



# spwla today

*See you soon at the SPWLA 66th Annual Symposium!*



NEWSLETTER

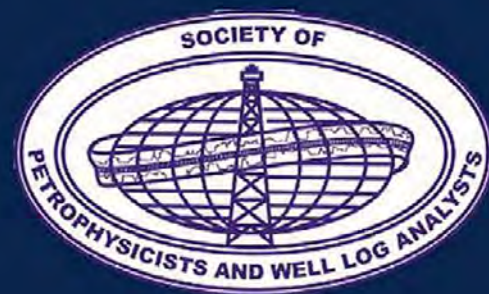
# *Petrophysics Journal*

# PAPERS

- PAPERS ACCEPTED FOR REVIEW THROUGHOUT THE YEAR
- SPWLA CONFERENCE PROCEEDINGS ARE ELIGIBLE FOR SUBMISSION
- PUBLISHED PAPERS AVAILABLE ON SPWLA AND ONEPETRO DIGITAL LIBRARIES



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The Society of Petrophysicists and Well Log Analysts  
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The Society of Petrophysicists and Well Log Analysts  
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CALENDAR OF EVENTS

May 6–9, 2025

*Practical Geomechanics Training Class*  
Instructor: Tom Bratton, PhD  
Online Training Webinar  
www.spwla.org

May 17–21, 2025

*SPWLA 66th Annual Logging Symposium*  
Hilton Habtoor City  
Dubai, UAE  
www.spwla.org

March 23–25, 2026

*SPWLA Topical Conference*  
*Ultradeep Azimuthal Resistivity (UDAR)*  
Geological Society  
London, United Kingdom  
www.spwla.org

About the Cover

The Burj Khalifa, the world's tallest skyscraper, beckons symposium attendees to Dubai, the site of the SPWLA 66th Annual Symposium on May 17–21. See you soon!

Photo credit: EdNurg - stock.adobe.com

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**S. Mark Ma**  
2024–2026  
Vice President Publications

Dear SPWLA Community,

Welcome to this issue of *SPWLA Today*, focusing on the Middle East, particularly the United Arab Emirates (UAE) and one of its seven emirates, Dubai, where the SPWLA 66th Annual Symposium will be held from May 17–21, 2025. If you haven't already done so, please register using the link below.

### **SPWLA 66th ANNUAL SYMPOSIUM**

The SPWLA 66th Annual Symposium promises to be an exciting event, with a solid technical program, social events, and several pre-event workshops, including the Casedhole Nuclear Logging Workshop: Basics, Advances, and Novel Applications on May 18, 2025, organized by Drs. Ahmed Badruzzaman (a Chevron retiree) and Dale Fitz (an Exxon retiree). As our reservoirs mature, reservoir surveillance petrophysics becomes increasingly important, much like how family doctors become more vital to our health and well-being as we age.

In addition, as you may already know, SPWLA will recognize Dr. Ahmed Badruzzaman at this symposium with its highest honor, the Gold Medal. Congratulations, Ahmed!

While Dubai is renowned for being one of the most vibrant cities in the world, you may be less familiar with the other six emirates that make up the UAE. Listed alphabetically, they are:

1. Abu Dhabi (the largest and most influential)
2. Ajman
3. Fujairah
4. Sharjah
5. Dubai
6. Ras Al Khaimah
7. Umm Al Quwain

I highly recommend renting a car and spending a few days exploring each of these emirates. I had the opportunity to do so a few years ago, and it was a truly memorable experience.

We look forward to seeing you at the SPWLA 66th Annual Symposium in Dubai, where you can enjoy learning and networking with fellow professionals!

Best wishes,  
S. Mark Ma  
VP Publications

## From the President



Iulian N. Hulea  
2024–2025 President

Dear colleagues,

As I write my final column as President of SPWLA, I am filled with gratitude for the privilege of serving this remarkable community. It has been an absolute honor to work alongside such talented professionals, and I sincerely thank you for entrusting me with this role.

I would also like to express my deepest appreciation to the board members—you have made this journey truly seamless. Your enthusiasm and professionalism are qualities any organization would envy, and working alongside you has been an inspiring experience.

This moment provides a great opportunity to reflect on the past year—the challenges we tackled, the progress we made, and the goals we set together. One of the key aspects I want to revisit is the list of tasks and targets we established as a team. These have been published and are attached for your convenience, offering valuable insight into the strides we have taken together. While not all have been completed (as expected), they lay the groundwork for the new board to build upon—particularly in drafting rules for symposium bid evaluation criteria.

Beyond these objectives, I have had the privilege of engaging with our global community. Visiting the **Stavanger Chapter** was an enriching experience, and I look forward to continuing this engagement with planned visits to **Aberdeen** and **London**. Connecting with members across different regions has reaffirmed the strength and diversity of our organization, and I am eager to further cultivate these discussions.

Looking ahead, I am excited to see many of you at **SPWLA's upcoming gathering in Dubai**—a wonderful occasion to exchange ideas, celebrate our achievements, and forge new collaborations. As I prepare for this transition, I welcome any feedback or insights you may have. Your perspectives are invaluable, and I truly appreciate hearing from you as we continue shaping the future of SPWLA together.

Thank you once again for your support, dedication, and commitment to advancing our field. It has truly been an honor, and while my tenure as President is coming to an end, I am proud and grateful to remain part of the SPWLA family. Attached is a slide from my presentation that reflects how I envision and represent our SPWLA family!

Warm regards,  
Iulian N. Hulea  
President



## Team deliverables:

### Community & Membership

#### 1. President:

- a. attend JFES and deliver SPWLA contribution.
- b. work towards higher membership
- c. Investigate suitability of an additional Saudi/Abu Dhabi/Dubai visit.
- d. maintain a SPWLA presentation slide pack

#### 2. President Elect: Strengthen SIG interactions.

- a. Organize periodical (online- 1x every 2 months) calls.
- b. Join where possible the SIGs conferences.
- c. Solicit bids for 2027 symposium: President elect, President (October)

#### 3. VP Education and VP Tech (23-24): deliver the distinguished speakers list (8 weeks after symposium conclusion- done).

- a. Assign monthly slots for DL global webinars for 2024/25 DL's
- b. VP Tech: start drafting BID symposium evaluation criteria

#### 4. VP Tech and VP Tech elect

- a. Publish and respect timeline and evaluation metric for the abstracts (publish by the time of closing the abstract submission system).
- b. Deliver symposium Technical content on time.

#### 5. Regional directors

- a. Engage with current chapters, have an engagement plan
- b. Follow and report on regional conferences.
- c. Maintain an evergreen chapter officer list.
- d. Open new chapters: LAM (Villa Hermosa, Suriname: rejected proposal, Venezuela?)
- e. Support and contact Student Chapters.
- f. Map inactive Student chapters.

#### 6. VP Communication

- a. Abstracts advice (done)
- b. Keep community engaged.
  1. LinkedIn presence with DL list and events
  2. Promote workshops and regional conferences.

### Finances

#### 1. ALL: work towards a successful 2025 Symposium:

- a. Sponsorship – investigate adding a sponsorship committee/ Consider appointing VP sponsorship
  - b. Work on visibility to increase conference attendance
  - c. VP Communication prepare email signature?
- #### 2. VP Publications: work on Newly created Technology Column (NTC)

### Organization (SPWLA governing body)

#### 1. Main task: deliver 2025 symposium

- a. Executive director is here key.
- b. Strengthen relationship with the host Dubai chapter.
- c. President and Executive director: Get the Symposium 2026 location completed.



**Robert H (Bob) Gales**  
2024–2025  
President-Elect

The 66th Annual Symposium in Dubai is just around the corner. I hope to see everyone there. I'm honored to be your next president and look forward to working with the board, SIGs, and local chapters to continue the SPWLA goals of increasing member engagement and knowledge sharing. Feel free to reach out anytime.

We recently held the SIG Q-2 update. It is exciting visiting with the SIGs on their increased webinars and workshops to share knowledge. I encourage everyone to join and contribute. A few SIG highlights:

- Rejuvenation of ASET SIG – New officers elected, annual symposium workshop created, SPWLA website updated, LinkedIn site created, first webinar scheduled with former SPWLA President Katerina Yared.
- The Nuclear SIG reviewed accepted student abstracts and accepted nuclear abstracts for scholarship candidates.
- There has been interest from the Educational SIG in helping update the SIG SPWLA websites and descriptions, engaging with the VP Education, and helping evaluate the “Q&A Chat” function.
- The UDAR community created an organizing committee and has confirmed a March 2026 UDAR Topical Conference in London that is co-sponsored by SPWLA and the London Petrophysical Society. This will be different with published papers on *OnePetro* and a *Petrophysics* journal UDAR special issue with the best papers. The “Call for Abstracts” is open.
- The Formation Testing (FT) SIG is hosting its annual meeting in Dubai after the SPWLA 66th Annual Symposium to make it easier for more international members. They have moved to monthly webinars to increase member engagement.
- The Borehole Image (BHI) SIG hosted the 5th BHI SIG Workshop on BHI in Geomechanics online workshop on February 27, 2025. They have been building a YouTube library (SPWLA Borehole Imaging SIG) of these events, which now has 10 videos.

Search SPWLA on YouTube, and you will find a rich resource of information.

We encourage all SIGs and chapters—local and student—to update events (monthly meetings and special events) on the SPWLA website. (Sharon and Stephanie can walk you through this.) It not only gives ideas to other chapters, but when hybrid, it allows global geoscientists to join. We can support getting the word out on social media. Here are a couple of examples of recent or upcoming seminars that showcase the range of knowledge sharing within SPWLA and are a great resource to reach out to for ideas.

- LPS: March 6, 2025, One-Day Seminar: “Petrophysics of Abandonment”
  - o June 19, 2025, One-Day Seminar: “Everything Coring”
- Saudi Arabia Chapter: May 7–8, 2025, 16th Topical Conference: “Shaping Sustainability: Exploring and Producing Transition Minerals”

Please forward other ideas to improve your society.

Regards,

Robert H. (Bob) Gales  
2024–2025 SPWLA President-Elect  
President-Elect@spwla.org



Tegwyn JP Perkins  
2024–2025 VP Information  
Technology  
SPWLA 64th President

Hello, and welcome to my last column for the *SPWLA Today* newsletter. After nine incredibly rewarding years serving on this volunteer board, the time has come for me to move on. I want to express my heartfelt gratitude to each of you for your dedication, collaboration, and unwavering commitment to our shared mission. It has been a privilege to work alongside such passionate and inspiring individuals.

To name everyone I've worked with over the years would be far too long of a read (and a test of my memory), so I'll focus on the current board. They are an amazing group; a big thank-you to all of you: **Iulian, Bob, Harry, Robin, Matt, Mark, Jing, Chelsea, Amer, Clara, Mathias, Elsa, Marta and Yuki**. I'd also like to thank the SPWLA Business Office team of **Sharon** and **Stephanie** and our *Petrophysics* journal editor, **Elizabeth**. Without them, the entire society would grind to a halt.

As I'm sure you've already seen, the results of the SPWLA elections have been announced. I'd like to thank everyone who ran, and if you were unsuccessful this time, please run again soon. I believe I hold the record for the most failed attempts at SPWLA board positions – but I can attest that it is worth persevering! Taking over from me as VP Information Technology is **Peter Barrett**. I have known Peter for a long time, and I know that he will take the position to new heights. I wish him all the best, and I'm happy to consult should he need assistance.

My primary goal for 2024–2025 was the adoption of a new abstract submission process. Previously, we were using a WordPress-based system called WP Abstracts. This provided an adequate platform for several years but had its limitations. Consequently, when we migrated to the upgraded spwla.org website, we evaluated a sister product called OpenWater. It has proven to be a significant improvement in functionality and stability. Due to the potential learning curve, we remained with WP Abstracts for the 2025 Annual Symposium, but we started using OpenWater for various abstract and form submission programs, including the Annual Award Nominations, International Student Paper Contest, SPWLA Foundation Scholarship and Grants program, and the most recent Borehole Imaging SIG workshop. We plan to use it for the upcoming Spring Topical Conference (more information is available elsewhere in this edition of *SPWLA Today*) and the 2026 Annual Symposium. Unlike its predecessor, OpenWater can manage multiple events simultaneously and has excellent judging tools built in. Personally, I have loved working with it, and I know that Peter will, too.

Just in case you have forgotten, the **2025 SPWLA Symposium** will be held at **Hilton Dubai Al Habtoor City** in **Dubai, UAE**, on **May 17–21, 2025**, and will be hosted by the **SPWLA Dubai Chapter**.

Finally, I'd like to thank my wife, **Julie**, who not only puts up with me but has been extensively involved with SPWLA over the years.

I look forward to seeing you at the symposium in May. Please feel free to say "Hello!"

Over and out,  
Tegwyn JP Perkins  
VP Information Technology  
SPWLA 64th President



Jing Li  
2023–2025 VP Finance,  
Secretary, and  
Administration

Dear SPWLA colleagues,

I am honored to have been re-elected as SPWLA VP Finance, Secretary, and Administration for the 2025–2027 term. Thank you all for your trust and support—it truly means a lot. I look forward to continuing the important work we’ve started and making this next term even more impactful. Let’s keep moving forward together!

### Membership

As of April 8, 2024, SPWLA has sold **24 copies of the printed *Petrophysics* journal** and reached a total of **1,474 members**. Thank you to everyone who has joined or renewed—your support is vital to our community. If you haven’t yet renewed your membership, we kindly encourage you to do so. **Membership dues are a key source of income** and help us continue delivering value through publications, events, and member services. Below, you’ll find a breakdown of current membership by percentage.

### Financial Snapshot: May 2024–April 2025

SPWLA continues to demonstrate steady and strong financial growth. The pie charts below visually summarize **revenue and expense distributions** from May 2024 through April 2025. *Please note that these figures may not include deferred income from the annual symposium and prepaid symposium expenses.*

The charts offer insight into how funds are distributed across core areas, including:

- Annual Symposium
- Membership Dues
- *Petrophysics* Journal Production
- Publication Sales
- Payroll, Operations, Facilities, Equipment, Contract Services, and more

### Get Involved

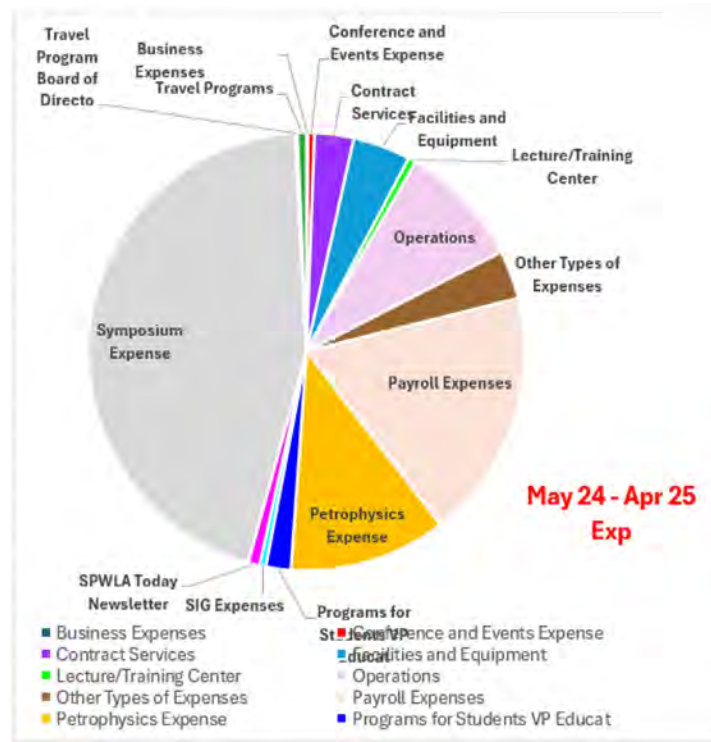
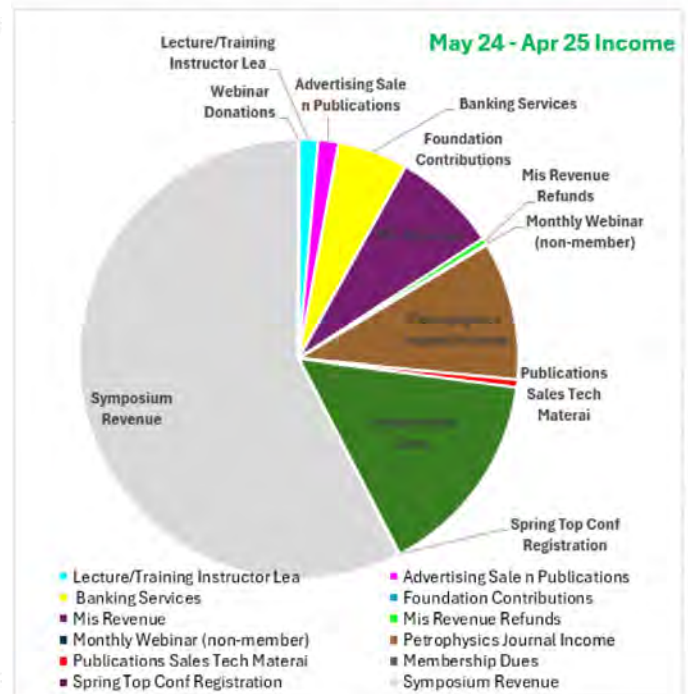
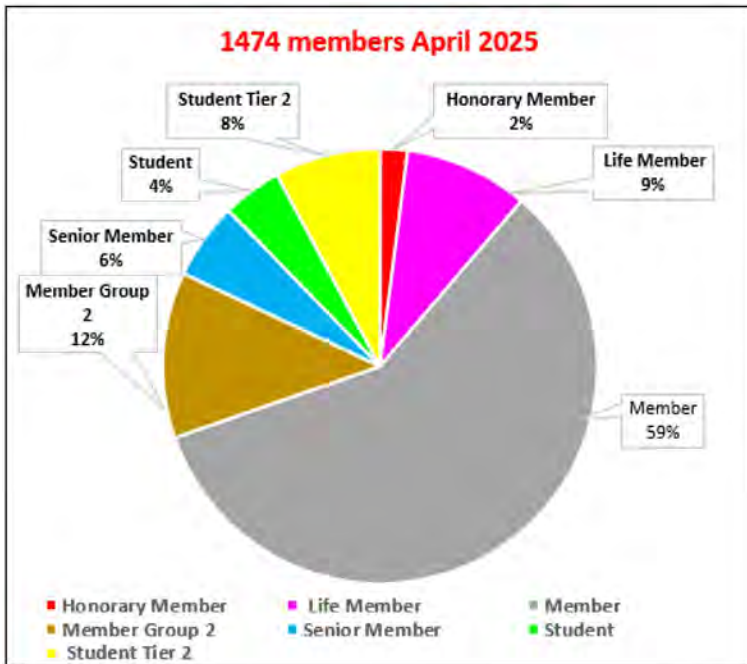
We value your feedback and welcome suggestions—especially ideas for **new revenue streams** or ways to enhance member value further. Your continued engagement is essential to SPWLA’s ongoing success.

Thank you for being a part of our community. Together, we’re building a stronger, more connected future.

Sincerely,

Jing Li

VP Finance, Secretary, and Administration





**Matt Blyth**  
**2024–2026**  
**VP Education**

**Dear SPWLA community,**

Hello! By the time you read this, we will have almost completed our 2024–2025 Global Distinguished Speaker (GDS) Webinar series, and it will be time to head to Dubai! The selection of presentations for the International Student Paper Competition (ISPC) on May 18 has been completed, and we will have 17 attendees split across the three categories. If you will be in Dubai for the symposium and wish to help judge the ISPC, please reach out to me using the email below. This competition is a chance for the members of our student chapters to compete against each other to win a cash prize that will be awarded to the winners in three categories (Undergraduate, Master’s, and PhD), and it promises to be a fun and engaging event!

As mentioned, we will be finishing up our GDS speaker series before the next time you read a VP Education report. After we finish the Dubai symposium, we will compile the ranking of all talks and papers from the symposium and select our 2025–2026 Global Distinguished Speakers. Webinars will begin again in September. At the same time, we will be asking all the chapters around the world to submit their nominations for Regional Distinguished Speakers, and we will announce those at a similar time.

Meanwhile, we are always looking for willing volunteers for our other SPWLA educational events.

- **Short Courses:** We need people who are willing to teach short courses on any relevant topics. These courses can be as long or as short as needed and are usually taught online, with half days each day, to allow attendees to balance work and training.
- **On-demand Training Classes:** These courses are available over an extended period, with attendees being able to access prerecorded training modules online and then attend scheduled Q&A sessions with the course instructor. This is a great opportunity to deliver a training course that is perhaps too long to do in a single week.
- **Nuggets of Wisdom:** This is a series of online talks by industry experts on particular topics that interest them most.

So, if you have a passion for a particular subject and would like to teach a course or class or just record your thoughts as an online information archive, then please contact me at [VP-Education@spwla.org](mailto:VP-Education@spwla.org)!

Take care!  
Matt Blyth  
VP Education



**Chelsea Newgord**  
2023–2025  
VP Communications

Hello SPWLA colleagues,

I hope that our SPWLA community has been kept up to date on SPWLA activities, has opened pathways of communication within our industries, and has also brought value to our neighboring spheres of influence. I’ve learned a lot in the past 2 years as VP Communications and am thankful for this opportunity. Chicheng Xu was elected as the VP Communications for 2025–2027. We have already met, and I’m excited to see how he contributes to the society!

**Table of Followers of Each Social Media Account Over the Past 2 Years**

Platform	Handle	Followers (June 2023)	Followers (4/14/24)	Followers (4/15/25)
LinkedIn Profile	<a href="#">SPWLA SocialMedia</a>	3,840	4,050	4,655
LinkedIn Page	<a href="#">Society of Petrophysicists and Well Log Analysts (SPWLA)</a>		4,701	6,542
Instagram	<a href="#">@spwlaorg</a>	*	*	378
Facebook	<a href="#">Society of Petrophysicists and Well Log Analysts (SPWLA)</a>	<3,000	*	3,250
X	<a href="#">@spwlaorg</a>	636	>650 (Sep '24)	643
YouTube	<a href="#">SPWLA International</a>	687	869	1,124

\*Note that some platforms are difficult to see past analytics on their platform. In these cases, I relied on what I had documented for the BOD/Newsletter.

Many thanks to those who helped with social media posts on the SPWLA Communications Committee: Joshua Bautista, Adna Vasconcelos, Angela Stefany Tarazona Robles, and Ildus Islamgulov. Thanks to the SPWLA business office, fellow Board of Directors, and SPWLA Chapter/SIG leaders. It has been great working with this team!

Keep in touch!  
Chelsea Newgord  
2023–2025 VP Communications  
[VP-Communications@spwla.org](mailto:VP-Communications@spwla.org)



## Regional Understandings–North America 1



Amer Hanif  
2024–2026 NA1 Regional  
Director

Dear SPWLA members,

Our North America 1 region has had an exciting 2 months since the last newsletter. Those of you following US energy sector news may have come across the announcement about new lease sales in the Gulf of America continental shelf and seen the anxiety around tariffs triggering roller-coaster market events not for the faint of heart. However, our chapter boards deserve particular applause for staying as focused as ever.

Starting with some student chapter news this time, **Texas A&M University – Kingsville (TAMUK)** made great strides towards reactivating the SPWLA student chapter on their campus. This proud school has students representing 40 US states and more than 35 foreign countries. With guidance from **Dr. Subbarao Yelisetti**, faculty advisor and director of petrophysics, MSc petrophysics student **Papa Kwesi Kyir Eshun** has successfully invited students to join the student chapter and volunteer for board positions. Together, they are determined to increase membership and connect with other student chapters, providing fellow students a forum for both knowledge sharing and professional development.



Texas A&M University – Kingsville: (left image, from left to right) The newly formed SPWLA Student Chapter getting together for a strategy meeting. Attendees included Professor Subbarao Yelisetti (faculty advisor), Papa Kwesi Kyir Eshun (president), Emma Mroz (editor), Ndeshihafela Kafidi (treasurer), Tresia Shifugula (secretary), and Iris Valeria Montero Rodriguez (vice president). (Right image) Board members posing in front of the university landmark javelina mascot statues.

The **University of Texas at Austin** and the **University of Houston** joined other student chapters and distinguished industry guest participants from the USA and Latin America in a two-day student-focused symposium with the theme “The Importance of Petrophysics in the New Energy Era.” Speakers shared their knowledge and research covering energy transition topics, including CCUS, geothermal, hydrogen, and lithium. **Clara Palencia**, Regional Director NA2, led the effort, which turned out to be a great success and quite possibly a stepping stone towards some new, impactful ideas for our evolving industry.

The **University of Houston** organized an industry study tour for its members at the Baker Hughes Education Center and Technology Center. Chapter President **Musa Ahmed** led the planning of the tour, which gave an opportunity to students to learn about both well-logging field operations and technology development. They also met young geoscientists in the company who shared their work experiences with the group. The chapter is planning to hold elections for the new board before they break for summer.

Both UT Austin and U of H also have a strong representation in the SPWLA Annual Symposium technical program this year, with participation in at least 18 papers as per my last count.

## Regional Understandings–North America 1



U of H SPWLA Student Chapter visit Baker Hughes in Houston, TX, for a study tour: (top) Group picture with oilwell drilling rigs in the background; (bottom) at Baker Hughes Technology Center for the second half of the tour to learn the technology development processes.



The University of Texas at Austin, community building and membership growth initiatives by the chapter: (top) Board members participating in the university Longhorn run, and (bottom) potluck get-together treating attendees to delicious foods from all over the world.

## Regional Understandings–North America 1

The **University of Louisiana at Lafayette** had new board elections on March 28. PhD student **Derrick Oladele** takes over as the newly elected president, replacing Aboubakar Kone, who has graduated and moved to his professional career in the industry. **Derrick Adgei** was elected as vice president. The chapter currently serves about 20 members, with **Dr. Medhi Mokhtari** as their faculty advisor.

**SPWLA Dallas Chapter** well-wishers showed up in great numbers to support the first technical talk since the revival of activities. Regional Distinguished Speaker Dale Fitz took the audience on a journey through time on the “Evolution of Casedhole Nuclear Surveillance Logging.” A second technical talk was held in April, and the team is introducing social get-togethers (Happy Hours) to bring the local petrophysics enthusiasts together (follow their LinkedIn page for updates: <https://www.linkedin.com/company/spwla-dallas-chapter/about/>).



It was all smiles as our Dallas Chapter members got together for their first technical talk of the year. Distinguished Speaker Dale Fitz took time out to pose with the attendees (seated furthest to the right).

Our **Houston Chapter** is putting up a remarkable number of talks, and their ability to keep the topics both diverse and relevant amazes me. Find their column in this newsletter for details on these talks or visit the Lunch Seminars/Archive section on their webpage (<https://www.spwla-houston.org/>). Congratulations to **Artur Posenato Garcia**, VP Downtown, who is taking on a bigger responsibility on the international board as VP Technology-Elect. Kudos also to Chapter Editor **Muhammad Khan** for getting his paper selected for presentation in the ISPC student paper competition in Dubai.



Houston Chapter hosting technical luncheon events on a diverse selection of topics: (clockwise from top left) Zeyad Ramadan receiving an appreciation gift from VP Westside QinShan Yang for an excellent talk on ROP impacts on LWD NMR; Michael Rabinovich made us understand the meaning of  $R_{deep}$  versus  $R_i$  from unfocused while-drilling logs; Houston Chapter President Ron Bonnie introducing David Kennedy who made us rethink our traditional concepts applied to evaluation of shaly sands, and past SPWLA President Jesus Salazar giving a motivational talk to petrophysicists, both young and old, on new opportunities evolving with the energy transition.

## Regional Understandings—North America 1



Houston Chapter hosting technical luncheon events on a diverse selection of topics: (left) Past President Zach Liu shared his experience running a small, near-site CCS project and (right) 2024 Distinguished Speaker Alexandre Perrier presents “AI-Driven Interpretation of Borehole Images in Real Time.”



See how many SPWLA presidents—past and future—you can name in this great networking event hosted by the Houston Chapter. You get full marks if you can name four.

Amer Hanif  
NA1 Regional Director

## Regional Understandings—North America 2



**Clara Palencia**  
**2023–2025 North America 2**  
**Regional Director**

We did it! Our Student Chapter Symposium held in the first week of April was a resounding success. It was truly inspiring to witness such commitment, encouragement, and enthusiasm from the industry, especially from students across the USA and Latin America, making this event possible. This accomplishment was the result of nearly a year of effort from professionals and student chapters in Houston, Oklahoma, Midland, Bakersfield, Argentina, Brazil, and Colombia.

A special thanks to the University of Houston, University of Oklahoma, University of Tulsa, University of Columbia, UIS (Colombia), UBA, de La Plata (Argentina), Universidad de Rio de Janeiro, and UFC (Brazil) for their engaging and insightful talks.

The mini-symposium spanned 2 days, with over 300 registrations and an average of 60 to 70 attendees participating in the virtual sessions each day. The symposium featured presentations on crucial topics such as CO<sub>2</sub> storage, geothermal energy, lithium extraction, underground injection, and petrophysics in lava flow from Brazil.

A sincere thanks to all the speakers and keynote speakers, including Andres Mantilla and Zach Liu, PE, PG, and CFA. To the students, this event was made by you and for you. Continue bringing your NEW ENERGY to the society.

The theme of the symposium was the role of petrophysics in the new energy era. We are excited about the diverse participation and the array of topics we gathered for our program. I am deeply grateful to all contributors, especially the regional directors (NA1 and Latin America) and the professional chapter presidents from Houston, Denver, Oklahoma, Bakersfield, Tulsa, Midland, Argentina, Colombia, and Brazil.

It is truly inspiring to witness the collective efforts and unwavering dedication of our team from both the USA and Latin America. Their passion and hard work have been the driving force behind making this dream a reality. The preparation for the second Student Chapter Mini-Symposium has been a labor of love, filled with hours of planning and collaboration. We are immensely grateful for the support and enthusiasm shown by everyone involved.

Our dream is that this second virtual mini-symposium sets the stage for an in-person SPWLA Student Symposium in the future, driven by the enthusiasm and dedication of students and industry professionals. We look forward to an inspiring event that will set new standards for collaboration.

All the best,  
Clara Palencia  
NA2 Regional Director

## Regional Understandings—Latin America



**Marta Inés D'Angiola**  
2024–2026 Latin America  
Regional Director

Dear colleagues and friends,

With the arrival of autumn in South America, a sense of renewal fills the air. The leaves change color, the weather becomes cooler, and it marks the beginning of a new chapter for many as classes resume and daily routines return after the summer break.

For university students, this season signals the start of a fresh academic cycle full of promise and challenges. After a well-deserved rest, they return to the classroom with renewed energy, ready to absorb knowledge and face the demands of learning. It's a time to reconnect with friends, professors, and the study habits that will shape their future.

The return to daily activities also means reactivating postponed projects and organizing ourselves to reach personal and professional goals. It's the perfect moment to revisit plans that were put on hold during the holidays and give them the momentum they need to become reality.

Moreover, autumn invites us to reflect on the ever-changing rhythm of the seasons and how these natural cycles mirror our own personal growth. It's a reminder of the importance of adapting to change and embracing every opportunity to learn and evolve.

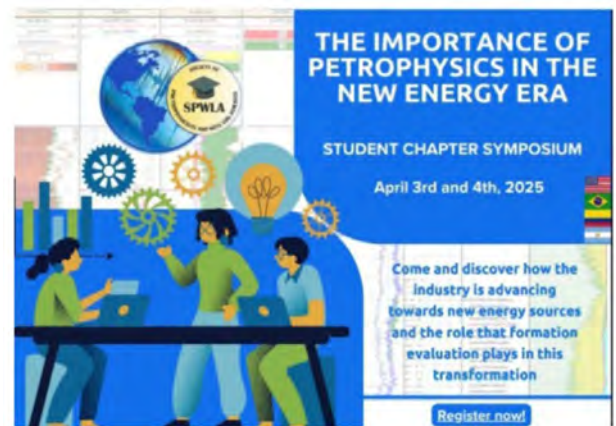
Early in April, a two-day event titled "The Role of Petrophysicists in the Face of New Energies" brought together a large number of attendees under the banner of innovation and student leadership. This mini-symposium—organized by and for students from Latin America and North America—focused on how petrophysics is adapting to the energy transition. It drew the attention of professionals and students from around the globe, highlighting the rising interest in how traditional disciplines are evolving to meet the challenges of a changing world.

In many ways, the year's first quarter serves as the starting line for 2025's professional and academic activities. Events like this mini-symposium signal a return to routine and the beginning of renewed momentum for a year full of opportunities.

Let us remember the power of three simple yet magical words that I will share in my own language: *Por favor, perdón, y gracias!*

Warm regards!

Marta Inés D'Angiola  
Latin America Regional Director



## Regional Understandings—Europe



**Mathias Horstmann**  
2023–2025 Europe  
Regional Director

### Dear SPWLA community,

I hope all SPWLA members had a great spring and Easter break. Being members of good standing, one of your rights is to vote for the new board, including your representative for Europe, and as a result, big congratulations to Pascal Debec!

Pascal will take over the Regional Director role at our coming symposium in Dubai. Knowing Europe will be in safe hands, I can relax and enjoy all the memories I've made during my 2 years within the two presidents and boards. It has further affirmed my view of SPWLA, which has always played an important role in my professional life, previously as a member, then as a local VP Program and Chapter President, and now as a member of the BOD. Initially, I thought it was all about knowledge and technology, but growing in the society and especially after these 2 years, I'd say it's all about building bridges. Like me in the picture standing on the Eurasian and North American plates during the 2016 symposium field trip, bridges between our great people around the world, the many chapters, technical committees, the SIGs and student chapters, the Distinguished Speakers, and for sure, the (very) individual board members and our great presidents. Basically, these bridges support and connect all who make it work, keep it interesting, and help us get better at what we

do. We need all of them, being a pure volunteering organization, and we should appreciate all the personal time they invest in making SPWLA what it is. Sincere thanks to the fantastic boards with Jennifer and Iulian at the helm, and very special thanks to the wonderful business office with Sharon and Stephanie. Boards come and go, but they are always there! I didn't quite expect how much I would learn and appreciate y'all. Thanks for having me over these years. I hope I was a valuable and not just a too loud European voice!

Now, let's move swiftly on and let Pascal introduce himself. Bis bald und Glück auf!

### Dear SPWLA folks,

I am delighted and honored to serve as Regional Director for Europe and to work with all of you who drive our community forward. You have always maintained the highest standards in petrophysics and well-log analysis, encouraged innovation, and supported each other's professional growth.

I am particularly proud and enthusiastic as we approach the 100th anniversary of the first log recorded in France at Pechelbronn in 1927... Let's not miss this opportunity to come together around our core expertise!

I come from the wonderful interdisciplinary world of geosciences, with a background in sedimentology, seismic stratigraphy, AVO, and petro-elastics. I've always found that the most valuable advancements arise from the contact between different approaches. No surprise, then, that one of my first missions will be to encourage cross-fertilization and communication between our different chapters and Special Interest Groups (SIGs). By fostering close connections and collaborations, we will continue to highlight Europe's excellence in all kinds of energies. Mathias has already done a lot in this regard; he has given an essential impetus for which I am grateful. Great thanks for his work.

Many thanks for your support and trust. Looking forward to an exciting journey ahead with you all!

~Pascal Debec

Bye for now. Keep well, and stay tuned!

All the best,  
Mathias

Mathias Horstmann  
2023–2025 Europe Regional Director  
Director-Europe@spwla.org

## Regional Understandings–Asia Pacific/Australia



**Yuki Maehara**  
2023–2025 Asia Pacific  
Regional Director

Dear SPWLA members,

As we transition from the brisk winter months into the warmth of summer in the Northern Hemisphere, I am thrilled to share some exciting developments and achievements from the Asia Pacific region. In the last quarter, the TFES was officially established as an SPWLA chapter following approval by the SPWLA Board of Directors. During my recent visit to Taipei, I had the pleasure of meeting with Professor Dr. Wu, who spearheaded this initiative. This marks the second professional chapter formed in the Asia Pacific region during my tenure as director. I am committed to supporting their activities as much as possible and eagerly anticipate attending their upcoming events.



TFES Prof. Wu (left) and me (right).

On March 13, 2025, I participated in the chapter meeting of the Japan Formation Evaluation Society (JFES) in Tokyo. The meeting featured two informative presentations by Halliburton, showcasing their latest technologies in cementing and measurement, monitoring, and verification (MMV). Following the lectures, we enjoyed an icebreaker session at a nearby restaurant, which provided a wonderful opportunity for networking and was perfectly timed with the beautiful Sakura season.

I am also pleased to report that the committee for the 2025 Asia-Pacific Regional Conference has been established. This exciting event is scheduled for November 2025 in Kuala Lumpur and will be co-organized with the European Association of Geoscientists and Engineers (EAGE). The SPWLA Malaysia Chapter (FESM) is leading the organization of this conference. I am hopeful for a large turnout and a successful event.

In the coming months, I look forward to participating in several distinguished lectures, and I will provide updates on these in the next edition of SPWLA Today.

Thank you for your attention,  
Yuki Maehara  
Asia Pacific Regional Director  
Director-Asiapacific@spwla.org



Photo of JFES Chapter Meeting



May 2025

2025 Steering  
Committee

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Issa Haddad

Javier Miranda

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SPWLAYP@SPWLA.ORG

In this edition:

Pursuing Graduate  
Studies in the USA  
By Clara Palencia

SPWLA Papers of the  
Quarter Series  
By Issa Haddad

## Pursuing Graduate Studies in the USA



Clara Palencia  
Petrophysicist  
SPWLA North America  
Regional Director II

I've been asked several times how to find opportunities for graduate studies programs in the US. Despite the abundance of information, students often feel overwhelmed. The Bridge is an ideal platform to discuss this topic, providing straightforward information and sharing my experience as I've faced similar challenges.

The journey to obtaining a master's or PhD in the United States is a *dream* for many international students, particularly those aspiring to enter specialized fields such as geoscience and energy. This essay outlines the best path to follow, emphasizing the critical steps of finding a reputable university and a dedicated advisor while also considering the supportive programs available in various countries, with a specific example from Colombia.

Selecting a suitable university is the *cornerstone of a successful academic and professional journey*. Prospective students should prioritize institutions that are renowned for their research facilities, academic reputation, and strong industry connections. For geoscience and energy professionals, it is essential to look for universities with specialized programs that offer cutting-edge research opportunities and hands-on experience.

Equally important as the choice of university is the selection of a *knowledgeable and supportive advisor*. An advisor not only guides students through their research but also mentors them in their professional development. Students should seek advisors whose research interests align with their own and who have a track record of successful mentorship. Building a strong relationship with an advisor can lead to collaborative projects, publications, and valuable networking opportunities within the industry, even after graduation. I am fortunate to have found two wonderful advisors.

Another crucial aspect to consider is the role of professional societies in *expanding your network and finding mentorship*. Joining relevant professional organizations can provide access to a wealth of resources, including conferences, seminars, and workshops where you can meet and connect with experienced professionals. These interactions can lead to valuable advice on forming connections with universities and advisors, ultimately aiding in your academic and career pursuits.

The financial aspect of pursuing higher education in the USA can be daunting, but there are various ways to manage these expenses. Tuition fees vary significantly among institutions and programs, and international students often face higher fees than domestic students. However, many universities offer scholarships, fellowships, and assistantships to help offset costs. Scholarships are typically merit-based, while assistantships may provide both financial aid and professional experience through teaching or research roles.

Many countries offer various programs to assist students in pursuing higher education abroad. These programs can provide financial aid, scholarships, and other resources to ease the transition to studying in a foreign country. For instance, Colombia has several initiatives aimed at supporting its students. The Colombian Institute of Educational Credit and Technical Studies Abroad (ICETEX) offers scholarships and loans to students seeking to study abroad. Other institutions that provide support are Colciencias and Colfuturos. I personally utilized their services, receiving assistance with living expenses for 4 years. Upon

completion, this institution offers various opportunities to present projects, potentially allowing for debt forgiveness. Such programs are essential for enabling students to access quality education without the burden of significant financial constraints.

Now, applying to graduate programs in the United States typically involves meeting several academic and administrative requirements. Prospective students must possess a relevant bachelor's degree from a recognized institution and a strong academic record, while some require a minimum GPA in undergraduate studies. Additionally, universities often require standardized test scores, such as the GRE (Graduate Record Examination), for master's and PhD programs. For non-native English speakers, demonstrating proficiency in English is crucial, usually through tests like TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System).

Applicants must also prepare a comprehensive application package, including a statement of purpose, letters of recommendation, and a resume or CV. The statement of purpose should articulate the applicant's academic and career aspirations and how the chosen program aligns with their goals. Letters of recommendation, ideally from professors or professionals in the field, should endorse the applicant's qualifications and potential for success in the program.

In conclusion, the path to studying for a master's or PhD in the USA involves carefully selecting a reputable university and a dedicated advisor, along with leveraging support programs available in one's home country. By strategically planning and leveraging available resources, international students can make their dream of studying in the USA a reality, ensuring they receive a quality education without excessive financial burden. I hope this short essay can be used as the first guide for those who are thinking of pursuing grad school.

*The SPWLA Papers of the Quarter Series highlights relevant and impactful papers published by the SPWLA. We encourage readers to nominate any papers they have enjoyed and would like to see summarized in the next issue. Nominations should be sent to SPWLAYP@spwla.org.*

**Title:** Laboratory Measurement of Total Porosity and Fluid Saturations for Unconventional Tight Rocks: Methodologies, Challenges, and Comparison<sup>1</sup>

**Authors:** Min Cheng<sup>2</sup>, Rayvan Watson<sup>2</sup>, Alberto Latuff<sup>2</sup>, Aaron Rodriguez<sup>3</sup>, Peter Kaufman<sup>3</sup>, Joshua Miller<sup>3</sup>, Rafael A. Mendoza<sup>2</sup>, Elizabeth Krukowski<sup>2</sup>, and Robert Cole<sup>2</sup>

**Summary:** This paper compares crushed rock analysis (CRA), retort, and nuclear magnetic resonance (NMR) on 15 different samples from Bakken Shale based on total porosity and fluid saturation.

**Key Points:**

**1. Technical Review**

**a. Crushed Rock Analysis (CRA)**

CRA is a common destructive method for shale reservoirs that uses organic solvents to extract fluids. Due to solvents' removal of bitumen, it tends to overestimate porosity and oil content in organic-rich samples. The method is sensitive to core handling and fluid loss and assumes homogeneous fluid distribution.

**b. Retort Method**

This method heats rock samples to a high temperature (300°C) and is designed to have different heat thresholds to separate the free water (105°C) and bound water and oil (300°C). By limiting the temperature to 300°C, bitumen stays intact, an advantage over the CRA method. The retort method fails to separate the water types (bound vs. free) using different heat temperature thresholds in smectite-rich clays.

**c. NMR (Nuclear Magnetic Resonance)**

NMR on core samples is a nondestructive method that detects fluids via hydrogen nuclei behavior. NMR is sensitive to fluid type, pore size, and clay/pyrite content. NMR helps identify fluid mobility and fluid types using  $T_2$  and  $T_1T_2$  maps. High pyrite content may suppress the NMR signal.

**2. Case Study:**

The authors experimented on 15 core samples from multiple wells covering the Upper/Lower/Middle Bakken and Three Forks Formations. The samples were divided into shale (illite/mica-rich) and non-shale (carbonate-rich). They used CRA, retort, NMR, mercury injection capillary pressure (MICP), X-ray diffraction (XRD), and total organic carbon (TOC) methods. The rock fluids are characterized by samples preserved under different conditions (waxed and unwaxed). The salinity assumption was 300 kppm based on brine measured from produced water at the surface

**3. Key Findings**

• **Porosity**

CRA produced higher porosity compared to NMR and retort for shale (CRA is up to 31% higher than the retort method). For the non-shale group (carbonate-rich), NMR was greater than that of CRA and retort. Bitumen extraction during CRA likely inflates porosity readings in shale. Higher pyrite content may suppress NMR signals in shales.

<sup>1</sup>Originally presented at the International Symposium of the Society of Core Analysts, Abu Dhabi, UAE, October 9–12, 2023, Paper SCA2023-021.

<sup>2</sup>Stratum Reservoir

<sup>3</sup>Hess Corporation Exploration & Production

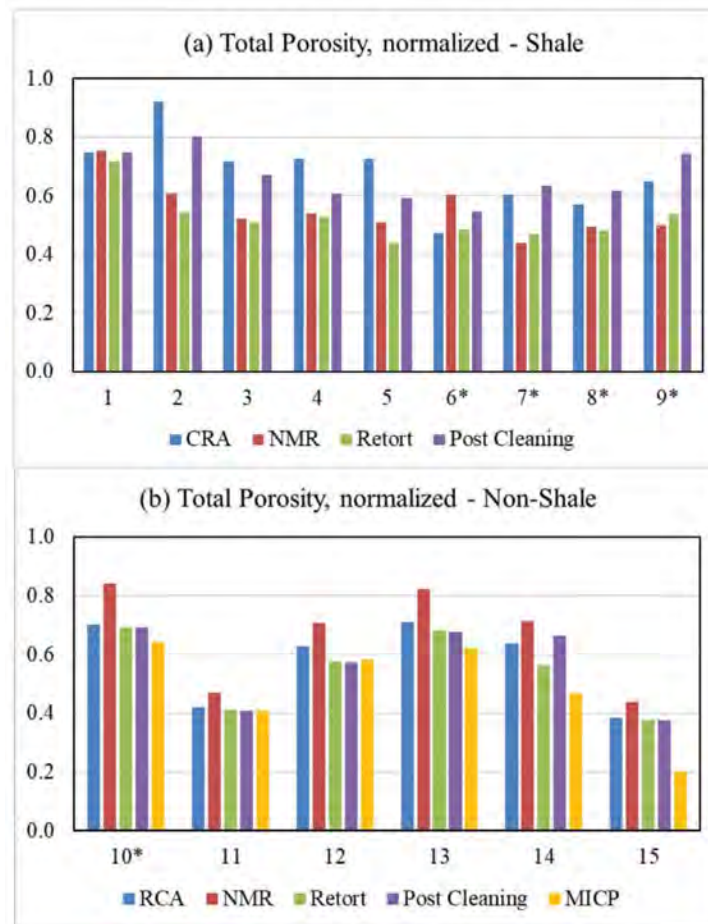


Fig. 1—Total porosity (divided by a specific value) measured by different techniques.

• **Fluid Saturation**

Retort methods show more conservative estimations of oil and water saturations. On the other hand, NMR shows higher liquid volumes due to capturing structural water and bitumen.

• **Fluid Typing and Mobility**

The NMR method helped distinguish fluid types and mobility, with shorter  $T_2$  indicating bound fluids. By combining retort and NMR, the authors were able to determine  $T_2$  cutoffs for free/bound fluid separation.  $T_2$  cutoff values varied by formation. For Upper and Lower Bakken shale, the  $T_2$  cutoff  $\sim 0.16$  ms. For Middle Bakken, it was  $\sim 0.92$  ms, while the Three Forks (carbonate-rich) has a significantly higher  $T_2$  cutoff for free/bound fluid  $\sim 4.59$  ms.

4. **Conclusion**

The 15 core samples did not show a single technique that is thoroughly reliable, and an integration workflow (CRA, retort, NMR) will produce better results. Each method has different limitations, and assumptions must be understood before using the results. CRA is applicable but overestimates fluids in organic-rich formations. Retort is effective but requires assumptions. NMR is versatile but affected by sample composition. Integrating retort and NMR data, as suggested, offers a new path forward for tight rock evaluation.

**Reference:**

Cheng, M., Watson, R., Latuff, A., Rodriguez, A., Kaufman, P., Miller, J., Mendoza, R.A., Krukowski, E., and Cole, R., 2025, Laboratory Measurement of Total Porosity and Fluid Saturations for Unconventional Tight Rocks: Methodologies, Challenges, and Comparison, *Petrophysics*, **66**(2), 250–265. DOI: DOI:10.30632/PJV66N2-2025a4.

SPWLA BOARD OF DIRECTORS MEETING  
REMOTE  
March 7, 2025

President Iulian Hulea called the meeting to order at 7:00 am CST. In attendance,

President-Elect, Robert “Bob” Gales, Vice President Education, Matt Blyth, Vice President Communications, Chelsea Newgord, Vice President Technology, Harry Xie, Vice President, Publications, S. Mark Ma, Vice President Information Technology, Tegwyn Perkins, Vice President Technology-Elect, Robin Slocombe, Regional Director Middle East/ Africa, Elsa Maalouf, Regional Director Asia Pacific/Australia, Yuki Maehara, Regional Director Europe, Mathias Horstmann, Regional Director N. America 1, Amer Hanif, Regional Director N. America 2, Clara Palencia, Executive Director, Sharon Johnson. Regional Director Latin America, Marta D’Angiola, and Vice President Finance, Secretary and Admin, Jing Li

A motion was made by President-Elect Robert “Bob” to waive the reading of the minutes from the January Board of Directors (BOD) meeting. The motion was approved.

### **Discussion Items**

#### **Symposium – Vendor Badge Request**

A request from a vendor to change from three-day single badges to one-day badges. After discussion, it was determined that the total number of badges requested remains within their allotted badge count, and the change was approved for this instance. However, this is not a recommended practice and will not be made permanent.

#### **ORCID Membership Consideration**

VP IT and VP Publications raised the question of whether SPWLA should subscribe to ORCID. After review, it was concluded that current demand does not justify the cost.

#### **Mentorship Program for Students**

The Board discussed inquiries from student members regarding the potential development of a mentoring program similar to the Professional Organizations eMentoring initiative. The goal would be to provide practical career advice and industry insights to young professionals. Further exploration and feedback are needed.

#### **Chapter Continuity and Information Sharing**

There are ongoing efforts to revitalize local and student chapters. Concerns were raised about the lack of formal handover documentation (e.g., bank account information, mailbox access). The Board discussed the importance of having all chapters, including student chapters, regularly update their records with the international office to ensure continuity and smoother transitions.

#### **Streamlining Awards Process**

Discussion was held on improving the process for the Outstanding Chapter Award. With six chapters already nominated and only one award available, the Board considered how to proceed with evaluations to maintain transparency and fairness. This will require ongoing discussion.

### **Action Items**

- President Iulian Hulea will issue a formal letter to Muhammad, reminding him that no additional keynote speakers may be invited, as the symposium program has already been finalized.
- Sharon will investigate the feasibility of enabling an auto-pay option in the membership database.
- Team 2026 has been tasked with identifying a suitable location for the next SPWLA conference.

**A motion** to adjourn the meeting was made by the Vice President Technology, Harry Xie, and seconded by the Vice President Information Technology, Tegwyn Perkins. The meeting was adjourned at 9:49 am.

Respectively Submitted by  
Sharon Johnson  
Executive Director

**NEXT MEETING: May 8, 2025**

## ABU DHABI CHAPTER

The local chapter hosted the monthly technical gathering at ADNOC HQ, where the opening of the event was an inspirational talk by Tegwyn Perkins, the 64th SPWLA President and current VP Information Technology. The members then joined an informative knowledge-sharing session titled “Formation Pressure Test Classification Through Machine Learning.” The latest innovative formation testing workflow steps—index identification, pretest visualization, and automatic classification using K-nearest neighbor (KNN) and light grading boosting machine (LGBM) algorithms—were detailed with insights on the future developments to aid early decision making for reservoir engineers. The interactive session was an opportunity for creative discussions with the presenters, Mahmut Sarili and Tianjun Hou.



## ARGENTINE STUDENT CHAPTER

### General News

The Argentine Student Chapter has officially launched its 2025–2026 term with the appointment of a new Board of Directors. This new cycle represents a major step in consolidating the chapter’s internal structure, which is in line with its continued growth and commitment to academic and organizational excellence.

As part of this institutional development, two new staff have been formally introduced: the Mentorship and Oversight Team and the group of Active Members. These additions aim to strengthen intergenerational support, promote cross-functional participation, and enhance the chapter’s national outreach.

The organizational chart of the Board of Directors 2025–2026 is presented in Fig. 1. We also present the new word teams (Figs. 2 and 3). This expanded structure reinforces the chapter’s operational capacity and strengthens its institutional mission, which is aligned with SPWLA international standards.

We also present the newly established teams:



**Fig. 1**—2025–2026 Executive Committee members of the SPWLA Argentine Student Chapter: Florencia Chiappetta (President), Antonella Grosso (Vice President), Lucía Fábrika (Secretary), Agustina González (Treasurer), and Abril Houser (VP Social Media).



**Figs. 2 and 3**—Organizational chart of the 2025–2026 Executive Committee of the Argentine Student Chapter, including the newly established Mentorship and Oversight Team and Active Members.

**Recent Events**

**3–4 April 2025**—We actively participated in the Mini-Symposium, a significant event that included contributions from professionals in Argentina, Brazil, Colombia, and the United States. On April 4, our chapter played a key role, presenting Argentine professional speakers who shared their research and perspectives, showcasing the high level of knowledge and academic rigor in the local field. Additionally, chapter members attended both days of the event as listeners, benefiting from the diverse range of presentations and discussions. This participation not only underscores the chapter’s commitment to knowledge exchange but also fosters collaboration and learning within the global SPWLA community.



**Fig. 4**—Chapter’s participation in the Mini-Symposium (April 3–4, 2025), featuring presentations by Argentine professionals and active attendance by members as listeners.

**12 April 2025**—The Board of Directors held a working meeting to discuss upcoming strategic activities for the chapter. One of the main topics was the organization of a potential in-person trip to Neuquén, aimed at strengthening ties with the energy industry. The proposed itinerary would include visits to company bases and facilities, as well as the coordination of an on-site event organized directly by the chapter. This planning reflects the committee’s proactive approach and its commitment to expanding technical and professional development opportunities for its members.



**Fig. 5**—Executive Committee working meeting held on April 12, 2025, focused on planning upcoming strategic activities, including a potential technical trip to Neuquén.

**23 April 2025**—A technical talk titled “Well Logging and Its Application in the Oil & Gas Industry” was held, featuring geologist Pablo Cavalleri as a guest speaker. With over 20 years of experience in the O&G sector, Cavalleri (operations manager at High Luck Group) teaches at the National University of Salta. The presentation explored the principles of geophysical well logging, the main types of logs, and their applications—focusing on both the qualitative and quantitative evaluation of hydrocarbon reservoir properties. The event provided valuable insights for attendees and drew participants from across Argentina and the region. This activity reinforced the chapter’s mission to promote high-level educational opportunities.

**PERFILAJE DE POZOS Y SU APLICACIÓN EN LA INDUSTRIA PETROLERA**

**PABLO CAVALLERI**

Geólogo con 20 años de experiencia en la industria O&G, gerente de operaciones en High Luck Group y profesor en Universidad Nacional de Salta.

FECHA: 23 de Abril  
HORARIO: 18hs (ARG)

Inscríbete a través del QR o desde el link de nuestra biografía.

UNIVERSIDAD NACIONAL DE SALTA  
HIGH LUCK

**Fig. 6**—Technical talk “Well Logging and its Application in the Oil & Gas Industry” by geologist Pablo Cavalleri, held on April 23, 2025.

**15 April 2025**—The group of active members recently held a virtual meeting to organize and align their contributions to the chapter’s annual activities. As one of the outcomes, they proposed and committed to coordinating monthly technical talks, which will be held on the last Monday of each month. These sessions aim to provide consistent opportunities for knowledge sharing and professional development. Beyond this initiative, the active members also provide valuable support to the Board of Directors, assisting in the planning and execution of events, communications, and collaborative efforts—playing an essential role in the chapter’s day-to-day operations.



**Fig. 7**—Active members during a virtual meeting on April 15, 2025, to organize monthly talks and support chapter operations.

### Upcoming Events

The chapter is currently coordinating a collaborative activity with another national student chapter, which will take the form of a technical course aimed at expanding knowledge in the key area of petrophysics. This joint initiative will promote exchange and cooperation among students from different regions of the country.

The Board of Directors is also evaluating the organization of a technical field trip to the province of Neuquén, which would include visits to company facilities and a chapter-hosted in-person event. This initiative aims to strengthen connections with the energy industry and provide members with hands-on learning experiences.

Additionally, we are excited to announce that technical talks will be held on the last Monday of every month, continuing our commitment to providing valuable learning opportunities and fostering dialogue between students and industry professionals.

To learn more about us:

- \* Mail: [spwla.arg.sc@gmail.com](mailto:spwla.arg.sc@gmail.com)
- \* LinkedIn: [www.linkedin.com/in/spwla-argentine-student-chapter](https://www.linkedin.com/in/spwla-argentine-student-chapter)
- \* Instagram: <https://www.instagram.com/spwlaarg/>



## ALTERNATIVE SUBSURFACE AND ENERGY TRANSITION (ASET) SIG

In 2025, the ASET SIG has been revitalized with a mix of new and existing board members. We began the year with ambitious plans for a two-day symposium workshop focusing on carbon capture and storage (CCUS) and geothermal energy. After valuable feedback, this was revised to a one-day workshop.

The momentum in the energy transition has been gradually building over the past few years, and going forward, the critical role of the petrophysicist remains key to successful project outcomes and reservoir understanding. As part of our mission, the ASET SIG is steadfast in advancing petrophysics and formation evaluation within the alternative subsurface and energy transition sectors.

We welcome additional members to the ASET SIG! If you are passionate about petrophysics and the energy transition and want to get involved, we encourage you to join and **contact us at [aset\\_sig@spwla.org](mailto:aset_sig@spwla.org)**.

Below, you will see some more information on our news and activities and how to stay up to date. We hope to share further information with the community in the upcoming weeks. We are looking forward to showcasing excellent talks this year, so please get in touch.

For inquiries or to share relevant talks on ASET projects, please reach out to us at **[aset\\_sig@spwla.org](mailto:aset_sig@spwla.org)**.

The ASET SIG LinkedIn page is live, providing updates and engagement opportunities.

Follow us at **[ASET SIG LinkedIn](#)**. Follow us to stay up to date with news and events!

### General News

Elections earlier this year brought together the 2025 ASET SIG board:

**Chair:** Gerold Tischler (petrophysical advisor and alt. earth product champion, Alternative Earth)

**Vice Chair:** Femi Onita (lead petrophysicist, Shell)

**Secretary:** Robert Laronga (petrophysics domain and principal geologist, CCUS, Energy Transition, & Unconventional Resources, SLB)

**VP Seminars:** Kelly Skuce (chief petrophysicist, Core Petrophysical, SPWLA VP Education 2022–24)

**VP Geomechanics:** Tegwyn Perkins (64th President, SPWLA, product champion, geoenvironment, Geoactive)

**VP Permitting:** Katy Larson (carbon sequestration compliance manager, Tallgrass Energy)

**VP Publications:** Tom Bradley (associate fellow at Baker Hughes)

**Past Chair:** Kelly Skuce

### Upcoming Events

**SPWLA Dubai Symposium: Workshop 5: Petrophysics in the Energy Transition (NR)**

**Date:** Saturday, May 17, 2025 (TBC)

**Organizers:** Robert Laronga (SLB), Tom Bradley (Baker Hughes), Femi Onita (Shell), Kelly Skuce (Core Petrophysical), Gerold Tischler (Alt. Earth Product Champion)

**SPWLA ASET SIG Webinar: Unlocking New Energy Frontiers: How Oil and Gas Expertise Catalyzes Geothermal Development**

**Speaker:** Katerina Yared (Orka Switch Solutions LLC)

**Date:** Thursday, May 29, 2025 (TBC)

## BANGKOK CHAPTER

### General News

The Bangkok Chapter holds meetings most months. The meetings are held on the 4th Thursday of each month, starting at 5 pm with a networking session with food and drinks, followed by a technical presentation at 6:15 pm. There is no charge to attend, but we do ask that you register in advance so that we can tell the hotel how many people are expected.

**2025 Bangkok Chapter Committee Members are:**

**Chapter President:** Andrew Cox

**Technical Coordinator:** Ryan Banas

**Sponsorship:** Marvin Rourke

**Secretary:** Ronald Ford

**Treasurer:** Nipista Pongpanit

**Web Coordinator:** Alex Beviss

**Corporate Liaison:** Rinlita Lertkornteeranan

**Student Liaison:** OPEN



**Website:** [https://www.spwla.org/SPWLA/Chapters\\_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx](https://www.spwla.org/SPWLA/Chapters_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx)

**Email:** [bangkok.chapter@spwla.org](mailto:bangkok.chapter@spwla.org)

### Recent Events

**27 March 2025—Student Day:** “Alteration of Mineralogy of Dolostone During Sulfate-Enriched Low Salinity Waterflooding” presented by Mr. Worathon Polpitak and Miss Anantaya Ninnangkul, students from Chulalongkorn University. Mr. Worathon and Miss Anantaya presented an excellent paper on the alteration mechanisms of dolostone. Their presentation was very well received. Special thanks to both students for presenting, and thanks to all of the students for showing up to support their colleagues and our chapter



Mr. Worathon Polpitak and Miss Anantaya Ninnangkul with Andrew Cox.



The student group from Chulalongkorn University.

**24 April 2025**—“Multilateral Concept Selection of Complex Fluvial-Lacustrine Reservoir” presented by Domrongsak (Frank) Chantipna (petrophysicist (Sam Wa Tawan Tok), Valeura). Thanks to Valeura for allowing Frank to present on complex reservoir analysis at our April meeting. Attendance was excellent, especially with everyone just back from the Songkran holidays.



Damrongsak (Frank) Chantipna, petrophysicist.

Please check our local website for the latest information on events and activities for the Bangkok Chapter on the SPWLA main page:

[https://www.spwla.org/SPWLA/Chapters\\_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx](https://www.spwla.org/SPWLA/Chapters_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx)

or visit us on LinkedIn (SPWLA Bangkok Chapter)

## BOREHOLE IMAGING (BHI) SIG

### General News

The BHI SIG is very active, and we are constantly gaining new members.

### Recent Events

Due to the high interest in our first geomechanics workshop on October 15, 2024, we organized a second Geomechanics – BHI workshop on Feb. 27, 2025. The workshop was held online, and we had over 80 participants from the USA, Europe, Asia and the Middle East.

Three very interesting presentations were given:

- **“Borehole Image Log Analysis of Ramsay-1 and Ramsay-2 Part 2: Comparison of Aperture Analysis Methods Used to Constrain Secondary Porosity”** by Irene Wallis (Cubic Earth Ltd.), Andy Wilson (ImageStrat Pty Ltd), and Julien Bourdet (Gold Hydrogen).
- **“Algorithm for Stress Inversion Based on Borehole Image Data: Application to a Carbonate Framework”** by Dalila Grilli, Alberto Vercellino, and Stefania Petroselli (Eni Natural Resources).
- **“Balancing Technical and Economic Aspects of Borehole Imaging in Geomechanical Applications”** by Sanjeev Kumar (Kuwait Foreign Petroleum Exploration Company (KUFPEC)).

### Upcoming Events

For the SPWLA Annual Symposium, the BHI SIG is offering a workshop on the fundamentals of BHI analysis. We hope to have enough registrations so that the workshop will be held.

In the fall, the BHI SIG plans to organize a Topical Conference. More details will be distributed within the next weeks.

**DALLAS CHAPTER**



Ray Wydrinski, Dale Fitz (speaker), Richard Odom, John Rasmus, and Jim Lewis at the March Chapter Meeting.

The Dallas Chapter successfully met on March 27 following a 4-year closure due to the COVID-19 pandemic and has scheduled a return to conducting monthly chapter meetings for the Dallas-area geoscience community. Previously, the Dallas Chapter had continuous monthly meetings since 1962. The location of the chapter meeting was provided by DeGolyer & MacNaughton of Dallas, Texas.

The attendees at the March meeting enjoyed Dale Fitz’s presentation titled “Evolution of Casedhole Nuclear Surveillance Logging Through Time,” which presented the key developments in nuclear logging that led to improved methods to identify gas-oil, gas-water, and oil-water contacts in cased wells as well as methods to identify gas, steam, and waterflood front encroachment, calculate their saturations, and recognize problems in efficient reservoir depletion.

A luncheon on April 27 featured another timely technical presentation titled “**Formation Evaluation in Casedhole Environments Using Advanced Slim Pulsed Neutron Technology**” by Mahmoud Saada.

**FRANCE CHAPTER**

**General News**

We are pleased to introduce the new Board of Directors for SPWLA France for the 2025–2027 term. They will carry forward the mission established in 1966 by Société pour l’Avancement de l’Interprétation des Diagraphies (formerly SAID): to advance and promote science and engineering within the energy industry.



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## HOUSTON CHAPTER

## SPWLA Houston Chapter Officers 2024—2026

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## President’s Corner

Dear Members of the SPWLA Houston Chapter,

Writing this message on Tax Day is more enjoyable than completing our tax filing; I hope all of you are done with yours (and will see a refund coming).

The first quarter of 2025 is behind us, and all I can say is: “What a ride,” with a 21% drop in oil price from the high in January, causing the usual angst in the industry.

The up-and-down cycles may be the only constant in our industry, which is still flourishing “centuries later.” A true testament to its resilience. Not in the least part, thanks to its workers, past and current, who all have—and are—contributing to moving the industry forward, reinventing, and improving. Rest assured, our society members play a vital role in shaping the future of not just SPWLA but also the O&G industry in general.

Sadly, several of you have been forced to look for new employment opportunities. Not to say we saw this coming, but especially the lunch seminar by 2019 SPWLA President Dr. Jesus Salazar, “Navigating the Energy Transition: The Evolving Role of Petrophysicists and Opportunities for Growth,” was very timely as Jesus spoke expertly about the changing role of petrophysics, transferrable skills of petrophysicists, and how—and where—these can be applied.

Two weeks later, his predecessor, 2018 SPWLA President Zach Liu, served as a living example of just that, speaking about “Small-Scale, Near-Site CCS: A Catalyst for Scaling Up Carbon Capture Projects” in front of a large audience, triggering a lively discussion. Zach’s presentation showed without a shadow of a doubt that there will be continuing demand and exciting—and challenging—opportunities for petrophysicists for a long time to come.

However, in the future, we may no longer be called petrophysicists, and I can only wonder if the name of the SPWLA will also change to reflect that when the time comes.

We would like to congratulate Pascal Debec on being elected as the Europe Regional Director for the 2025–2027 term. He will now be serving both the local France Chapter and the regional level.

Thank you, Pascal, for taking on two roles simultaneously—a remarkable demonstration of dedication and community spirit.

## Recent Events

The first quarter of 2025 was dedicated to the renewal of the administrative committee of SPWLA France. In January, the chapter held its Ordinary General Assembly, during which members voted on 20 resolutions covering various topics defined by the status, including:

- The moral and financial discharge of the board, as well as the 2025–2027 budget
- Various changes to the by-laws
- The renewal of the steering committee members (Conseil d’Administration in French): 13 candidates for 11 positions

Strong participation from active members was noted and appreciated. In February, the newly elected 11 steering committee members held a session to vote on the new board. As a result, the Board of Directors for the 2025–2027 term was officially elected. For the second quarter of the year, various activities are being planned, with the objective of continuing to promote different disciplines and foster interest in geoscience among students through collaborations with other local technical chapters such as EAGE or SPE.

**April 2025**—The chapter collaborated with the EAGE Local Chapter Paris to host an in-person event focused on distributed acoustic sensing (DAS) and fiber-optic technologies for geophysical monitoring and resource evaluation. The event took place at SLB’s Technology Center in Clamart, France.

**18 April 2025**—To kick things off, we have organized an in-person seminar focused on **Geomechanics**. The program was highly engaging, covering topics from innovative measurement techniques to the latest advancements in 3D geomechanics modeling.

Stay tuned for more exciting events coming in 2025!

Allow me to repeat the closing comment of my previous note... As we constantly strive to improve and take feedback from our members seriously, we welcome your feedback, ideas, and suggestions and are also ready to schedule your (technical) presentation for an upcoming luncheon meeting.

~Ron J.M. Bonnie  
Houston Chapter President

**Sponsors and Friends of the Houston Chapter**



**LUNCH SEMINARS BY SPWLA HOUSTON CHAPTER**

Thursday, February 27, 2025

“What is Rdeep (Deep Resistivity)?”

By: Dr. Michael Rabinovich

**Abstract:** Rdeep (Deep Resistivity) is an outdated concept that has been relevant for focused wireline measurements when invasion is the main environmental effect to worry about. Unfortunately, this concept is still very much in use in operating companies when petrophysicists select just one resistivity curve to use in their petrophysical workflows and water saturation calculations. Currently, Rdeep usually means the apparent resistivity curve, which is the least affected by environmental effects and closest to  $R_t$ , but selecting Rdeep could be tricky, especially from unfocused LWD resistivity curves, because:

- a. Different environmental effects affect different curves differently.
- b. Several environmental effects may affect simultaneously.
- c. In the same well, different curves should be selected as Rdeep in different sections.

The best way to understand environmental effects and correct them or/and select Rdeep if necessary is to use resistivity modeling and inversion. Ultimately, we recommend using  $R_t$  instead of Rdeep.

**Biography:** Michael Rabinovich is a principal subject matter expert in resistivity logging and geosteering on the bp Central team. Before joining bp in 2012, he was with Baker Hughes for 18 years as a scientist, sr. manager of the Computational Physics group, and later as deputy director of Research of Drilling and Evaluation. He received his MSc degree in 1983 from the Moscow Institute of Oil and Gas Industry and his PhD degree in 1989 from the Russian Academy of Science, both in geophysics. He is an author/coauthor of more than 100 publications and 44 patents.



Thursday, March 27, 2025

“Navigating the Energy Transition: The Evolving Role of Petrophysicists and Opportunities for Growth”

By: Dr. Jesús Salazar

**Abstract:** The energy transition is a pressing topic, inspiring both optimism and concern. Key questions arise: Will renewable energy fully replace fossil fuels? What role will hydrocarbon exploration and production professionals play in the decades ahead?

According to the International Energy Agency, by 2050, approximately 50% of the world’s energy consumption will still rely on fossil fuels. This highlights the crucial role petroleum engineers and geoscientists will continue to play in building a sustainable, energy-efficient economy. Petroleum engineers, particularly formation evaluation specialists, are uniquely positioned to drive the exploration of new energy resources and foster the development of cleaner technologies while also remaining leaders in the responsible exploitation of fossil fuels.

In this presentation, I will discuss the evolving role of petrophysicists in both the current oil and gas industry and the future energy landscape, sharing insights from my own career journey. Additionally, I will provide strategies for refining both technical and soft skills, helping to build a resilient, long-lasting professional career.

**Biography:** Jesús M. Salazar earned his PhD and MSc in petroleum engineering from the University of Texas at Austin and his BSc in physics (with honors) from the Central University of Venezuela. In 2024, Salazar rejoined ConocoPhillips upon the acquisition of Marathon Oil in Houston, where he works as a petrophysicist for the Gulf Coast and Rockies Region, following various roles with Marathon Oil, ConocoPhillips, Occidental, and PDVSA across the US, Canada, Australia, and Venezuela, working in various technology, exploration, and operations positions for over 25 years. He served as President and VP Technology for the Society of Petrophysicists and Well Log Analysts (SPWLA), Executive Editor of the peer-reviewed *SPE Reservoir Evaluation and Engineering* journal, and Associate Editor of *Petrophysics*. Jesús is currently Associate Editor for the *SPE Journal* and was recognized with the SPE Peer Apart Award in 2020 and selected as one of SPE's Distinguished Lecturers for the 2022–2023 season. Dr. Salazar has published numerous papers in peer-reviewed journals and conferences, winning the Best Paper Award in *Petrophysics* in 2006. An avid traveler who has visited over 40 countries, Jesús enjoys running, hiking, watching movies, TV series, and MLB baseball, and, above all, sharing these experiences with his wife and two children.



Thursday, March 20, 2025

### “Rethinking Shaly-Sand Beliefs: Reconciling Worthington’s Model With Waxman-Smits and Dual Water”

By: David Kennedy

**Abstract:** In 1985, Paul Worthington published his “Evolution of Shaly-Sand Concepts in Reservoir Evaluation” paper. Figure 2 in Paul’s paper has been used as a generic model to explain the effect of clay on bulk reservoir rock conductivity. Note the “clean” sand trend line is straight and intercepts the origin since bulk rock conductivity must vanish as  $C_w \rightarrow 0$ .

According to the figure, if the quartz grains comprising clean sand are replaced grain by grain with an equal volume of conductive clay mineral, then the bulk rock would become more conductive, and the trend would shift up in the plot parallel to itself, except on the left side of the plot where the increase in conductivity is nonlinear. Seems reasonable, right? Indeed, considering the slope of the line is  $1/F = j m$ , this plot embodies the Waxman-Smits “shaly-sand” model,  $C_0 = j m (C_e + C_w)$  where  $C_e = BQ_v$ . A  $C_0 C_w$  plot is an experiment performed on a single core and is, therefore, at constant porosity. The slope of the line is  $j m$ ; if this model is to be accurate, not only is the porosity constant, but  $m$  must also be constant. Now,  $m$  is correlated with pore geometry. The question is: can clay mineral crystals replace quartz without a concomitant change in pore geometry and, therefore,  $m$ ? The data supplied in the Waxman-Smits paper (using their 115 core plug specimens) seem to answer this question with a “No!” Figure 3 in the Waxman-Smits paper provides the clue. Core 2 and Core 26 have approximately the same porosity (0.212 vs. 0.229); Core 2 is “almost clean” ( $Q_v = 0.052$ ), whereas Core 26 is “clay-rich” ( $Q_v = 1.47$ ). If Worthington’s model were accurate, then the expectation would be that the Core 26 trend would shift up in the plot parallel to the Core 2 data. Conversely, if the clay in Core 26 were replaced with quartz, the expectation would be the trend would shift down until it intercepted the origin. The observations belie these expectations. So, what’s wrong? The clue is in the slope of the trends. Since the slope is given by  $j m$  and  $j$  is constant, we must conclude that the mineral replacement must be accompanied by an increase in pore geometry complexity and a concomitant increase in  $m$ . Examining the entire W-S data set, I saw this behavior in every porosity bin, and there was no example to support Worthington’s model. Implications for the W-S and dual water models: the W-S model behaves similarly if  $m$  is a function of  $Q_v$ . The dual water model automatically produces a rotation of the trend as quartz is replaced with clay, but not enough to reproduce the observations, which also requires that  $m$  increase with clay content.

**Biography:** Dave needs little introduction; he has been a member of SPWLA since 1975 and was VP Publications, first editor of *Petrophysics*, VP Technology, and President. As a young adult, Dave was an infantry platoon leader in the Vietnam War. Back to civilian life, Dave finished his physics degree at Georgia Tech in 1972. He ended up at Schlumberger, where he was introduced to formation evaluation. Skeptical of much he saw, Dave felt petrophysics and formation evaluation might be a field where he could make significant contributions. Dave’s name is on six patents as an inventor or

coinventor and about 60 papers as author or coauthor on a variety of topics covering induction instrument responses and forward modeling, conductivity anisotropy, the theoretical petrophysics of conductivity in reservoir rocks, and most recently, shaly-sand models. Throughout his career, Dave worked for operators and service companies and had various roles and assignments with Schlumberger, ARCO, Sohio, Lockheed, Mobil, Exxon, Baker Hughes, Pathfinder, and Southwestern Energy.



**Wednesday, April 16, 2025**

**“Enhanced AI-Driven Automatic Dip Picking in Horizontal Wells Through Deep Learning, Clustering and Interpolation, in Real Time”**

**By: Alexandre Perrier (SLB)**

**Abstract:** The analysis of borehole image logs is important for subsurface studies but becomes especially crucial when extracting real-time structural information for geosteering in horizontal wells. Indeed, these images help extract data about bedding surfaces, fractures, and faults, which enable the construction of 3D reservoir models and optimal well placement for future production optimization. Borehole images in horizontal wells are challenging for dip picking: we observe mainly lengthy parallel and ovoid bedding dip traces called “bull’s eyes,” as the well trajectory may be subparallel to the bedding. This deviates considerably from the classic model of dip picking, which extracts only sinusoids. So far, the delineation of non-sinusoidal bedding features has relied on marking the trace by a series of manually picked segments. In this paper, we present a method that enables the precise automatic extraction of segments from non-sinusoidal features using an AI model and propose an automated grouping mechanism for the segments. Such a solution is applicable in real-time scenarios, facilitating geosteering guidance.

Our solution is an automated workflow that detects and picks non-sinusoidal bedding dip traces in real time in horizontal well borehole images and computes the corresponding orientation of the structure. The workflow starts with borehole images and the associated segments provided by the “auto dip picking” algorithm. A convolutional neural network detects bedding features and categorizes them as sinusoidal or non-sinusoidal bedding features. Subsequently, segments are regrouped within each bedding feature, creating comprehensive data sets for each feature. Single-segment sinusoidal features are preserved, while multi-segment ones undergo an advanced clustering mechanism based on orientation and on the derivative of the sinusoidal function associated with the segment. Meanwhile, parallel and “bull’s-eye” structures undergo a transformative process: a recursive approach connects segments within the same layer. Then, we compute each layer’s global orientation. Our study yielded significant outcomes by automatically detecting non-sinusoidal bedding features and computing associated dips from borehole images in horizontal wells. The integration of our advanced workflow reduced manual intervention. In addition, this workflow is versatile, catering not only to horizontal wells but also to vertical ones. We provide a solution capable of handling simultaneously non-sinusoidal bedding and sinusoidal bedding features automatically with just one click. By embracing automation, we also eliminate subjective interpretations, ensuring a standardized and efficient analysis process.

**Biography:** Alexandre Perrier is a geologist and interpretation development engineer at the SRPC Engineering Center in Clamart, France, with over 3 years of experience in oil and gas field development. He began his career at TotalEnergies in 2019, focusing on dynamic reservoir simulations, before moving to the academic research team RING of the Université de Lorraine and CNRS in 2020, where he worked on automating sequence stratigraphy analysis. In 2021, Alexandre joined SLB, where he specializes in the interpretation of borehole images. He holds a master’s degree in geosciences and another in reservoir modeling and simulation. Currently, his work centers on developing innovative answer products and digital solutions for both the oil and gas industry and new energy applications. An active member of SPWLA, Alexandre has also published and presented a technical paper at the 2024 SPWLA Symposium, highlighting his research in SLB on automating dip picking in horizontal wells.

Thursday, Apr 24th, 2025

### “Application of the New Sonic-Based Saturation Model to Conventional and Unconventional Oil Reservoirs”

By: Sheyore John Omovie (Goshey Energy Services LLC)

**Abstract:** It is well established in rock physics that when the fluid filling the pore spaces of a reservoir is primarily gas or light oil, there is a significant change in the bulk modulus but little to no changes in the shear modulus when compared to fully brine-saturated reservoirs. This, in turn, leads to a lower velocity ratio in gas or light oil reservoirs. This concept underlies and has been extensively used in the fluid identification of conventional siliciclastic reservoirs in seismic interpretation. Yet not so much in the use of higher-resolution sonic logs. Here we ask the question: can we use sonic logs to not just identify but quantify hydrocarbon saturation in gas reservoirs? Using sonic logs, can we accurately estimate water saturation with uncertainties that are similar to those obtainable from conventional saturation models? If possible, this would have significant implications in the evaluation of shaly-sand reservoirs as well as low-resistivity and low-contrast reservoirs, where conventional saturation models may not be as effective. Given that P-wave and S-wave velocities are computed from measured compressional and shear sonic logs, a new empirically derived saturation model for estimating water saturation is presented. One that does not require formation resistivity or brine salinity. The new model is based on the lower bulk modulus or velocity ratio observed in gas reservoirs. Assuming the reservoir is fully brine saturated, the deviation of the measured P-wave and S-wave velocities from the fully brine saturated velocities is used to invert for water saturation. The new model is shown to be consistent with theoretical rock physics models. We have applied the new model to compressional and shear sonic well-log data acquired in several reservoirs. The reservoirs range from an organic gas shale reservoir to a gas sand reservoir offshore the Gulf of Mexico. In one of the organic shale examples, the Haynesville shale, average water saturation from the new model was 33% compared to 34% from the conventional saturation model that has been calibrated to tight rock core analysis. In the Gulf of Mexico gas sand example, the model yields 24% average water saturation compared to 21% average water saturation from the core-calibrated Archie saturation model. In a low-resistivity low-contrast shaly-sand reservoir where conventional saturation models indicated the reservoir is wet, the new model yields results that are consistent with gas production from the reservoir. We also present the results of the application of the new model to a gas condensate reservoir in the North Slope of Alaska and an oil reservoir offshore the Gulf of Mexico.

**Biography:** Sheyore John Omovie is a petrophysical consultant at Goshey Energy Services LLC with over two decades of experience working in several basins in the US and internationally. He has worked for Apache Corporation, Oxy, EOG, and Baker Hughes. He received a PhD in geophysics from the University of Houston. His research focuses on rock physics and rock mechanical properties. He is also a licensed professional geoscientist in the state of Texas, USA.

### SPWLA HOUSTON CHAPTER NETWORKING EVENT

**When:** Last Thursday of each month, 5:00–8:00 pm

**Location:** Cedar Creek Bar & Grill, 1034 West 20th Street, Houston, TX 77008

The SPWLA Houston Chapter invites all members to join Chapter Board members for an evening of casual conversation and networking with fellow petrophysicists and peers from other disciplines also. Petrophysics, geology, geophysics, reservoir engineering, and management are all represented at most meetings. Often, there was also the opportunity to meet current and past SPWLA international board members and recognized industry leaders. We look forward to seeing you there!

SPWLA Houston is committed to hosting engaging and enjoyable activities for our members. If you're interested in sponsorship opportunities, feel free to reach out.



### HYDROCARBON RESOURCES SIG

#### Recent Events

**15 April 2025**—Our SPWLA Hydrocarbon Resources Special Interest Group (SIG) will represent SPWLA in the upcoming Oil and Gas Reserves Committee (ORGC) intersociety meeting on May 12, 2025. All professional societies, including SPE, AAPG, SEG, EAGE, etc., will be represented,

and our SIG will be at this event happening in Houston on behalf of SPWLA. We will be sharing our recent activities with the attendees. This meeting is also aligned with the PRMS new version coming at the end of 2028, with the timeline included in **Fig. 1**. The Oil and Gas Reserves Committee (OGRC) is responsible for programs related to oil and gas reserves and resources matters, including reserves and resources definitions, terms, recommended practices, and standards. The committee shares reserves and resource information with other organizations, agencies, and companies involved in reserves matters, including collaboration with other committees and organizations in the development and delivery of relevant training courses. The committee currently has a chair, vice chair, and 16 members who are degreed engineers and geoscientists with 10+ years of experience in reserves and resource estimation. There are also eight observers to the OGRC who represent their respective societies on reserves matters. Currently, observers represent the Society of Petroleum Evaluation Engineers (SPEE), the American Association of Petroleum Geologists (AAPG), the Society for Exploration Geophysicists (SEG), the Society of Petrophysicists and Well Log Analysts (SPWLA), the World Petroleum Council (WPC), the European Association of Geoscientists and Engineers (EAGE), the International Accounting Standards Board (IASB), and the Expert Group on Resource Management (EGRM) of the United Nations Economic Council of Europe. Additional details of the ORGC and work done can be found on the website: [Oil & Gas Reserves Committee](#)

The Hydrocarbon Resources Special Interest Group (SIG) continues the preparation for the workshop proposal submitted in December for the SPWLA Annual Symposium in May. This workshop is being prepared by our SIG board members and taught by some of us (Phillip Gibbons, Luis Quintero, Javier Miranda) and a special guest (Robert Laronga) on Sunday, May 18, and it will be offered in person only, as the rest of all the conference activities. Unfortunately, some workshops have been canceled due to low registration numbers. At the time of this note, our workshop was still on the agenda, and we are still working on our material for such an activity.

Details of the workshop are on the symposium registration website, and we highly encourage all members planning to attend to register in advance. This helps SPWLA and the organizing committee to properly plan for the agenda, meeting rooms, budget, etc.: [SPWLA 66th ANNUAL SYMPOSIUM](#)

More details about our workshop are as follows, including a summary of what you will learn, an outline and tentative agenda, and instructors. We strongly encourage you to register as soon as possible; seats are limited, and we will be honored for your support and presence.

### **WORKSHOP 10: The Importance of Petrophysics in Resources, Reserves, and Storage Estimation and Overview of PRMS and SRMS**

**Abstract:** Resources, reserves, and storage estimation is an essential task in our industry for internal resources accounting, risk assessment, financial transactions, and regulatory reporting. To ensure consistency, transparency, and reliability for these estimations, several entities (E&P industry, governments, and stock markets) have developed estimation guidelines. This workshop will cover the most prevalent and internationally recognized industry guidelines, the Petroleum Resources Management System (PRMS) and Storage Resources Management System (SRMS), sponsored by SPE, AAPG, WPC, SPEE, SEG, EAGE, and SPWLA. So, what is the role of petrophysics in resources, reserves, and storage assessment that is in line with these guidelines?

#### **Workshop Outline:**

- Overview of Petroleum Resources Management System (PRMS) and Other Guidelines
- Key Principles of PRMS
- Classification, Framework, and Definition of Resources
- The Role of Petrophysics in Resources and Reserves Estimation
- Net Pay and Other Key Concepts in Resources Definition
- Evaluation and Integration Methods
- Introduction to the 2022 Updated PRMS Application Guidelines
- Overview of Carbon Capture, Utilization, and Storage (CCUS) Projects
- Introduction to the CO<sub>2</sub> Storage Resources Management System (SRMS)
- The Role of Petrophysics in Storage Resources and Capacity Estimation in Line With SRMS

## Tentative Agenda

Start Time	End Time	Topic	Person in Charge
8:00	8:30	Welcome, Introductions, General Agenda Overview	J Miranda / L. Quintero
8:35	9:00	PRMS and Other Guidelines – Overview	J. Miranda / L. Quintero
9:05	9:50	Classification, Framework, and Definition of Resources	P. Gibbons / L. Quintero
9:50	10:00	Coffee Break	
10:00	11:00	Petrophysics in Resources and Reserves Estimation	TBD
11:00	12:00	Group Discussion – Key Influence Areas	TBD
12:00	13:00	Lunch	
13:00	13:30	Evaluation and Integration Methods	TBD
13:30	14:00	Net Pay, Cutoffs, and Their Impact on Net Pay and Volumetrics	P. Gibbons / J. Miranda
14:00	14:30	Overview of Carbon Capture, Utilization, and Storage (CCUS) Projects	R. Laronga
14.30	14.45	Coffee Break	
14:50	15:40	Petrophysics in CCS, Practical Applications, and Field Cases	R. Laronga
15:40	16:10	Overview of SRMS, Role of Petrophysics in Storage Resources Assessment	J. Miranda / L. Quintero / R. Laronga
16:10	16:30	Group Discussion – Chapter 5 of Application Guidelines Concluding Remarks, Other Topics of Interest. The way forward for PRMS Chapter 5 of Petrophysics and SRMS updates. Attendees' feedback, general discussion, future updates, and upcoming SIG board	L. Quintero / P. Gibbons / R. Laronga / J. Miranda

We also continue our preparation for an upcoming Hydrocarbon Resources SIG seminar later this year. It will be a follow-up of topics related to porosity and water saturation, the two main topics to be updated in the upcoming Petroleum Resources Management System (PRMS) edition to be published in 2029. It might seem far, but we have already started discussions, internal meetings, and inter-society meetings within the PRMS committee to prepare such an update. **Figure 1** shows the PRMS update coordination update timeline. Part of the main tasks for 2025 will be to engage subject matter experts (SME) as required to provide input on the current document and how it can be improved and updated, as well as its implementation via the application guidelines, most recently published in 2022. The Oil and Gas Reserves Committee (OGRC) developed the Application Guidelines (AG) to provide practical examples for applying and interpreting the principles of the PRMS. The 2022 AG corresponds with the most current PRMS published in 2018. The application guidelines released in 2022 (**Fig. 2**) contain one chapter solely dedicated to petrophysics, which was included in the guidelines for the first time. Such a chapter was entirely prepared by members of our SPWLA Hydrocarbon Resources

SIG (**Fig. 3**), resulting in SPWLA being considered a sponsoring professional society. Our objective is to expand this chapter to cover other important issues related to petrophysics and their impact on resources, reserves, and storage estimation. Some might remember that Chapter 5 covers different key elements to be considered in volumetric assessments:

- What Involves a Petrophysical Evaluation?
- Sources of Petrophysical Data
- What Is “Net Pay” and Pay Cutoffs
- Core Analysis and Review of Selected Properties Obtained From Them

Further updates are focused on the pending properties used as input in hydrocarbon volumetric estimates (porosity and hydrocarbon saturation). Feel free to reach out to our SIG if you have any questions or would like to provide feedback on the current document and what can be improved.

Also, stay tuned for further information about our upcoming online workshop.

**This SIG seminar will be scheduled to happen around summer**, as we are now closing on our work related to the workshop in May.

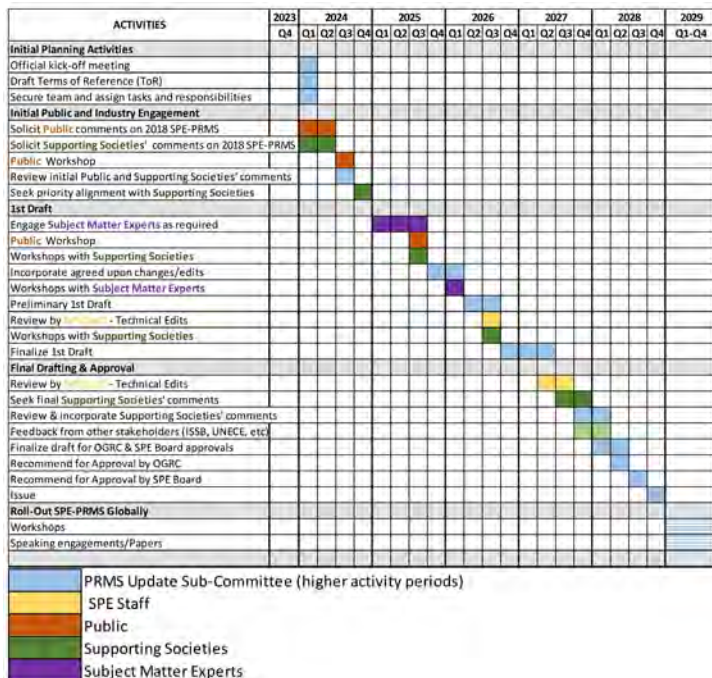


Fig. 1—PRMS update coordination update timeline.

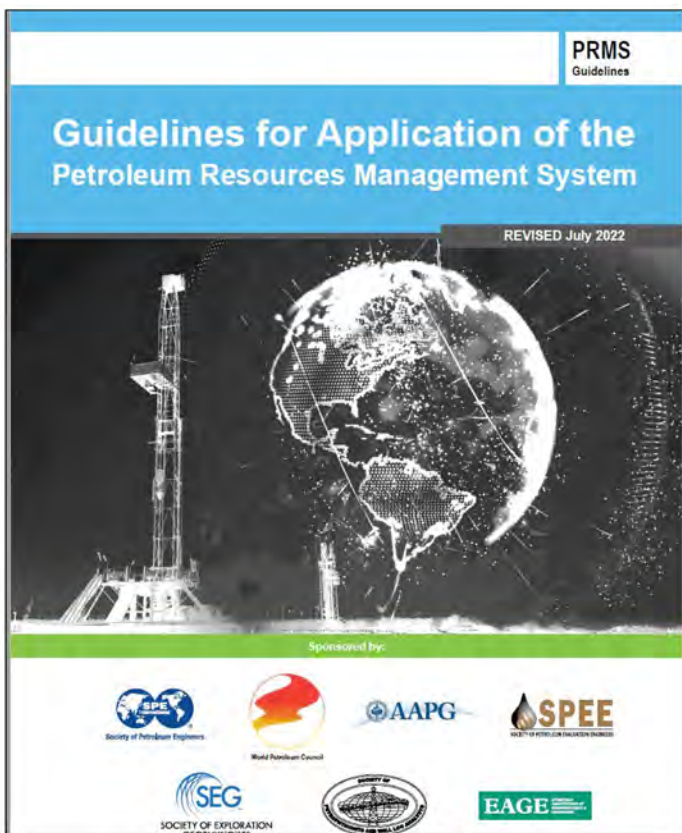


Fig. 2—PRMS Application Guidelines (AG) released in 2022, including the Petrophysics chapter for the first time.

The *Petroleum Resources Management System (PRMS)* and the *Guidelines for Application of the PRMS* (the Guidelines Document) are administered by the Society of Petroleum Engineers (SPE). All references to PRMS are made herein as a non-commercial reference by the authors. The authors do not represent themselves as the sole authority of PRMS and only present any elements thereof as a standard professional society reference necessary for the implementation of an international standard for reserves and resources evaluation.

A copy of the PRMS can be obtained at this address (Public Domain): <https://www.spe.org/en/industry/reserves/>

**Chapter 5**

**Petrophysics**

Luis Quintero (Chair)  
Javier Miranda, Joshua Oletu, Cecilia Flores, George Dames, and Philip Gibbons

**5.1 Introduction**  
Petrophysics (from the Greek *petra*, "rock" and *physis*, "nature") may be defined as the study of rock properties (physical, electrical, chemical, and mechanical) and their interaction with fluids (gases, liquid hydrocarbons and aqueous solutions) (Archie 1950, 1967; Tabb and Donaldson 1977; ...)

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Fig. 3—PRMS Chapter 5 authored by the steering committee of SPWLA Hydrocarbon Resources Special Interest Group.

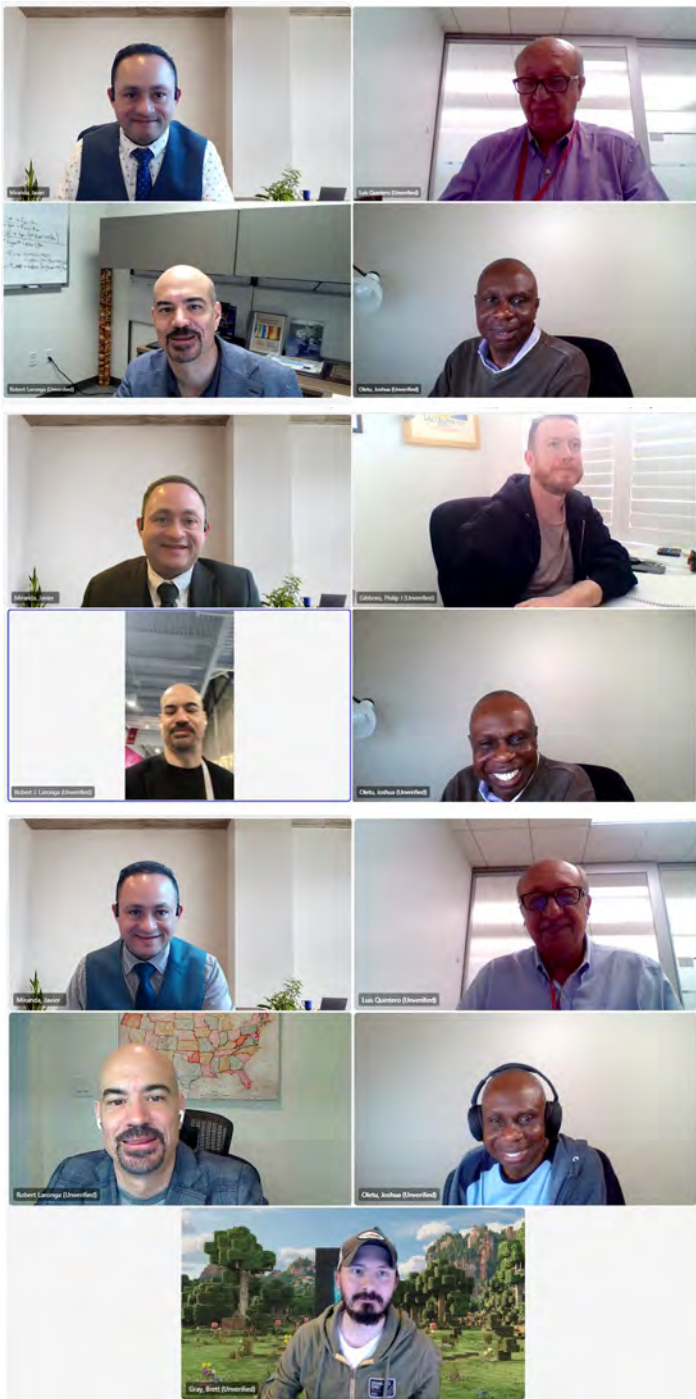


Fig. 4—SPWLA Hydrocarbon Resources Special Interest Group members during the workshop's 10 preparation biweekly meetings.

### Our Vision

“Be the reference for petrophysicists and log analysts in the definition and estimation of hydrocarbon resources while

providing minimum standards, norms, and guidelines for the analysis of petrophysics-related data used as an input in the reserves and resources estimation.”

### Our Mission

“To promote the fundamental value that the science of petrophysics and log analysis delivers to the approved methods of quantitative estimation of hydrocarbon resources and provide guidance for definition of rock properties in the assessment of hydrocarbon resources and future updates of reserves and resources.”

Since its inception in 2020, our SIG has worked with the SPE OGRC in the update of the Guidelines for Application of the Petroleum Resources Management System (PRMS Application Guidelines). In particular, the SIG created Chapter 5 on Petrophysics, published in 2022 in the PRMS Application Guidelines document: ([https://store.spe.org/Guidelines-for-Application-of-the-Petroleum-Resources-Management-System-PRMS-P1221.aspx?ItemId=2078561&Options=2899&\\_ga=2.71002070.730520363.1667833216-575030064.1599587895](https://store.spe.org/Guidelines-for-Application-of-the-Petroleum-Resources-Management-System-PRMS-P1221.aspx?ItemId=2078561&Options=2899&_ga=2.71002070.730520363.1667833216-575030064.1599587895))

Current updates and discussions about expanding this chapter with other topics are in progress among our SIG, coordinated with SPE OGRC. This has been one of the most important topics discussed in our regularly scheduled meetings three to four times a year, in an online format so far for the general meetings, although sometimes in person with the inaugural board members located in the US. As we diversify our membership and board, now with board members on three continents and general membership on four continents, it will be online with potential in-person meetings during the annual meeting. We also represent the main hydrocarbon resources auditing and certification firms in the world, with additional representatives from operating and service companies.

**We are glad to extend an open invitation to our meetings and activities as well as welcome any member interested in joining our steering board**, exchanging experiences, and socializing through technical discussions, workshops, and social activities to discuss good practices, industry standardizations, and the evolution of measurements in key parameters as technology evolves. The group is open to all current SPWLA members, and interested colleagues are encouraged to become SPWLA members. If you are interested and/or planning to attend the annual conference, we will be delighted to meet you all for a coffee to go over the topics mentioned in this news release.

Are you a professional in petrophysics who is excited about resources quantification and characterization and wants to share your ideas and experiences? Our group is always looking for volunteers to help shape content and keep the conversation going on our subject. Email us at [reserves\\_sig@spwla.org](mailto:reserves_sig@spwla.org).

**SPWLA Hydrocarbon Resources Board (2024–2025)**



**President:** Javier Miranda (DeGolyer and MacNaughton)



**Vice President:** Philip Gibbons (GaffneyCline)



**Secretary:** Brett Gray (Ryder Scott)



**VP Communications:** Maria Florencia Segovia (SierraCol)



**Advisor and Past SIG President (2022–2023):**  
Joshua Oletu (GaffneyCline)



**Advisor and Past SIG President (2019–2022):**  
Luis Quintero (Halliburton)

**SPWLA INDIA CHAPTER**

**Recent Events**

**21 February 2025—SPWLA India Chapter Hosts Technical Session on Fracture Visualization:** The **SPWLA India Chapter** organized a **Technical Session** in Mumbai, India. The technical talk was presented on the topic **“Fracture Visualization Using Deep Shear Wave Technology,”** by **Dr. Kanad Kulkarni** (lead advisor MENATI Region, Baker Hughes). Dr. Kulkarni’s presentation on **“Fracture Visualization Using Deep Shear Wave Technology,”** highlighted the capabilities of the advanced acoustic tool and the benefits of **Deep Shear Wave Imaging (DSWI)** in mapping subsurface features beyond the borehole. The talk focused on how this advanced acoustic technology helps in fracture detection, determining rock mechanical strength, and enhancing reservoir understanding. The session also featured selected **case studies** from India and international fields, illustrating the integration of DSWI with geomechanical modeling and its role in improving completion design and field development strategies. The event was well attended by geoscientists, petrophysicists, and engineers from various organizations and concluded with an active Q&A session, reflecting strong interest in emerging borehole imaging technologies.

**Biography:** **Dr. Kanad Kulkarni** holds a PhD in petroleum engineering focused on micro-CT analysis of the Canadian oil sands, which he conducted at the University of Portsmouth, and an MSc in petroleum engineering and an MSc in geology, respectively. He is currently working with **Baker Hughes** as lead advisor for the MENATI region.



Dr. Kulkarni (speaker) presenting his technical talk (left image), and the speaker being recognized by the President and VP (Tech Evaluation) of the SPWLA INDIA Chapter (right image).

## JAPAN CHAPTER (JFES)

### Recent Events

**13 March 2025**—The 126th JFES Chapter Meeting was held, and we welcomed 21 in-person attendees and more than 20 online audience members.

### Presentation 1

#### “Advanced Cementing Techniques to Prevent Annular Gas Migration”

Akira Endo (Halliburton Japan representative/PSL operations manager, Halliburton)

### Presentation 2

#### “Enhanced Monitoring Strategies for Geothermal Wells and CO<sub>2</sub> Storage: Field Case Studies”

Markus Chin (senior project manager for DataSphere AsiaPac, Halliburton)



JFES activity report.



Full house at the seminar—focused minds and valuable takeaways.



Icebreaker.



Actively discussed the state-of-the-art technology.

### Upcoming Events

**28 May 2025—2025 SPWLA Distinguished Lecture:** We are pleased to announce an upcoming JFES Distinguished Lecture. The presentation will be given by Giuseppe Galli (Eni S.p.A) on “From Leak Path Detection to Quantitative Flow Profiling: The Exciting Journey of the Noise.” This is an online event, and the registration site is now open. The details are to be announced. **Time:** 16:00-17:00 (JST)

**8–10 October 2025—The 30th JFES Annual Symposium:** We are organizing the 30th JFES Annual Symposium. We are seeking enthusiastic Technical Committee Members who are willing to volunteer their time to review technical papers and participate in discussions about conference operations. If you are interested, please contact us at this address: [info@spwla-jfes.org](mailto:info@spwla-jfes.org).

## KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS (KFUPM) STUDENT CHAPTER

### General News

We conducted multiple meetings with the student chapter to discuss our recent and upcoming events. Highlights include technical talks, a competition, training, and industry visits.

### Recent Events

Several events and activities have been presented by the SPWLA-KFUPM chapter, which are the following:

#### **24–25 February 2025—PaleoScan Software Training by Eliis:**

SPWLA KFUPM had the pleasure to organize a two-day workshop on PaleoScan, a seismic interpretation and reservoir characterization software developed by Eliis, which provides a semiautomated approach to generating chrono-stratigraphically consistent geological models. The workshop aimed to teach geoscientists and petroleum engineers how to use PaleoScan to accelerate seismic interpretation, visualize subsurface structures, and identify hydrocarbon accumulations or CO<sub>2</sub> storage zones. The first day featured a 2-hour theory session followed by a 3-hour hands-on session, where participants learned how to load data, perform spectral decomposition, and edit model grids. Day Two included 6 hours of additional training on advanced features such as generating Relative Geological Time (RGT) models and horizon stacks. At the end of the workshop, Eliis awarded certificates to all participants, validating their newly acquired skills in seismic data and reservoir analysis and geological modeling. The training successfully demonstrated how PaleoScan can optimize workflows, enhance reservoir analysis, and support decision-making in hydrocarbon exploration and CO<sub>2</sub> storage. By providing both theoretical insights and practical experience, the workshop equipped participants with the necessary tools to confidently apply PaleoScan in their work and improve subsurface resource management.

**9 March 2025—Women’s Day Celebration Event: SHE Leads Energy. Academia Vs. Industry! Who Wins?:** SPWLA KFUPM successfully hosted a special event to celebrate International Women’s Day, featuring four accomplished professionals from both academia and industry! Our esteemed speakers:

- Dr. Israa Abu-Mahfouz (assistant professor at CPG, KFUPM)
- Dr. Shaikhah Laradhi (research scientist at CIPR, KFUPM)

- Zakiyah Alkhadrawi (sr. geologist and PhD candidate at Aramco, KFUPM)
- Rawan Alodily (lab engineer at NESR)

Our leaders shared valuable insights and experiences to help students navigate career decisions between academia and industry. The discussion shed light on opportunities in both sectors, empowering attendees to make informed career choices. We also explored statistics on leadership, female representation in industry and academia, and women in management roles. The event was an incredible success, sparking engaging discussions and offering attendees the chance to connect with experts. Thank you to everyone who participated and contributed to the conversation!

**17–19 March—Petrel Training Workshop:** The Petrel Training Workshop was successfully completed over 3 days, bringing together more than 30 participants, including undergraduate, MSc, and PhD students, post-doctoral researchers, faculty members, and researchers from the Geosciences and Petroleum Engineering Departments, as well as the Center for Integrative Petroleum Research (CIPR). The workshop delivered by Mr. Osama Aziz offered a comprehensive hands-on experience, covering the entire workflow from seismic interpretation to static modeling. Key topics included seismic data import and interpretation, well correlation, petrophysical and structural modeling, grid generation and upscaling, facies and property modeling, and model validation. This diverse mix of participants created a dynamic learning environment, leading to productive discussions and valuable knowledge exchange. Participants expressed high satisfaction with the depth and practical approach of the training, emphasizing the relevance of the acquired skills to their research and academic work. The successful execution of the workshop has inspired us to consider organizing similar training sessions in the future. We extend our gratitude to all facilitators, participants, and supporting departments for their contributions to making this event a success. At the end of the workshop, certificates were awarded to all participants in recognition of their commitment and successful completion of the training. SPWLA KFUPM extends its gratitude to Mr. Osama Aziz for his expertise and dedication, as well as to all participants for their engagement. We look forward to organizing more technical training sessions to further enrich our community’s learning experience.

**20 April 2025—Technical Seminar:** The EAGE Student Chapter, in collaboration with SPWLA, successfully hosted a technical seminar titled: “Obtaining Interfacial Tensions of Reservoir Fluids at Reservoir Conditions.” The seminar was delivered by Eng. Mohammed Al Hamad (leader at SLB Dhahran Carbonate Research Center), who shared his expertise on advanced methods for measuring interfacial tension under reservoir conditions and their significance in reservoir engineering applications. The event was well-attended by students and faculty, sparking engaging discussions and providing valuable industry insights. We extend our sincere thanks to Eng. Mohammed Al Hamad for his informative presentation and to everyone who joined us for making the event a success!

**24 April 2025—Industry Visit to NESR Company:** The SPWLA-KFUPM Student Chapter, in collaboration with the ARMA Student Chapter, successfully organized an industry visit to NESR (National Energy Services Reunited Corp.). The visit welcomed 35 participants, including undergraduate and graduate students with interests in petrophysics, geomechanics, and energy services. The NESR team provided a comprehensive tour of their facility, showcasing various aspects of their operations, including wireline services, drilling tools, production enhancement technologies, and laboratory testing capabilities. Participants had the unique opportunity to engage directly with industry professionals, gaining real-world insights into the tools, workflows, and technologies currently driving the energy sector. The visit also featured interactive sessions and live demonstrations, which enriched the learning experience and helped bridge the gap between academic knowledge and field applications. We sincerely thank the NESR team for their warm hospitality and technical expertise and for making this visit both educational and inspiring. Appreciation also goes to all the attendees for their enthusiastic participation and to our partners at the ARMA Student Chapter for their collaboration in making this visit a great success.

**29 April 2025—Distinguished Speaker Talk:** The SPWLA-KFUPM Student Chapter had the honor of hosting a Distinguished Speaker Seminar for the Middle East region, featuring Mr. Nader Gerges (senior specialist, Petrophysics – Subsurface Excellence Division and AI champion). Mr. Gerges delivered a highly insightful talk titled: “Reconciling Log-Based and Capillary Pressure-Based Water Saturation Models in Carbonate Reservoirs: Challenges, Pitfalls to Assess Uncertainties and Impact on Hydrocarbon Volumetric Estimations.” The seminar tackled the complex discrepancies between

log-derived and laboratory-based saturation models, highlighting the technical and interpretational challenges in carbonate formations. Mr. Gerges also emphasized the implications of uncertainty on volumetric estimations and field development decisions, drawing from his extensive experience and real-case examples. The event attracted a wide audience of students, researchers, and professionals and concluded with an engaging Q&A session that further enriched the discussion. We extend our sincere gratitude to Mr. Nader Gerges for sharing his expertise and to all attendees who contributed to the success of this technical seminar.

### Upcoming Events

SPWLA KFUPM is excited to announce a series of upcoming technical and social events aimed at enhancing students’ technical knowledge and professional development.

- An Arabic competition designed for non-Arabic speakers to engage in cultural learning.
- Participation at the SPWLA-SAC 16th Workshop under the title of “Shaper Sustainability: Exploring and Producing Transition Minerals.”
- Various social activities to foster networking and collaboration among students.

These events reflect SPWLA KFUPM’s commitment to providing diverse learning opportunities and strengthening the student community.



PaleoScan Training Workshop by Eliis.



Women's Day Celebration Event.



Petrel Training Workshop by Mr. Osama Aziz.

**EAGE KFUPM Seminar**

### Obtaining Interfacial Tensions of Reservoir Fluids at Reservoir Conditions

Eng. Mohammed Al Hamad  
SLB Dhahran Research Center

**SPEAKER'S BIO**  
Mohammed Al-Hamad is the Geology, Rock Physics and Recovery Group Team Leader at SDCR (Schlumberger Dhahran Carbonate Research Center), located in the Dhahran Techno-Valley. He joined SLB in 2012. Mohammed obtained his bachelor's and master's degrees both in petroleum engineering from KFUPM. He invented and co-invented number of patents and published several journals and SPE papers. In 2016, 2017, 2019 and 2020 he was Recognized by SPE- KSA Young Professional as a winner of the KSA Research Paper Contest. In 2024, he was recognized by SPWLA as global distinguished speaker, and in 2025 as SPWLA regional distinguished speaker. His areas of interests include EOR, petrophysics, interfacial science, reservoir engineering, CCUS and water purifications.

**ABSTRACT**  
Accurate interfacial tension (IFT) of reservoir fluids at reservoir conditions is critical for accurate reserves estimation and better production planning. Current reservoir engineering practice uses IFT values of surface oil samples measured at ambient conditions or predicted from light hydrocarbon correlations. Considering IFT is highly dependent on temperature, pressure and reservoir fluid properties, such approach results in underestimating the IFT by 30 to 50%, depending on the type of reservoir fluid. Obtaining IFT at reservoir conditions, however, is a very tedious task and requires a lot of investments from downhole sampling, transportation to laboratory, conditioning and the need of expensive instrumentation and qualified experimentalist to conduct such measurement. In the current study, we developed a correlation to predict downhole IFT for live crude oils using downhole properties obtained from the Ora Intelligent Wireline Formation Tester. Ten reservoirs live crude oils from different middle eastern reservoirs were collected and used for the current study. The crudes represent a black oil type with API ranging between 23.60 – 54.70. Basic PVT analysis was conducted for all crudes, properties such as viscosity and density were either measured at different pressures and temperatures or used as provided by Ora. IFT experiments were executed for all ten crude oils at the respective reservoir conditions with deionized water and the respective formation brine as the bulk phases. A database of all measured properties for the ten crude oils was constructed and the data was processed. A wide range of IFT values were measured at reservoir conditions (i.e. between 18.0 mN/m – 31.1 mN/m). Using the constructed database, a correlation was developed. The new correlation predicted the measured IFT with very acceptable error. The correlation depends only on measured downhole parameters (i.e. density and viscosity), and was validated using live oils from internal database, as well as using new two reservoir live crude oils. Comparing the calculated IFT to the measured ones, the correlation did very well in IFT predictions. The current work provides the most potential downhole measurement for reservoir crude oil interfacial tension without the need for any new tools development, simply using the current downhole physical measurements, using any modular formation tester that provides such physical properties, such as ORA. The outcome of this research can be integrated with the existing reservoir fluids testing and provide a very important additional parameter to reservoir engineers.

**STUDENT CHAPTER EAGE KFUPM**

**Society of Petrophysicists and Well Log Analysts Student Chapter at KFUPM**

**Event Details:**  
 Date: Sunday April 20, 2025  
 Time: 12:00 PM - 1:00 PM  
 Location: E-LEARNING 1226 BUILDING 76 CPG-KFUPM

Technical Seminar by Eng. Mohammed Al Hamad.

**REGIONAL DISTINGUISHED SPEAKER VISIT**

**Nader Gerdes**  
Senior Specialist  
Petrophysicist, ADNOC

**Reconciliation of Log-Based vs Capillary Pressure-Based Water Saturation Models in Carbonates**

Join us to explore petrophysical modelling and uncertainty analysis with one of the region's top experts in carbonate reservoirs. Nader Gerdes brings 24 years of global experience and currently supports reservoir model assurance at ADNOC's Thamama Excellence Centre.

**TUESDAY**  
29 April 2025

**12-1 pm**

**B: 76-1218**

*Don't miss this opportunity to learn and connect!*

Regional Distinguished Speaker.

### LONDON PETROPHYSICAL SOCIETY (LPS)

#### General News

The London Petrophysical Society (LPS) has had an engaging first few months of 2025. First, we would like to extend our sincere gratitude to our sponsors for their continued generosity and support. These contributions are essential in enabling us to fulfill our mission of advancing the field of petrophysics and fostering a strong professional community in London and beyond. Below are our current sponsors:



One of the key aims of the LPS is to promote, for the public benefit, education and knowledge in the scientific and technical aspects of formation evaluation. To achieve these aims, the LPS provides financial support to students, universities, and young professionals through various award schemes. The LPS was delighted to award Aastha the Iain Hillier Academic Award in support of her PhD at the University of Leeds on "Structural Controls of Geothermal Systems in the Northern Volcanic Zone, Iceland."

**Recent Events**

The LPS has hosted three engaging events so far in 2025.

**30 January 2025**—Brice Fortier, as part of the 2024–2025 SPWLA Distinguished Speaker Series, presented on the Johan Sverdrup oil field, the third largest field on the Norwegian continental shelf. Brice discussed the aims of the field to recover 70% of hydrocarbons in place through seawater and produced water re-injection, followed by water alternating gas injection. He discussed Well 16/2-D-22 as crucial for monitoring waterflooding, with pulsed-neutron logging conducted every 3 months to assess water saturation. He presented investigations of discrepancies in water saturation using advanced techniques, revealing potential influences from residual drilling mud.

**6 March 2025**—LPS presented a unique hybrid seminar on “Petrophysics for Abandonment” at the Geological Society in Burlington House, Piccadilly. The seminar focused on various aspects of mature fields and plug and abandonment (P&A) processes. Discussions included reducing uncertainty in heavy oil saturation analysis using pulsed-neutron log (PNL) tools, evaluating the squeeze potential of natural barriers, and the importance of well integrity logging in P&A operations. Advanced techniques for fluid characterization behind casing using ultrasonic logs and the application of pulsed-neutron petrophysics in identifying water sources in production wells were also covered. Experts from multiple companies shared case studies and methodologies to enhance efficiency and safety in these operations. The event provided valuable insights into improving hydrocarbon production and managing well integrity challenges. We thank all our presenters in this seminar for their valuable contributions.

**24 April 2025**—The LPS also held an online seminar with a presentation from SPWLA Regional Distinguished Speaker Søren Amdi Christensen with his talk on “NMR Fluid Substitution.”



Wrapping up the “Petrophysics for Abandonment” seminar with a panel session.

**Upcoming Events**

LPS has several additional upcoming events planned for the first half of 2025:

Event	Date	Time
May Evening Lecture	22 May 2025	18:00 - 20:00
June All-Day Hybrid Seminar	19 June 2025	09:00 - 17:00

Location
The Geological Society, Burlington House
The Geological Society, Burlington House

The May Evening Lecture will be a celebration of recent academic award winners (2024 and 2025), whereby the five award winners will each present updates of their PhD research to the LPS community. Please come along to the Geological Society to help support these events.

**MALAYSIA CHAPTER  
(Formation Evaluation Society of Malaysia (FESM))**

FESM, a local chapter of the Formation Evaluation Society of Malaysia, is based in Kuala Lumpur. Technical meetings are held monthly. For meeting information, please visit our chapter website at [www.fesmkl.com](http://www.fesmkl.com).

**General News**

FESM held a meeting on 13th February 2025 to discuss on the upcoming collaboration with EAGE for FESM Conference in November 2025. Related to the conference, the committee also discussed in detail the venue scouting, tentative budget, and sponsorship strategy, not limited to the conference but also the overall expenditure of FESM for the 2025 year.



Networking during a break at the “Petrophysics for Abandonment” seminar in the Lower Library of the Geological Society.

**Recent Events**

**27 February 2025**—We had the pleasure of hosting a session on “Rock Typing: Quantified the Reservoir Heterogeneity from Core to Fieldwide Approach” by Mr. William Amelio Tolioe. The session delved into techniques for quantifying reservoir heterogeneity, emphasizing the importance of rock typing and how it can be applied effectively from core samples to field-wide studies. Our expert speakers presented both theoretical insights and practical approaches to better understand how heterogeneity impacts reservoir behavior and performance, enabling more accurate reservoir management strategies.

**23 April 2025**—The committee is preparing a technical session by Nader Gerges on “Reconciliation of Log-Based vs. Capillary Pressure-Based Water Saturation Models in Carbonates: Challenges, Pitfalls to Assess Uncertainties and Impact on Hydrocarbon Volumetric Estimations.”

**Upcoming Events**

**22 May 2025**—A technical session will be given by Soren Christensen on “NMR Fluid Substitution – Pursuing the Fundamental Controlling Parameters of a Low-Mobility Reservoir.”



Presentation by Mr. William Amelio Tolioe on February 27, 2025.

**NORWEGIAN FORMATION EVALUATION SOCIETY (NFES) CHAPTER**

**General News**

Month	Title	Presenter
jan. 25	Obtaining Remaining Oil Saturation For The Johan Sverdrup Field From a Variety of Logging Data Reservoir fluid properties from cuttings: An innovative Synergy of Gel Permeation Chromatography and Data Analytics	Brice Fortier Alexandra Cely
feb. 25	CORE SCANNER FOR ELECTRICAL PROFILING OF FULL-BORE CORES AT THE WELL SITE WITH ADVANCED PULSE ELECTROMAGNETIC TECHNOLOGY	Dler Mirza
mar. 25	President of Society of Petrophysicists and Well Log Analysts (SPWLA) CCUS from emitter to storage – where are we and what do we need?	Iulian Hulea Charlie August
apr. 25	Geothermal Energy in the Nordics: Drilling and Sustainable Utilization	Kirsti Midtømme

Affiliation	Attendance (incl speaker) at the Gård	Attendance (incl speaker) via Teams	Attendance (incl speaker) Total
Discipline leader for petrophysics at Equinor Principal reservoir engineer at Equinor	32	3	35
Subsurface Manager at Aker BP The President of NFES	29	7	36
The President of SPWLA Regions Business Development Leader for CCUS at Baker Hughes	24	7	31
chief scientist at NORCE	25		25

**Recent Events**

**12 February 2025—Monthly Technical Meeting:** We hosted a very interesting talk given by Dler Mirza (subsurface manager at Aker BP and the President of the NFES), with the following title: “Core Scanner for Electrical Profiling of Full-Bore Cores at the Wellsite With Advanced Pulse Electromagnetic Technology.”



NFES Technical meeting, February 12, 2025, in Stavanger. Venkat Jambunathan, NFES VP Program, presents the NFES ice bear in gratitude for a well-attended and delivered presentation given by Dler Mirza, NFES President (to the right)



NFES Technical meeting, February 12, 2025, in Stavanger. Past SPWLA President Jennifer Market showed how a core scanner is operated to Dler Mirza to the left and Sarahel Perez Carreon and Leyla Shikhova to the right, respectively.



NFES Technical meeting, February 5, 2025, in Stavanger. Irada Yusufova, NFES VP Technology and Social Media, presents the NFES ice bear in gratitude for a well-attended and delivered presentation given by Charlie August (to the right)

**5 March 2025—Monthly Technical Meeting:** NFES was honored by a visit from the SPWLA President Iulian Hulea, who gave a very nice and informative introduction of the SPWLA organization to the NFES members. In addition, we hosted a very interesting talk given by Charlie August (regions business development leader for CCUS at Baker Hughes), with the following title: “CCUS From Emitter to Storage – Where Are We and What Do We Need?”

**2 April 2025—Monthly Technical Meeting:** We hosted a very interesting talk given by Kirsti Midttømme (chief scientist at NORCE) with the following title: “Geothermal Energy in the Nordics: Drilling and Sustainable Utilization.”



NFES Technical meeting, February 5, 2025, in Stavanger. Dler Mirza, NFES President, presents the NFES ice bear in gratitude for a well-attended and delivered presentation given by Iulian Hulea, APWLA President (to the right)



NFES Technical meeting, April 2, 2025, in Stavanger. Venkat Jambunathan, NFES VP Program, presents the NFES ice bear in gratitude for a well-attended and delivered presentation given by Kirsti Midttømme (chief scientist at NORCE) (to the right).

**NFES 2024 Sponsors**



## PERMIAN BASIN CHAPTER



## General News

Thank you to everyone who joined our technical luncheons. Your participation strengthens our community of petrophysics professionals, students, and enthusiasts.

Whether you shared insights, asked questions, or simply enjoy the camaraderie of fellow petrophysicists, your presence is what brings these events to life. We appreciate your support. We look forward to seeing you at the next event!

## Recent Events

**25 February 2025—Technical Luncheon with Tom Bratton (Consulting Geophysics)**
**Title: “Advancements in Geomechanics for Unconventionals and Carbon Storage”**

**Abstract:** Geomechanics is a multidisciplinary discipline that applies engineering mechanics principles to predict the deformation, change in properties, and failure of complex materials such as discontinuous, granular, porous, heterogeneous, and anisotropic formations. Understanding fracture behavior is paramount to increasing production in unconventional wells and containing the migration of fluids injected into carbon storage wells. The mechanical earth model (MEM) is the primary input into any geomechanical simulation. It quantifies the formation’s intrinsic rock properties, considering in-situ loading, internal pore pressure, and external vertical and horizontal stresses. The geoscientist must quantify the fracture attributes for all scales within the MEM to account for the changes in fracture permeability with time owing to fluid injection or withdrawal. This talk will highlight how dynamic geomechanical simulations can evaluate changes in flow rate due to stress-related changes in fracture behavior. This applies to reservoir stimulation in unconventional wells and fluid containment in long-term storage projects.

**25 March 2025—Dale Fitz (SPWLA Distinguished Speaker)**
**Title: “Evolution of Casedhole Nuclear Surveillance Logging Through Time”**

**Abstract:** Nuclear logging techniques have played a critical role in the evaluation and surveillance of hydrocarbon reservoirs since the introduction of the gamma ray log in 1939. This presentation reviews the history of key developments in nuclear logging that led to improved methods to identify gas-oil, gas-water, and oil-water contacts in steel-cased wells, as well as methods to identify gas, steam, and waterflood front encroachment, calculate their saturations, and recognize problems in efficient reservoir depletion. This presentation focuses solely on nuclear methods used to directly identify fluids behind pipe using natural gamma radiation, neutron-induced gamma radiation, and neutron flux measurements. This includes gamma ray, spectral gamma ray, single and dual detector neutron measurements, pulsed-neutron capture (S), and pulsed-neutron spectroscopy (carbon/oxygen or C/O) methods. It will not cover other methods of identifying fluids behind pipe, such as borehole gravity and deep EM methods using wired pipe. It also will not cover indirect methods to infer fluid types in reservoirs, such as nuclear production logging using gamma density and pulsed neutron measurements.

**22 April 2025—Luisa Crousse and Artur Posenato Garcia (Chevron petrophysicists)**
**Title: “Novel Workflow Using Core and Log  $T_1T_2$  NMR for Shale Fluid Volume Analysis”**

**Abstract:** The oil production in the US is increasingly dependent on shale and tight assets. However, there are still many challenges associated with the exploration and exploitation of these reservoirs. Reliably characterizing fluid saturations and volume fraction of movable fluids can be difficult due to numerous factors, including variable formation water salinity, complex lithology, thin-bedded nature of the formation, and the presence of organic and inorganic pore systems. Additionally, the accuracy of interpretation models is constrained by the limitations associated with available laboratory measurements. In tight formations, calibrating resistivity models can be very expensive and time-consuming due to the intrinsic pore structure of the rocks. Measured saturation and porosity core data by Dean-Stark and retort methods are very limited. Meanwhile, the accuracy of these data is greatly affected by the fluid losses. To address these challenges, we developed a new workflow integrating experimental data at core and pore scales with  $T_1T_2$  2D NMR log for improved field-scale characterization of fluid volumes.

The introduced workflow integrates the interpretation of the  $T_1T_2$  NMR log with scanning electron microscope (SEM) images, thin sections, and laboratory low-field NMR measurements. SEM images and thin sections are utilized to assess formation-by-formation pore-size variations. From laboratory NMR measurements, we estimate the expected 2D NMR responses for water- and hydrocarbon-saturated samples. Then, we integrate the interpretation of these laboratory measurements with borehole NMR data. To accomplish this, we utilize a novel interpretation workflow that first approximates the 2D NMR measurements into a superposition of 2D Gaussian distributions. Next, we apply a clustering algorithm to the data space containing the  $T_1T_2$  mean values and amplitudes calculated for each Gaussian. And finally, we correlate the centroid of each cluster with the fluid and pore types identified in the laboratory.

We verified the reliability of this novel workflow on multiple wells to cover several different shale and tight formations. We demonstrate that water and hydrocarbon fluid volumes estimated by the introduced workflow are consistent with the results obtained from Dean-Stark and retort methods. Furthermore, we verified that the average difference between the volume fraction of water obtained from the interpretation of dielectric measurements and the new workflow is less than 1 p.u. In addition to more accurate fluid volume quantification, the new workflow predicts the amount of movable water and hydrocarbon. These predictions have been confirmed by available production data.

The novel contribution of this workflow was to improve the reliability and accuracy of the water and hydrocarbon saturation assessment in shale and tight reservoirs. A significant impact obtained from the application of the introduced workflow was the identification of multiple zones containing hydrocarbon that have not been previously identified with other interpretation techniques.

#### **Permian Basin Board 2024–2025**

**President:** Veronica Montoya (SLB)

**Vice President:** Christopher Smith (Advanced Hydrocarbon Stratigraphy)

**Treasurer:** Sebastian Ramiro-Ramirez (Diamondback Energy)

**VP Communications:** Salvador Vargas (ConocoPhillips)

**Secretary:** Kate La Fleur (Beryl Oil and Gas)

## **RESISTIVITY MODELING SIG**

### **Recent Events**

**11 April 2025**—SPWLA RT SIG Leadership met and discussed the planning of the next SPWLA RT SIG meeting time, location, and theme. Treasurer Bishnu Karki updated us on the RT SIG account and bank account. Secretary Peter Swinburne updated us on the status of resistivity and the UDR service company tool catalog.

## **UNIVERSITY OF OKLAHOMA STUDENT CHAPTER**

### **General News**

We are excited to welcome two new students to our SPWLA Student Chapter leadership team: Tania Triana and Andres Pinzon, who will be serving as our new Social Media Co-Chairs.

Tania Triana is a petroleum engineering student from the Industrial University of Santander (Colombia), currently participating in an academic exchange program at the University of Oklahoma. She is passionate about the oil and gas industry, with a strong interest in reservoir engineering, petrophysics, laboratory research, and innovative projects that promote continuous learning and professional growth.

Andres Pinzon is an energy engineer and current petroleum engineering student. In his free time, he enjoys playing basketball and watching movies.

Since joining, Tania and Andres have brought fresh energy, creativity, and commitment to our communications efforts. Their contributions have already made a noticeable impact this spring semester, and we are excited to see how they continue to elevate our chapter's outreach and engagement.

### **Recent Events**

**19 February 2025—John Roberts (Devon Energy) at our Lunch and Learn:** We had the pleasure of hosting our first Lunch and Learn of the year, featuring Jonathan Roberts (advising petrophysicist at Devon Energy and President of the SPWLA OKC Chapter). His technical talk, titled “Geomechanics in Unconventional Oil and Gas and Geothermal: Assumptions, Challenges, and Emerging Techniques,” offered a comprehensive look into geomechanical characterization workflows. The session drew over 30 attendees, including students and faculty, and was exceptionally well received. Jon provided valuable insights into stress characterization, workflow challenges, and innovative techniques shaping the future

of geomechanics. With more than 20 years of industry experience, he delivered a talk that was both accessible and highly relevant to those pursuing careers in energy and geoscience. We extend our heartfelt thanks to Jon for sharing his expertise and for his continued support of the SPWLA OU Student Chapter.

**3-4 April 2025—Student Mini-Symposium 2025 – The Importance of Petrophysics in the New Energy Era:**

We participated in the Student Mini-Symposium 2025: “The Importance of Petrophysics in the New Energy Era.” This 2-day virtual event brought together students, young professionals, and petrophysics enthusiasts from around the world to explore how formation evaluation is shaping the future of energy. Held online via Zoom, the symposium featured:

- Two keynote presentations
- Eighteen technical talks covering cutting-edge topics, including carbon storage, geothermal energy, lithium extraction, underground injection, and petrophysics in lava flows from Brazil

One of the highlights was a lecture given by our very own OU Professor, Dr. Ahmad Ghassemi, whose expertise offered invaluable insight into the evolving role of geomechanics and petrophysics in the context of new energy technologies. The event provided an outstanding opportunity to learn, engage, and connect with industry leaders, researchers, and fellow students committed to advancing the field of petrophysics in a rapidly changing energy landscape.

**2025–2026 Chapter Board Election**

As the academic year drew to a close, our SPWLA OU Student Chapter held elections for the 2025–2026 Executive Committee. This important event marked the transition to a new generation of student leadership committed to advancing our chapter’s mission.

We received enthusiastic participation from our members, and the elections highlighted the strong community spirit and continued interest in petrophysics and energy-related topics. The new committee will carry forward ongoing initiatives and bring fresh ideas to support technical programming, outreach, and student engagement.

We look forward to introducing the new Executive Committee in our next newsletter.



**Tania Triana**

**Andres Pinzon**

Our newly appointed Social Media Co-Chairs are taking the lead this term in managing our digital platforms.



Over 30 students and faculty attended our Lunch and Learn with Jonathan Roberts, who delivered a technical talk on geomechanics in unconventional and geothermal reservoirs.



SPWLA Student Mini-Symposium 2025 was hosted virtually and was well attended with talks from OU/OKC chapters.



SPWLA OU Student Chapter 2025–2026 Board Election poster — Lead the future of petrophysics!



SPWLA-UH Student Chapter Symposium.

**UNIVERSITY OF HOUSTON STUDENT CHAPTER**

**General News**

Papers selected for International Student Paper Contest: Two of our papers have been selected for the international student paper competition. These include:

1. Mohamad Khan: “Novel Techniques of Carbon Capture Monitoring: Geochemical Studies Based on CO<sub>2</sub> Brine-Rock Interactions for CO<sub>2</sub> Sequestration”
2. Tariq Saihud: “Advanced Characterization of Carbonate Reservoirs: Quantifying Pore Contributions With SDEM Models”

In addition, we had a paper and participated in the Petrophysics for the Energy Transition event. Gabriel Unomah presented the work being performed by several graduates and an undergraduate student.

**Recent Events**

**Field trip to Baker Hughes**

We had our field trip to Baker Hughes Education Center in Tomball as part of the SPWLA University of Houston Student Chapter field trip. This visit facilitated firsthand exposure to cutting-edge oilfield technology, including a rig tour, logging unit demonstrations, HSE and facility insights, and a lab walkthrough. Thanks to Mr. Amer Hanif for his guidance throughout the visit, for sharing his expertise, and for making the experience both educational and engaging!

**Student Symposium**

The University of Houston Student Chapter hosted a Student Symposium, which provided an opportunity for students to learn about the evolving role of petrophysics in driving the energy transition and connect with professionals in the field.

**Upcoming Events**

The SPWLA University of Houston Student Chapter will hold elections for Committee Chairs for 2025–2026. This will be a great opportunity for students to take an active role in supporting petrophysics and well-log analysis and take petrophysics forward!

**UH SPWLA Students Chapter Presents  
Call for Committee Chairs**



**JOIN OUR TEAM**

**we are looking for dedicated volunteers to serve as committee chairs for SPWLA. Help us to lead the way and make a difference.**

**Application Deadline - Thursday (17<sup>th</sup> APRIL,2025)**



**Scan here to apply**



Student chapter elections.

**THE UNIVERSITY OF TEXAS  
AT AUSTIN STUDENT CHAPTER**

**General News**

This Spring 2025 (February-April), the SPWLA University of Austin Chapter maintained a vibrant schedule of activities. We continued our Distinguished Speaker Sessions, participated in the “Importance of Petrophysics in the New Energy Era” mini-symposium, and collaborated with the PGE department to host two Graduate Seminar speakers. Community engagement included a successful international potluck and chapter participation in the UT Austin Longhorn Run.

**Recent Events**

**18 February 2025**—The SPWLA UT Chapter proudly hosted Mr. Giuseppe Galli, P.E. (operations senior advisor at ENI), for an insightful online technical presentation titled **“From Leak Path Detection to Quantitative Flow Profiling: The Exciting Journey of Noise.”** The event was highly engaging, with Mr. Galli delivering profound insights into innovative techniques for subsurface exploration.

**SPWLA UT Technical Session Series**

Feb. 18th, 2025 5:00 p.m. - 6:00 p.m. Zoom Meeting

**From Leak Path Detection to Quantitative Flow Profiling: The Exciting Journey of Noise**

**Giuseppe Galli**  
Petroleum Engineering & Operations Senior Advisor

Advanced Noise Logging (ANL) addresses the limitations of traditional well surveillance methods like cement and production logs, offering a dynamic, detailed view of fluid flow paths and reservoir behavior. Operating across a wide frequency range, ANL detects and models noise signals to classify fluid movements through reservoirs, cement channels, leaks, and completions. It provides unique quantitative insights, such as flow rates and net pay, which are especially valuable in challenging scenarios like heterogeneous reservoirs or wax/asphaltene blockages. Enhanced spectral analysis enables robust issue identification for remediation and validates ANL results against conventional methods. With applications in production optimization, remediation planning, and reservoir modeling, ANL is a versatile, cutting-edge solution for complex wellbore and reservoir characterization.

REGISTRATION

Distinguished Speaker Session with Giuseppe Galli.

**12 March 2025**—The SPWLA UT Chapter was honored to host Mr. Michael Taplin for an engaging technical presentation titled **“Shallow Aquifer Sampling for Carbon Capture and Storage: Development of a Low-Toxicity Tracer for Low-**

**Contamination Water Sampling in a Water-Based Mud System.”** The event was highly informative, with Mr. Taplin providing valuable insights into innovative techniques for carbon capture, utilization, and storage (CCUS).

**SPWLA UT Technical Session Series**

March 12th 2:00 p.m. - 3:00 p.m. Zoom Meeting

**Shallow Aquifer Sampling for Carbon Capture and Storage - Development of a Low Toxicity Tracer to Enable Low Contamination Water Sampling in a Water Based Mud System**

**Michael Taplin**  
Senior Petrophysicist

Aquifer water samples are crucial for carbon capture and storage (CCS) site characterization. For the Northern Endurance Partnership's (NEP) CO<sub>2</sub> storage in the Bunter Sandstone aquifer in the Southern North Sea, a shallow aquifer sample (200 m BML) was required. Due to potential hydraulic communication with the sea, traditional contamination monitoring methods were insufficient. An environmentally friendly tracer chemical was developed and tested for compatibility with a water-based mud (WBM) system and real-time contamination analysis. Deployed in a jack-up rig, low-contamination (<3%) samples were obtained at four depths, verified using additional tracers and core samples. These results supported regulatory submissions, with plans to utilize the tracer in future projects.

REGISTRATION

Distinguished Speaker Session with Michael Taplin.

**22 March 2025**—The SPWLA UT Chapter proudly hosted a successful International Potluck, bringing together students and friends for a celebration of global culinary diversity. This lively community engagement event featured an array of dishes from around the world, fostering cultural exchange, strengthening chapter bonds, and showcasing the Longhorn spirit in a warm, welcoming atmosphere.



Potluck event.

**3–4 April 2025**—The SPWLA UT Chapter was honored to be invited to collaborate with SPWLA Student Chapters from the USA, Argentina, Brazil, and Colombia on the virtual Student Chapter Symposium: **“The Importance of Petrophysics in the New Energy Era.”** The mini-symposium featured distinguished industry and academic experts who explored the pivotal role of petrophysics in advancing new energy solutions, with a focus on carbon capture, utilization, and storage (CCUS), CO<sub>2</sub> storage, lithium extraction, and advanced reservoir characterization techniques.



Mini-Symposium: The Importance of Petrophysics in the New Energy Era.

**7 April 2025**—The SPWLA UT Chapter, in collaboration with the Petroleum and Geosystems Engineering (PGE) Department, was privileged to host Dr. Oliver Mullins for a technical presentation titled **“Reservoir Fluid Geodynamics and History Matching Reservoir Charge”** as part of the PGE Graduate Seminar Speaker Talks, held weekly on Mondays. The highly informative and engaging event featured Dr. Mullins sharing profound insights into reservoir fluid geodynamics (RFG), drawing from his evaluation of 80 reservoirs to address critical issues such as connectivity, baffling, aquifer support, and viscous oil, as detailed in his 2019 book, *Reservoir Fluid Geodynamics and Reservoir Evaluation*. In an entertaining talk, Dr. Mullins captivated the audience and graciously provided signed copies of his book.



Graduate Seminar Speaker Session with Dr. Oliver Mullins. (From left to right) Ahmed, Mariella, Oliver Mullins, Dalma, and Isa.

**12 April 2025**—The SPWLA UT Chapter enthusiastically organized a team to participate in the annual Longhorn Run, a vibrant UT Austin tradition. As a community engagement event, chapter members ran the 5k and 10k races, shared protein bars and isotonic drinks, and captured memorable photos around the iconic UT campus, fostering camaraderie and showcasing their Longhorn spirit.



Longhorn Run at UT Austin.

**14 April 2025**—The SPWLA UT Chapter, in collaboration with the Petroleum and Geosystems Engineering (PGE) Department, was privileged to host Dr. Mayank Malik for a technical presentation titled **“Formation Testing: A Catalyst for Energy Exploration”** as part of the PGE Graduate Seminar Speaker Talks, held weekly on Mondays. With 18 years of industry experience spanning clastics, carbonates, shale reservoirs, and recent work on geothermal and carbon capture energy transition projects, Dr. Malik delivered profound insights into advancing energy exploration through formation testing, earning praise for his 2020 SPWLA Symposium Best Paper Presentation Award. The highly engaging event captivated attendees and highlighted the critical role of petrophysics in sustainable energy solutions.



Graduate Seminar Speaker Session with Dr. Mayank Malik. (From left to right) Carlos Torres-Verdin, Malik Mayank, and Ibrahim Goma.

**17 April 2025**—The SPWLA UT Chapter hosted the Distinguished Speaker Alexandre Perrier for an engaging Austin tour. He initially met with our chapter advisors, Dr. Zoya Heidari and Dr. Carlos Torres-Verdín, explored the UT Austin laboratories and campus, admired the stunning views from Mount Bonnell, and concluded the day with an authentic Texas BBQ.



View from Mount Bonnell in Austin.

**18 April 2025**—The SPWLA UT Chapter proudly hosted SLB’s Geologist and Interpretation Development Engineer, Alexandre Perrier, for a Distinguished Speaker presentation, delivering his award-winning talk from SPWLA 2024 in Rio de Janeiro, titled **“Enhanced AI-Driven Automatic Dip Picking in Horizontal Wells Through Deep Learning, Clustering, and Interpolation in Real Time.”** Perrier shared cutting-edge insights into the application of AI in petrophysical analysis.

**SPWLA UT Technical Session Series**

April 18th 12:00 p.m. – 1:00 p.m. CPE 2.212

**Enhanced AI-Driven Automatic Dip Picking in Horizontal Wells Through Deep Learning, Clustering, and Interpolation in Real Time**

**Alexandre Perrier**  
Geologist and Interpretation Development Engineer

slb

Dip picking in horizontal wells is challenging due to non-sinusoidal bedding traces like lengthy parallel and ovoid shapes (“bull eyes”), caused by subparallel well-bedding orientation. Manual interpretation of these features is time-consuming and prone to inaccuracies.

This paper presents an automated AI-based workflow for real-time detection and analysis of non-sinusoidal bedding features in borehole images. Using a convolutional neural network, the workflow classifies bedding features as sinusoidal or non-sinusoidal, regrouping segments to compute accurate global orientations. Sinusoidal traces are preserved or clustered, while non-sinusoidal traces are connected recursively to ensure adaptability with dynamic data input.

The solution reduces analysis time from 1 hour to 12 minutes per kilometer, eliminating subjective errors and supporting both horizontal and vertical wells. This is the first fully automated system handling non-sinusoidal bedding, offering efficiency, accuracy, and cost-effectiveness for the oil and gas industry.

The University of Texas at Austin  
Hildebrand Department of Petroleum and Geosystems Engineering  
Geosystems Engineering

REGISTRATION

Distinguished Speaker Session with Alexandre Perrier.

At the SPWLA University of Austin Chapter, we remain dedicated to fostering professional development, knowledge sharing, and a sense of community among our members. We look forward to building on these efforts and strengthening our ties within the broader SPWLA network. Stay tuned for more updates and opportunities!

Thank you for your continued support, and please feel free to reach out with any questions or feedback.

## Welcome New Members – February 19, 2025 – April 18, 2025

**Aderemi, Adetomiwa**, Heriot-Watt University, Edinburgh, United Kingdom  
**Agyei, Emmanuel**, The University of Akron, Akron, OH, United States  
**Ahmed, Albhar**, Saudi Aramco, Dhahran, Saudi Arabia  
**Al Harbi, Hamdan**, Saudi Aramco, Dhahran, Saudi Arabia  
**Al Mahrooqi, Sultan**, Oxy Oman, Muscat, Oman  
**Al Shoaibi, Sultan**, Petroleum Development Oman, Muscat, Oman  
**Al Yarabi, Mohamed**, Petroleum Development Oman, Samail, Oman  
**Al-Hattali, Ahmed**, Petroleum Development Oman, Muscat, Oman  
**Ali, Arfan**, Saudi Aramco, Dhahran, Saudi Arabia  
**Alshehri, Abdullah**, Saudi Aramco, Dhahran, Saudi Arabia  
**Alshethry, Abdullah**, ARAMCO, Dammam, Saudi Arabia  
**Alzayer, Bassam**, Front End Limited Company, Safwa, Saudi Arabia  
**Amado Pedraza, Ivan**, UIS, Bucaramanga, Santander, Colombia  
**Askew, Philip**, Avenir Energy, Bangkok, Thailand  
**Azevedo, Fernanda**, University of Houston, Spring, TX, United States  
**Barcella, Diego**, Universidad Nacional De Rosario (UNR), Cinco Saltos, Argentina  
**Barka, Ismail**, Geologist, Benghazi, Libya  
**Batista, Joelson**, Federal University of Bahia, Salvador, Brazil  
**Bhuiyan, Abir Hasan**, University of Southern California, Los Angeles, CA, United States  
**Birdsall, Courtney**, Baker Hughes, Houston, TX, United States  
**Bora, Ajoy**, ExxonMobil, Bangalore, India  
**Borjas, Chris**, EOG Resources, Midland, TX, United States  
**Chawla, Tamanjot**, University of Petroleum and Energy Studies, Dehradun, India  
**Chen, Haoyu**, Southwest Petroleum University, Chengdu, China  
**Cheng, Qianrui**, Southwest Petroleum University, Chengdu, China  
**Chenxi, Wang**, Southwest Petroleum University, Chengdu, China  
**De Araujo, Cássia**, PUC-RIO, Rio De Janeiro, Brazil  
**Dobbs, James**, Bureau of Ocean Energy Management, Dallas, TX, United States  
**Drzymala, Aneta**, Shell, Krakow, Poland  
**Duowen, Zheng**, Southwest Petroleum University, Chengdu, China  
**El Masry, Jamil**, The University of Texas at Austin, Austin, TX, United States  
**Eler, Felipe**, Universidade Federal Do Rio De Janeiro, Rio De Janeiro, RJ, Brazil  
**Ezhov, Kirill**, Saudi Aramco, Dhahran, Saudi Arabia  
**Fabrica, Lucia**, IFES, General Roca, Rio Negro, Argentina  
**Gong, Danli**, Southwest Petroleum University, Chengdu, Xindu, China  
**González, Agustina**, Universidad Nacional De La Plata, La Plata, Argentina  
**Grosso, Antonella Belén**, Universidad De Buenos Aires, Buenos Aires, Argentina  
**Guo, Shusheng**, CNOOC China Ltd.\_Hainan, HaiKou, China  
**Henao, Valentina**, Colombia UIS, Bogota, Colombia  
**Hongfa, Ye**, Southwest Petroleum University, Chengdu, China  
**Huwaider, Mustafa**, Saudi Aramco, Dhahran, Saudi Arabia

**Javid, Abdolrazzagah**, University of Houston, Houston, TX, United States  
**Jiahao, Jiang**, Southwest Petroleum University, Chengdu, China  
**Kang, Menglu**, Chian University of Petroleum (Beijing), Beijing, China  
**Kazak, Andrei**, Saudi Aramco, Dhahran, Saudi Arabia  
**Kellal, Sara**, KFUPM-CPG, Dhahran, Saudi Arabia  
**Khalid, Mustafa**, Saudi Aramco, Dhahran, Saudi Arabia  
**Kriscautzky, Agustin**, Geolog, Houston, TX, United States  
**Li, Jianing**, China University of Petroleum, Beijing, Beijing, China  
**Li, Ju**, Southwest Petroleum University, Chengdu, China  
**Li, Yongkang**, Yangtze University, Wuhan, China  
**Liao, Wenlong**, Yangtze University, Wuhan, China  
**Lin, Zongpeng**, Southwest Petroleum University, CHENGDU, China  
**Liu, Xiuju**, Ellington Geological Services, Houston, TX, United States  
**Lopez, Alejandro**, UT, Austin, TX, United States  
**Lu, Fawei**, CNOOC, Shanghai, China  
**Luo, Chun**, Southwest Petroleum University, Chengdu, China  
**Luo, Guojun**, Southwest Petroleum University, Xindu District, Chengdu, Sichuan, China, China  
**Moreira Souza, André**, University of Sao Paulo (USP), São Carlos, Brazil  
**Mroz, Emma**, Texas A&M University - Kingsville, TX, United States  
**Ng, Cuthbert Shang Wui**, Equinor, Trondheim, Norway  
**Nuamah, Clement**, Texas A&M University-Kingsville, Tema, Ghana  
**Panchkarla, Anjana**, Baker Hughes, Abu Dhabi, United Arab Emirates  
**Peng, Wenzheng**, Southwest Petroleum University, Chengdu, China  
**Pinzón Herrera, Andrés**, UIS, Bucaramanga, Santander, Colombia  
**Popov, Alexey**, Advantage Energy, Moscow, Russia  
**Preboste Miotti, Gonzalo**, SPWLA, Cipolletti, Argentina  
**Qiao, Ping**, China University of Petroleum (East China), Qingdao, China  
**Qiao, Zhen**, China University of Petroleum, Beijing, Beijing, China  
**Rascoe, Sean**, Continental Resources, Yukon, OK, United States  
**Ribeiro, Carolina**, UFRJ, Rio De Janeiro, Brazil  
**Roblero Nunez, Silvia**, Equinor ASA, Rasta, Norway  
**Rodríguez, Rosalía**, Universidad Nacional Arturo Jauretche, Buenos Aires, Argentina  
**Ruiz Sandobal, Maria**, Universidad Nacional De Tucuman, Salta, Argentina  
**Salcedo Leal, Adrian**, UIS, Bucaramanga, Santander, Colombia  
**Seth, Puneet**, Oxy, Conroe, TX, United States  
**Shi, Junxia**, China University of Petroleum (Beijing), Beijing, China  
**Shi, Xinlei**, CNOOC, Tianjin, China  
**Shifugula, Tresia**, Texas A&M University – Kingsville, Kingsville, TX, United States  
**Shpilman, Evgeniya**, Halliburton, Spring, TX, United States  
**Sifontes, Ventura**, M&P Services, Lecherias, Venezuela  
**Wan, Qiaosheng**, China University of Petroleum (Beijing), Beijing, China

## Welcome New Members – February 19, 2025 – April 18, 2025

**Wang, Yuetian**, Research Institute of Exploration and Development, CNOOC Research Institute Ltd, China, Beijing, China  
**Wang, Zhonghao**, Yangtze University, Wuhan, China  
**Wu, Xingfang**, CNOOC, Sanhe, China  
**Xiong, Jian**, Southwest Petroleum University, Chengdu, China  
**Xiong, Meile**, Yangtze University, Wuhan, China  
**Xuemei, Jian**, Southwest Petroleum University, Chengdu, China  
**Yates, Edward**, University of Canterbury, Christchurch, New Zealand  
**Youssef, Amir**, KFUPM, Dharhan, Saudi Arabia  
**Yu, Xu**, Southwest Petroleum University, Chengdu City, China  
**Zaher, Assar**, Saudi Aramco, Dhahran, Saudi Arabia  
**Zhang, Haining**, China National Logging Corporation, Xi An, China  
**Zhang, Hao**, Southwest Petroleum University, Chengdu, China  
**Zhang, Songwei**, COSL, Beijing, China  
**Zhang, Xi**, Southwest Petroleum University, Chengdu, China  
**Zhang, Zhansong**, Yangtze University, Wuhan, China  
**Zhengyan, Wang**, Southwest Petroleum University, Chengdu, China

