

# SPE Mid-Continent Section Newsletter

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Mid-Continent Section



## *Society of Petroleum Engineers* **1917-Mid-Continent Section-2017**



[www.spemc.org](http://www.spemc.org)

# SPE Mid-Continent Section

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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 50% 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

David Krueger, 2020-2021 Chairman

Spring has arrived! The daffodils are blooming out on the front lawn. Vaccinations for Covid 19 are being done in large numbers and hopefully we have turned the corner on getting this virus under control.

While I am writing this I am enjoying the 76o F weather and looking around to decide what will be the topic or topics I will cover for this April newsletter. This past Thursday we had a board meeting. One of the items of discussion was a joint meeting of SPEMC members and TU student members upcoming in several months. We are also planning a July 2021 membership SPE-MVP get-together at the Main Event over by Tulsa Hills. Please check your newsletters for additional information.

On the national scene, it looks like Annova LNG has canceled plans to build an LNG export facility at the port of Brownsville, Texas. I wonder how this is going to affect Elon Musk's LNG rocket fuel dreams. He is also making plans to drill natural gas wells in Texas to fuel his rocket launches. I see that he recently donated 30 million dollars to the city of Brownsville to spruce up the place and get rocket engineers to move down there. Also of note, there is activity to acquire offshore oil platforms at the end of their service life and to convert them to be used for rocket launches. If you look at Brownsville on the map, you will see that it is south of the parallel that passes through the Cape Kennedy launch site. This gives a slight advantage to Brownsville launches to the East with the rotation of the Earth.

On the international scene, a lot of maritime planners are breathing again after the 1,300 foot shipping container ship Ever Given was freed from being stuck crossways in the Suez Canal for 6 days, blocking shipping through the canal. Over 300 ships piled up on either side of the blockage, including ships with livestock on board and LNG tankers bound for Europe. Some of the ships with livestock had less than a 2 day supply of feed when the canal was re-opened, so they needed to take on additional feed before resuming their journey.

The last item I want to bring up this month is mentoring. I recently had a request for mentors for new engineers in the Permian Basin. Are any of you engaged in mentoring right now through the SPE? Mentoring is a good way to help out your fellow engineers as they build their skill sets, not only in the technical areas, but also in the decision-making area.

David Krueger  
2020-2021 Chairman  
[d8krueger@gmail.com](mailto:d8krueger@gmail.com)

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### **SPE MID-CONTINENT SECTION NOMINATIONS REQUEST 2021-2022 OFFICERS AND DIRECTORS ELECTION**

The SPE Mid-Continent Section is requesting nominations for the upcoming 2021-2022 Officers and Directors Election. Nominations can be given for the following officer and director positions.

1. Five Directors (5 positions to be selected with the most votes)
2. Chairman
3. Vice Chairman/Programs Chair
4. Secretary
5. Treasurer

Email your nominations with contact information to Lisa Sullivan ([lsullivan6311@gmail.com](mailto:lsullivan6311@gmail.com)). **Nominations close at 5:00 p.m. on Tuesday, April 27, 2021.**

### **SPE MID-CONTINENT REGION STUDENT PAPER CONTEST**

The 2021 Mid-Continent Region Virtual Student Paper Contest - Postgraduate Division event is scheduled for May 22 and SPE needs your help! SPE is looking for judges to review this year's papers and award the 2021 winner. To serve as a judge you must obtain a Masters or Postgraduate degree. The time commitment will be Saturday, 22 May from 0800 - 1200 CST.

If you are interested in participating as a judge, please contact Taylor Wright at [twright@spe.org](mailto:twright@spe.org).

# From Your Editor

Betty Felber, 2020-2021 Editor

April is finally here. We have the re-scheduled meeting with the Oklahoma City SPE Section. It would just be our luck that the meeting called off because of snow had a tornado hit either OKC or us. Hope you are already signed up for the video meeting. Please note that it is scheduled for 10 am not lunch.

This is the next to the last month for our current Section officers and Directors. We are taking nominations for all positions. Just step up and say that you will serve our Section. It could be fun!

Enjoy the April weather,

Betty Felber  
Editor



Keep your SPE membership  
producing for you.

Renew Now »

## Calendar of Events

**Rescheduled from February 18th due to winter storms - Thursday, April 22, 2021 - Distinguished Lecturer Zoom Presentation** (see details on page 4)

**Wednesday, May 5, 2021 - Zoom Presentation - Gavin McQueen, Sage Natural Resources; Discussion of Data from Texas Power Grid Issues - SAVE THE DATE**

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

# SPE Mid-Continent Section

Presentations / Meetings

**RESCHEDULED FROM FEBRUARY 18TH DUE TO WINTER STORMS**

## APRIL 2021

**ZOOM PRESENTATION | THURSDAY, April 22, 2021 - 10:00 a.m.**

**Speaker:** Junjing (Z)Zhang's | SPE Distinguished Lecturer

**Topic:** "Mitigating Production Degradation Due to Frac Hits in Unconventional Reservoirs"

We hope you can join us, and make the most of SPE Distinguished Lecturer – Junjing (Z)Zhang's virtual visit to our Section.

SPE Distinguished Lecturers are industry experts and outstanding speakers, nominated by their peers, to share their knowledge and expertise on the latest industry trends and technologies with SPE members throughout the world through visits to local sections.

Register at this link <https://www.spe.org/en/dl/schedule/>

After clicking the link above, scroll down to the February 18th Tulsa, Oklahoma event and click on Register Now. If you are not already logged in with your SPE member credentials, you will be prompted to log in. On the next page choose Register Now under the heading Register for Distinguished Lecturer event. After clicking Register Now you will receive a Zoom link by email.

### Description

In unconventional reservoirs, a "frac hit" is the infill-to-parent well communication during hydraulic fracturing. In most shale plays, production from the parent-infill well system drops below original forecasts due to production degradation after fracture hits from offset wells. This study reviews current methods to mitigate the production degradation and evaluates the effectiveness of these methods. Major challenges and opportunities are also presented.

The mitigation methods discussed in this lecture include (1) applying far-field diverter during fracturing in the infill wells, (2) reinjecting water into the parent wells and (3) refracturing parent wells. Key design considerations for each method are presented in

Monthly presentations are being planned for the 2020-21 session. The safety of our members is our top priority so in-person scheduling for future events is tentative based on health guidelines in our area as well as availability of meeting venues. Watch for announcements about future meetings and events in this newsletter or by email.

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detail. A total of 565 fracture “hit events” at 41 impacted parent wells are statistically analyzed. Long-term well performance of several hundred impacted wells are also evaluated.

Based on the comprehensive analysis, the abovementioned three mitigation methods are field-proven and effective in protecting parent wells and improving infill well stimulation efficiency. With low operational costs, pumping far-field diverters results in a P50 EUR increment by 6%, with a 20% failure rate in the parent well protection. Water reinjection in the parent wells shows successful parent well protection, but the impact on the long-term well performance is negligible. Re-stimulation of properly selected parent wells with near-wellbore diverters indicates a P50 EUR increment by 40%. Selection of parent well protection methods needs to be fit-for-purpose and is fundamentally dictated by well conditions, operational experience and economic models applicable to the area.

Take-away: “Frac hit” mitigation methods need to be fit-for-purpose and are fundamentally dictated by well conditions, operational experience and specific economic models.

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## **MAY 2021 - \*\*SAVE THE DATE\*\***

**ZOOM PRESENTATION | WEDNESDAY, May 5, 2021**

**Location/Time:** Online, Login 11:20 a.m., Presentation 11:30 a.m.

**Speaker:** Gavin McQueen, Sage Natural Resources

**Topic:** “Discussion of Data from Texas Power Grid Issues”

*Registration details coming soon*

## 55% Pass 2020 Petroleum PE Exam

NCEES and the State Engineering Boards released their 2020 Professional Engineering Exam results. Nationwide, the Petroleum Engineering Exam recorded a 55% pass rate. The Petroleum first time takers passed at a 70% rate. The pass rates for a few other engineering disciplines were:

Chemical	56%	Agricultural	69%
Civil	55%	Fire Protection	57%
Electrical	54%	Industrial	63%
Environmental	65%	Metallurgical	69%
Mechanical	66%	Mining	56%
Nuclear	50%	Control Systems	59%

The Petroleum pass rates in 2020 for a few states:

Alaska (1/1)	100%	Oklahoma (6/6)	100%
Colorado (9/9)	100%	Texas (41/70)	59%

What are the requirements to take the Petroleum PE Exam? Today, Oklahoma requires that you have:

1. An engineering, math or science degree.
2. Passed the Fundamentals, or FE Exam.
3. At least four years of professional experience.

Interested? Contact the Oklahoma State Engineering Board at (405) 521-2874 for application forms. State web sites are also available at: [www.ncees.org/licensure/licensing\\_boards](http://www.ncees.org/licensure/licensing_boards). The Oklahoma application deadline to take this years PE Exam is June 1, 2021. This year's exam will be given on Wednesday, October 20, 2021.

## Petroleum PE Review Course

Winrock Engineering, Inc. is offering a Petroleum PE Review Course in Oklahoma City from August 9 through August 13, 2021. For more information, contact:

Winrock Engineering, Inc.  
P. O. Box 42296  
Oklahoma City, Ok, 73123

Web Site: [Winrockengineering.com](http://Winrockengineering.com)

Phone: (405) 822-6761

E Mail: [bingwines@cox.net](mailto:bingwines@cox.net)

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# 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>

*“The beginning is the most important part of any work.”*

— Anonymous



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