

# SPE Mid-Continent Section Newsletter

January 2018 | Issue No. 436



Mid-Continent Section



*Society of Petroleum Engineers*

## 1917-Mid-Continent Section-2017



# SPE Mid-Continent Section

## Executive Committee Voting Members

<b>Chairman:</b>	<b>Phone</b>	<b>E-mail</b>
Nathan Buchanan	918-857-0434	nsbuchanan@gmail.com
<b>Vice Chairman (Programs):</b>		
<i>Open</i>		
<b>Secretary:</b>		
David Krueger, P.E., Consultant	405-201-1513	d8krueger@gmail.com
<b>Treasurer:</b>		
Lisa Sullivan, Samson	918-591-1977	lsullivan@samson.com
<b>Directors:</b>		
Betty Felber, Consultant	918-403-9199	IORImplement@outlook.com
Hap Pinkerton, Halliburton		Hap.Pinkerton@Halliburton.com
Al Smith, Consultant	918-250-6525	asmith1967@cox.net
Steve Tipton, All Consulting	918-230-2161	stipton@all-llc.com
Buck Walsh, Consultant	918-630-1495	bawalsh686@gmail.com
<b>Past Chairman:</b>		
Molly Boyd	918-691-2752	molly_m_boyd@yahoo.com
<b>Regional Director:</b>		
Chris Jenkins, Independent Energy Standards	405-627-8318	cnjenki@hotmail.com

## Committee Chairmen Non-Voting Members

<b>Newsletter Editor:</b>		
Betty Felber, Consultant	918-403-9199	IORImplement@outlook.com
<b>Assistant Editor:</b>		
Kristi Davies, Consultant		sixgun@olp.net
<b>Newsletter Advertising:</b>		
Jason Sprinkle, Schlumberger	918-584-6651	jsprinkle@slb.com
<b>Webmaster, Communications:</b>		
Kristi Davies, Consultant		sixgun@olp.net
<b>Continuing Education:</b>		
Dwight Rychel, Consultant	918-671-8796	rychel@cox.net
<b>Awards:</b>		
<i>Open</i>		
<b>Scholarships:</b>		
Steve Tipton, All Consulting	918-230-2161	stipton@all-llc.com
<b>Memberships:</b>		
Luke Strong, Nitro-Lift Technologies		lstrong@nitrolift.com
<b>Nominations:</b>		
Molly Boyd	918-691-2752	molly_m_boyd@yahoo.com
<b>IOR Symposium 2018:</b>		
Lance Cole, SEG		lance.cole@cox.net
<b>Young Professionals:</b>		
Charley Mathis, Cudd Energy Services	918-585-9807	cmathis@cudd.com
<b>Golf Tourney:</b>		
Nathan Nitchals, MS Energy Services	918-856-1091	nnitchals@msenergyservices.com.
<b>Sporting Clays Tournament:</b>		
Mark Carr, Kaiser Francis	918-491-4369	markc@kfoc.net

SPE Mid-Continent Section | P.O. Box 575, Tulsa, OK 74101-0575 | [www.spemc.org](http://www.spemc.org)

Voting members consist of the Executive Committee. The Chairman only votes in the event of a tie. A Motion can be voted upon with a Quorum of the Voting Members present. A Quorum consists of five Voting Members present. An affirmative vote will consist of 51% of the Quorum present. Committee Chairmen and in their absence, the Committee Vice Chairmen are encouraged to attend board meetings and provide representation and committee reports. The editor welcomes newsworthy items about SPE members or events. Please provide a **draft to the newsletter editor by the 25th of the month**. Change of contact information requests should be made to SPE in Richardson, TX, 1-800-456-6863, or [service@spe.org](mailto:service@spe.org).

# Chairman's Gavel

**Nathan Buchanan, 2017-2018 Chairman**

Colleagues:

Happy New Year to all of you. Crude oil prices have shown some improvement over the last few weeks, and I hope we will continue to see activity picking up with Tulsa-based companies.

Our Section's first luncheon of 2018 will be held January 17 at the Summit Club. Chad Senters with Core Lab will be speaking; his topic is titled "Diversion – Be Careful What You Ask For". Please make sure to make a reservation by the morning of January 15. We have several other speakers and a couple short courses scheduled for the next few months, and I look forward to sharing our technical program with each of you.

If you haven't done so yet, please make sure to renew your SPE membership. I know I always wait until the last minute to take care of things like that, so I am sure many of you do as well.

I hope 2018 is a productive and prosperous year for all of you.

Nathan Buchanan  
2017-2018 Chairman  
[nsbuchanan@gmail.com](mailto:nsbuchanan@gmail.com)



Increase Production With A Proven Solution

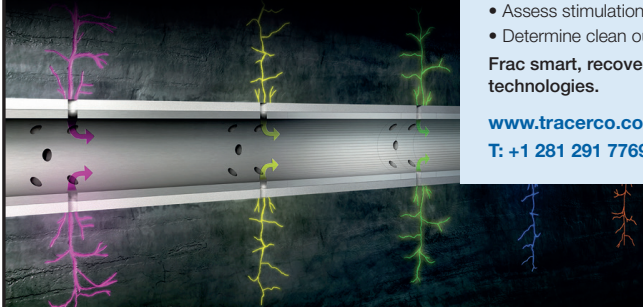
Visit us at [hexion.com/oilplus](http://hexion.com/oilplus)

 **HEXION**

## SPE Mid-Continent Newsletter Sponsors

Fairmount Santrol .....	4
Hexion .....	1
PetroWiki.....	9
SPE Bookstore .....	9
SPE Membership Renew .....	9
Tracerco .....	2

# Delivering stage production insight to enhance recovery and reduce costs.



**Tracerco**

Providing Insight Onsite

### Frac smart, produce more, with Frac Tracers.

A Tracer Production Log™ gives you long-term data to help you plan your next well.

- Drill smarter – higher yields to lower costs
- Optimize well spacing and well trajectory
- Compare geology with oil and gas productivity
- Assess stimulation design effectiveness
- Determine clean out efficiency

Frac smart, recover more with Tracerco technologies.

[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

# From Your Editor

**Betty Felber, 2017-2018 Editor**

Hope you had a great holiday season. If you are reading this, you have now made it into the New Year—2018. Just think 2020 will soon be here.

2018 offers us many opportunities to expand our horizons. In the next few months, we have the chance to attend the Mid-Continent Section monthly luncheon meetings, there will be some continuing education courses, the courses associated with the IOR Conference, and the Conference itself. **There are 3 IOR sessions dedicated to improving shale recoveries.** Maybe you will be able to find a little time to come visit the largest scholarship funding mechanism for our section. Our Conference location is the Cox Business Center in Downtown Tulsa.

Betty Felber  
Editor

## Calendar of Events

### **Wednesday, January 17, 2018 - Luncheon Meeting - Summit Club**

- Chad Senters, Core Laboratories "Diversion - Be Careful What You Ask For"

### **Tuesday, February 13, 2018 - Luncheon Meeting - Summit Club**

- Lloyd Hetrick, Newfield "Water Management in the Oklahoma STACK"

### **Tuesday, March 6, 2018 - Luncheon Meeting joint w/TGS & GST - Summit Club**

- Jeremy Boak, OGS **\*\*\*SAVE THE DATE\*\*\***

### **Wednesday, March 21, 2018 - Luncheon Meeting - Summit Club**

- Srikanta Mishra, Battelle Memorial Institute "Big Data Analytics: What Can It Do For Petroleum Engineers And Geoscientists?" **\*\*\*SAVE THE DATE\*\*\***

### **Thursday, March 22, 2018 - Short Course - Summit Club**

- Srikanta Mishra, Battelle Memorial Institute "Applied Statistical Modeling and Data Analytics for Reservoir Performance Analysis" **\*\*\*SAVE THE DATE\*\*\***

### **Wednesday, April 4, 2018 - Luncheon Meeting - Summit Club**

- John Jackson, Unimin Corporation "Mitigating Respirable Crystalline Silica with No Engineering Footprint" **\*\*\*SAVE THE DATE\*\*\***

### **April 14-18, 2018, SPE Improved Oil Recovery Conference - Tulsa**

- Short Courses Sat. 14th - Sun. 15th, Technical Program Sessions, Mon. 16th - Wed. 18th -  
**Register Now at [www.speior.org](http://www.speior.org).**

---

*All SPE luncheons are held at the Summit Club unless otherwise noted - See p7 for more details.*

# 45+ Terminal Locations

---

Our vast terminal network is ready to meet your proppant demands quickly and efficiently. Operating over 45 terminal locations in all key basins, we ensure better proppant when you need it, where you need it.

Partner with the Proven Proppant  
Resource at [FMSA.com/SPE](http://FMSA.com/SPE)



**FairmountSantrol**

Proppant Solutions

# SPE Regional Awards 2017-2018

**Nominate a Colleague Today**

Applaud excellence in the E&P industry by nominating a colleague for an annual award given by the Society of Petroleum Engineers.

SPE Awards recognize expertise and contributions to the upstream oil and gas industry. The 2018 SPE Awards will be presented at the international and regional levels for:

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

New this year is the Regional Public Service Award—In 2018 SPE will also recognize distinguished public service of members at the regional level. Learn more at [www.spe.org/awards/regional-public-service-award.php](http://www.spe.org/awards/regional-public-service-award.php).

Do you know someone who deserves recognition for outstanding work in the E&P industry?

For more details or to nominate a colleague, go to [www.spe.org/awards](http://www.spe.org/awards). Regional Award Deadline is March 1, 2018

### JANUARY 2018

**WEDNESDAY, January 17, 2018** - Luncheon Meeting

**Location:** Summit Club, 30th Floor, Ballroom

**Speaker:** Chad Senters, Core Laboratories

**Topic:** "Diversion - Be Careful What You Ask For"

**Register:** <https://spemc011718.eventbrite.com>

#### Description

Success of a fracture stimulation treatment depends upon complete coverage of all targeted intervals. Diversion techniques are being applied in new well completions to achieve greater cluster treatment efficiency and to access additional rock. The objective of this study is to characterize diversion and to utilize near-wellbore diagnostics to determine the effectiveness of diversion. Multiple basins are included in this study, incorporating a variety of drilling and completion practices.

Proppant tracing and temperature logging provide near-wellbore diagnostics to evaluate the new rock contacted as a result of diversion. Tracers injected during the treatment at various intervals before and after diversion can be used to determine cluster efficiency as well as the overall changes to a stage as a result of the diversion. Temperature logging is used to determine cooling effects of the treatment and is correlated back to the near-wellbore proppant coverage. The combination of multiple diagnostics provides additional confirmation of the treatment coverage or in some cases the lack thereof.

The results of this study show examples of both effective and ineffective diversion. Effective near-wellbore diversion is defined as diversion that results in accessing clusters that were previously not stimulated or under-stimulated. In many cases the surface treating pressure response due to diversion does not correlate to its effectiveness. Optimizing the design and deployment of the diversion process often results in improvement of treatment effectiveness. The results of this study are grouped by Anadarko Basin, Permian Basin, Eagle Ford, and Williston Basin and show the effectiveness of a variety of diversion techniques.

Through a combination of diagnostic techniques, diversion is evaluated on new well completions. Over 30 wells are included in this study across multiple basins. The overall stage coverage is evaluated along with the effectiveness of near-wellbore diversion to achieve this coverage. These learnings can be applied to optimize diversion designs for future wells in these and other basins.

SPE Mid-Continent luncheon meetings are held at the Summit Club\*\* in Tulsa from 11:20-1:00 p.m. unless otherwise noted. SPE Mid-Continent luncheon meetings are held at the Summit Club in Tulsa. To register and pay by credit card, or make a reservation to pay by check or cash at the door, go to the corresponding link for a luncheon. Luncheon cost is \$25.00 professional, \$10 retired/unemployed, and free for students (limited seating available). Payment by credit card is for advanced registrations ONLY, no credit cards will be accepted at the meeting, only check or cash with a reservation. Registration ends 48 hours prior to the luncheon date. No walk-ins please.

\*\*Summit Club | Bank of America Center, 15 West Sixth Street (NE corner of 6th & Boulder) | Tulsa, OK 74119 | 918.582.5243 | Parking details are available at [www.summittulsa.com/club/parking](http://www.summittulsa.com/club/parking).

## Speaker

### Chad Senters

Chad Senters is the Region Engineering Advisor for the ProTechnics division of Core Laboratories specializing in completion diagnostics. Chad has over 12 years of experience in the oil and gas industry including stimulation, coiled tubing and downhole tools in addition to completion diagnostics. Chad is a graduate of the Missouri University of Science and Technology (formerly the University of Missouri Rolla) with a BS in Chemical Engineering. Senters is an active member of the Society of Petroleum Engineers (SPE) and has held section officer positions and published and presented numerous papers at major industry conferences and workshops. Chad is currently the SPE Oklahoma City Section Chairman and is a recent recipient of the SPE Young Member Outstanding Service award for the Mid-Continent region.

## FEBRUARY 2018

**TUESDAY, February 13, 2018** - Luncheon Meeting

**Location:** Summit Club, 30th Floor, Ballroom

**Speaker:** Lloyd Hetrick, Newfield

**Topic:** "Water Management in the Oklahoma STACK"

**Register:** <https://spemc021318.eventbrite.com>

## Description

Newfield Exploration is a leader in water management and recycling in Oklahoma. They have completed their extensive water management system that includes fresh water storage, produced water storage, a water recycling facility and a HDPE pipeline system. The pipeline system is also connected to their saltwater disposal wells. The recycling of flowback and produced water is part of Newfield's effort at reducing the volumes of water injected into disposal wells which is consistent with the Oklahoma Corporation Commission's effort to provide mitigation measures that can help to reduce potential induced seismicity. Lloyd will provide a comprehensive look at their water management system.

## Speaker

### Lloyd Hetrick

Lloyd is the Operations Engineering Advisor for Newfield Exploration Company. He is currently the chair of the API Hydraulic Fracturing Issues Group and represents

Newfield on various other industry related committees and groups. Lloyd has worked in the oil and gas industry since his graduation from Texas A&M in 1979. Since joining Newfield in 2010, Lloyd has worked exclusively on unconventional resource development in UT, TX, OK, ND and PA. He is both PE and CSP certified. One of his current responsibilities is overseeing Newfield's efforts at water management and recycling.

## MARCH 2018

### **\*SAVE THE DATE\***

**TUESDAY, March 6, 2018** - Luncheon Meeting joint w/TGS & GST

**Location:** Summit Club, 30th Floor, Ballroom

**Speaker:** Jeremy Boak, OGS

**Topic:** "TBA"

### **\*SAVE THE DATE\***

**WEDNESDAY, March 21, 2018** - Luncheon Meeting

**Location:** Summit Club, 30th Floor, Ballroom

**Speaker:** Srikanta Mishra, Battelle Memorial Institute

**Topic:** "Big Data Analytics: What Can It Do For Petroleum Engineers And Geoscientists?"

### **\*SAVE THE DATE\***

**THURSDAY, March 22, 2018** - Short Course

**Location:** Summit Club, 31st Floor, Library Room

**Speaker:** Srikanta Mishra, Battelle Memorial Institute

**Topic:** "Applied Statistical Modeling and Data Analytics for Reservoir Performance Analysis"

## APRIL 2018

### **\*SAVE THE DATE\***

**WEDNESDAY, April 4, 2018** - Luncheon Meeting

**Location:** Summit Club, 30th Floor, Ballroom

**Speaker:** John Jackson, Unimin Corporation

**Topic:** "Mitigating Respirable Crystalline Silica with No Engineering Footprint"

Visit the  
**SPE BOOKSTORE**  
store.spe.org



# PetroWiki

PetroWiki is a free resource from SPE to answer many basic petroleum engineering and operational questions. SPE professional members can contribute their expertise through updating or adding to PetroWiki content.

<http://petrowiki.org/PetroWiki>



Keep your SPE membership  
producing for you.

Renew Now »

### **A FREE SERVICE FOR MID-CONTINENT SECTION MEMBERS AND THEIR EMPLOYERS**

SPE is offering a free service to section members and their employers for the posting of jobs offered by employers (please, no third party recruiters) seeking to hire SPE members and for members seeking employment. Unless otherwise arranged, ads will stay on the website for one calendar month. To view available jobs go to the section website [www.spemc.org](http://www.spemc.org) and select Help Wanted/Situation Wanted. To submit an ad (120 words or less, please) e-mail [spemc@spemc.org](mailto:spemc@spemc.org) for consideration.

*"Sometimes adversity is what you need to face in order to become successful"*

— **Zig Zigler**

**SPE Monthly Bulletin No. 436**

Issue Date: January 1, 2018

SPE Mid-Continent Section

P.O. Box 575

Tulsa, OK 74101-0575