

Having trouble viewing this email? [Click here to view in browser.](#)



November 6, 2017

## GENERAL MEETING

### Ethane-Based EOR: An Innovative and Profitable Opportunity for a Low Oil-Price Environment

*Patrick L. McGuire - International Reservoir*

*Technologies, Inc.*

*SPE Distinguished Lecturer*

Denver Athletic Club

November 15, 2017, 11:30 AM - 1:00 PM

*Early-bird registration deadline: November 13 at 5:00 PM*

#### Tickets:

Members	\$25
Non-Members	\$35
Walk-Ins	\$45

[Register Now](#)

**Abstract:** After decades of research and field application, the use of CO<sub>2</sub> as an EOR injectant has proven to be very successful. However, there are limited supplies of low cost CO<sub>2</sub> available, and there are also significant drawbacks, especially corrosion, involving its use. Both simulation data and field examples demonstrate that ethane is an excellent EOR injectant. The rich gasses and volatile oils developed in the U.S. shale reservoirs have brought about an enormous increase in ethane production. In the U.S., ethane is no longer priced as a petrochemical feedstock, but is priced as fuel, and substantial quantities of ethane are being flared. Ethane-based EOR can supplement the very successful CO<sub>2</sub>-based EOR industry. There simply isn't enough low-cost CO<sub>2</sub> available to undertake all of the potential gas EOR projects in the U.S. The current abundance of low-cost ethane presents a significant opportunity to add new gas EOR projects in the U.S. and elsewhere. The ethane-based EOR opportunity can be summarized as;

1. CO<sub>2</sub>-based EOR works well, and is well understood.
2. Ethane is better than CO<sub>2</sub> for EOR.
3. Ethane is simpler than CO<sub>2</sub> for EOR.

In this Issue...

- [Newsletter Sponsor](#)
- [General Meeting](#)
- [Evening Event](#)
- [Award Nominations](#)
- [Continuing Education](#)
- [Completions Study Group](#)
- [Young Professionals](#)
- [Community Outreach](#)
- [Mentorship](#)
- [Hurricane Harvey](#)

**Thanks to This Month's  
Newsletter Sponsor:**

4. Ethane is now abundant and inexpensive in the U.S. This increases ethane availability and lowers ethane costs elsewhere.

5. Recent additions to the growing ethane infrastructure now deliver ethane to locations where ethane-based EOR targets are plentiful.

The take-home message: "Ethane-based EOR is a viable option in many areas, with a robust combination of low costs and high incremental recovery."



**Biography:** Patrick L. McGuire is a reservoir engineer with over 40 years of experience. He holds BS and MS degrees in mechanical engineering. He is a noted expert on Enhanced Oil Recovery and has worked on gas injection and low salinity EOR opportunities across the globe. He worked for many years for ARCO and BP on the North Slope of Alaska, which is home to some of the world's largest EOR projects. He authored numerous technical papers on EOR, and holds seven U. S. patents. Mr. McGuire previously served as an SPE Distinguished Lecturer, and has addressed over 30 SPE Sections.

## EVENING EVENT

### An Update on the Industry Outlook

*Dave Pursell - Managing Director, Tudor, Pickering, Holt & Co.*

📍 Denver Athletic Club

📅 November 16, 2017, 5:00 PM - 7:00 PM

#### Tickets:

Members	\$20
Non-Members	\$25

[Register Now](#)

Come hear an update on the industry outlook for onshore basins while you mingle and network over drinks and appetizers!

## SPE AWARD NOMINATIONS

### SPE Award Nominations are now open!

SPE Awards recognize expertise and contributions to the upstream oil and gas industry.

Awards will be presented at the regional and international levels for:

Tracerco

Providing Insight Onsite

**Inflow intelligence to improve well productivity at a fraction of PLT costs.**

Know more, spend less with Inflow, the smarter way to gather data from your reservoir.

A Tracer Production Log™ gives long-term data to help you optimize field development.

[www.tracerco.com/reservoir-characterisation](http://www.tracerco.com/reservoir-characterisation)

T: +1 281 291 7769

E: [tracerco@tracerco.com](mailto:tracerco@tracerco.com)

JM Johnson Matthey  
Inspiring science, enhancing life

Follow Us:

[Twitter](#)

[LinkedIn](#)

[Facebook](#)

[SPE Denver Website](#)

- Technical contributions
- Professional excellence
- Career achievement
- Service to colleagues
- Industry leadership
- Public service

Within the confines of the above categories, we ask our members to recommend nominees whom elicit the any of the following thoughts in your mind when you think of their contributions:


- Reliable (A person you can always count on for support in problem solving)
- Inquiring (Asks pertinent and challenging questions)
- Studious (Study the problem with the goal of arriving at the Best Available Solution)
- Thorough (Considers all aspects of the problem and the solution)
- Open (Open to new ideas and cutting-edge practice)
- Progressive (Push the advancement of their own, and others, knowledge, skill, technical ability)
- Admirable (Worthy of honoring for any one or several of the traits above)

Please email [barbganong@gmail.com](mailto:barbganong@gmail.com) and/or [Justin.knappe@gmail.com](mailto:Justin.knappe@gmail.com) the following about your nominee: name, email, employer name, department / title.

## CONTINUING EDUCATION

### Applied Statistical Modeling and Data Analytics for Reservoir Performance Analysis

*Dr. Srikanta Mishra - Battelle Memorial Institute*

 Liberty Oilfield Services, 950 17th St. Suite 2400, Denver

 February 20th, 2018

*Registration deadline: February 6, 2018*

[Register Now](#)

**Description:** There is a growing trend towards the use of statistical modeling and data analytics for analyzing the performance of petroleum reservoirs. The goal is to “mine the data” and develop data-driven insights to understand and optimize reservoir response. The process involves: (1) acquiring and managing data in large volumes, of different varieties, and at high velocities, and (2) using statistical techniques to discover hidden patterns of association and relationships in these large, complex, multivariate datasets. However, the subject remains a mystery to most petroleum engineers and geoscientists because of the statistics-heavy jargon and the use of complex algorithms.

This workshop will provide an introduction to statistical modeling and data analytics for reservoir performance analysis by focusing on: (a) easy-to-understand descriptions of the commonly-used

concepts and techniques, and (b) case studies demonstrating the value-added proposition for these methods. Participants are encouraged to bring their own laptops to follow along the exercises in the workshop. Topics to be covered include:


- Terminology and basic concepts of statistical modeling and data analytics
- Multivariate data reduction and clustering (for finding sub-groups of data that have similar attributes)
- Machine learning for regression and classification (for developing data-driven input-output models from production data as an alternative to physics-based models)
- Proxy construction using experimental design (for building fast statistical surrogate models of reservoir performance from simulator outputs for history matching and uncertainty analysis)
- Uncertainty quantification for performance forecasting

**Instructor:** Dr. Srikanta Mishra is an Institute Fellow and Chief Scientist (Energy) at Battelle Memorial Institute, the world's largest independent contract R&D organization. He is responsible for developing and managing a geoscience-oriented technology portfolio related to computational modeling and data analytics for geological carbon storage, shale gas development and improved oil recovery projects. Dr. Mishra has taught short courses on uncertainty quantification, statistical modeling and data analytics at various professional conferences and client locations in the US, China, Spain, Japan, Finland, Belgium and Switzerland. He is author of a forthcoming book on statistical modeling and data analytics for the petroleum geosciences to be published by Elsevier, as well as ~200 technical publications. He holds a PhD degree from Stanford University, an MS degree from University of Texas and a BTech degree from Indian School of Mines – all in Petroleum Engineering.

## COMPLETIONS STUDY GROUP

### Logging and Perforation Systems and Methodologies

*Gary Fisher - Pioneer Wireline Services*

 Halliburton, 1125 17th Street, Denver

 November 13, 2017, 11:30 AM - 1:00 PM

*Lunch will be provided by Pioneer Wireline Services.*

[Register Now](#)

#### Technical Talk Agenda:

- History
- Explosive materials, specifications, and limitations
- Perforating shaped charge theory and design
- EBW vs. hot wire detonators
- Gun systems, switches, and common problems
- Charge and gun system selection considerations

- Jet cutters vs. chemical cutters vs. cutting torches, specifications and limitations


**Speaker:** Gary Fisher holds a BS in Mechanical Engineering, and started in the oilfield with Schlumberger as an OH/CH wireline field engineer in 1991. After leaving Schlumberger, he moved on to other wireline opportunities with Numar and ProTechnics, gaining offshore, overseas, memory logging, and managerial experience. He joined Phoenix Surveys, a small independent OH logging company in 2001, which was later acquired by Pioneer Wireline Services. He is currently the Wireline Training Manager for Pioneer Services based out of San Antonio.


## YOUNG PROFESSIONALS

---

### Lunch & Learn - Detecting Depletion in the Middle Bakken Using Drillbit Geomechanics

*Eric Marshall - Fracture ID*

 Liberty Oilfield Services, 950 17th St. Suite 2400, Denver


 November 8, 2017, 11:30 AM - 1:00 PM


*RSVP by 1:00 PM on Tuesday, November 17. Lunch will be provided.*

[Register Now](#)

**Speaker:** Eric Marshall has 15 years of oil and gas experience. He received his B.S. degree in Mechanical Engineering from the Colorado School of Mines in December of 2002 and immediately went to work for Halliburton in the Rocky Mountain Region. In 2007, Eric joined Integrated Petroleum Technologies in Golden, CO as a reservoir and stimulation advisor. During his 9 years with IPT, he practiced reservoir engineering and completions design, specializing in the economic optimization of field developments. Eric left his position as Engineering Manager at IPT in 2016 and joined Fracture ID as a Completions Manager where he is currently tasked with compiling measured in-situ rock properties into a completions friendly format to assist operators with maximizing the value of their completions. Eric is currently serving as Director of Engineering for Fracture ID.

### November Happy Hour - Otra Vez Cantina

 Otra Vez Cantina, 610 16th St, Denver

 November 8, 2017, 4:30 PM - 6:00 PM

Join us for a drink and appetizers to network with friends, colleagues, and new connections. It's on us!

### Topgolf Halloween Party



Our First-ever SPE YP Top Golf Halloween Costume Party was a success!

We had a spooktacular Halloween party at Top Golf last Friday. Congrats to the TopChip and Best Costume winners! Please join us in thanking our amazing sponsors: [Schlumberger](#), [Well Data Labs, Inc.](#), [Liberty Oilfield Services](#), [Fracture ID](#), and [Total Depth Geosteering](#)!

## COMMUNITY OUTREACH

---

### #SPECares Breakfast at Denver Rescue Mission

 Lawrence Street Shelter, 1130 Park Ave West, Denver  
 TBA



[Register Now](#)

Join SPE before work as we volunteer at the Denver Rescue Mission downtown! This is a 1-time volunteer commitment and a great way to give to the community this holiday season. As a bonus, this will be an opportunity to network with other SPE volunteers! Sign up at the link above if you are interested and we will choose a morning that works for most people.

## MENTORSHIP

---

### November Student Mentorship Program Meeting

 Table Mountain Inn, 1310 Washington Ave, Golden  
 November 17, 2017, 6:00 PM - 8:00 PM

[Register Now](#)

Please join members of the SPE Student Mentorship Program and enjoy some appetizers while we discuss program details and collaborate!

## HURRICANE HARVEY RELIEF

---

Thank you to the Denver oil and gas community for making our Hurricane Harvey Relief Drive a success! The drive raised \$1,840 through member contributions. Combined with a donation of \$5,000 from SPE Denver, \$6,180 will be donated to the American Red Cross to help our friends in the Gulf. Great job, Denver!

Society of Petroleum Engineers - Denver Section

**Americas**

222 Palisades Creek Dr.

**Asia Pacific**

Level 35, Gardens South Tower

**Europe**

1st Floor, Threeways House

**Middle East**

Fortune Towers, 31st Floor

+1.972.952.9393 | E-mail |

SPE members receive periodic emails on events and programs related to the section to which they belong. If you no longer wish to receive emails from this section, please opt-out. You may also choose to review your email preferences with SPE International.

