

SPE Mid-Continent Section Newsletter

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Mid-Continent Section



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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.

Chairman's Gavel

David Krueger, 2020-2021 Chairman

WOW! What a change in temperature in the span of a week. I had a -9 degrees F at my house on February 17. The next week I hit 70 degrees F. This is a temperature spread of almost 80 degrees in a week.

I had thought about writing on energy availability on demand and the massive blackouts in the Texas ERCOT power pool and the rolling blackouts in the Oklahoma Southwest Power Pool. Even though I watched the ERCOT train wreck happen in real time as well as the SWPP rolling blackouts happen across a 7-state area, my writing space isn't large enough to do justice to describe all the inputs leading up to the blackouts as well as the management choices made during the rolling blackouts that made for a collapse of the ERCOT system, leaving millions of homes and businesses without utility service at a life-threatening critical time.

What I want to discuss is Emergency Preparedness and you. Your body is in temperature crisis literally in minutes when your core temperature drops below 95 deg F (hypothermia) or when your core temperature rises to where your body can no longer regulate its temperature (hyperthermia).

You can go only a day or two without adequate hydration. It depends on climate conditions and what you are consuming for food. Eating dry food without adequate hydration can cause accelerated dehydration. The recommended daily water consumption is half a gallon per adult per day. Drink enough water every day so that you are not thirsty and your urine is clear to light yellow.

As far as food goes, the human body can go several days without adequate food. The record is over 20 days out on a life raft in the ocean for a downed flyer during WWII.

Emergency preparedness during a power outage can rapidly turn serious, as was the case in Texas with cold temperatures coupled with ice and snow. Ask yourself, what are the essentials I need to survive at home and what level of comfort can I afford and sustain for the duration of the emergency? Do I have adequate food, water, medications, clothes, blankets, heat or cooling, and lighting for the duration of the emergency? Do not use backup generators unless you are familiar with how to operate one. Review in advance how to hook up and run them so you don't endanger utility workers or risk carbon monoxide poisoning for yourself and others. In Texas there were over 300 cases of carbon monoxide poisoning related to generators and running vehicles in closed spaces. The death toll was over 20 from CO poisoning from the last count that I saw.

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2021-2022 Scholarships

Lisa Sullivan, Scholarship Chair

The Mid-Continent Section is excited to tell you that we are offering a scholarship to undergraduate students for the 2021-2022 school year. While SPE prefers to direct these scholarships to students who are pursuing technical degrees, like engineering or biosciences; students whose parents are SPE members may pursue other majors and would still be eligible to apply for this scholarship.

Eligibility Requirements:

- Must be currently attending or planning to attend a college or university during the 2021-2022 school year.
- Must be in good academic standing with your current educational institutional
- Must fill out the appropriate application forms from SPEMC.ORG/Scholarship site, please read carefully and start early to meet the deadline!
- 100% completed application forms* must be submitted and received by SPE Scholarship chair via email (spemidconscholarship@gmail.com) by **April 1, 2021**

We would be honored if you would communicate this opportunity to any students you know. *Applications forms are available on the SPE Mid-Continent website at this [link](#) or by visiting www.spemc.org and choosing **scholarships** from the menu.

Lisa Sullivan
SPE Mid-Continent Scholarship Chair

From Your Editor

Betty Felber, 2020-2021 Editor

Glad you made it through the February cold weather. It is a good thing that we have video meetings since our February one would have to have been cancelled. Welcome to March. Hopefully our weather will not be as snowy or cold.

One thing we now have is higher hydrocarbon prices. Don't know if it will last but the current ones are encouraging. The remainder of 2021 could be even more challenging.

Your Mid-Con officers continue to search for interesting programs. Keep watching the calendar of events in our Newsletter.

Betty Felber
Editor



Keep your SPE membership
producing for you.

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Calendar of Events

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

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 (ZJ)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 (ZJ)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 evaluate 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 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.

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.

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.

Chairman's Gavel Continued From Page 1

If the emergency requires you to leave your home and seek shelter elsewhere, are you prepared with the essentials you need to survive? You can go to FEMA's website to get the basics at www.ready.gov. I would suggest that you go there and review the information to start your emergency preparations so that you are ready for whatever emergency comes your way.

Evaluate the risks in advance of the emergency. Assess your resources to deal with each emergency. Develop a plan. Activate the plan when needed to deal with the emergency.

Remember the saying, "P--- poor planning leads to poor performance." Don't be the one to suffer through the poor performance side of the equation in an emergency!

David Krueger
2020-2021 Chairman
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“Success usually comes to those who are too busy to be looking for it.”

– Henry David Thoreau – American Philosopher and Poet

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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>

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