

Meetings Bulletin



Inside This Issue

[PERF Overview](#)

Next Events

[93rd PERF Meeting](#)

[94th PERF Meeting](#)

Past Events

[92nd PERF Meeting](#)

[LCA Workshop](#)

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PERF Overview

The **Petroleum Environmental Research Forum (PERF)** is a research and development joint venture, formed to provide a stimulus to and forum for the collection, exchange, and analysis of research information relating to the development of technology for health, environment & safety, waste reduction and system security in the petroleum industry. PERF is a non-profit organization of Members which are corporations engaged in the petroleum industry that recognize the importance of a clean, healthy environment and are committed to support cooperative research and development. PERF does not itself participate in research projects but provides a forum for Members to collect, exchange, and research information relating to practical and theoretical science and technology concerning the petroleum industry and a mechanism to establish joint research projects in the field.

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Announcing the 93rd PERF Meeting



Save the dates !

On May 4th and 5th 2016, Chevron will host the **next biannual PERF Meeting** in **London, UK**. The general theme of the meeting will be **"From Strategy to Action: What New Air Emissions Policies Mean for the Oil and Gas Industry"**.

The meeting will include three topics: the Paris Climate Conference, EU BREFS and Directives with comparison to the US Refinery Sector Rule, and the Circular Economy. The discussion of the Paris Climate Conference will be organized around IPIECA's "5 Pieces of the Paris Puzzle", including The Role of Oil and Gas, Effective Policy, Energy Conservation and Beyond, Natural Gas, and Carbon Capture and Storage. Identification of speakers is underway, but the intention is to include more than one perspective on each topic (e.g., O&G operator, NGO, regulatory, academic).

A [high-level agenda](#) is available as well as [registration form and travel information](#).

Announcing the 94th PERF Meeting



Late October, Phillips 66 will host the **94th PERF Fall Meeting** at their R&D headquarters in **Bartlesville, OK**. The agenda is still under development but following topics are under consideration to be covered in both **Water** and **Air** areas :

- Water use efficiency
- Novel advances in water treatment technology
- Nutrient removal for refinery wastewater streams
- Emerging bioaccumulation models for toxic compounds in water
- Effects of injection wells on seismicity
- Implications of the EPA's petroleum effluent limit guidelines study
- Techniques for measuring and estimating emission sources
- Implementation challenges for the new ozone standard
- Future changes to National Ambient Air Quality Standards and their impacts on operations
- Air quality model development, application and evaluation
- Emission factors and inventories
- Techniques for emission reduction

More details coming soon !



Member Companies

- BP
- Chevron
- ConocoPhillips
- ExxonMobil
- Hess Corporation
- Petrobras
- Phillips66
- Qatar Petroleum
- Repsol
- Saudi Aramco Oil Company
- Shell
- Statoil
- Suncor
- Syncrude Canada Ltd
- Total
- Tullow

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- GeoSyntec
- Nalco Champion
- Ramboll Environ
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- Tetra Tech
- Trihydro
- Veolia Water

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- American Petroleum Institute
- Argonne National Laboratory
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- Centre of Documentation, Research and Experimentation
- U.S. Department of Energy
- Electric Power Research Institute
- Energy & Environmental Research Center
- Houston Advanced Research Center
- Lawrence Berkeley National Laboratory
- International Association of Oil and Gas Producers
- Oak Ridge National Laboratory
- Pacific Northwest National Laboratory
- RTI International
- Flemish Institute of Science and Technology
- SINTEF
- Water Environmental Research Foundation
- World Ocean Council

Highlights from the 92nd PERF Meeting:



“Environmental Issues Associated with Unconventional Oil and Gas”

The **92nd PERF meeting** was held **October 6 & 7th** and was hosted by the Energy & Environmental Research Center (EERC) at their facility on the campus of the University of North Dakota in **Grand Forks**. The theme of the meeting was “**Environmental Issues Associated with Unconventional Oil and Gas**”. There were 43 people registered for the meeting which was also hosted by EERC eleven years ago. The agenda and presentations are posted in the PERF website members’ area at: www.perf.org/membersarea.html which also includes the topics for the three new PERF project proposals that were presented at this meeting.

On day one, the meeting covered a wide array of topics related to unconventional oil and gas. Highlights include an overview of EERC activities and capabilities, sustainable shale development, water treating, environmental hazards and assessments, a look at future energy needs, and a detailed discussion of regulatory challenges and their resolution status.

For day two there was an increased focus on topics related to the Bakken resource in North Dakota (which also have applications for other shale basins). Topics included tight oil characterization, with a focus on crude by rail, vapor pressure and associated work by Sandia National Labs on flammability tests; Bakken water use, trends and future demand; results from laboratory scale work using ethane/CO2 mixtures as EOR fluids; and the efforts the North Dakota Petroleum Council have championed for engaging various stakeholders in the oil & gas exploration and production arena.

The Bakken is the largest oil field by area in the world (24,000 square miles) and development of this field has propelled North Dakota to currently being the second highest oil producing state in the United States. The challenges faced by the rapid development of this oil field have presented a number of environmental challenges that have been the focus of much of the research that was presented on day two.

[Final agenda](#) is available.



92nd Meeting, Grand Forks, October 7th 2016



LCA Workshop, Montreal, November 18th 2016

Highlights from the PERF Life Cycle Analysis Workshop



“Life Cycle Analysis approach applied to the oil and gas industry”

The last PERF workshop was held **November 17th & 18th 2015** and was hosted by **Total** with **CIRAIG** (International Reference Center for the Life Cycle of Products, Processes and Services) on the campus of **Polytechnique Montréal**, Canada. Around 13 people participated in this workshop focused on **Life Cycle Analysis approach applied to the oil and gas industry**. Aramco Services, Chevron, Exxon Mobil, Phillips 66, Ramboll Environ, Shell, Total and TriHydro were represented. The workshop was also attended by a number of CIRAIG researchers and analysts.

A total of 18 presentations were given over the 2-day meeting. The positive interaction between attendees was favorable to discussions and resulted in 4 PERF project proposals.

[Final agenda](#) is downloadable.

For more information about this workshop please contact Corentin Perrachon (corentin.perrachon@external.total.com).