meadows, Director, Business Development, MITACS

Gabe Kalmar, Vice President, Genome BC

Pam Giberson, Research and Innovation Development Manager,
Natural Sciences and Engineering Research Council of Canada

5:30—6:30 PM Hosted Reception at Sage Bistro, 6331 Crescent Road

6:30—9:30 PM Dinner and Keynote Speech at Sage Bistro

Introduction: Dr. Alan Winter, CEO, Genome BC

Speaker (Invited): Steven Carr, Deputy Minister, Ministry of Natural Gas Development

9:30 PM Transportation to Downtown Hotels





November 14, 8:00 AM to 3:30 PM

Sage Bistro, 6331 Crescent Road, Vancouver

8:00—8:30 AM Continental Breakfast Served

BREAKOUT SESSIONS

The breakout sessions will allow industry representatives and university researchers to discuss the research opportunities, gaps, and priorities in specific areas.

8:30—9:50 AM Breakout Session One

Choose one session:

A. Water and hydrology: natural waters, process waters, waste waters and their effects, optimization and interfaces

Moderated by: Gabe Kalmar, Vice President, Genome BC

B. Gas leakage, contamination, and gas contaminant management: stray gas, methane, carbon dioxide, and contaminant remediation

Moderated by: Ken Paulson, Chief Operating Officer, BC Oil and Gas Commission

C. Well cementing, well integrity, well completion, well-pad contamination and reclamation

Moderated by: Don Avison, Lawyer and Consultant, Avison and Associates



10:00—11:20 AM Breakout Session Two

Choose one session:

D. Hydraulic fracturing, fracturing fluids, optimization, and micro-seismicity

Moderated by: Don Avison, Lawyer and Consultant, Avison and Associates

E. Pipelines, soil load, coatings, corrosion, ecological impacts and geo-hazards

Moderated by: Ken Paulson, Chief Operating Officer, BC Oil and Gas Commission

11:30—12:15 PM Hosted Lunch

12:15—3:30 PM Summary of Breakout Sessions and Next Steps

Reporting on Breakout Session Results

Don Avison, Lawyer and Consultant, Avison and Associates

A Vision for the Future: University and Industry Collaboration

Don Avison, Lawyer and Consultant, Avison and Associates

To register, visit: event-wizard.com/roundtable/0/register/

Space is limited. Please register by October 15, 2014.

On November 13 and 14, join representatives from industry, government and academia to discuss key issues and research needs in the natural gas industry in British Columbia.

CONTACT

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