spwla today

NEWSLETTER

VOLUME 7 - ISSUE 6

NOVEMBER 2024

INSIDE THIS EDITION

NMR Applications for Carbon Storage

GeoSpec

Improve confidence in carbon storage predictions

Capillary Force Trapping

Porosity

CO_2 Relative Permeability

Real-Time Core Flooding

Pore Size Distributions

Fluid Displacement

CO_2 Fluid-Rock Reactions

Fluid Migration

CO_2 Wettability

Capillary Pressure

Investigate suitability of rock structures for carbon storage

For more information contact:

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OXFORD INSTRUMENTS

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CALENDAR OF EVENTS

November 7, 2024
SPWLA Resistivity SIG – Fall 2024 Meeting
Sugar Land, TX, USA
www.spwla.org

November 12, 2024
SPWLA – 2024 FESM Topical Conference
Theme: "Petrophysical Insights: Key to Unleashing Potential in Mature & Marginal Fields"
Kuala Lumpur, Malaysia
www.spwla.org

November 18–19, 2024
SPWLA PDDA SIG – Fall Topical Conference
Theme "Petrophysics Accelerating Digital Transformation"
Houston, TX, USA
www.spwla.org

May 17–21, 2025
SPWLA 66th Annual Symposium
Dubai, UAE
www.spwla.org

About the Cover

As the year comes to an end, we're thankful for our members and wish you a happy, peaceful holiday season ahead.

From the Chief Editor

S. Mark Ma
2024–2026
Vice President Publications

Dear SPWLA community,

November is here, and we are approaching the end of 2024 fast. What have we learned petrophysically recently?

From the October 2024 issue of the *Petrophysics* journal, I would like to share my learning experience from reading the Jensen and Uroza paper on a probe permeameter.

Testing and Application of a Probe Permeameter in the Lower Wilcox Formation, Onshore Texas, USA | Petrophysics | OnePetro

It starts with a balanced overview of the technology, and the part I like the most is actually the best practices in obtaining a perm profile by using the probe permeameter, including:

- Effect of rock sample *heterogeneity* on plug and probe permeabilities
- Effect of rock sample inner conditions due to plug *cleaning with solvents*
- Effect of rock sample *surface conditions* for probe measurement
- Effect of probe tip material
- Effect of probe tip geometry
- Effect of stress applied to the probe during measurement
- Effect of time duration required per measurement
- Effect of data processing and results averaging
- Measurement accuracy of extremely low and high perm samples

In the end, it's excellent advice to account for calibration, as probe permeability is relative and may need to be normalized locally.

At the same time, look out for the December issue of *Petrophysics*, which will be published in a month and features the Best Papers of the 2024 SPWLA Annual Symposium. Happy Learning!

Best wishes,
S. Mark Ma
VP Publications

From the President

Iulian N. Hulea
2024–2025 President

Dear colleagues,

Welcome to the November newsletter. I hope you are all doing well, are healthy, and most likely busy! It is hard to believe but we are approaching with very quick steps the end of a very busy year. I hope you can already conclude that 2024 has been successful!

In my last column, I mentioned some of the things that keep the SPWLA BOD busy. One of them worth reminding you of is the fact that SPWLA has joined forces with SEG to host the workshop, Seismic Petrophysics Symposium, between 6–8 October 2024 in Al Khobar, Saudi Arabia. This is one of the directions we are exploring to improve the visibility of our organization in the Middle East. I have represented SPWLA as a co-chair next to Muhammad Ashfaq (ARAMCO), who is leading a technical committee with a strong SPWLA component. I would like to thank again the team for their time and effort! [1]

Also, in the same period, our Thailand colleagues organized a regional conference, Traditional and Transitional Petrophysics, in Bangkok. I am looking forward to hearing from those privileged to attend. What a fantastic success it was!

In September, I had the privilege to attend the 29th Japan Formation Evaluation Society (JFES) Symposium, a celebratory event as JFES was founded 30 years ago! Congratulations again to JFES and to those volunteers who put together an excellent program and have been doing so for such a long time! This year, a wide range of topics were covered, from automated methods to case studies and reservoir characterization of both conventional and unconventional reservoirs! It was a very rich program, including eye-opening talks like energy issues and the history of civilization. Seeing such a vibrant chapter reinforces my belief that our SPWLA family is so rich and incredibly diverse! [2]

I presented on the SPWLA organization and its mission. Hopefully, more people from JFES will become full SPWLA members. This is a good moment to thank our sponsors again. Our events are possible thanks to you! Thank you again!

Concerning the near future, I can assure you that next year's symposium planning is progressing well, with the Technical Committee, led by Harry Xie and Robin Slocombe, in good hands. The rest of the details are being resolved by Sharon and the Dubai Chapter Committee.

Also, talking about the future, the BOD 2024–2025 has been working on a plan for what we want to achieve as a team. We have discussed the main points. I hope this image brings you some clarity as to what we are busy with when you don't hear so much from us.

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?

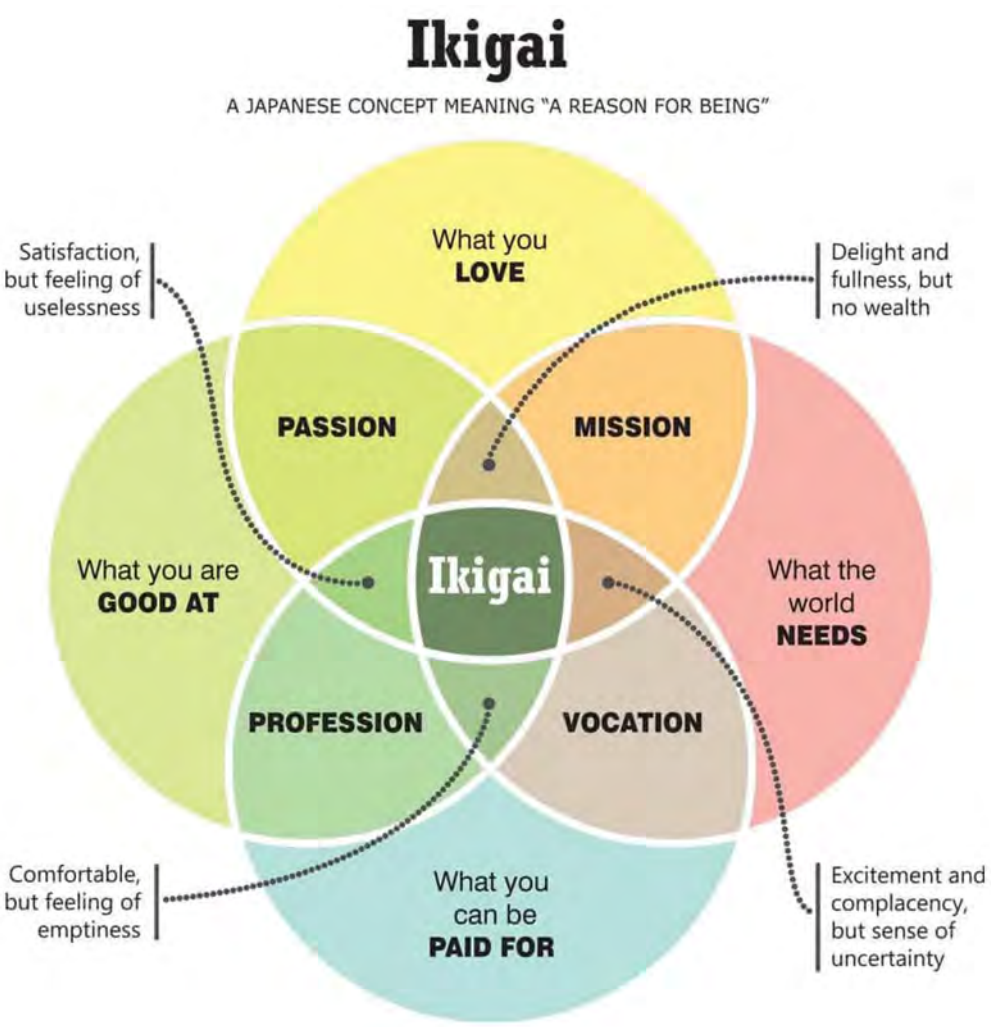
2. VP Publications: work on Newly created Technology Column (NTC)

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.

If you have ideas for improvements or need some clarity, please do not hesitate to let us know! Please don't forget the best way to change something in our fantastic organization is through volunteering!

It is an honor and pleasure to serve the SPWLA in this volunteering role, and I am happy that SPWLA is part of my "ikigai!" [3]



Thank you again!
Iulian Hulea
President

[1] SEG | SPWLA Symposium: Seismic Petrophysics - SEG
[2] 29th_JFES_symposium_program_ver4.pdf (spwla-jfes.org)
[3] Ikigai: A "Four-Circle Model" of Human Capital (stevelegler.com)

Jennifer Market
SPWLA 65th President

Hello from Perth, in the middle of Kambarang, the warming season when the snakes are waking up, the birds are singing, and a few hundred million flies caress you as you step outside to bask in the sunshine.

It is a busy season for the society as well, with numerous conferences and symposia held all around the world to engage our members and exchange ideas on a wide range of topics, including seismic petrophysics, the digital transformation, transitional petrophysics, and new methods for marginal fields and brownfields. Our Distinguished Lecture Series is in full swing, and our SIGS are hosting special topical events. The 2025 Dubai Symposium planning is also in full swing, and one of my favorite annual symposium events is the awards ceremony, where we recognize those who have made key contributions to the society and the advancement of petrophysics. We look to you, our membership, for nominations for awards for those who you think should be recognized for outstanding contributions.

I hope to see many of you in Dubai in May, if not before then!

2025 SPWLA Annual Awards – Call for Nominations

Each year, SPWLA awards individuals who have made impactful contributions to petrophysics, well logging, and general formation evaluation. We invite you to nominate your colleague, mentor, or mentee who has made strides to excel within the SPWLA as a technical expert or outstanding volunteer. Both SPWLA's members and former members are eligible for awards except those serving on the international Board of Directors or the Awards Committee.

Nomination Procedures

To nominate an individual, please complete the online nomination form and include the following:

- Brief biographical sketch of the nominee
- List the top 3 technical or service achievements of the nominee (e.g., best publications, patents, books, etc., volunteer efforts in the SPWLA, projects initiatives, extended service to the petrophysical community, etc.)
- A concise statement summarizing why the nominee should be selected for an award

Additional information to strengthen the support of your Award nomination can be enclosed (PDF preferred) as a separate file, including but not limited to:

- Extended biographical description or CV: education, work experience, society memberships, and service to professional societies
- List of technical publications and patents in, or contributions to, well logging, petrophysics, or other areas of formation evaluation
- List of service to the SPWLA, including offices held, committee assignments, meeting organization, or SPWLA programs (e.g., Distinguished Lecturer Program), etc.
- List of other relevant industry, academic, or public service activities in sister societies and the community
- Letters of support from peers and colleagues

Deadline

Please submit your nomination(s) on or before February 15, 2025, for recognition at the SPWLA 2025 Annual Symposium.

How to Submit Nominations

Nominations must be submitted online. Please consider making a nomination to the Board of Directors by suggesting only those who have a record of service to our society. If you have any questions, please contact Awards Committee Chair Jennifer Market, past-president@spwla.org.

Selection Process

The SPWLA Awards Committee recommends the final nominees, and the winners are confirmed by the Board of Directors. Awardees will be notified before the end of March 2025.

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

Harry Xie, VP Technology, and Robin Slocombe, VP Technology-Elect, are heavy into the 66th Annual SPWLA Symposium for Dubai, May 17–21. They will hit the highlights, but it is great to see a good mix of abstracts with an increased count from the Middle East and Asia Pacific. (This also goes for the Technical Committee representation.)

One of the responsibilities of the President-Elect is to engage with the SPWLA Special Interest Groups (SIGs). The SPWLA was the first organization to have Special Interest Groups. They have become a vital part of our organization, where SMEs in a broad range of topics meet to discuss issues, set standards, and share ideas with like-minded individuals. In addition to meetings, they conduct focused workshops and topical conferences. Several of our SIGs have over 100 members, with the Borehole Image SIG over 200. The October 15 Borehole Image SIG Workshop on Geomechanics had 190 people online.

The current SIGs are:

- Acoustic SIG
- Alternate Subsurface-Energy Transition (ASET) SIG
- Borehole Imaging (BHI) SIG
- Education SIG
- Formation Testing (FT) SIG
- High Angle/Horizontal (HA/HZ) SIG
- Hydrocarbon Reserves SIG
- Resistivity SIG
- Nuclear Magnetic Resonance (NMR) SIG
- Nuclear SIG
- Petrophysical Data-Driven Analytics (PDDA) SIG
- The Society of Core Analysts

Meetings were held Oct 11 and 14 with seven of 12 SIGs. A meeting will be held each quarter. There was much discussion on how to leverage ideas from the more active SIGs to increase engagement and utilize SPWLA to help the SIGs. A few action items are:

- Update SIG web information – provide consistency on SIG data
- Update SIG Calendar of Events (confirm if the Events Calendar is operational with the web update)
- Evaluate establishing a simple method with the new website or Survey Money for SIG Officers
- Create a SIG Chapter “Best Practices” from active chapters to capture the best ideas to share with all SIGs (Target draft end Q4, 2024)
- Update and share “SIG Conference Best Practices”
- SIG *SPWLA Today* and *Petrophysics* journal updates for increased awareness
- SIGs work with VP Publications/Chief Editor to create “Special” *Petrophysics* journal issues

We encourage you all to join the SIGs for discussions with other like-minded experts or to expand your knowledge. We welcome your ideas to leverage the success of our SIGs. Send comments to me or the respective SIG chairs available on the SPWLA website.

I look forward to working with the SIGs and Chapters supporting your Board’s initiatives and visiting with you in Dubai.

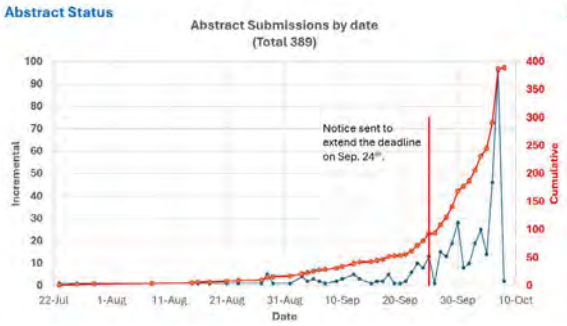
Regards,
Robert H (Bob) Gales
2024–2025 SPWLA President-Elect

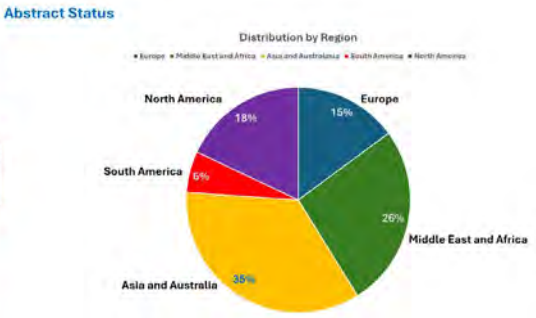
Harry Xie
2024–2025 Vice President
Technology

Robin Slocombe
2024–2025 VP
Technology-Elect

Dear colleagues,

We are delighted to announce that the call for abstracts for the 2025 SPWLA Symposium in Dubai closed with an impressive 389 submissions. This overwhelming response suggests our upcoming meeting will be successful and rich in content. The cumulative number of submissions exponentially increases with time. This year, we have received great contributions from Asia/ Australia and the Middle East/Africa. The abstract review is in progress. Notifications will be sent to authors by or on December 2, 2024.





In addition to the paper presentations, workshops have always been a cornerstone of our symposium, offering deep dives into niche areas of petrophysics and fostering robust discussions among experts and enthusiasts alike. We already have several proposals for workshops, each promising to deliver insightful and valuable sessions. However, to ensure a diverse and comprehensive program, we are seeking additional proposals.

Title	Proposer / SIG / Sponsor
Around the topic of Cased Hole measurements and petrophysics	Ahmed Badruzzaman, Dale Fitz, Nuclear SIG
Formation Testing and Sampling	Gibran Hashim and FT SIG
Borehole Imaging Data Application	BHI SIG
CCS / Energy Transition	Rob Laronga
Core Analysis	Kris Farmer (Corelab), Jean-Valery Garcia, Christophe Germay (Epslog), Oniel Wint (SLB)
MENA Specific petrophysical topic	Russel Farmer (ADNOC); Muhammad Gibrata (DXB)
Petrophysics Intelligence and Automation with Python	Chicheng Xu (Saudi Aramco), Oriyomi Raheem (UT Austin), Nader Gergers (ADNOC)
Mud Logging	Tao Yang
Well Testing	
Technical Writing	

We encourage you to submit your ideas for workshops that you believe will attract substantial interest and attendance. Whether it's cutting-edge technology, innovative methodologies, or emerging trends in the field, your expertise and vision can contribute significantly to the success of our symposium. Workshops are an excellent platform for sharing knowledge, sparking new ideas, and networking with peers who share your professional passions. Please consider this an invitation to actively shape the educational landscape of our 2025 symposium. Together, we can create a dynamic and enriching experience for all attendees. Submit your workshop proposals today and be a part of this exciting journey to Dubai!

Yours sincerely,

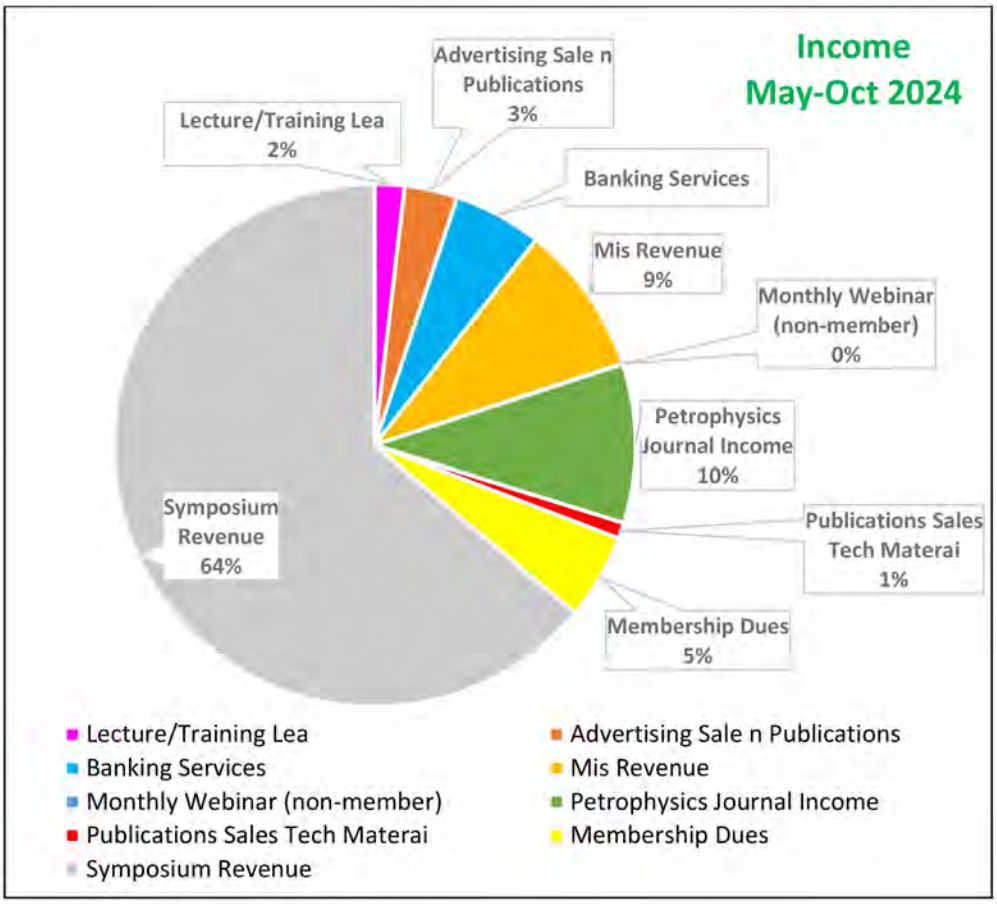
Harry Xie
2024–2025 SPWLA VP Technology
VP-Technology@spwla.org

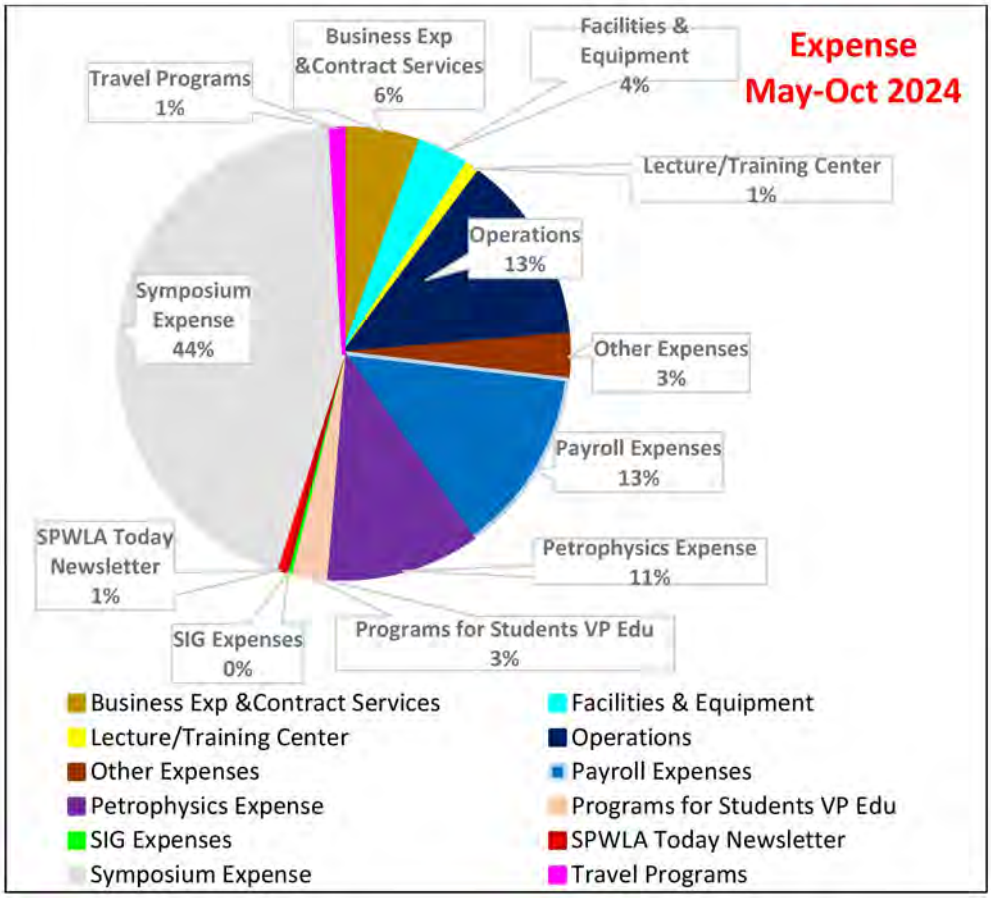
Robin Slocombe
2024–2025 SPWLA VP Technology-Elect
VP-Technology-Elect@spwla.org

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

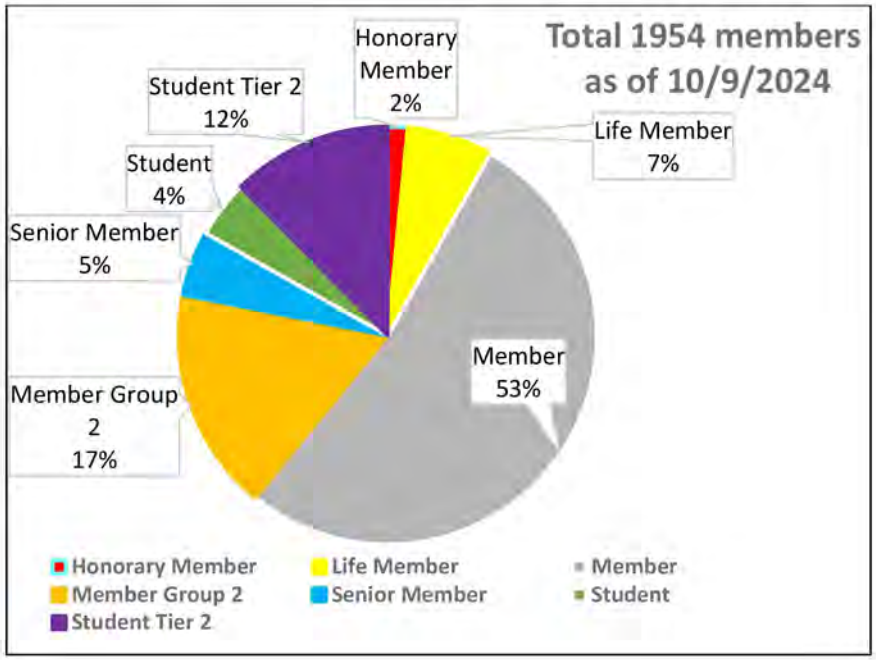
Dear SPWLA colleagues,

The financial status of the SPWLA indicates consistent and robust growth. As of October 9, 2024, the total assets increased by 9% compared to November 2023. Below are the pie charts displaying percentages of revenue and expenses for May–October 2024. The total revenue and expenses are reasonable, and the net profit remains healthy.





As of October 9, 2024, the society had sold 35 copies of printed *Petrophysics* journals and had 1,954 members. Below are the percentages for different member categories.

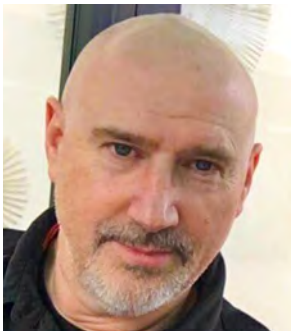


We have invited two members to serve on the SPWLA Finance Committee and have updated the host chapter's profit share. The Board of Directors will vote at the next BOD meeting in November 2024.

We value your input and encourage everyone to continue supporting our various workshops, topical conferences, annual symposiums, and other SPWLA initiatives. If you have any ideas for new sources of revenue for the society, we would greatly appreciate your thoughts.

Thank you for your ongoing support.

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



Tegwyn JP Perkins
2024–2025 VP Information Technology

Hello, everyone, and welcome to another Informative Technology column.

First, I'd like to welcome Lee Utley and President-Elect Robert Gales to the SPWLA IT Committee. Lee will be working with me to migrate the functionality we have created on spwlaworld.org to our new Application Submissions platform, OpenWater, whilst Bob, despite all his other duties, will be testing them. We will also be engaging with those responsible for delivering specific services to ensure that they are fit for purpose. For example, we have already met with VP Education Matt Blyth and some of his committee members to review the International Student Paper Contest abstract submission workflow. One of the nice features of the new platform is that forms can be sent directly to faculty sponsors, and they remain linked to the submission. That will save Matt time when it comes to identifying who has and, more importantly, who hasn't submitted their Sponsoring Faculty Declarations! The same logic can be applied to the Scholarships and Grants program, too.

We also met with Past President Jennifer Market to review the Award Nominations workflow. This will be the first "program" that goes live using the new platform, so we are excited to see how it performs.

Another cool feature of the OpenWater platform is its support for Single Sign-On (SSO). This means that you can log in to the new platform using your spwla.org credentials, and you won't need to retype your personal information when submitting applications.

As I mentioned in my last article, this system wasn't ready for abstract submissions for SPWLA Dubai 2025, but we will be rolling it out for the Award Nominations later this year and the International Student Paper Contest early in 2025. It will also be used for the 2025 Scholarships and Grants program and, potentially, for any regional and topical conference that wishes to centralize abstract submissions.

In other news, we have continued to develop and refine the new spwla.org website. Some of the content is out of date, but we're getting there. Special thanks to Stephanie and Sharon for their diligent work during the transition.

Dr. Tegwyn JP Perkins
SPWLA 64th President
2024–2025 VP Information Technology
vp-infotech@spwla.org

Matt Blyth
2024–2026
VP Education

Dear SPWLA Community,

Hello! By the time you read this report, we will be well into the swing of our Global Distinguished Speaker program. We kicked off this season in September with a webinar on the importance of well integrity evaluation from Dirk Valstar with SLB. In October, Michael Taplin with BP continued the CCS theme with a talk on shallow aquifer sampling for CCS. These talks will continue each month all the way through to June 2025. Details of each talk will be available through the website and on social media. Did you know that there are two different Distinguished Speaker recognition systems in the SPWLA? To clarify these and make the distinction clearer, we have recently renamed both of these programs. Going forward, we will have the following two systems in place:

- **Global Distinguished Speakers (GDS).** This is what was originally known as simply the Distinguished Speaker program. These speakers are chosen from the top-ranked papers and presentations at the annual symposium. As the conference is global, these speakers are also recognized at that level. You can find our current GDS speakers on the website.
- **Regional Distinguished Speakers (RDS).** Rather confusingly, this used to be known as the Global DS program. However, these speakers are chosen from nominations from the chapters for their best speakers over the past year. Therefore, it seemed more appropriate to rename them accordingly. We have recently completed the selection of the 2024–25 RDS, and they are also on the website.

Both the GDS and RDS are available as a resource to local chapters and SIGs for talks throughout the year, either online or in person.

Additionally, we have started a webinar series to recognize some of the other outstanding presentations from Rio. This "Highlights from Rio" series began in October with a double bill presentation from the 2024 ISPC winners. Next up will be Andy Hawthorn, who will be presenting his Rio paper in December. The series will continue up until next year's symposium in May.

During September, we completed our first short course of the year—a big thank you to Oliver Mullins for delivering his Reservoir Geodynamics course. Additionally, we had a well-attended "More You Know" webinar in October from Mike Dick with Green Imaging. We are still looking for people willing to deliver SPWLA short courses, so if you have a passion for a particular subject and like to teach, please contact me at VP-Education@spwla.org!

Take care!
Matt Blyth
VP Education

Chelsea Newgord
2023–2025
VP Communications

Hello SPWLA colleagues,

If you are following SPWLA on social media, a few key topics we have been sharing are:

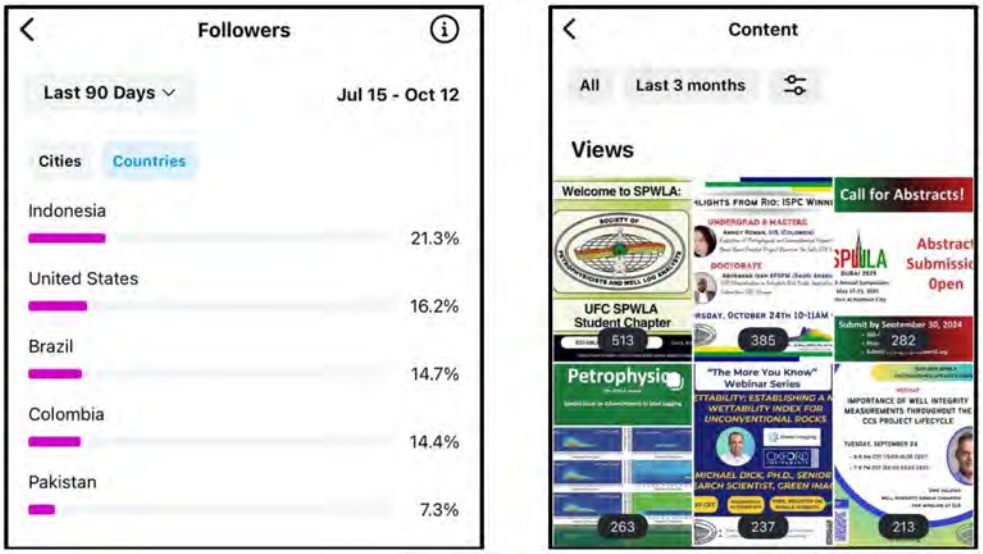
- Abstract submission for the SPWLA 66th Annual Symposium in Dubai
- Events: Distinguished Speaker webinars and SIG meetings
- Welcomes to newly formed chapters

Tag SPWLA in your posts, and if there is something special you would like shared, please reach out by email or a direct message!

I look forward to a busy and great rest of the year supporting SPWLA! As always, if you would like to contribute your digital skills, let me know.

Do you follow the @spwlaorg Instagram account? As of mid-October, we had 338 followers, which is a 7.6% increase over the past 90 days. Our followers are across the world, with the top countries being Indonesia, the United States, Brazil, Columbia, and Pakistan.

The most popular post welcomed the SPWLA UFC Student Chapter with 513 views! Other well-viewed posts were the (1) Best of Rio Student Paper Contest webinar, (2) Annual Symposium call for abstracts, and (3) August issue of *Petrophysics*.



Figures of the SPWLA Instagram account follower metrics and top posts from mid-July to mid-October 2024.

~Chelsea Newgord
2023–2025 VP Communications
VP-Communications@spwla.org

Regional Understandings–North America 1

Amer Hanif
2024–2026 NA1 Regional Director

Dear SPWLA members,

As the newest member of the SPWLA International Board, I want to begin my first column by saying that I am highly honored to join the Board and represent a very vibrant grouping of regional and student chapters.

My transition to the new role is from the **SPWLA Houston Chapter**, which maintains its status as a very active chapter (see detailed report elsewhere in this newsletter). Led by the esteemed presence of new President **Ron Bonnie**, the entire team is already working on a number of exciting initiatives, from a year-ending Technology Show to a Student Symposium to Training Workshops for new professionals. It will be my pleasure to work with them in close collaboration and to bring these ideas to fruition. Our Downtown venue met with a challenge when our building became unavailable due to hurricane-associated damage. That has not the least slowed down VP Downtown **Artur Posenato Garcia**, who has seamlessly switched to virtual webinars as the building goes through repairs. **QinShan Yang**, our new VP Westside, has secured a new venue for events in his part of the town and has in-person talks lined up for several months to come. As we welcome the new officers of the chapter, a shout-out goes to outgoing President **Bernd Ruehlicke** and VP Westside **Neal Cameron** for their remarkable services to the chapter. Bernd, Neal, and our past Regional Director **Javier Miranda** are closer to our current activities than ever before, which is a testament to the long-term relationships we build. I would be remiss if I didn't mention the Monthly Social, hosted by SPWLA Houston, every last Thursday of the month at the same location and time (5 pm at Cedar Creek Bar & Grill, 1034 West 20th Street). No registration or payment is required, and our entire community is welcome.

Ron Bonnie, President SPWLA Houston, introducing the newly elected 2024–2026 Board to the members.

A pleasant experience for me was connecting with the **SPWLA Dallas Chapter**. An active board for 60-plus years, it hit a snag during COVID. **James Lewis**, **Ray Wydrinski**, and friends have commendably kept guard over the pandemic years, and now is the time to revive the activities. We are seeking new volunteers to serve the chapter, and nominations are welcome.

Houston Monthly Social, always a joyful event to attend and mingle with fellow petrophysics enthusiasts.

Dallas Chapter, founded in 1961, celebrated 60 years of uninterrupted service, but then the COVID pandemic happened.....

In a like manner, we have new young leaders who have recently taken office positions in our student chapters, bringing renewed vigor and vitality. The **University of Houston** Student Chapter, led by new President **Musa Ahmed** and guided by faculty advisors **Dr. Lori Hathon** and **Dr. Michael Myers**, has started their new academic year by inviting an industry expert for an engaging discussion on CCUS, followed by a tour of a Rock & Fluid Lab hosted by SLB. Not to be left behind is our chapter at **The University of Texas**, **Austin**, inspired by **Dr. Zoya Heidari** and **Dr. Carlos Torres-Verdín** as their faculty advisors. I had a great first meeting with new President **Dalma Cerro** and VP **Mariella El Khoury** and was amazed at the care and detail going into their program of activities extending into next year.

U of Houston kicking off their new academic year with a talk from Adam Haecker on petrophysics for carbon sequestration.

Good news also comes from the **University of Louisiana**, **Lafayette**, and **Texas A&M University**. Both chapters have had a slow phase for a few years. At ULL, a new full Board is already in place, led by **Aboubakar Kone** and advised by **Dr. Mehdi Mokhtari**. The team is contemplating events from technical talks to joint activities with local industry. My request to Texas A&M also got a positive response. **Dr. Kiseok Kim**, from the Petroleum Engineering Department, has agreed to be the new faculty advisor. I will work with him to reactivate the chapter on the campus of this great academic institution in Texas.

U of Texas, Austin, social event, connecting with university students over a game of frisbee, unwinding, relieving stress, having fun, and talking petrophysics over refreshments.

The NA1 region covers a dynamic energy industry, often leading and shaping the industry in North America and around the globe. We will keep our profession strong by staying informed, embracing change, innovating, and learning new skills. Lastly, I am looking forward to a great annual event in Dubai in May 2025 and then bringing it back to the USA in 2026.

University of Louisiana, Lafayette, home to Ragin' Cajuns and known for its research, sustainability initiatives, and diversity. The SPWLA students intend to begin by hosting a talk on CCUS.

Sincerely,
Amer Hanif
2024–2026 NA1 Regional Director

Clara Palencia
2023–2025 North America 2
Regional Director

As the fall season settles in, I am pleased to report on the efforts undertaken in my role as Regional Director to strengthen the relationship between our professional and student chapters. Our focus has been on several key initiatives designed to foster collaboration and knowledge exchange.

Over the past 5 years, the oil and gas industry has witnessed a significant decline in student interest in pursuing careers within the field. Several factors have contributed to this trend. Firstly, the global shift towards renewable energy sources has made traditional oil careers less appealing as students increasingly view sustainable energy as the future. Secondly, the volatility of oil prices and the industry's susceptibility to geopolitical tensions have created uncertainty regarding job stability and prospects. Universities have also responded by expanding their offerings in renewable energy programs, further diverting potential candidates from oil-related courses. This combination of economic, environmental, and educational shifts has collectively led to a marked decrease in the number of students entering oil careers, signaling a transformative period for the energy sector.

This is why one of the primary efforts has been organizing activities involving students, such as a Student Chapter Mini Symposium dedicated to exploring the role of petrophysics in the new energy era. This symposium aims to highlight the evolving contributions of petrophysics within the context of sustainable energy solutions and to inspire the next generation of professionals in the field.

Moreover, we have actively reached out to professors and academic institutions in various regions, including Utah and Virginia. By engaging with educators and researchers, we are working to bridge the gap between academic knowledge and industry practice, ensuring students are well prepared for the dynamic energy landscape.

In addition to our domestic efforts, we have also focused on building international connections. Establishing meaningful relationships with counterparts in countries such as Argentina and Colombia has been a priority. These connections are intended to facilitate cross-border collaboration and create opportunities for joint projects and research initiatives.

I look forward to providing you with further updates on these initiatives and sharing more details in the next issue of our newsletter.

Warm regards,
Clara Palencia
NA2 Regional Director

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

Dear colleagues and friends,

It is a pleasure to greet you once again in this space dedicated to sharing the activities and news from the various professional and student chapters across Latin America. As we move through the year, we remain focused on strengthening knowledge exchange and professional development in the field of petrophysics.

In August 2024, the Argentina Professional Chapter successfully hosted a Formation Evaluation Workshop, which brought together specialists and professionals from across the country. The workshop covered key topics such as AI, NOCs, and new technologies, providing valuable insights for all attendees. From left to right (F. Chiapetta and Martín Foss from Student Chapter, A. Ortiz, M. D'Angiola, F. Bodan, C. Juan Suriano, L. Caviglia, P. Bedini, J. Barboza y P. De Battista, all active members of the Argentina Professional Chapter).

Following their live Instagram interview series, in October, they had the pleasure of interviewing Dr. Mario Schiuma, a distinguished figure in the industry. Dr. Schiuma shared his experiences, anecdotes, and interesting stories from his career, giving attendees a unique glimpse into his professional journey.

On the Argentina Student Chapter side, they have been incredibly active! From August 26 to 30, they organized a series of virtual talks under the theme "Innovation and Diversity in Geosciences: Exploring New Frontiers." The program featured six talks on diverse topics, delivered by six women—both professionals and students—at various stages of their careers.

Additionally, in October, the Student Chapter attended the Expo Oil & Gas Patagonia in Neuquén, Argentina, the key summit for the region's hydrocarbons industry. For more information, email spwla.arg.sc@gmail.com or follow them on LinkedIn: SPWLA Argentine Student Chapter and Instagram: @spwlaarg.

In Brazil, on August 27, the Student Chapter UFRJ welcomed Luis Miguel Rojas, a senior petrophysicist from Eneva, who delivered an insightful talk at the University of Rio de Janeiro. We are grateful to Luis (in the middle of the picture) for supporting student activities and contributing to their professional development.

The Student Chapter of Universidad Surcolombiana (IUSCO) also introduced its new board of directors and will soon announce upcoming activities. If anyone wishes to contact them, their email is spwlausco.sc@gmail.com.

We are also pleased to welcome a new Professional Chapter in Suriname, led by its president, Elías Acosta, marking an exciting expansion of our community. We will meet in a couple of weeks to plan activities and develop this new chapter.

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Looking ahead to next year, we are excited to take on the challenge of organizing the Second Student Chapter Symposium in collaboration with student chapters from the USA, Colombia, Brazil, and Argentina. While the first symposium focused on unconventional reservoirs, this time, the proposed topics will center around new energy technologies.

We encourage you to continue participating in our activities and to stay connected with the Latin America Chapters' initiatives. Together, we remain committed to fostering growth and knowledge exchange within our community.

Hugs for you!
Marta Inés D'Angiola
2024–2026 Latin America
Regional Director

Yuki Maehara
2023–2025 Asia Pacific Regional Director

Greetings, SPWLA members,

As the SPWLA Asia Pacific Regional Director, it's my pleasure to share recent activities and developments within our vibrant community. Fall is a busy season, with multiple events hosted by chapters across our region, and I had the opportunity to participate in some of them. I'm excited to report on these in this column.

Japan Formation Evaluation Society Symposium: 12–13 September, Chiba, Japan

Recently, I had the privilege of participating in the JFES Annual Symposium alongside our esteemed SPWLA President, Iulian Hulea. This symposium was a significant event, bringing together experts, industry professionals, and academics to discuss the latest advancements in formation evaluation. We had close to 100 participants and more than 20 technical talks across the world. Our presence reinforced the strong ties between the SPWLA and the Japanese formation evaluation community and provided a platform for fruitful exchanges of knowledge and ideas.

A photo with the JFES Symposium Committee.

Dr. Binh, VNFES founder (center), Iulian Hulea (right), and me (left) at the JFES Symposium.

First Vietnam Chapter Meeting: 28 September, Ho Chi Minh, Vietnam

Another noteworthy event was the inaugural meeting of the SPWLA Vietnam Chapter (VNFES), where I had the honor of delivering a virtual talk on the SPWLA's mission, activities, and the value it brings to professionals in our field. The event featured two technical presentations—one from a local Vietnamese university on oil and gas reservoir characterization, and another from an international speaker who discussed a scientific drilling program. The enthusiasm and engagement from the Vietnamese petrophysical community were truly inspiring. This new chapter is already making strides in organizing events and creating valuable networking opportunities for its members, and we look forward to their continued growth and contributions.

Photos from the first VNFES Chapter meeting at Ho Chi Minh. I presented about SPWLA activities.

2024 Asia Pacific Regional Conference: 7–9 October, Bangkok, Thailand

Finally, I was privileged to participate in the 2024 Asia Pacific Regional Conference, where I delivered the keynote speech on SPWLA activities and recent regional developments. This conference was a landmark event, attracting many participants from across the Asia Pacific region. It was a 3-day program, starting with technology talks by sponsors (totaling more than 10 sponsors), followed by 2 days of technical presentations. My speech highlighted our ongoing initiatives, recent research findings, and the collaborative efforts that are driving our community forward. The conference was a testament to the strength and unity of our regional community, showcasing innovative research and fostering valuable professional connections.

A group photo with the technology presenter.

A photo with Rick (Technical Chairman), Andrew (Chairman), and me

In closing, I would like to extend my heartfelt gratitude to all members, volunteers, and partners for your continued support and dedication. Together, we are shaping the future of formation evaluation in the Asia Pacific region. Your active participation and contributions are what make our community strong and vibrant.

Thank you, and I look forward to your continued engagement. Let us continue to innovate, collaborate, and excel in all our endeavors.

Yuki Maehara
Asia Pacific Regional Director
Director-Asiapacific@spwla.org

Upcoming Events in Asia Pacific:

Event	Location	Date
FESM Topical Conference 2024	Kuala Lumpur	12 November 2024

SPWLA Young Professionals Newsletter

the bridge

The Life of Energy Professionals: Global Opportunities and Adventures

November 2024

Clara Palencia

The fields of energy professionals, such as petroleum engineers, geologists, geophysicists, and petrophysics, are not just about finding and extracting oil and gas from the Earth; they encompass tons of opportunities that allow professionals to travel the globe. This unique career path offers technical challenges, rewarding experiences, and the chance to get involved in diverse cultures and environments. For those with a passion for travel and adventure, those fields can be the perfect profession.

Geoscientists are tasked with the crucial job of designing and developing methods for finding and extracting hydrocarbon from deposits below the Earth's surface. This involves a deep understanding of geology, thermodynamics, and fluid mechanics, among other disciplines. The work is often done in collaboration between disciplines to optimize extraction processes and ensure safety and efficiency. It is always about teamwork.

This career path is incredibly dynamic, offering opportunities ranging from working on offshore rigs or in remote locations like the North Slope of Alaska, the deserts of Africa, or the jungles of Brazil, to conducting research and development in state-of-the-art laboratories. The possibilities are vast and varied. The complexities of the job also mean that no two days are the same, which is an appealing aspect for many in the field. One of the most exciting aspects of these careers is the opportunity to travel around the world.

Offshore Drilling Rigs

Offshore drilling rigs are a common workplace for petroleum engineers. These rigs can be located anywhere from the North Sea to the Gulf of Mexico or off the coast of Africa and Southeast Asia. Working on an offshore rig is challenging but offers a unique experience. The work typically includes rotations, spending several weeks on the rig, followed by a period of leave. During the time off, they can explore the local area or travel to nearby countries.

International Assignments

Most large oil and gas companies operate in multiple countries and often send their employees on international assignments. These assignments can last anywhere from a few months to several years. For example, an engineer might be sent to Saudi Arabia to work on a major oilfield project or to Brazil to oversee deepwater drilling operations. These assignments provide professional growth and allow us to experience diverse cultures and lifestyles.

Seismic Operations

Geophysicists are often involved in field exploration and development projects. This can take them to remote and exotic locations such as the deserts of the Middle East, the vast Patagonia or jungles of South America, or the icy tundra of Siberia. In these places, seismic surveys are conducted, offering the thrill of adventure and discovery.

Conferences and Collaborations

Our industry hosts numerous conferences and seminars around the world. This is not only an excellent opportunity to present our research but also to travel to attend these events, learn about new technologies, and network with peers. These conferences are held in major cities across different

continents, providing yet another opportunity for travel and cultural exchange. SPWLA is a perfect example of this. Its annual symposium has been hosted in a variety of places, including different cities in the USA, Canada, Europe, Latin America, Asia, Australia, and the Middle East.

Even More Opportunities to Come to our Industry

As the world moves toward a more sustainable energy future, geoscientists are playing a key role in developing and implementing renewable energy technologies, making the opportunities to travel even more exciting.

1. Geothermal Energy

Geothermal energy harnesses the heat from within the Earth to generate electricity and provide heating. Geoscientists engage in every stage of geothermal energy development, from identifying potential sites through geological surveys to drilling and reservoir management. Understanding subsurface conditions and the thermal properties of geological formations is crucial for the successful exploitation of geothermal resources.

High geothermal potential exists in regions such as the Middle Eastern deserts, South American jungles, and Siberian tundra, where geological formations are suitable for geothermal energy development.

2. Wind Energy

Wind energy is one of the fastest-growing sources of renewable energy. Geoscientists contribute to wind energy projects by analyzing geological and topographical data to determine the best locations for wind farms. They assess soil stability, erosion risks, and other environmental factors that could impact the construction and operation of wind turbines. Their work ensures that wind energy projects are both efficient and environmentally sustainable. The countries with more investment in this type of energy include plenty of options in terms of locations and cultures:

- United States – Particularly regions like Texas, California, and the Midwest.
- China – Provinces such as Inner Mongolia, Xinjiang, and Hebei are notable for extensive wind farm developments.
- Germany – The North Sea and Baltic Sea regions are major hubs for offshore wind energy projects.
- India – States like Tamil Nadu and Gujarat are leading in wind energy capacity.
- United Kingdom – The UK has significant offshore wind farms, especially in the North Sea.
- Denmark – Known for pioneering wind energy, with a strong presence of both onshore and offshore wind farms.
- Spain – Prominent wind energy developments in regions such as Castilla y León and Galicia.
- Netherlands – Investments in offshore wind farms in the North Sea are extensive.
- Brazil – The northeastern states, particularly Bahia and Rio Grande do Norte, are key areas for wind energy projects.
- Australia – South Australia and New South Wales are leading regions for wind energy investment.

3. Solar Energy

Solar energy relies on the understanding of Earth's surface and atmospheric conditions. Geoscientists study the geological characteristics of potential solar farm sites, including soil composition and land use patterns. They also analyze meteorological data to optimize the placement and orientation of solar panels for maximum energy capture. By integrating geoscientific knowledge with engineering and technology, geoscientists play a crucial role in maximizing the efficiency and sustainability of solar energy systems.

Germany, India, the United Kingdom, Denmark, Spain, the Netherlands, Brazil, and Australia are leading in solar energy development, with significant investments and projects in both offshore and onshore regions.

The new energy era presents both opportunities and challenges for geoscientists. First, the transition to renewable energy sources creates new avenues for research and innovation. And second, it requires a shift in focus from traditional fossil fuel exploration to sustainable energy development and environmental management.

The life of energy specialists is one of constant learning, discovery, and adventure. The global nature of the energy industry opens doors to unexpected opportunities for travel and cultural immersion. Despite the challenges, the chance to work in diverse environments and make significant contributions to the energy sector makes this career both rewarding and fulfilling.

For those passionate about science and engineering who want to see the world, becoming an energy professional offers a unique and exciting path. Whether working in Alaska or Argentina, managing a project in a foreign country, or attending international conferences, the possibilities are endless. Embrace the journey and let your career as a geologist, petrophysicist, or engineer take you to new heights and horizons.

Javier Miranda

As petrophysicists, we usually rely on well-log measurements to estimate rock properties and perform other formation evaluation analyses. Part of a reliable result is having data acquired with tools you can depend on based on your understanding of their principles and their limitations. That understanding can be achieved by reading and reviewing tool manuals and other information, such as publications related to such tools, and through visits to the tool vendor's shop. We recently did that after an invitation to the headquarters of one of the most well-known logging companies in the world with a long tradition in wireline and logging-while-drilling (LWD) services.

Halliburton invited a group of petrophysicists from different operating and consulting companies based in Houston to their North Belt Campus for a Wireline Showcase, where tools were on display, as well as the experts from the company who oversee these tools' data acquisition and applications. More than 100 colleagues attended the two-day event.

The tools on display were for openhole and casedhole logging, including gamma ray, resistivity, porosity logs, formation testing and sampling, casing and cement evaluation, fiber VSP, imaging, rotary sidewall coring, well integrity, and production logging tools, among others. The following technologies were on display:

- Demonstration of the unit, cable, and capstan running the ultrasonic acoustic tool in test well – CAST XRT
- Demonstration of openhole technologies: formation testing, coring, and imager – RDT-HRSCT-STX8
- Display of latest-generation production logging tool and pulsed-neutron IntelliFlow and IntelliSat
- DAS VSP in test well

In addition, attendees met with field engineers, operations management, and subject-matter experts regarding these tools and applications. Figure 1 provides a summary of the tools, while Fig. 2 illustrates the showcase test well layout, highlighting the stations used for live demonstrations.

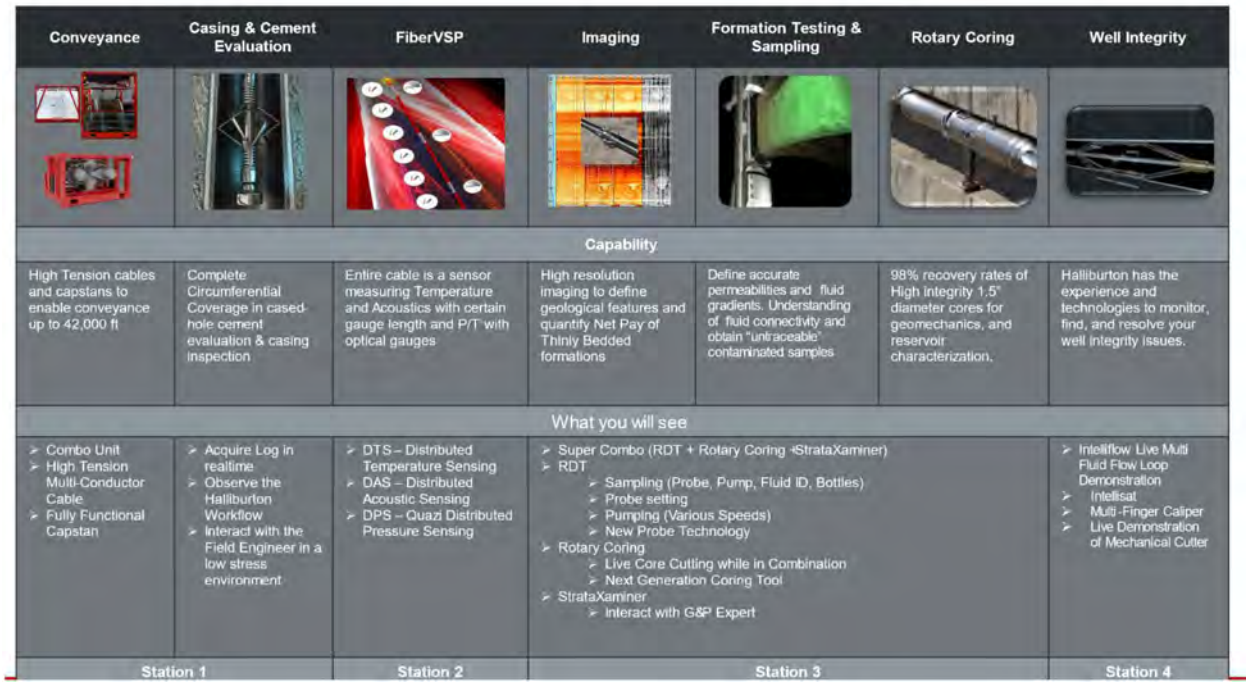


Fig. 1—Summary of tools on display during the wireline show with their capabilities

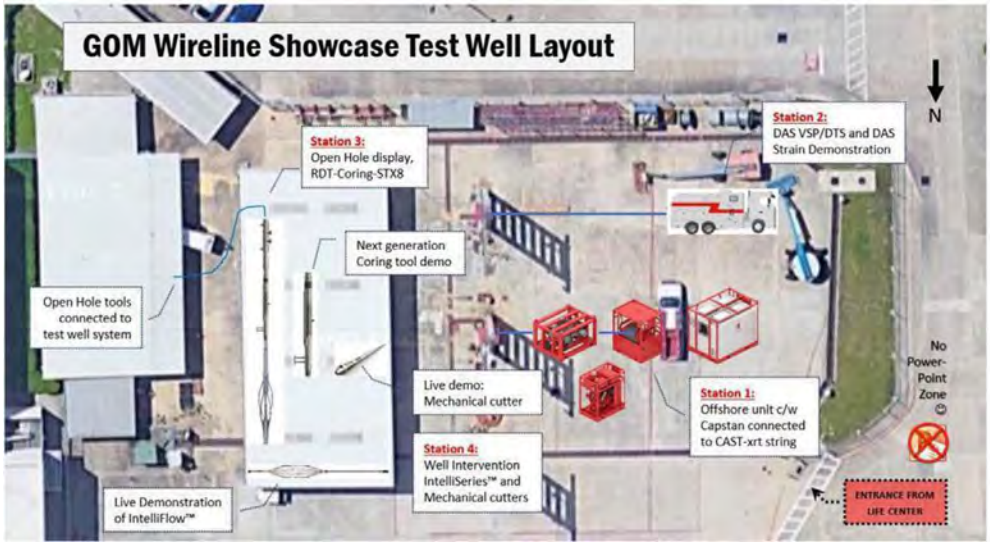


Fig. 2—Showcase test-well layout with stations used for display

A distributed acoustic sensing (DAS) vertical seismic profile (VSP) in a test well acquired with fiber included a cabin to show the acquisition process.

DAS VSP tool in test well with VSP acquired with fiber, as shown by Simon Shaw, with multiple applications.

John Savage explains the capabilities of casedhole tools in the show.

John Savage showing one of the casedhole tools.

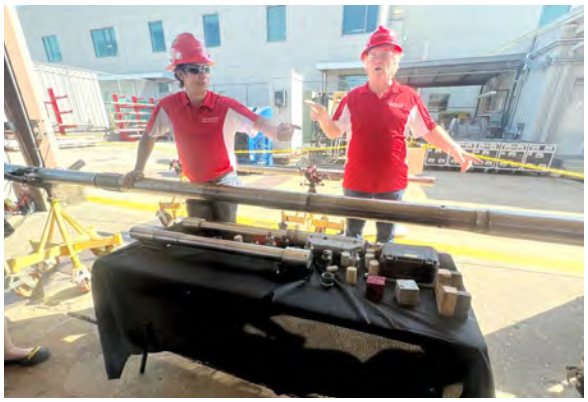
A PLT tool on display works in a water-filled pipe to show the tool's capabilities and how previous challenges have been addressed in this version. The screen on the left side showed us the real-time readings.

Multiple experts and petrophysicists convened for this learning experience, including Tony van Zuilekom, pressure and sampling product champion.

Eglee Lopez and Peter Barrett show how the StrataXaminer borehole image tool can adjust for challenging borehole conditions.

Charlie Jackson discusses the rotary sidewall coring tool on display, which enables the acquisition of bigger samples.

Eglee Lopez and Peter Barrett show the capabilities of the StrataXaminer borehole image tool.



Their expert operators show the rotary sidewall coring tool on display.

Gibran Hashmi explains the process usually implemented with the formation tester and sampling tool.

Sharing a good learning experience with camaraderie.

Gibran Hashmi shows the pads used with the formation tester and sampling tool depending on reservoir conditions and challenges.

Halliburton oil well cementing truck from the early 1900s.

Gibran Hashmi shows the formation tester and sampling tool.

Taking a selfie with Mr. Halliburton and one of his most famous inventions.

Part of the Halliburton engineers that demonstrated their wireline tools and capabilities, all of them involved in field data acquisition for several years.

We want to express our gratitude to the Halliburton team for organizing and inviting us to the Halliburton Wireline Showcase in October. We really enjoyed the presentations and tools displayed, as well as the upcoming development and applications, break, and lunch discussions, etc. As petrophysicists, we appreciate the time, effort, and planning their team put into this. We especially want to thank Rohin Naveena-Chandran, business development manager for wireline in the Gulf of Mexico region, for his invitation. Thanks also to Natalia Cordry, global senior marketing manager, for reviewing this article and providing additional photos.

Join the Steering Committee of *The Bridge*!

Are you a young professional in petrophysics who's excited to share your ideas and experiences?
The Bridge, our newsletter section, is looking for volunteers to help shape content and keep the conversation going in our field.

Why Volunteer?

- **Share What You Know:** Writing for *The Bridge* gives you a chance to share your thoughts and expertise with others in the industry. It's a great way to contribute while making your voice heard.
- **Connect with Others:** Being on the Steering Committee means you'll meet and work with other young professionals, building valuable connections along the way.
- **Make a Difference:** You can help shape the direction of the petrophysics community by sharing stories and insights that resonate with others and inspire them.
- **Enhance Your Resume:** Volunteering as a content creator or editor showcases your leadership, commitment to the field, and ability to contribute to industry-wide dialogue—traits highly valued by employers.

If you're passionate about petrophysics and want to help build a bridge to the future, we'd love to have you on board!

To express your interest or learn more, please contact SPWLAYP@spwla.org.

SPWLA FIRST BOARD OF DIRECTORS MEETING

REMOTE

September 6, 2024

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 Finance, Secretary and Admin, Jing Li, Vice President Communications, Chelsea Newgord, Vice President Technology, Harry Xie, Regional Director Middle East/ Africa, Elsa Maalouf, Regional Director Asia Pacific/Australia, Yuki Maehara, Vice President, Publications, S. Mark Ma, Vice President Information Technology, Tegwyn Perkins, Regional Director Europe, Mathias Horstmann, and Executive Director, Sharon Johnson. Absent, Vice President Technology-Elect, Robin Slocombe, Regional Director N. America 1, James Hawkins, Regional Director N. America 2, Clara Palencia, and Regional Director Latin America, Marta D'Angiola.

A motion made by President-Elect Robert "Bob" Gales to waive the reading of the minutes from the July BOD meeting was seconded by Regional Director Europe, Mathias Horstmann. This motion passed by majority vote.

A motion made by Vice President Technology Harry Xie to approve the Yangtze University SPWLA Student Chapter Bylaws presented by Regional Director Asia Pacific/Australia Yuki Maehara was seconded by President-Elect Robert "Bob" Gales. This motion passed by majority vote.

Action item: Regional Director Asia Pacific/Australia Yuki Maehara is to send a welcome letter to the newly approved Yangtze University SPWLA Student Chapter leadership.

A motion made by President-Elect Robert "Bob" Gales to approve the SPWLA Suriname Chapter Bylaws presented by Regional Director Asia Pacific/Australia Yuki Maehara was seconded by Regional Director Europe Mathias Horstmann. This motion passed by majority vote.

Action item: Regional Director Latin America Marta D'Angiola is to send a welcome letter to the newly approved SPWLA Suriname Chapter leadership.

A motion made by Regional Director Europe Mathias Horstmann to approve the IIT(ISM) SPWLA Student Chapter Bylaws presented by Regional Director Asia Pacific/Australia Yuki Maehara was seconded by Vice President Information Technology Tegwyn Perkins. This motion passed by majority vote.

Action item: Regional Director Asia Pacific/Australia Yuki Maehara is to send a welcome letter to the newly approved IIT(ISM) SPWLA Student Chapter leadership.

Action Item: President Iulian Hulea and Vice President Information Technology Tegwyn Perkins are to contact Regional Director N. America 1 James Hawkins regarding his absence from the BOD meetings.

Action item: BOD to initiate a sponsorship program.

- What structure and how to approach it?
- Additional board member or committee?
- Objectives and goals?
- How to recruit members?

A motion made by Regional Director Europe Mathias Horstmann to adjourn the meeting was seconded by Vice President Information Technology Tegwyn Perkins at 10:05 am.

Respectively Submitted by
Sharon Johnson
Executive Director

NEXT MEETING: November 15, 2024

BANGKOK CHAPTER

Recent Events

6–9 October—The Asia Pacific Regional SPWLA Conference was held in Thailand.

"Traditional and Transitional Petrophysics"

Enhancing and Integrating Petrophysics Into the Challenges of Today and Tomorrow

Co-hosted by PTTEP and Valuera Energy, more than 80 delegates from across the Asia Pacific Region (from Oman to Japan, from Uzbekistan to Australia, and most countries in between) gathered in Bangkok to listen to 2 days of technical presentations and 1 day of new technology displays from our 10 sponsors. Solutions to petrophysical issues were presented from Thailand, Malaysia, Indonesia, China, Japan, South Korea, Australia, Oman, Saudi Arabia, Uzbekistan, and the USA. Companies and organizations represented as technical presenters and coauthors included PTTEP of Thailand, Petronas of Malaysia, Inpex from Japan, Husky-CNOOC Madura from Indonesia, Shell from Oman, Aramco from Saudi Arabia, Uzbekneftegaz from Uzbekistan, COSL and CNLC from China, CSIRO from Australia, The South Western Petroleum University, Chengdu, China, The Prince of Songkla University, Hat Yai, Thailand and The Japan Agency for Marine-Earth Science and Technology, as well as many contributions from SLB, Weatherford, Baker Hughes, Halliburton, GoWell, Geoactive, Aspen Tech, and various consulting organizations. This clearly was a true *regional* conference! Of the 26 technical presentations, 18 were papers to be published on OnePetro, and the remaining eight were presentations in the main hall only. The OnePetro papers can be searched in the usual way and will also be available on a dedicated page for the SPWLA Asia Pacific Regional Conference under the Conferences link. The Conference Best Presentation was awarded to Kyaw Moe (JAMSTEC-Japan) for his talk on the **"Importance of Logging in the Scientific Ocean Drilling's 60-Year History."** The Conference Best Paper was awarded to Ryan Banas (PetroRes Consulting, Thailand) for his paper "**An Applied Approach to Predicting Petrophysical Log Data with ML.Net Regressors.**"

Keynote from K. Kamonporn Inraikhing, VP, Geosciences Technical Study Department, PTTEP.

(From left to right) Extra thanks go to our sponsors through the New Technology Forum. Diego Vasquez Perez (Aspen Technology), Graham Melvin (Geoactive), Dr. Guy Oliver (GEOLOG International), Jacky bin Jani (Ikon Science), Ian Beardsworth (EXLOG), Numan Phettongkam (Weatherford), Joe Lim (GeoSoftware), Jee Kwan Ng (Petromac), and Yuki Maehara (SPWLA Asia Pacific Regional Director). Missing from the photo are Alan Keith (SLB), Blair Rogers (Core Laboratories), and Sachin Sharma (EXLOG).

(From left to right) Day 1 Presenters: Manu Singhal, Elijah How Lip Heng, Alan Muhadjir, Lika Olytia, Sheau Huey Loo, Nishant Kumar, Frans Mulders, Sita Kuakool, and Lim Eng Chuan. Missing from the photo are Elena Kolbikova, Hugo Espinosa, Bian Huanling, and Zhou Xin.

(From left to right) Day 2 Presenters: Moe Kyaw, Ryan Banas, Irina Baca, Sergey Vorobiev, Helmut Duerrast, Hideo Komatsu, Hendra Himawan, Matthew Josh, Yenny Shim, Yu Huijuan, Chao Zheng, and Siti Najmi Farhan Zulkipli.

Eleven students from Chulalongkorn and Kasetsart Universities also attended, assisting with registration and conference setup and, more importantly, interreacting with professionals from oil and service companies.

The field trip group under the Banyan Tree, with Dr. Thasinee (Chulalongkorn University) (third from left) and Sonya Suninbun (geology master's student, far left).

The conference **field trip** was to Auythaya, the old capital of Thailand. Auythaya was built on the floodplains where the Chao Phraya River, Pa Sak River, and Lopburi Rivers converge. Meandering streams, point bars, and ancient shorelines are characteristic of the area. And, of course, the field trip included visits to the temple ruins of the previous Thai capital.

Thanks to all who supported the 2024 Asia Pacific Conference, especially the sponsors, PTTEP, Valuera Energy, Medco Energi, Scientific Drilling, and SafePro, along with the 10 Technology presenters Exlog, Geoactive, Weatherford, GEOLOG, GeoSoftware, CoreLab, SLB, Petromac, Ikon Science and Aspen Technology.

And a special appreciation and thanks to the organizing committee: Andrew Cox, Rick Aldred, Matthew Josh, Marvin Rourke, Alex Beviss, Irina Baca, Nipista Pongpanit, Rinlita Lertkornteeranan, and Damrongsak Chantipna

BOREHOLE IMAGING (BHI) SIG

General News

The BHI SIG is growing fast. We now have more than 260 members.

Recent Events

On October 15, we had an online workshop about "Geomechanical Applications of BHI Data" with over 150 participants. The workshop had a format of presentations and open discussions between experts from operator companies, service companies, and the industry. The following talks were presented:

- **"Geological and Stress Field Analysis From WL and LWD Borehole Image Logs, an Example From a Geothermal Reservoir"** by Carsten Vahle (Eriksfiord)
- **"Integrated Approach for the Analysis of Borehole Stability"** by Nicola Levi and Mario Habermüller (NiMBUC Geoscience)

- **"Potential Effects of Bounding Layers on Stability of Lateral Boreholes"** by David Martinez (independent consulting, TaurRocks Engineering and Science LLC)
- **"Tectonic Boundary-Condition Insights From Borehole Breakouts"** by Javier Franquet (Baker Hughes)

Upcoming Events

Due to the high interest in the geomechanics workshop, we could not accept all the presentations that were submitted. Therefore, we will organize a second Geomechanics – BHI workshop in early 2025. The date for this second workshop will be distributed at the earliest.

EAST CHINA CHAPTER

Recent Events

10–12 September 2024—SPWLA East China Chapter 2024 Topic Conference and the 15th UPC International Symposium on New Well-Logging Techniques hosted by SPWLA East China Chapter was held successfully in Hangzhou, China, co-hosted by State Key Laboratory of Deep Oil and Gas, China University of Petroleum (East China), Zhejiang Oilfield Branch of PetroChina, and Fairoak Technology Inc. The symposium theme was "Development and Challenges of Well-Logging Techniques in Deep and Unconventional Oil/Gas Reservoirs." The welcome speech was delivered by Prof. Caili Dai, vice president of China University of Petroleum (East China), and the opening ceremony was hosted by Prof. Zhaoyun Zong, dean of the School of Geosciences.

Prof. Caili Dai gave a welcome speech.

Prof. Zhaoyun Zong hosted the opening ceremony.

The symposium focused on logging technologies for deep and unconventional oil and gas, addressing the challenges and opportunities in exploration and development. It facilitated extensive and in-depth discussions on the latest advancements, challenges, and opportunities in logging methods, technologies, equipment, and applications. More than 200 experts and scholars from organizations including PetroChina, Sinopec, CNOOC, relevant professional companies such as Shanghai SK Petroleum & Chemical Equipment Corporation LTD, Fairoak Technology, Inc., as well as nearly

20 universities specializing in petroleum and geology, such as China University of Petroleum, Jilin University, and Tianjin University, were in attendance. The event also saw participation from experts representing countries such as the United States, Russia, and France. The conference comprised a main venue and three sub-venues, with over 100 reports presented in both Chinese and English, including keynote and invited presentations.

SPWLA East China Chapter Topic Conference and the 15th UPC International Symposium on New Well-Logging Techniques.

At the opening ceremony, speeches were delivered by Jun He (executive director and party committee secretary of PetroChina Zhejiang Oilfield Company), Lichun Kuang (chairman of the Petroleum Geology Professional Committee of the Petroleum Society of China), Zhibing He (deputy general manager of the logging company of China National Petroleum Corporation), Xinghua Ci (party committee member and deputy general manager of Sinopec Matrix Corporation), Jianyong Zhang (deputy party committee secretary and vice president of the Oilfield Technology Research Institute of CNOOC), Harry Xie (SPWLA VP Technology), and Enyu Zhang (president of Shanghai SK Petroleum & Chemical Equipment Corporation LTD), respectively.

Jun He gave a speech.

Lichun Kuang gave a speech and invited report.

Zhibing He gave a speech.

Xinghua Ci gave a speech.

Jianyong Zhang gave a speech.

Harry Xie gave a speech and invited report.


Zhibing He gave a speech.

Prof. Ning Li (Academician of the Chinese Academy of Engineering) highly praised the conference in his speech and delivered a keynote presentation titled “Gas Hydrates: An Indispensable Hydrocarbon Accumulation Unit of the Total Petroleum System and Its Logging Evaluation Methods.” He emphasized that gas hydrates were a crucial accumulation unit of the total petroleum system. He introduced a quantitative method for calculating gas hydrate content with well-logging curves, which further enriches the theoretical framework of the total petroleum system. This advancement provides significant theoretical and technical support for accurately evaluating hydrocarbon content in reservoirs.

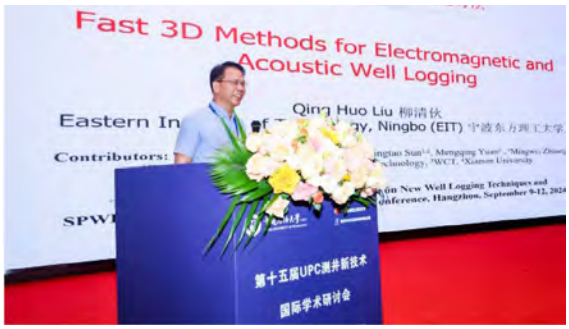
Prof. Ning Li gave a keynote report.

At the conference, 11 domestic and international experts also delivered keynote and invited reports. These invited speakers included Prof. Lichun Kuang (chairman of the Petroleum Geology Professional Committee of the Petroleum Society of China), Prof. Bin Tang (former vice president of East China University of Technology), Prof. Xiaoming Tang (China University of Petroleum (East China)), Dr. Harry Xie (SPWLA VP Technology), Prof. Chaoliu Li (Research Institute of Petroleum Exploration and Development, CNPC.), Prof. Qinghuo Liu (Eastern Institute of Technology, Ningbo), Prof. Lizhi Xiao (China University of Petroleum (Beijing)), Prof. Hengshan Hu (Harbin Institute of Technology), Prof. Alexis Maineult (École Normale Supérieure, France), Dr. Shanjun Li (general manager of Beyond Bits Technology, USA), and Prof. Aleksandr Shumilov (Russia).

Prof. Bin Tang gave an invited report.


Prof. Xiaoming Tang gave an invited report.

Prof. Chaoliu Li gave an invited report.



Prof. Qinghuo Liu gave an invited report.

Prof. Alexis Maineult gave an invited report.

Prof. Lizhi Xiao gave an invited report.

Prof. Aleksandr Shumilov gave an invited report.

Prof. Hengshan Hu gave an invited report.

Dr. Shanjun Li gave an invited report.

The presentations focused on various unconventional oil and gas resources, including low-porosity and low-permeability reservoirs, low-resistivity oil/gas, gas hydrates, shale oil/gas, and coalbed methane. The reports covered professional areas such as rock physics, logging methods, instrumentation, logging interpretation, and production monitoring. The conference featured in-depth discussions on the latest advances in logging methods and equipment, including electrical, acoustic, nuclear, and nuclear magnetic techniques, as well as the application of logging data. Participants also explored the use of new-generation information technologies, such as logging big data, artificial intelligence, and deep learning in the logging industry. A broad consensus was reached, with participants unanimously agreeing that logging technology plays an irreplaceable role in the exploration and development of deep and unconventional oil and gas, as well as new energy resources. The need for increased collaboration and reliance on technological advancements to serve the country's energy security strategy was emphasized.

In recent years, the exploration and development of deep, ultradeep, and unconventional oil and gas resources, along with complex geological conditions and extreme wellbore environments, have presented unprecedented challenges to logging technology. The petroleum industry's requirements for logging have become increasingly stringent. Themed

"Development and Challenges of Well-Logging Techniques in Deep and Unconventional Oil/Gas Reservoirs," this symposium is expected to play a significant role in enhancing consensus, promoting technological progress, and advancing the discipline of logging.

Prof. Feng Zhang of the Logging Department presided over the closing ceremony and awards presentation. SPWLA East China Chapter announced the winners of the outstanding paper awards, with three grand prizes, six first prizes, and nine second prizes awarded. Guest speakers Prof. Liufang Zhu (a senior expert from Sinopec Matrix Corporation), and Prof. Lichun Kuang (chairman of the Petroleum Geology Professional Committee of the Petroleum Society of China), both commended the success and fruitful outcomes of the conference and offered constructive suggestions for future meetings.

Grand prize winners.


First prize winners.

Second prize winners.

The "UPC International Symposium on New Well-Logging Techniques" is an academic event series initiated by China University of Petroleum East China in 2009. Over the years, it has evolved into a renowned platform for academic exchange within the industry, earning a strong reputation both domestically and internationally.

Upcoming Events

September 2025—SPWLA EAST CHINA CHAPTER TOPIC CONFERENCE and the 16th UPC International Symposium on Well-Logging Technology will be held in Qingdao, China.

FEDERAL UNIVERSITY OF RIO DE JANEIRO STUDENT CHAPTER

General News

Our chapter maintains normal activities, now with 18 active members and a professor advisor, organized below:

Board Members

- President: Vittor Cambria
- Vice President: Renan Camillo
- Secretary and Treasurer: Marina Alfradique
- Professor Advisor: Jorge Picanço

Advisor Members

- Rodrigo Azambuja
- Sarah Aleixo
- Sophia d'orsi
- Amanda Bezerra

Marketing Members

- Gabriel Ferraz
- Luís Henrique Trianon
- Ântonia Barbosa
- Iago da Costa

Logistic Members

- Alexandre Nobre
- Pedro Van Boekel
- Manuela Braga
- Gabriel Amon

HR (Human Resources)

- Julianna Machado
- Lívia Isabor
- Luciano Barros

Recent News

The chapter is now led by President Vittor Cambria and Vice President Renan Camilo. Additionally, Marina Alfradique has taken over the role of Treasurer and Secretary, replacing a former member. I'm pleased to share that we've opened a communication channel with Marta D'Angiola, who has been very helpful in connecting us with other professionals. We also had a session with Luis Rojas, who spoke about the role of petrophysics in today's job market.

Luis Rojas and some students who participated in class.

Upcoming Events

Goals	September	October	November
Update post of Instagram page			
Webinar one – Professor Advisor: or internal other member UFRJ			
Well-log analyses with Lagsed			
Petrophysics in daily – Luis Rojas			
Visit to the digital petrophysics laboratory			

Stage completed

Stage in process

Future stage

As a way to promote and publicize the student chapter, we had the idea of posting monthly on the Instagram page so that new students could become interested and also increase the visibility of our chapter within the university.

For the webinars, we had the idea of holding one webinar per month, the first of which was with Professor Advisor Jorge Picanço on the topic of reservoirs and the application of sequence stratigraphy. For the second webinar, we would like to count on the presence of other professionals in the field of petrophysics.

We have two potential candidates for this initiative. First, Professor Maira da Costa de Oliveira Lima Santo, who holds a PhD in Civil Engineering from COPPE/UFRJ, specializing in petroleum systems. She conducted her doctoral research at LRAP (Advanced Petroleum Recovery Laboratory) and now primarily works with MICP, NMR, and X-ray microtomography techniques.

Additionally, the group recognized the need for an introduction to petrophysics, so we are coordinating with Gilberto Raitz to offer a mini course for the chapter members. We've received positive feedback from everyone involved.

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 information on the meeting, please visit our chapter website at www.fesmkl.com.

General News

FESM held multiple discussions online to discuss the recent updates on the society, including sponsorship, upcoming topical conferences, and the way forward in this year's events.

Recent Events

The FESM committee is actively working to promote the 2024 FESM Topical Conference event, coming in November 2024. The event has been advertised through LinkedIn, WhatsApp, and our official website. The committee has finalized the ranking of the submitted papers, and acceptance emails have been sent. A total of eight papers have been accepted.

25 September 2024—FESM held a talk by Syofvas Syofyan for the FESM 2024 Talk Series (September): "Integration of Geochemical, Petrography and Petrophysical Analysis to Assess Hydrocarbon Presence and Its Composition Below the Hitherto Free Water Level." The talk covered the topic of a comprehensive study to understand hydrocarbon composition and its mobility for oil-in-place evaluation and future development plans by utilizing geochemical data. FESM committee meeting was also held on the same day to discuss the preparation of the conference, including gifts, venues, number of attendees, availability of speakers, and opening ceremony.

Upcoming Events

The committee is preparing for the conference in November. We are actively advertising the event and gathering registration from all the parties.

The poster for the 2024 FESM Topical Conference.

HOUSTON CHAPTER

General News

We are pleased to introduce the new board of the SPWLA Houston Chapter, as listed below. Our chapter hosts a variety of events and meetings each month to foster networking and professional development:

1. **Monthly Social Networking Event**: Held on the last Thursday of every month, this event provides an opportunity for members to connect, share ideas, and build relationships in a relaxed setting.
2. **Monthly Meetings**: In addition to the social networking event, we conduct two formal meetings each month. These meetings are designed to discuss industry trends, share technical knowledge, and address chapter business.
3. **Seminars and Workshops**: Each month, we organize different seminars and workshops on relevant topics to support continuous learning and professional growth within the industry.
4. We look forward to your participation and engagement in these events.

SPWLA HOUSTON CHAPTER OFFICERS (2024–2026)


Ron J.M. Bonnie
President


Amer Hanif
V. President Northside


Artur Posenato Garcia
V. President Downtown


QinShan "Shan" Yang
V. President Westside


Shikha Prasad
Treasurer


Ronke Olutola
Secretary


Muhammad Noman
Editor


Tianmin Jiang
Webmaster

Recent Events

27 June 2024—SPWLA HOUSTON CHAPTER NETWORKING EVENT

Date: Thursday, June 27, 2024
Time: 5–8 pm (US CDT)
Location: Cedar Creek Bar & Grill, 1034 West 20th Street, 77008

Networking event and gathering for SPWLA members and board officers during Thursday Happy Hours.

24 July 2024: Lunch Seminar
Speaker: Chicheng Xu (Aramco Houston Research Center)
Co-Author: Iulian N. Hulea (Shell Global Solutions BV, The Netherlands)
Date: Wednesday, July 24, 2024
Time: 11:30 am–1:00 pm (US CDT)
Venue: Baker Hughes, 2001 Rankin Rd, Houston, TX 77073

ABSTRACT: Data and algorithms play pivotal roles in driving digital innovations within the petrophysics domain. On the one hand, a wealth of high-quality petrophysics field data is accessible from public databases (such as the Utah FOEGE Geothermal project and the Kansas Geological Survey) or company releases (like Equinor Volve). On the other hand, innovative digital solutions continually emerge as open-source code contributions from research institutes, SPWLA machine-learning competitions, and individual enthusiasts on GitHub. We propose the creation of a cloud-based platform, Open Petrophysics Data & Utilities (OPDU), to enhance public data management, increase knowledge sharing and analog use, and promote technology utilization across the SPWLA global community. This platform adopts the Open Subsurface Data Universe (OSDU) concept and exemplifies seamless data integration within an organization. Its purpose is to bridge the gap between public data sources and open-source petrophysics solutions, creating value for the energy industry. During our presentation, the authors discussed proposed architectural solutions and, more importantly, engaged with the audience to chart the course for a digitally empowered SPWLA community.

BIOGRAPHY: Chicheng Xu joined Aramco Houston Research Center in 2017 and is working as a research petrophysicist in the Artificial Intelligence Technology Group. His research focuses on petrophysics intelligence and automation using advanced computational techniques and data analytics for interpretation, classification, and modeling based on multiscale subsurface data integration. He earned his PhD degree at the Petroleum & Geosystems Engineering Department of UT Austin in 2013 and worked as a petrophysicist/rock physicist for BP America and BHP Billiton from 2013 to 2017. He co-founded and chaired the SPWLA PDDA SIG and initialized a student scholarship for PDDA-related graduate research. He also served as an associate editor for several international scholastic journals, including SPWLA *Petrophysics*, *SEG Interpretation*, and *SPE Reservoir Evaluation & Engineering*. He was selected to receive the SPE Regional Formation Evaluation Technical Award by SPE – Gulf Coast in 2018, the SPWLA Meritorious Service Award in 2019, the SPE Outstanding Associate Editor Award in 2020, the SPWLA Meritorious Technical Award in 2021, and the SPE regional Data Science and Engineering Analytics Technical Award by SPE – Gulf Coast in 2022. Chicheng is dedicated to SPWLA's publication and digitalization efforts and is currently leading a special task force for SPWLA PDDA SIG to build up the OPDU platform.

Iulian N. Hulea is a senior petrophysicist working for Shell Global Solutions BV, Projects, and Technology in the Netherlands, currently working on global reservoir studies. In parallel, he serves for the 2024–2025 term as SPWLA President.

Chicheng Xu presented a topic on “Bridging Data and Algorithms in the Petrophysics Domain: Introducing the Open Petrophysics Data & Utilities (OPDU) Platform” at the SPWLA Houston Chapter seminar.

21 August 2024—Lunch Seminar on Wettability Quantification in Rock Components
Date: August 21, 2024
Time: 12–1 pm (US CDT)
Location: Downtown Houston

An insightful presentation was given by Isa Silveira de Araujo (a PhD candidate at The University of Texas at Austin’s Hildebrand Department of Petroleum and Geosystems Engineering). Isa dove into the intricacies of wettability quantification in rock components through water adsorption isotherms.

ABSTRACT: Multiple conventional experimental methods are available to estimate wettability, such as contact-angle measurements and imbibition tests on core samples. Although commonly used, the inconsistency in wettability assessment from these methods challenges the wettability quantification in mixed-wet rocks. Moreover, new reliable methods for wettability assessment in both homogeneous and heterogeneous surfaces, as well as core samples that have a variable range of wetting states, are still needed. The concept of adsorption is fundamental to understanding fine-scale interactions between solids and fluids and potentially can be used for wettability assessment. For the first time, in this paper, we aim to conduct a systematic study on the relation between water adsorption and wettability. We experimentally compute water adsorption isotherms and perform sensitivity analysis on the impacts of (i) wettability levels, (ii) types of rock components, and (iii) concentrations of mineral constituents on water adsorption capacity. We synthetically change the wettability of pure quartz powder to obtain samples with variable wettability levels. Subsequently, we used some of the chemically treated powders to create pellets and measure contact angle. On the remaining portion of the treated powders, adsorption isotherms are measured using a Dynamic Vapor Sorption Analyzer (DVS). We also obtain water adsorption isotherms on several types of pure minerals and organic components, including diverse clay types, quartz, calcite, and kerogen. Finally, different minerals are mixed at distinct concentrations to evaluate the effect of composition on adsorption capacity. Results demonstrated that Ca-montmorillonite exhibits more water adsorption than the other minerals, reaching adsorption of 0.23 grams of water per gram of Ca-montmorillonite at 90% relative humidity. We also measured the water contact angle on the pure minerals and found that on these samples, the water droplet completely spreads, demonstrating a 0° contact angle. After chemically changing the wettability of quartz, a contact

angle of 120° was obtained. The adsorption isotherms show that the change in wettability of quartz resulted in a decrease of approximately 40% in the amount of water adsorbed at 80% relative humidity. A comparison of the water contact angle with adsorption isotherm measurements suggests that the isotherms are more sensitive to variations in wettability than contact angle. Water adsorption on immature kerogen is found to be larger compared to most of the evaluated minerals. Results also suggested that the structure of kerogen is flexible and capable of large water uptake. Adsorption isotherms estimated on mixtures of minerals also proved that these measurements are extremely sensitive to small variations in the mineral composition. We proved that the fine-scale solid-fluid interfacial interactions can be quantified with adsorption isotherms and upscaled to wettability. The outcomes of this work also demonstrate the affinity of individual rock components to water. These results can potentially be used for further development of new methods for wettability assessment of mixed-wet rocks and rocks with complex mineral composition.

BIOGRAPHY: Isa Silveira de Araujo is a PhD candidate in the Hildebrand Department of Petroleum and Geosystems Engineering at The University of Texas at Austin. She earned her BS degree in chemical engineering from Universidade Federal dos Vales do Jequitinhonha e Mucuri (UFVJM), Brazil, and her MS degree in chemical engineering from the University of Campinas (Unicamp), Brazil. She is one of the recipients of the 2022 SPWLA Distinguished Speaker Award. She is also the recipient of the Osmar, Mercedes, and Roberto Abib Memorial Endowed Presidential Scholarship in Petroleum Engineering from the Cockrell School of Engineering. Her research interests focus on the petrophysics of unconventional reservoirs and rock-fluid interactions.

28 August 2024—Lunch Seminar
Topic: Monitoring of CCUS Operations for Containment Validation Using Electromagnetic Methods
Speaker: Trevor Pugh
Date: August 28, 2024
Location: Baker Hughes, 2001 Rankin Rd, Houston, TX 77073

An exclusive seminar was hosted by the SPWLA Houston Chapter, featuring Trevor Pugh, a distinguished expert in the field, who presented groundbreaking insights into how electromagnetic methods are transforming the monitoring of carbon capture, utilization, and storage (CCUS) operations. This seminar will focus on innovative techniques for validating containment and ensuring the integrity of CCUS projects.

Key Takeaways:
-Advanced electromagnetic techniques for CCUS monitoring
-Strategies for effective containment validation

Why Attend?
-Enhance your knowledge of cutting-edge monitoring technologies
-Network with industry professionals and experts
-Gain practical insights that can be applied to your projects

We are proud to acknowledge GOWell as the sponsor of this seminar.

ABSTRACT: Our team at ESG Solutions has provided long-term seismicity monitoring for CCUS projects throughout the US and Canada. The team uses the microseismic data to update geomechanical models. The various projects have also demonstrated the importance of continuous monitoring during injection operations to ensure storage control and permanence. In addition, it was noted that the types of data recorded will vary over time in order to provide a consistent and cost-effective solution. The projects have demonstrated that basement seismicity increases in event density, size, and distance over time. Several passive microseismic approaches have been used to record these changes in a downhole analog geophone array and a network of surface geophones with a sparse layout. While understanding the microseismic activity is a critical part of containment monitoring for CCUS operations, an additional piece of information that reinforces this data set is knowing the extent of the CO_2 plume in the long term. Knowledge of the plume extent will be important to establish the long-term viability of a storage facility and the expected long-term storage permanence of the in-place CO_2. This paper will present a combined, cost-effective solution through the additional use of surface-based streaming potential and scatter field-controlled source electromagnetics (S2CSEM). The S2CSEM method can be periodically deployed throughout the life of the storage facility to image the plumes' horizontal extent. The scatter field method can also detect streaming potential changes over shorter periods of time by changing the CO_2 injection rate over a 24- to 48-hour period. Using both microseismic and CSEM to delineate the CO_2 placement allows operators to understand what seismic activity is related to induced stress from CO_2 injection and natural stress for the area. The combination of these methods will also provide an understanding of capacity limitations and storage permanence at a facility. This knowledge will further help with governmental acceptance of the proposed CCUS solutions provided by the industry.

BIOGRAPHY: Trevor Pugh is a serial entrepreneur with 40 years of experience in the O&G industry. His background is in physics and R&D startups that provide innovative products for the industry. He has started and successfully exited several companies. His present project is Deep Imaging Technologies, which recently purchased ESG Solutions, a company created to provide subsurface monitoring services by combining multiple measurement systems for the O&G industry. Trevor has authored numerous patents and white papers dealing with many facets of the industry.

Trevor is an experienced rock climber, glider pilot, and scuba diver who also enjoys skiing and hiking in the mountains. He is married to Angie and has two sons.

SPWLA HOUSTON CHAPTER NETWORKING EVENT
Date: Thursday, September 26, 2024
Time: 5–8 pm (US CDT)
Location: Cedar Creek Bar & Grill, 1034 West 20th Street, 77008

Exciting Seminar on Effective Transport Properties of Microstructures
Date: September 18, 2024
Time: 12–1 pm (US CDT)

An enlightening seminar was held featuring Professor Carl Fredrik Berg (Norwegian University of Science and Technology (NTNU)).

ABSTRACT: Effective transport properties of microstructures, e.g., the pore structure or the fluid distribution within a pore structure, can be decomposed into morphological descriptors such as tortuosity, characteristic length, and constrictivity. In this talk, we will consider evolving microstructures. One example is the changing pore structure during a diagenetic process. Another example is changing fluid geometry during a drainage process. We will present how the morphological descriptors change with changing microstructure, which descriptors dominate the change in effective transport, and describe effective transport properties close to the percolation threshold.

About the Speaker: Carl Fredrik Berg (a distinguished professor at NTNU) brings extensive experience from both academia and industry. With a PhD in algebra and a background as a reservoir engineer at Statoil/Equinor, Professor Berg's expertise spans digital rock modeling, upscaling transport processes, and optimizing reservoir simulations.

Exciting Seminar on Quantifying the Impacts of Reservoir Geochemistry and Pore Structure on the CO_2 Diffusion and Leakage in Organic-Rich Mudrock Formations and Caprocks
Date: October 10, 2024
Time: 12–1 pm (US CDT)
Online Webinar

BIOGRAPHY: Ibrahim Gomaa (a graduate research assistant and PhD candidate at the Hildebrand Department of Petroleum and Geosystems Engineering) conducts research focused on the petrophysical and geochemical properties influencing CO_2 storage and trapping mechanisms. With degrees from the British University in Egypt and King Fahd University of Petroleum & Minerals, Ibrahim has a rich background in enhanced oil recovery and sandstone reservoir stimulation.

Exciting Seminar on Unlocking the Power of Anisotropic Mechanical Properties through Digital Sonic Processing and Core Data Integration
Date: October 24, 2024
Time: 11:30 am–1:00 pm (US CDT)
Venue: SLB, 6350 West Sam Houston Parkway North, Houston, TX 77041

ABSTRACT: Sonic data processing and interpretation, combined with a fully 3D planar hydraulic fracture simulation, are critical components for evaluating well completion quality (CQ). This evaluation encompasses anisotropic mechanical properties and horizontal stress calculations but is often bottlenecked by the extensive processing time required. The objective of this talk is to present an improved workflow that leverages the latest advancements in digital borehole sonic technology to derive anisotropic mechanical properties and horizontal stress profiles, comparing these results against geomechanical core data from the same well in the Midland Basin to enhance confidence in stimulation design. We will outline the geomechanics workflows for core data, including the extraction of anisotropic properties from ultrasonic velocities. These will be integrated and compared with digital sonic workflow services, which utilize advanced algorithms to deliver accurate measurements of compressional, shear, and anisotropic properties directly from the wellsite. A multimode machine-learning inversion, incorporating flexural and Stoneley waves, is employed to determine anisotropic constants while accounting for mud-speed variations in the borehole. This approach yields precise anisotropic mechanical properties and horizontal stress profiles. The adapted workflow proposed in this paper utilizes two of the newest methodologies in digital borehole sonic services to meet the challenges of drilling in unconventional reservoirs, thus expediting the selection of lateral landing points. In this case study, various zones have been identified: high stress-induced anisotropy intervals, high-layer (transversely isotropic) anisotropy intervals, and isotropic/fractured carbonate streaks. The results demonstrate an excellent correlation between core data and sonic-derived data. The findings indicate that the proposed sonic data processing workflow can effectively serve as input for hydraulic fracture simulations, reducing processing time by three-fold, increasing the accuracy of anisotropic constants by better understanding mud speed variation, and ultimately empowering operators to make timely, informed decisions without compromising operational efficiency.

BIOGRAPHY: Edgar Velez (acoustics geomechanics domain champion advisor for the Western Hemisphere, based in Houston) has been leading the application of acoustics tools across diverse environments since he assumed this role in 2018. Edgar began his career at Schlumberger in 2003 as a junior petrophysicist within the Data & Consulting Services team in Villahermosa, Mexico. In 2008, he transitioned to become the acoustics domain champion for the Latin American region. From 2012 to 2014, he was based in Argentina, where he continued to specialize in unconventional reservoirs. In 2014, he moved to Houston, taking on the role of acoustic domain champion for North America land, where he has maintained similar responsibilities to his current position. Edgar graduated with honors with a bachelor's degree in geophysics from the Universidad Nacional Autónoma de México (UNAM) in 2002.

Upcoming Events
Exciting Seminar on Simulation of Reservoir Charge Over Geologic Time to Predict Present-Day Spatial Distributions of Fluid Composition
Date: November 14, 2024
Time: 11:30 am–1:00 pm (US CDT)
Venue: SLB, 6350 West Sam Houston Parkway North, Houston, TX 77041

ABSTRACT: Reservoir fluids often exhibit compositional complexity vertically and laterally in reservoirs. These complexities include viscous oil and tar distributions, as well as gas-oil ratios. They can also include more subtle fluid variations, such as varying biomarker ratios and isotopic ratios. Recent advances have led to the resolving of many mixing dynamic processes of reservoir charge fluids over geologic time. The objective is to simulate reservoir charge over geologic time to (a) constrain key attributes of the reservoir that comprise the geologic model and (b) to improve the prediction of fluid properties across tectonic features. The analysis of 80 reservoirs within the context of reservoir fluid geodynamics has allowed the identification of mass transport and mixing dynamics of different charge fluids over geologic time. Reservoir simulation can be used to predict resulting compositional distributions; these predictions depend on (1) reservoir attributes, both known and uncertain, (2) the properties and locations of charge fluids, such as density and viscosity, and (3) the time since charge. The comparison of predicted and measured fluid distributions allows history matching of reservoir charge. Fluid mechanics principles are shown to validate simulation results, building confidence in

their predictions. Forward modeling with reservoir simulation shows that even simple 2D simulations can illuminate key reservoir attributes that impact fluid compositional distributions, such as connectivity and baffling, especially over different areal sections of the reservoir. Reservoir case studies are used to validate the charge and mixing dynamics that are employed in modeling. Reservoir simulation shows that a substantial range of the extent of mixing is found dependent on reservoir and fluid properties, thereby providing a very sensitive test of these reservoir parameters. Simulation of reservoir charge for history matching is a very new concept, yet it relies on standard reservoir simulation (over geologic time) for comparison between predicted vs. measured fluid compositional distributions of the present day to test the reservoir and geologic models. This approach has shown that several presumptions about the mixing of charge fluids were not general and inhibited the new workflow. Removing such conceptual limitations has been crucial to developing novel workflows.

BIOGRAPHY: Tarek S. Mohamed (interpretation development engineer at SLB) co-leads the new direction of modeling fluid dynamic mixing processes and history-matching reservoir charge over geologic time to predict fluid spatial compositional distributions in untapped regions and to test geologic models. He is the co-author of over 16 technical papers accepted by seven organizations, including SPWLA, SPE, SEG, AAPG, and ACS. He completed projects with collaborators from academia, the energy industry, and Los Alamos National Laboratory. He holds a PhD in petroleum engineering from the University of Texas at Austin, an MS degree in petroleum engineering and a graduate certificate in data science and analytics from the University of Oklahoma, and a BS degree in petroleum engineering from Suez University.

Exciting Seminar on Why Look at Rocks? Developing Models for Resistivity, Permeability, Velocity and Compressibility
Date: November 20, 2024
Time: 11:30 am–1:00 pm (US CDT)
Venue: Baker Hughes, 2001 Rankin Rd, Houston, TX 77073

ABSTRACT: This talk is an overview of the importance of applying imaging and image analysis methods to understanding and modeling rock properties. The measured properties included in this discussion are resistivity, permeability, velocity, and compressibility. At the heart of these models is the concept that the relevant length scales have to be included in the models to accurately predict and upscale their properties. Staged Effective Medium models are used to include these differing length scales. This allows the influence of pore structure on rock properties to be discerned, including the influence of: • Oil saturation on resistivity • Dispersed clays on the formation factor F* • Vugs on the formation factor of carbonates • Permeability • Velocity • Compressibility Brief explanations of the underlying models are presented for discussion. Future work is also discussed. The saturation data fits conceptually with the porosity and salinity-dependent models under water-wet assumptions. A changing saturation was found to be equivalent to a porosity change for the geometric dispersion. The clay term was found to be saturation-independent. The work represents a significant step forward towards an integrated approach to understanding the dielectric and conductivity response of shaly sands.

BIOGRAPHY: Dr. Michael T. Myers (associate professor, Ali Daneshy Endowed College professor, University of Houston) has 25 years of research experience in rock and fluid properties at Shell International Exploration and Production. He served as an adjunct faculty member at UH before joining the department full time. His research areas of interest include static and dynamic properties of porous media. He has a PhD in physics in nonlinear optics from the University of Michigan, an MS degree in physics from the University of Michigan, and a BS degree in physics from Michigan Technological University.

Dr. Lori Hathon (assistant professor, University of Houston) was a senior research geologist for Shell International E&P, Inc. before she joined the UH Cullen College faculty. For more than two decades, her work has focused on routine and special core analysis, clastic petrology, reservoir quality analysis and predictive modeling, applications of image analysis to rock physics, organic petrography, and thermal maturity analysis. Her experience has also included well-drilling operations and post-well appraisals. She has PhD from the University of Missouri.

HYDROCARBON RESOURCES SIG

Recent Events

4 **September 2024—SPWLA Hydrocarbon Resources SIG board and members** recently gathered at a meeting to discuss different issues, with the main topic being a presentation by Harald Bolt (DwpD Ltd., Depth Solutions) named “3D Positional and Positioning Uncertainty and Ideas on Assessing Its Impact on Reserves/Resources.” The format was online to enable participants from other countries to join us, with a great attendance from four

continents. Harald presented his work, including some practical applications and their impact on resources evaluation. The meeting ended with the introduction of Javier Miranda as the new SIG President. Javier is one of the co-founders of the SIG. We thank Joshua Oletu, Past President, for his leadership and contributions during the last two years. Joshua will continue serving on the board, now as Advisor as Past President. We also want to thank Cecilia Flores, past VP, for her contributions during her terms as Secretary and VP.

The SIG board for 2024–2025 would be as follows:
President: Javier Miranda (DeGolyer and MacNaughton)
Vice President: Philip Gibbons (Gaffney Cline)
Secretary: Brett Gray (Ryder Scott)
VP Communications: Maria Florencia Segovia (SierraCol)
Advisor: Joshua Oletu (Gaffney Cline)
Advisor: Luis Quintero (Halliburton)

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, the 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://doi.org/10.2118/9781613999837.

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. As we diversify our membership and board, now with board members in three continents and general membership in four continents, it will most likely be online with possible 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 on key parameters as technology evolves. The group is open to all current SPWLA members, and interested colleagues are encouraged to become SPWLA members.

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.

Contact: Email us at reserves_sig@spwla.org

SPWLA Hydrocarbon Resources Board

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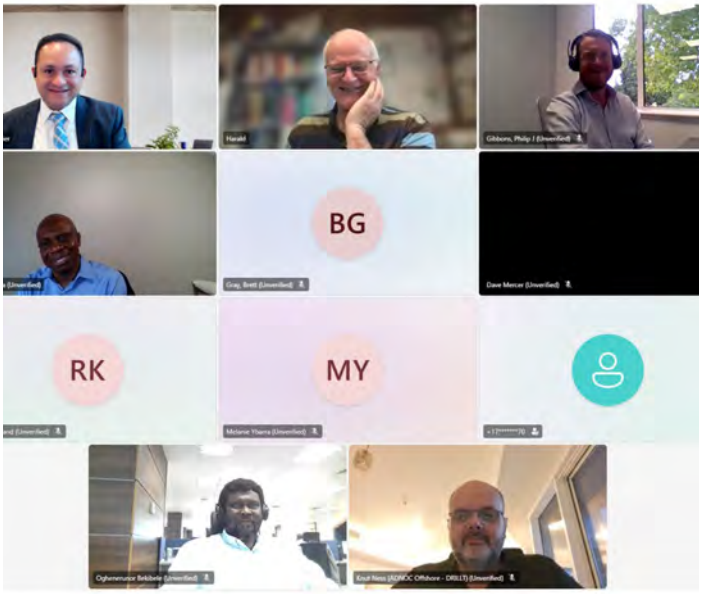


Part of the September online meeting attendees.

JAPAN CHAPTER
Japan Formation Evaluation Society (JFES)

Recent Events

18 July 2024—The 124th JFES Chapter Meeting. We welcomed 10 people in person and more than 30 online audience members.

12–13 September—The 29th Formation Evaluation Symposium of Japan took place at the JOGMEC-Technology & Research Center in Makuhari, Japan. The event saw the participation of 107 delegates, both on-site and online. A highlight of the symposium was the special session dedicated to Digital Transformation (DX), which featured four invited talks that delved into the transformative impact of digital technologies on formation evaluation. The symposium showcased a total of 21 presentations, each contributing valuable insights and findings to the body of knowledge in formation evaluation. This year marked the 30th anniversary of the Japan Formation Evaluation Society (JFES). There was one special talk and two anniversary addresses that celebrated the milestones and future directions of the symposium. The symposium also recognized outstanding contributions through its awards. The Student Award was presented to Rion Nakamoto from Waseda University for her work on the "Development of Numerical Simulator for Predicting Behavior of Closed-loop Geothermal System." The Best Presentation Award went to Tetsuya Yamamoto from Japan Petroleum Exploration Company for his comprehensive laboratory analyses on the "Pore System Evaluation of a Basaltic Reservoir."

Group photo with the participants.

Tetsuya Yamamoto received the Best Presentation Award.

Group photo with previous contributors

(From left to right) Iulian Hulea (SPWLA President), Rion Nakamoto, who received the Student Award, and Yuki Maehara (First Vice President of JFES).

Song and dance with Okinawa traditional songs.

Sponsors booth.

12 September 2024—The 30th Anniversary party of JFES was held at the Hotel the Manhattan. We were delighted to have approximately 80 participants. We provided a 30-year memorial movie, Japanese sake, memorial goods, and Japanese traditional Okinawa bands. The party really revved things up, and we hope that all participants enjoyed the party and got on with the other participants.

14 September 2024—The 15th Golf Competition of JFES was held at the Chiba International Country Club. The weather was very nice, and many past presidents and legends attended the competition. We are looking forward to meeting many golf players next time!!

Players of the golf competition.

Upcoming Events

19 December 2024—125th JFES Chapter Meeting. We are pleased to announce that the forthcoming 125th JFES Chapter Meeting will be held as an online event. Details to be announced.

Presentation 1

<Title> TBA

<Speaker> Dr. Takuya Ishibashi and Dr. Kyosuke Okamoto (Geothermal Energy Team, Fukushima Renewable Energy Institute (FREA), National Institute of Advanced Industrial Science and Technology (AIST))

SPWLA-King Fahd University of Petroleum and Minerals (KFUPM)

General News

We conducted multiple meetings with the student chapter to discuss our recent and upcoming events. Highlights include the national day celebration for Saudi Arabia, a Movie Night, a call for abstracts for the Local Paper Contest, and the participation of students at the SEG-SPWLA Symposium. Additionally, we have two technical talks scheduled for the near future, ensuring a robust lineup of activities for our members.

Recent Events

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

1. **Saudi National Day Celebration**: On September 25, 2024, we collaborated with several college student chapters, including the CPG Club, SEG, ARMA, IADC, SME, and SPE, to organize the CPG Saudi National Day Celebration. This event honored Saudi Arabia's National Day, a time to celebrate the country's unity and cultural heritage. Attendees enjoyed a variety of activities, games, and refreshments, fostering a sense of community and pride. The celebration was a wonderful opportunity to come together and appreciate the rich traditions and accomplishments of Saudi Arabia.
2. **Movie Night:** On September 26, 2024, SPWLA organized a movie night featuring the screening of ***Deepwater Horizon*** in collaboration with IADC, ARMA, and CPG. This film provides a gripping portrayal of the events surrounding the Deepwater Horizon oil spill, highlighting the complexities and challenges faced in the oil and gas industry. By showcasing real-life scenarios and technical challenges, the movie serves as an excellent educational tool, sparking discussions among attendees about safety, engineering practices, and the environmental impacts of oil exploration. It provided a unique opportunity for students to engage with important industry topics in an entertaining format.
3. **SEG-SPWLA Symposium:** From October 6 to 8, 2024, the SPWLA Student Chapter played a key role in facilitating student participation at the SEG-SPWLA Symposium on Seismic-Petrophysics. This event provided an invaluable opportunity for students to attend and engage with industry leaders. Students showcased their research through e-posters, allowing them to present their findings to a wider audience. Additionally, mentors were able to deliver technical talks, including one by Dr. Ahmed Farid Ibrahim, who presented on the "Application of Machine Learning to Utilize Readily Available Drilling Data for Reservoir Characterization." This session offered students insights into cutting-edge techniques in reservoir analysis, bridging the gap between academic theory and practical application in the field.
4. **SWPLA Local Paper Contest:** On October 15, 2024, we announced the local paper contest for students at KFUPM, inviting submissions of abstracts from undergraduates (BSc), master's (MSc), and doctoral (PhD) students. We encourage participation across all academic levels, as selected students will present their work to a panel of judges at a university-wide event. Winners from various categories and levels, representing different universities, such as KFUPM, KAUST, and KSU, will then present their research to Aramco judges. Those selected will be awarded during the next SPWLA Saudi Chapter event and will also be nominated for the international paper contest, providing an excellent platform for showcasing their research on a broader stage.
5. **Technical Seminar:** On October 17, 2024, we hosted a technical seminar titled "Carbonate Rock Physics: Curse and Blessing of Pore Types" in collaboration with the EAGE Student Chapter and SPWLA-KFUPM. We are honored to welcome Dr. Gregor Baechle (lead petrophysicist at Saudi Aramco) as our distinguished speaker. With over two decades of expertise in carbonate rock physics, Dr. Baechle's insights from both industry and academia were invaluable to students. This seminar provided a unique opportunity for attendees to deepen their understanding of carbonate rock characteristics and their implications in reservoir engineering. Engaging with such a knowledgeable expert helps students enhance their academic pursuits and prepare for careers in the field.

6. **Technical Seminar:** On October 29, 2024, Mr. Hassan Alismail (senior log Analyst at NESR) presented on the topic of "Production Logging Tool (PLT)." This presentation provided a comprehensive overview of PLT, a powerful instrument used in oil and gas wells to uncover the dynamics of reservoirs. By calculating volumetric flow rates from wireline logs, PLT offers valuable insights into reservoir behavior, fluid movement, and production optimization. Students attending this seminar gained a deeper understanding of how production logging can enhance their knowledge of reservoir engineering and improve their practical skills in the oil and gas industry.

SEG-SPWLA Symposium – Dr. Ahmed Farid Ibrahim Technical Talk.


Saudi National Day Celebration.


SEG-SPWLA Symposium Students e-poster presenters.


Movie Night.

NORWEGIAN FORMATION EVALUATION SOCIETY (NFES)

General News

The Norwegian Formation Evaluation Society (NFES), the Norwegian chapter of SPWLA, continues the good work of providing its members with good and high-quality technical talks. The October talk of 2024 has received strong interest among our members.

Month	Title	Presenter
jan.23	Looking through pipes, how do we use CT scans in the Oil and Gas industry?	Olivier Lopez
feb.23	Holistic Evaluation of Reservoir Oil Viscosity in Breidablikk Field – Including Mud Gas Logging Approach	Alexandra Cely
mar.23	OPEN-HOLE WIRELINE CONVEYANCE RISK MANAGEMENT (NEW MODELS, TECHNOLOGIES & INSIGHTS)	Guy Wheater
apr.23	HALITE CEMENT	Richard Bootle
mai.23	Downhole Evaluation of Integrity Challenges using High Resolution 3D Ultrasonic Imaging	Vishal Sharma
jun.23	Using the 'entire' acoustic waveform to quantify formation properties beyond just velocity	Philip Tracadas
sep.23	Integrated application of advanced logging-while-drilling for understanding altered basement rocks: A case study from the Norwegain North Sea	Sayyid Ahmad
okt.23	Logging-While-Drilling Oil Base Mud Electrical Imager Using Advanced Radar Technology	Inge Bye

Affiliation	Attendance (incl speaker) at the Gård	Attendance (incl speaker) via Teams	Attendance (incl speaker) Total
Leading researcher at Equinor	27	3	30
Principal reservoir engineer, Equinor	22	1	23
Wireline specialist, Gaia Earth Group	28	3	31
Advanced Petrophysicist at Aker BP	27	2	29
Sales Director for Darkvision's Scandinavian Business	16	2	18
Geoscientist subject matter expert for borehole acoustics	15	2	17
Geoscientist and image log analyst	25	3	28
Business Development Manager in WELL ID	32	2	34

Recent Events

2 October 2024—We hosted a very interesting talk given by Inge Bye (WellID) with the following title: "Logging-While-Drilling Oil-Base Mud Electrical Imager Using Advanced Radar Technology."

(From left to right) At the NFES Technical meeting, October 2, 2024, in Stavanger, Dler Mirza (NFES President) presents the NFES ice bear in gratitude for a well-attended and delivered presentation by Inge Bye.

NFES 2024 Sponsors

NMR SIG

The SPWLA NMR SIG has not been *relaxing* in 2024 (get it?), and we are excited to share our recent activities. During the 2024 SPWLA Annual Symposium, the NMR SIG organized and sponsored an educational workshop titled "New Advances in NMR Techniques and Applications" with instructors Nate Bachman (SLB), Kristopher Farmer (CL), Jesus P. Salazar (BKR), and Willian Trevizan (PBR). The educational workshop began with introductions to NMR and core analysis, followed by core-to-log integration and formation evaluation. We want to thank all of the students who attended for their active participation.

Soon after, we held our highly successful 2024 NMR SIG Conference following the SPWLA 2024 Annual Symposium. We appreciate and recognize the strong leadership of NMR SIG executive board member Radu Coman (BKR) and co-organizer Willian Trevizan (PBR). The conference site was the beautiful Baker Hughes RETIC in Rio de Janeiro (check out our group photo!). Attendees came from North America, South America, Europe, and Asia to share and discuss the latest advancements in NMR technology and applications. The event featured 15 insightful presentations from experts in academia, industry service companies, and operators, dynamic Q&A sessions, and invaluable networking opportunities. Thanks go to all the presenters, session chairs, and participants for their contributions and to our sponsors for their generous support. Special thanks go to the SPWLA for providing the registration and communication infrastructure for this event.

Lastly, we would like to highlight some notable NMR SIG member accomplishments from 2024. Our deepest congratulations go to Ron Balliet (HAL), who received the Distinguished Technical Achievement Award at the 2024 SPWLA Annual Symposium. We also congratulate Ron Bonnie (CoP) on his retirement, and we appreciate that he is now the President of the Houston SPWLA Chapter, all while continuing on the NMR SIG executive board. Last, but not least, we congratulate two of the 2024 SPWLA Student Paper Contest winners whose work was recognized with an additional NMR

SIG monetary award for their use of NMR in their research: **Abdulmalek Ahmed** is a PhD candidate in petroleum engineering at KFUPM, while **Abdelaziz Elyasa** is pursuing his master's degree in petroleum engineering at KFUPM.

Find us on the SPWLA website and join our active group!

2024 SPWLA NMR SIG Conference participants on May 23 in Rio de Janeiro, Brazil.

PDDA SIG

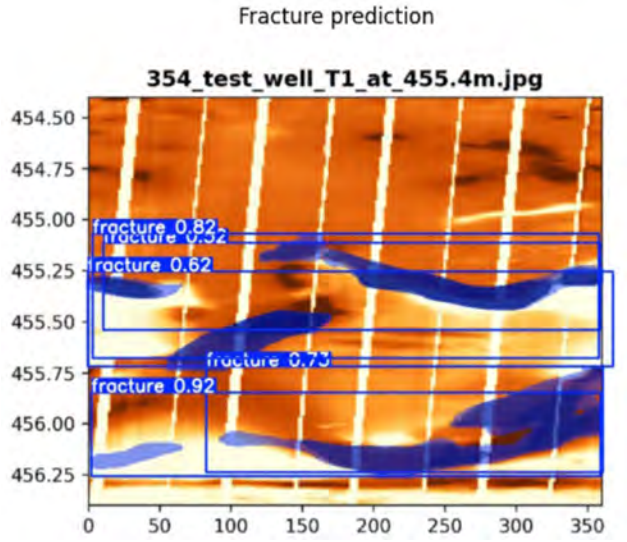
We are thrilled to announce our 4th Annual Machine-Learning Competition alongside our upcoming Topical Machine-Learning Conference in Houston, Texas.

SPWLA PDDA SIG 4th Annual Machine-Learning Competition – Join the Challenge!

We are excited to announce the 4th Annual Machine-Learning Competition hosted by the SPWLA Petrophysical Data-Driven Analytics (PDDA) SIG. This year, the competition will focus on an exciting and critical topic—Identifying Fractures From Image Logs.

Thanks to ConocoPhillips Canada, we are providing a rich well-log data set with hundreds of fractures from 10 wells (eight training wells and two test wells). Participants will have access to these data and are tasked with developing machine-learning models that can accurately identify fractures from image logs. A draft Jupyter notebook is available to help you get started—it successfully identifies some fractures and provides a confidence level, offering a strong foundation upon which to build.

This competition is open to all students, petrophysicists, researchers, and geoscientists. Whether you are new to machine learning or an experienced professional, we encourage you to participate and showcase your skills.



Key Details

- **Start Date:** October 17, 2024
- **End Date:** January 23, 2025
- **Duration:** 14 weeks
- **Focus:** Identifying fractures in image logs from well-log data
- **Data Set**: Provided by ConocoPhillips Canada, featuring fractures from 10 wells.
- **Link:** https://github.com/pddasig/Machine-Learning-Competition-2024

We encourage novel solutions and innovations, and we invite all participants to share their findings at our upcoming Topical Conference in Houston. The Top five winners of the competition will also be recognized and awarded for their contributions.

This is a great opportunity to test your skills, gain hands-on experience with real-world data, and contribute to the growing intersection of machine learning and geoscience.

For more information and to sign up, visit our official competition page. We look forward to your participation!

Petrophysics Accelerating Digital Transformation
CALL FOR ABSTRACTS

The SPWLA 2024 Fall Topical Conference and PDDA SIG Annual Meeting will focus on the emerging technologies applicable to petrophysical data acquisition, quality control, interpretation, and integration, such as deep learning, cloud computing, and Gen AI. We believe the petrophysics discipline is in a unique position to accelerate the digital transformation of the oil and gas industry. We are seeking submissions on related topics, including but not limited to the following areas:

1. Petrophysics Data Analytics
2. Machine-Learning/Artificial Intelligence Applications
3. Petrophysical Workflow Automation

4. Petrophysical Technology Deployment on Cloud (OSDU)
5. Gen AI and HPC Potential for Petrophysics
6. Open Source Petrophysics

Key Details

- **Dates:** November 18–19, 2024
- **Location:** Halliburton North Belt Campus – Auditorium (3000 N Sam Houston Pkwy E, Houston, TX 77032)
- **Abstract Submission Deadline:** Thursday, Oct 31, 2024
- **Send Your Abstract to:** pdda_sig@spwla.org
- **Registration Fee:** Member $200. Non-member $250. Student – Free
- **Link:** https://www.spwla.org/SPWLAArchived/SPWLA/Meetings_Resources/Event_Display.aspx?EventKey=PDDA2024CO

CHAIR: Chicheng Xu (Aramco Americas)
CO-CHAIR: Hyungjoo Lee (Helmerich & Payne)
PDDA SIG Committee: Lei Fu (Aramco Americas), Wen Pan (Shell), Jaehyuk Lee (Baker Hughes), and Michael Ashby (Devon)

Sponsorship Opportunities

There are multiple interesting sponsorship opportunities announced there. Contact our board if you have an interesting data set or a presentation you would like to share or if you would like to become a sponsor for the PDDA SIG or our annual machine-learning competition.

Please stay tuned and check it out for upcoming news! As always, feel free to contact any of the board members if you have any questions or comments using our contacts, which are included below.

PDDA
Society of Petrophysicists and Well Log Analysts
Petrophysical Data Driven Analytics

More details are available on the PDDA SIG website
https://www.spwla.org/SPWLA/Chapters_SIGs/SIGs/PDDA/PDDA.aspx
and the PDDA SIG LinkedIn profile
https://www.linkedin.com/groups/13605420
Stay tuned!

SOUTHWEST CHINA CHAPTER

Recent Events

13 September 2024—The 19th Lecture of the Yangtze University Geophysics Forum was held in the Petroleum Science and Technology Building. At the invitation of Assoc. Prof. Gong Zhang, Harry Xie (Zonghai Xie, SPWLA VP Technology) delivered a report titled "The Application of NMR in Unconventional Core Analysis and the Hardware and Software Requirements." In the report, Harry Xie introduced the application of NMR technology in unconventional core analysis, focusing on its advantages and challenges in porous media research. He explained the importance of NMR in permeability modeling and saturation measurement and discussed the latest hardware and software requirements for the technology, along with future development trends. The lecture offered valuable insights into the role of NMR in the field of petrophysics.

Group Photo of Harry Xie with Yangtze University faculty members.

The SPWLA Yangtze University Student Chapter has been officially established, marking a significant step in strengthening the international academic influence of the SPWLA Southwest China Chapter in petrophysics and well logging. Under the guidance of Prof. Hua Wang and with support from the Yangtze University School of Geophysics and Petroleum Resources, preparations began in January 2024, and the chapter was formally approved in September.

Harry Xie with members of the Student Chapter.

The chapter currently consists of 15 student members. PhD student Ying Zhou serves as the first President, with Mingxing Wang as Vice President and Assoc. Prof. Xin Nie as the Faculty Advisor. The chapter will focus on organizing academic activities, participating in SPWLA-hosted competitions, and enhancing international engagement for students and faculty. The establishment of the student chapter enhances the influence of the Southwest China Chapter by expanding its network and providing more opportunities for student involvement and academic collaboration.

3–4 October 2024—The 5th International Scientific Practice Seminar on "Practical Issues in Oil and Gas Reservoir System Research," organized by Gazprom, was held in Moscow. Scholars from multiple countries, including Russia, China, and Azerbaijan, attended the conference. Dr. He Jiahuan (a member of SPWLA and a senior engineer at the Exploration and Research Institute, Southwest Oil and Gas Field Company, PetroChina) was invited to give oral presentations.

The theme of this conference is "Improving the Reliability of Reservoir Calculation and the Efficiency of Oil and Gas Field Geological Exploration and Development," with one main venue and four sub-venues. The purpose of this seminar was to integrate domestic and international experience in the field of oil and gas field formation systems (core and formation fluids) research in order to improve the reliability of reservoir calculations and the efficiency of oil and gas field geological exploration and development. Dr. He Jiahuan presented the proposal of the radial resistivity method for cylindrical rock cores, its comparison with traditional methods, field applications, and derived new methods under the title of "New Method for Testing Rock Resistance in Anisotropic Reservoirs and Its Oilfield Applications." They also demonstrated the application of this technology in carbonate rocks, sandstone, and shale, as well as the support for interpreting resistivity logging curves. At the same time, the conference also had full exchanges and discussions with international peers, and international peers gave high praise and affirmation to the research results.

This conference has become one of the important international academic conferences in the industry, actively promoting technological development in areas such as enhanced oil recovery, core analysis, reservoir fluids, and multiphase flow. In addition to technical experts from Gazprom and China Petroleum Exploration and Development Institute, more than 100 scholars from well-known universities such as Russian State University, Tyumen University of Technology, Northern State University, Dagestan State University, Skolkovo Institute of Science and Technology, and Kazan Federal University also participated in the conference.

RESISTIVITY SIG

Recent News

2 May 2024—A new SPWLA Resistivity Special Interest Group (Rt-SIG) Committee was elected. Dean Holman (SLB) was elected as committee chair, and JinJuan Zhou (ExxonMobil) was elected as committee co-chair. Great appreciation was extended to the immediate past leaders of Rt-SIG (David Kennedy, Aygul Kostinovsky, and Feng Yao) for their excellent work in keeping Rt-SIG active over the past 2 years.

27 May 2024—The new and immediate past committee members met for the handover of the Rt-SIG documents and bank account. The new committee members also met on May 7 and July 30 to discuss the future direction of Rt-SIG, plan for the fall meeting, and review potential presentations.

Upcoming Events

7 November 2024—The Rt-SIG fall meeting is scheduled to be hosted by Qiming Li (Oliden Technology) at Hyatt Place Sugar Land. On August 25, a call for registration and presentations for the fall meeting was sent out.

Many thanks for all your support through the years.

UNIVERSITY OF HOUSTON STUDENT CHAPTER

Recent News

22 September 2024—Introduction of New Officers and First General Meeting. We held our First General Meeting of the semester, during which the newly elected officers were introduced. The event featured a talk titled "Advances in CO_2 Sequestration and Petrophysics" by guest speaker Adam Haecker (director of geoscience at Milestone Carbon), who shared valuable insights from his extensive experience in the field. It was an inspiring session, with students actively engaging and learning from his expert advice.

5 October 2024—SLB Rock and Fluid Lab Visit. The chapter visited SLB's Reservoir Rock and Fluid Lab, which provided a hands-on learning experience in petrophysics and fluid analysis. Students observed advanced equipment in action, learning about critical laboratory processes that shape the energy industry. The visit included insightful interactions with industry experts, who generously shared their knowledge, making it a memorable educational experience.

18 October 2024—A Well-Logging Help Session was held to provide support with well-logging techniques, focusing on practical skills and knowledge essential for their academic and professional growth.

Upcoming Events

8 November 2024—A Distinguished Lecture titled "Natural Hydrogen: An Overlooked Potential Energy Resource" will be held from 1–3 pm at the Petroleum Engineering Department, ERP 09, Room No. 124.

Keynote Speaker: Dr. Geoffrey Ellis (research geologist, US Geological Survey)

Details: Organized in collaboration with the AAPG and AAPG Foundation, this Distinguished Lecture will explore the potential of natural hydrogen as an energy resource.

SPWLA UH Chapter officers and members with guest speaker Adam Haecker (director of geoscience at Milestone Carbon) during the First General Meeting in September 2024.

Students of the SPWLA UH Chapter and SPE UH Chapter during their visit to the SLB Rock and Fluid Lab with Dr. Barbara Hill (host from SLB) and Dr. Mayers and Dr. Lori Hathon, the chapters' advisors, in October 2024.

UNIVERSITY OF OKLAHOMA STUDENT CHAPTER

General News

The SPWLA Student Chapter at the University of Oklahoma, based in Norman, Oklahoma, is dedicated to advancing the study and professional practice of petrophysics within the Mewbourne School of Petroleum and Geological Engineering. Our leadership team, including Mohammad K. Aljishi (President), Bayron Torres (Vice President), Quan Nguyen (Treasurer), and Homero Sardinha (Secretary), actively fosters a collaborative environment that encourages student growth and industry engagement.

To stay informed about our latest events, connect with us on LinkedIn: linkedin.com/company/spwlaouchapter.

Mohammad Aljishi
President

Bayron Torres
Vice-president

Quan Nguyen
Treasurer

Homero Sardinha
Secretary

Recent Events

Fall 2024—Engaging the Community Through Outreach Events. The fall semester began with our chapter's active participation in various outreach events, including Howdy Week, the 2024 MPGE Coalition Welcome Back, and the Mewbourne College Welcome Back. These events provided an excellent opportunity to engage with new students, promote the value of SPWLA membership, and introduce them to the field of petrophysics.

Chapter members engaging with students at the Howdy Week event, University of Oklahoma (Location: Mewbourne School of Petroleum and Geological Engineering).

18 September 2024—Petrophysics Laboratory Visit. Our chapter members visited the Integrated Core Analysis (IC3) research group's petrophysics laboratory, one of the most advanced facilities of its kind in the United States. The tour, led by PhD candidate Sidi Mamoudou and Dr. Mark Curtis, offered students an in-depth look into cutting-edge research in petrophysical analysis. This visit greatly enhanced the participants' understanding of how laboratory work translates into industry applications.

SPWLA OU Student Chapter members during the petrophysics lab tour at IC3 led by Sidi Mamoudou and Dr. Mark Curtis (Location: Integrated Core Analysis, Norman, OK).

22 October 2024—A Tech Talk was held by Shahid Azizul (reservoir engineering advisor and reservoir domain head at SLB), who presented "Formation Testing 101." This presentation provided an overview of the evolution of formation testing since its inception in 1955 and discussed how it complements openhole formation evaluation in today's industry.

UNIVERSITY OF TEXAS AT AUSTIN STUDENT CHAPTER

Recent Events

9 September 2024—We held an internal meeting with our academic advisors to discuss and plan our future events. This session allowed us to align our goals with academic objectives for the semester.

September 19, 2024—Our General Meeting #1 featured Ms. Sue Barth (competitive manager at Chevron), who delivered a keynote presentation titled "Navigating Your Future: Industry Insights From a PGE Alumna." Ms. Barth's talk provided valuable career advice and perspectives on navigating the energy industry, inspiring our members with her insights as a Petroleum and Geosystems Engineering alumna.

September 27, 2024—We formally welcomed Ms. Karin Al Kharsa, our newly appointed freshman representative, into the chapter during a special event. This marks an important step in ensuring the active engagement of our new members from the beginning of their academic careers.

4 October 2024—As part of our community-building initiatives, we organized a social event that included a game of frisbee, allowing our members to relax and network in a more casual setting.

9 October 2024—Our chapter was privileged to host Dr. Nate Bachman for a technical presentation titled "Earth Subsurface Exploration Using Magnetic Resonance: Insights From Three Decades of Formation Evaluation." The event was highly informative, with Dr. Bachman offering deep insights into subsurface exploration. Prior to the talk, we also hosted an informal gathering to facilitate personal interaction between Dr. Bachman and our members.

15 October 2024—We hosted Mr. Zulkuf Aizoglu for a presentation titled "Influence of Salt Concentration and Type on Dielectric Permittivity of Rock." We were excited to offer this opportunity to our members and enjoyed another engaging technical session.

Frisbee game for networking.

Dr. Nate Bachman's talk.

We remain committed to fostering professional growth and knowledge sharing within our chapter, and we are eager to continue building strong relationships within the broader SPWLA community. Thank you for your continued support, and please feel free to reach out with any questions or feedback.

Stefano Motta
(† June 2024)

We mourn the loss of Stefano Motta, an esteemed senior petrophysicist whose career spanned over two decades in the oil and energy sector. Stefano, who recently passed away after a courageous battle with cancer, leaves behind a legacy of pioneering work and significant contributions to geosciences.

Stefano's career began at GEDA Studio Geologico, advancing through roles at Edison E&P and, most recently, at Energean Italy. His work across global projects—from the Po Valley to the Adriatic Sea and beyond—highlighted his expertise and commitment to excellence. Stefano was instrumental in integrating petrophysical reservoir properties into geological and simulation models, shaping the future of exploration and production strategies.

Beyond his technical achievements, Stefano was a passionate mentor for young students in petrophysics, supporting the Society of Petrophysicists and Well Log Analysts (SPWLA) as a judge and reviewer for the Student Paper Competition for many years. His dedication to nurturing new talent was unmatched.

Stefano's kind spirit, dedication to his field, and role as a mentor will be deeply missed by his colleagues, friends, family, and SPWLA family. As we reflect on his professional and personal contributions, his influence on the geosciences will undoubtedly endure as a beacon for future generations.

We extend our heartfelt condolences to all who knew him. Stefano will be greatly missed, but his legacy will continue to inspire.

SPWLA ANNOUNCEMENTS

NOVEMBER 2024

INTRODUCING THE 2024–2025 SPWLA HYDROCARBON RESOURCES SIG BOARD

We are excited to announce the formation of the new board of the SPWLA Hydrocarbon Resources Special Interest Group (SIG) for 2024–2025. The new board includes:

- President: Javier Miranda (DeGolyer and MacNaughton)
- Vice-President: Philip Gibbons (Gaffney Cline)
- Secretary: Brett Gray (Ryder Scott)
- VP Communications: Maria Florencia Segovia (SierraCol)
- Advisors: Joshua Oletu (Gaffney Cline) and Luis Quintero (Halliburton)

This SIG will continue to advance the role of petrophysicists in defining and estimating hydrocarbon resources by providing standards, norms, and guidelines for analyzing petrophysics-related data used in reserves and resource estimation. Additionally, the SIG will actively collaborate with the SPE Oil and Gas Reserves Committee (ORGC) to update the Guidelines for Application of the Petroleum Resources Management System (PRMS). Building on the work done in Chapter 5 of the 2022 PRMS Application Guidelines, the group will aim to expand this section with additional topics relevant to our field.

To learn more about the PRMS Application Guidelines, go to: https://doi.org/10.2118/9781613999837.

Welcome New Members – August 20, 2024 – October 17, 2024

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