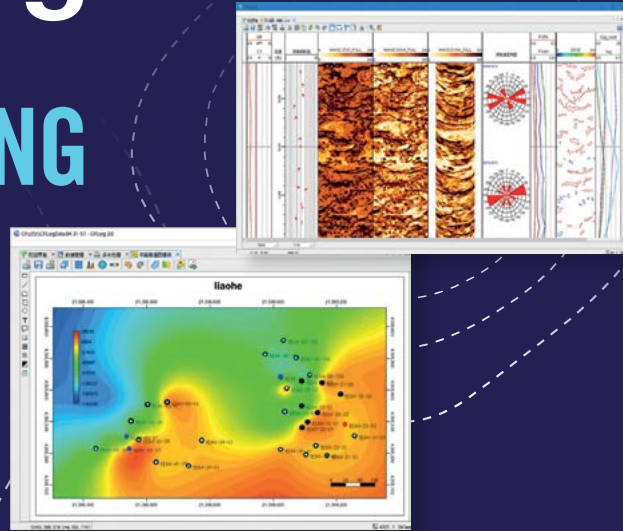# spwla today

NEWSLETTER

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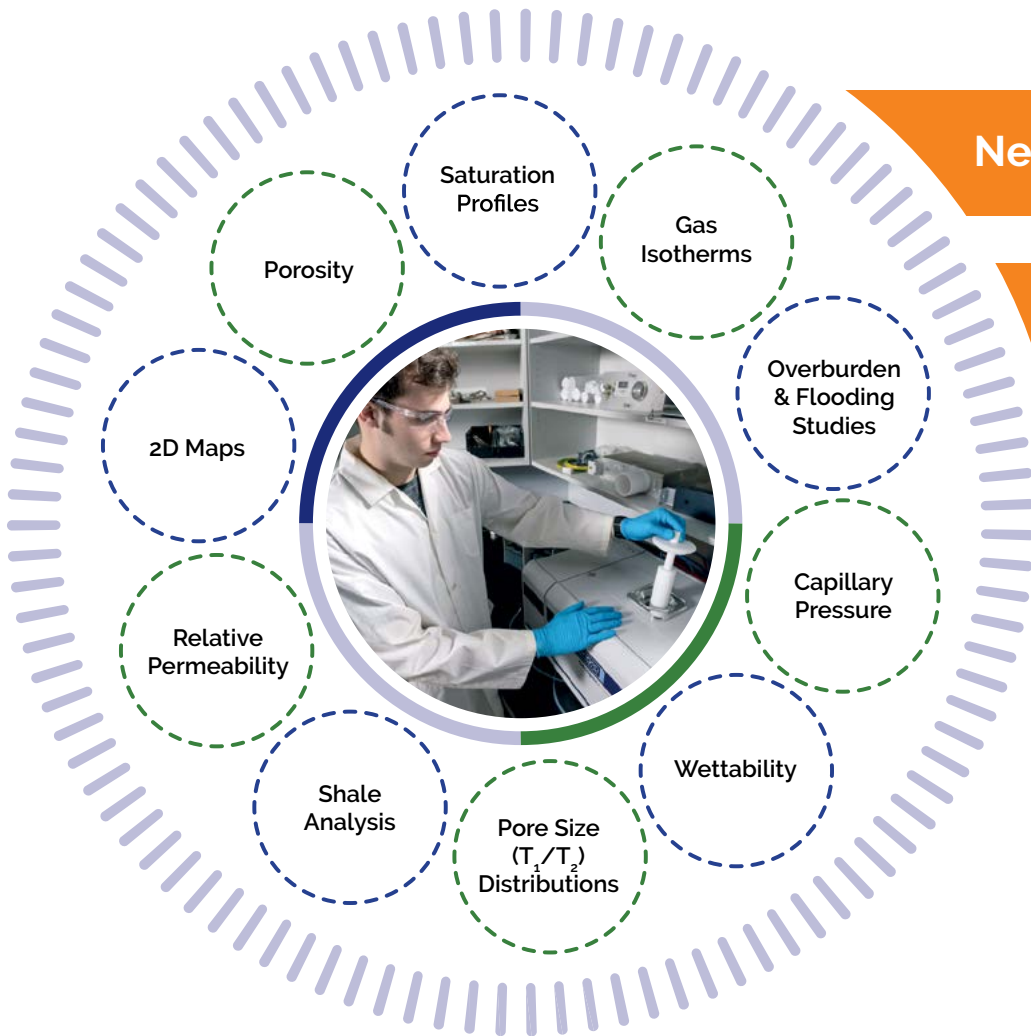
sdiao@cnpc.com.cn
liuym.riped@petrochina.com.cn

CNPC

Petrophysics Journal

CALL FOR
PAPERS

- **PAPERS ACCEPTED FOR REVIEW THROUGHOUT THE YEAR**

- **SPWLA CONFERENCE PROCEEDINGS ARE ELIGIBLE FOR SUBMISSION**

- **PUBLISHED PAPERS AVAILABLE ON SPWLA AND ONEPETRO DIGITAL LIBRARIES**

MORE INFORMATION ON SPWLA.ORG

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS

ISSUE SPONSORSHIP AVAILABLE

INSIDE THIS EDITION

CALENDAR OF EVENTS

September 11–12, 2023
HAHZ with JFES Workshop
Thinking Sideways to the Far East
Blending in the Near-Field and Far-Field Reservoir Characterization
JOGMEC-TRC
Chiba, Japan
www.spwla-jfes.org

September 11–13, 2023
The 14th UPC International Symposium on New Well Logging Techniques
The Development Opportunities and Challenges of Logging Technology in the Background of Digital Intelligence
Qingdao, China
www.spwla.org

September 13–14, 2023
The 28th Formation Evaluation Symposium of Japan
JOGMEC-TRC
Chiba, Japan
www.spwla-jfes.org

October 10–11, 2023
2023 SPWLA Petrophysical Machine-Learning Conference
Hosted by PDDA SIG
Houston, Texas, USA
www.spwla.org

October 30–November 2, 2023
International Geomechanics Symposium (IGS)
The Role of Geomechanics for Efficient and Sustainable Energy Supply
Al Khobar, Saudi Arabia
https://www.igsevent.org/

November 8–9, 2023
SPWLA 2023 Fall Topical Conference
Hosted by Acoustics SIG and Borehole Imaging SIG
See and Hear the Formation:
Exploring the Synergies Between Borehole Imaging and Borehole Acoustics
Houston, Texas, USA
https://www.afes.org.uk/spwla-2023-fall-topical-conference/

May 18–22, 2024
SPWLA 65th Annual Symposium
Sheraton Grand Rio Hotel & Resort
Rio de Janeiro, Brazil
www.spwla.org

About the Cover

Planning has begun for the the SPWLA 65th Annual Symposium, which will be held in Rio de Janeiro on May 18–22, 2024. Start making your plans to enjoy the beautiful Brazilian landscape, including Sugarloaf Mountain and Botafogo Bay.

**Jennifer Market
SPWLA President
2023–2024**

Hello, and welcome back. It has been a busy period since the symposium as we've kicked off the new SPWLA season. The work for the technical team, in particular, continues after the conference as Iulian Hulea, Bob Gales, Harry Smith, and the 2022–2023 Technical Committee have painstakingly reviewed all of the symposia papers and presentations. There has been a great deal of effort to complete this task as soon as possible as we determine our Distinguished Speakers each year from the top papers/presentations at the symposium. The shortlist is nearly complete, and we expect to announce the winners/speakers in early September.

We have two types of Distinguished Speakers in the SPWLA – the global ones are selected from the best of the annual symposium, but regional directors and local board members can nominate regional Distinguished Speakerers from their region. Please contact Kelly Skuce, VP Education, at VP-Education@spwla.org, in order to nominate someone in your region who is a captivating speaker and who would be willing to share pertinent petrophysics knowledge either via web meetings or live in the region. Kelly will help with the nomination/review process. There is a moderate budget for regional speakers to travel within the region.

In addition, the hard-working Technology and IT teams (and past president Perkins) have revamped the abstract submission site for the 2024 Rio de Janeiro symposium, and it is looking sharp and ready to receive abstracts. We encourage everyone to submit an abstract as we look forward to a not-to-be-missed event on 18–22 May!

https://www.spwlaworld.org/welcome-to-the-65th-annual-symposium/

While it is too early for 2025 abstracts, we are already beginning to plan our following symposium in Dubai in May 2025.

From the President

Together with AAPG, EAGE, and SPE, SPWLA is an endorsing society of the 2023 International Geomechanics Symposium (IGS), to be held in Al Khobar, Saudi Arabia, on 30 October–2 November. This is an excellent example of sister societies cooperating, crossing hydrocarbon, new energy, and mining disciplines. Papers have been accepted for presentation by SPWLA board members, and registration for the conference will open in early September. We encourage anyone who can to attend!

In another great example of multi-society cooperation, the 2024 CCUS Symposium will be held in Bergen, Norway, from 28–29 May. More information will be announced in September, but we are looking to a great collaborative event next year.

The previous topics lead me to discuss a topic dear to my heart as well as many others, which is the international flavor of the SPWLA. SPWLA has been a globally inclusive society since its inception, with membership, chapters, and board members from around the world. We are continuing that tradition with our current board of directors spanning eight countries (and hailing from an even wider spread of nations!). For those who keep asking – I am not even the first Antipodean president! Over the years, we have held approximately half of our symposia outside North America as a way of including our chapters from around the world and trying to ensure that every few years, there is a conference geographically accessible to everyone. In addition, some of the globalization actions underway include:

- Hosting the annual symposium more frequently outside North America
- Creating new professional and student chapters (for more information on forming a chapter, contact your regional director or me (president@SPWLA.org)
- Regional conferences (India, Japan, and China host regular annual regional events)
- Hosting topical conferences around the world
- Hosting live SIG meetings around the world (Borehole SIG in Europe, HAHZ SIG in Japan)
- Global and regional Distinguished Speaker programs
- Webinars hosted in multiple time zones so that everyone can join when their sun is up!
- Joining with sister societies to host conferences around the world

These are just some of the initiatives to welcome everyone to participate in the society. We are working on others in response to chapter requests, such as Thailand's request to give free SPWLA membership to key guest speakers for a year, which we are launching as a pilot program this year. We would love to hear additional ideas from around the world on how the society can better serve its members everywhere.

This is not to say that we don't highly value our North American membership and chapters – we just want to adapt so that geoscientists in every corner of the globe can be a part of what makes the SPWLA great.

Thank you again to the SPWLA family for supporting us. Remember that it is our volunteers who make the society great, and that volunteering is a great way to learn and expand leadership capabilities. Opportunities are available on the SPWLA website (See the "Volunteer Opportunities" tab) or contact president@spwla.org for help in connecting to the right place to participate.

Kind regards,
President Jennifer Market
+61 455 148 188
president@spwla.org

Greetings to all with a warm welcome and well wishes for the second half of 2023. We hope you find the informative columns from the SPWLA board members helpful and encourage questions and follow-ups. In particular, there is a brief financial synopsis of the SPWLA 2023 annual meeting, as well as lots of plans starting to be laid out for SPWLA 2024 in Rio. Last is a great new effort and series by the Bridge section highlighting prior publications that are an excellent point for knowledge sharing and technical engagement among our younger professional community. With that, we hope you all continue taking care of yourselves and look forward to continuing to serve the organization and community.

Stephanie Ellen Perry
2022–2023
Vice President Publications

Sincere regards,
Stephanie Perry
VP Publications 2022–2024

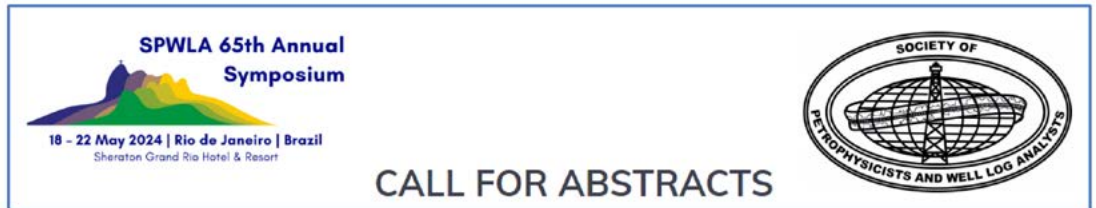**Robert H. (Bob) Gales**
2023–2024 VP Technology

Harry Xie
2023–2024 Vice President
Technology-Elect

Dear Colleagues,

Welcome to our joint column for the *SPWLA Today* newsletter as the VP Technology team.

We trust everyone has been enjoying their summer. With the 11-month period until the 2024 Symposium in Rio, we have been busy expanding the Technical Committee (TC), soliciting Special Organized Session proposals, creating a general session category list, updating the submission instructions, and, most importantly, opening the "Call for Abstracts" at: (https://www.spwlaworld. org/call-for-abstracts/).

SPWLA 65th Annual Symposium
18 – 22 May 2024 | Rio de Janeiro | Brazil
Sheraton Grand Rio Hotel & Resort

CALL FOR ABSTRACTS

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS

We focused our Technical Committee on growing representation from the Latin America, Middle East, and Asia Pacific regions, not only because of the 2024 and 2025 symposiums but to expand representation to other active regions. Thanks to all the enthusiastic SPWLA members, we are happy to report we have exceeded our goal of having 50 TC members. Thank you to the Brazil SPWLA Symposium Committee for the quick recommendations from the LA and Asia Pacific regions. This includes 19 new members.

To make it easier to select a Paper Category, we worked to get the "Special Organized Session" (SOS) topics early to add to the general selection. The SOS are another opportunity for the membership to provide input on what they want to see and encourage the SOS team to solicit abstracts for their session. Once again, the membership responded overwhelmingly with 18 proposals. Many were similar, and we've encouraged teams to work together to reduce this to 11. These are listed below with session sponsors. Feel free to reach out to them. The final sessions will be based on the number of accepted abstracts for each SOS. You will note that many SOS sessions are focused topics that compare to historical sessions. Accepted abstracts will be presented even if an SOS does not make the final list.

Thanks to Stephanie Turner, Tegwyn Perkins, and Tom Bradley for getting all the changes into the software to open the "Call for Abstracts" and posting it on the website and social media. There are a few changes to make the process easier:

1. With the advent of Special Sessions, there were many inquiries about where to place an abstract. This year, we added a First and Second Category choice. This should help the submitters as well as create the final sessions.
2. One text box is used to cover the three main sections with 300 to 600 words.
   a) Problem Statement/Objectives/Scope
   b) Methods, Procedures, Process
   c) Results, Observations, Conclusions
3. The software was modified to embed the image rather than include it as an attachment. This makes it easier for the reviewers. Please make sure their name, company, etc., is not on the figure.
4. Clarification on final notice of ability to present so that the schedule can be adjusted if necessary. We encourage everyone to plan early if visas are required.

SPWLA 65th Annual Symposium Proposed Sessions (Aug 1, 2023)

General Session Topics: (Some may be replaced by similar Special Organized Sessions.)
- Integrated Openhole Formation Evaluation
- Casedhole Formation Evaluation / Well Integrity Diagnostics and Remediation
- Geosteering / UDAR Well Placement for Optimal Completion
- Formation Testing – Reservoir Dynamics and Fluid Characterization
- Imaging Technology and Applications – Beyond Dips
- NMR Technology and Applications – Pores and Fluids Distribution

- Acoustic Technology and Applications – Beyond Traveltime, Geomechanics, and Imaging
- Nuclear Technology and Applications – Mineralogy, Fluids, and True Porosity
- Surface Data Logging – Rock and Fluid Analysis
- Core and PVT – Log Validation and Reservoir Understanding
- Energy Transition – What We Have, What We Need for Evaluation and Monitoring
- Data Analytics – Gains and Limitations
- New Technologies / Applications

Proposed Special Organized Sessions (and sponsors):
1. New Landscape of Mud-Logging Implementations – Geoscience Meets Engineering – T. Yang, P. Caldas
2. Casedhole Petrophysics and Reservoir Surveillance – J. Miranda (14 people on the team)
3. Latest Innovations in Ultradeep Azimuthal Resistivity for 3D applications – A. Duriez (and others)
4. Expanding Applications of Downhole Fluid Analysis – S. Paul (FT SIG)
5. Best Practices in Data Acquisition Optimization – E. Mezzomo, J. Salazar
6. From Borehole to Reservoir – Borehole Image Applications in O&G, CCUS, and Geothermal – C. Rambousek (BHI SIG)
7. Digital Rock Physics for Formation Evaluation: Are We There Yet? – A. Araujo Victor, S. Drexler
8. Multiphysics/Multidisciplinary Core to Reservoir Models: Geologic Facies Linked to Petrophysical Rock Types, Heterogeneity Quantification, and Large Pore Petrophysical Modeling – I. Milad, M. Ma, Q. Zhang, K. Farmer, F. Schaub, F. Moreira Eler, I. Huleai, L. Abreu Blanes de Oliveira, A. Brasil Caires, A. Campani Vidal
9. Geochemical Logging – Mineralogy (and Clay Impacts) for Improved Petrophysical Models and Reservoir Characterization – R. Rodriquez, Y. Johansen, G. do Nascimento Freitas, L. Borghi
10. Automation in Well-Centric Geologic Evaluation – C. Shrivastava, P. Schlicht
11. Preparation for the Energy Transition - Reducing Subsurface Risk in Modeling and Monitoring? – S. Eyuboglu, M. Shaw

Once again, thank you for your enthusiastic support in joining the Technical Committee or submitting proposals for Special Organized Sessions. We look forward to that enthusiasm extending to the abstract submittals, and we look forward to working with you next year and seeing you in Rio.

Yours sincerely,

Robert H. (Bob) Gales
SPWLA VP Technology 2023–2024
VP-Technology@spwla.org

Harry Xie
SPWLA VP Technology-Elect 2023–2024
VP-Technology-Elect@spwla.org

Dear SPWLA colleagues,

First, I would like to share the finance overview of the 2023 Annual Symposium. The financial status of the SPWLA has steady growth and remains healthy. For the 2023 Annual Symposium, the total number of attendees was 631. The total income was $604,552, and the total expense was $280,565 (expense of $445 per attendee), with a net income of $333,657. The bar chart shows the symposium's net income since 2011.

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

Symposium Net Income Since 2011
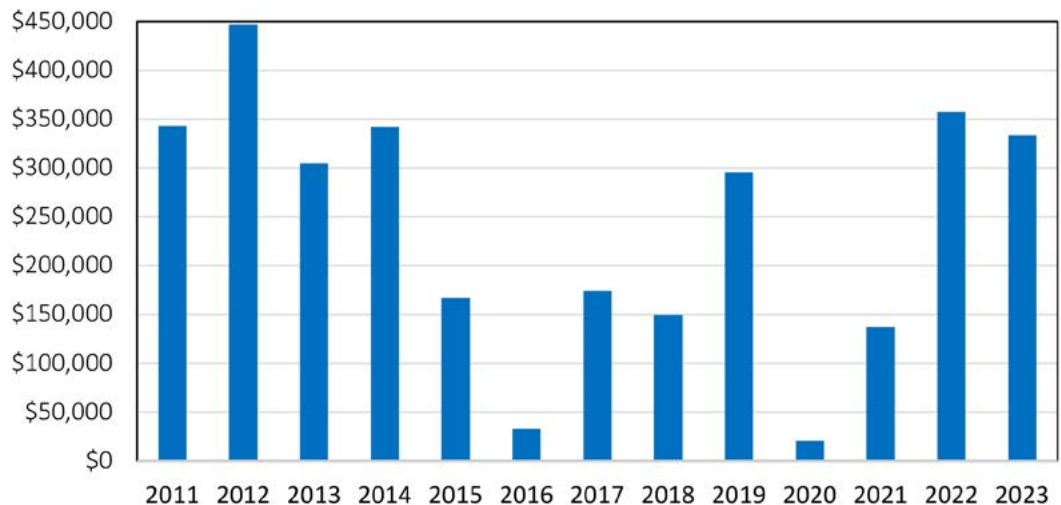
Second, some strategies to ensure the long-term financial health of the SPWLA and explore new revenue sources.

1. **Increase in Annual Membership Dues:** Increasing the annual membership dues by about 10% starting in 2024 is prudent. This adjustment helps account for inflationary costs and ensures the society's financial stability in the long run. The table below shows the active members and dues for each category.

Member Category	Member Number	Current Annual Fee	New Annual Fee
Honorary Member	31	Gifted $0 fee for life	Gifted $0 fee for life
LM Lifetime Member	125	One-time fee of $300	One-time fee of $330
M Member	1,108	$100	$110
MT2 Member Tier 2	331	$40	$45
S Student Member	105	$15	$15
SM Senior Member	103	$50	$55
ST2 Student Tier 2	242	$6	$6
SU Subscriber	33		
Total Members	**2,045**	**$132,217 + LM $37,500**	**$145,467 + LM $41,250**

2. **Promotion of Lecture/Training:** Lectures/training from industry experts provide learning opportunities to members and generate income for the organization. We encourage more lecturers to share their valuable knowledge and more members to attend. Please let me know if you are willing to lecture on a particular topic or any topic you want to learn. We will do our best to coordinate it.

3. **Sponsorship Opportunities:** The income generated from sponsorships is significant and can supply a steady source of revenue. The income from the sponsorship at the 2023 Annual Symposium was about 12% of the total revenue. We continuously seek sponsorship opportunities for various events, publications, and initiatives to diversify the organization's income streams.

4. **Efficiency in Spending:** Finally, I will continue to promote efficiency in spending and ensure all expenses are to maximize the benefit for individual members and the broader community. We are still finalizing the 2023–24 budget, which inflation affects. I will share more details in the next issue.

Please continue to support our various workshops, topical conferences, annual symposiums, and other SPWLA initiatives. If you have ideas for new sources of revenue for the society, please reach out and share your thoughts. Thank you for your ongoing support.

Sincerely,
Jing Li
VP of Finance, Secretary, and Administration 2023–2024
VP-Finance@spwla.org

Hello SPWLA colleagues,

Well, summer is in its heyday up here in Calgary, Alberta, Canada. I hope everyone has been enjoying their time in the sun in the Northern Hemisphere, and those in the Southern part of the globe should be in the depths of winter (LOL, as if it's as bad up here during the winter). I missed the last *SPWLA Today* column trying to catch up with work after enjoying the SPWLA Symposium in Lake Conroe, Texas, so I was remiss in announcing the winners of the International Student Paper Competition. Everyone, I am sure, has seen all the announcements on LinkedIn and other social media (did you know SPWLA also has Facebook and Instagram accounts?). Congratulations to all the winners!

Kelly Skuce
2022–2024 Vice President
Education

Name	Abstract Number	Paper Title
Mohammed Alyousef	1895	A Probe Into Pore Scale Emulsification for Enhanced Oil Recovery Applications Using Imaging Techniques: Microfluidic Flooding and CT-Scanning
Dilshad Raza	1886	Missing Well Log Curves Reconstruction using Optimized Hybrid Deep Learning Architecture; A case study from Qadirpur Gas Field, Pakistan.
Muhammad Mazz Ali	1892	Matrix stimulation based on mineralogical analysis of sandstone samples: An experimental approach

Masters

Name	Abstract Number	Paper Title
J.C. Villarroel Salvatierra	1921	Accounting for Exterior Flow Using the Modified Logistic Growth Model for Unconventional Geopressured Shale Reservoirs
Blessed Amoah	1883	Fracturing with Supercritical CO2 and Water - What We Have Learned in the Context of Carbon Geostorage
Ghaleb Al-Gobi	1915	Prediction of the Rock Compressibility Using a Hierarchical Force Chain Model

Doctorate

Name	Abstract Number	Paper Title
Felipe Cruz	1887	Monitoring the Change in the Contact Angle due to Geochemical Reactivity During Supercritical-CO2 Sequestration
Ahmad Bahaa Ahmad	1885	Development of a continuous active seismic system for monitoring geological storage with borehole DAS
Evgeny Ugolkov	1884	Estimation of capillary pressure from NMR magnetization decay with Machine Learning approach

The contest would not have been possible without the help and support of all the SPWLA members volunteering to judge the abstracts and in person at the Annual Symposium. Again, I thank them all for volunteering their time. I am including a very poor picture of them all hard at work here.

Learning Opportunities

The 2023–2024 SPWLA Distinguished Speakers are chosen by the Annual Symposium attendees and listed below. I congratulate them all, and I look forward to scheduling webinars with them all in the very near future. September is coming up fast!

Paper No	First Author	Company	Title
SPWLA-2023-0007	Ian McGlyn	Baker Hughes	DEVELOPMENT AND BASELINE COMPARISON OF A NEW PULSED-NEUTRON SPECTROSCOPY TOOL FOR CARBON-OXYGEN ANALYSIS AND THREE-PHASE SATURATION MONITORING
SPWLA-2023-0010	Jie Wang	Intertek Westport Technology Center/University of Houston	SALINITY EFFECT ON CO2 SOLUBILITY IN LIVE FORMATION WATER UNDER RESERVOIR CONDITIONS
SPWLA-2023-0037	William Andrighetto Trevizan	Petrobras	APPLICATION OF GAN TO RESOLUTION ENHANCEMENT OF LWD REAL-TIME IMAGES TO SUPPORT DECISION MAKING
SPWLA-2023-0039	Alexandra Cely	Equinor ASA	HOLISTIC EVALUATION OF RESERVOIR OIL VISCOSITY IN BREIDABLIKK FIELD – INCLUDING MUD GAS LOGGING APPROACH
SPWLA-2023-0042	Tarek S. Mohamed	The University of Texas at Austin	USING FORMATION-TESTER MEASUREMENTS TO ESTIMATE DEPTH OF INVASION AND WATER SATURATION IN DEEPLY INVADED TIGHT-GAS SANDSTONES
SPWLA-2023-0098	Olabode Ijasan	ExxonMobil Technology and Engineering Company	LEARNINGS FROM IMPACT AND IMPLICATIONS OF SIGNAL-TO-NOISE IN NMR T1-T2 LOGGING OF UNCONVENTIONAL RESERVOIRS
SPWLA-2023-0099	Gabor Hursan	Saudi Aramco	FIELD IMPLEMENTATION OF LWD NMR ROP CORRECTION ENABLES FASTER DRILLING
SPWLA-2023-0110	Artur Posenato Garcia	Chevron Technical Center	A NEW WORKFLOW FOR ASSESSMENT OF FLUID COMPONENTS AND PORE VOLUMES FROM 2D NMR MEASUREMENTS IN FORMATIONS WITH COMPLEX MINERALOGY AND PORE STRUCTURE
SPWLA-2023-0111	Z. Harry Xie	Core Laboratories LP	THE LATEST DEVELOPMENTS OF LABORATORY NMR TECHNIQUES IN UNCONVENTIONAL SHALE CHARACTERIZATION
SPWLA-2023-0117	Andy Hawthorn	Baker Hughes	CHANGING THE GAME: WELL INTEGRITY MEASUREMENTS ACQUIRED ON DRILLPIPE

Keep on learning,
Kelly Skuce
VP Education 2022–2024

Tom Bradley
2023–2025 Vice President
Information Technology

Hello everyone,

I'm now getting into the swing of the VP IT position and starting to implement some of my ideas. As you may have seen, the Call for Abstracts for the Rio symposium is open. Through the hard work of Tegwyn Perkins, we've made some improvements to the abstract submission site on spwlaworld.org. I encourage you to all submit your ideas for papers for consideration by the Technical Committee run by Bob Gales and Harry Xie. Let's make it a great symposium in Brazil. If you have any thoughts on how the abstract site is working and any thoughts on how we can improve it, please let me know.

I've started working on refreshing our web presence. The new SPWLA events calendar is live and can be found at https://www.spwlaworld.org/calendar-2/. The plan is that this will become a centralized location where we can all find events and information, such as if the event is in person, virtual, or both. If you have an event you would like to list, you can fill in the form on the same page (https://www.spwlaworld.org/calendar-2/), and we'll get it added to the calendar within a couple of days. Eventually, we'll have it set up so that designated contacts at each chapter can update the calendar themselves, and more functionality will be added over time—watch this space.

I'm also working on migrating content from the legacy spwla.org site to spwlaworld.org. Several pages are ready to go live already when the time is right. However, migrating the site is going to be a big undertaking and will take some time, so I'm looking for volunteers to help. If you'd like to help, please get in contact at vp-infotech@spwla.org.

Tom Bradley
VP IT 2023-2025
vp-infotech@spwla.org

Hello SPWLA!

I have been having some fun reviving my artistic side and learning new design skills as I've been working to create social media posts!

In the past two months, we have posted on the topics of:

- *Petrophysics* journal
- *SPWLA Today*
- SPWLA 65th Annual Symposium
- Topical conferences

Chelsea Newgord
2023–2025 VP Social Media

Be sure to check the SPWLA LinkedIn, Facebook, Instagram, or Twitter accounts if you missed any of those posts.

Special thanks to Adna Vasconcelos, VP Publications – SPWLA Brazil, for sharing their well-designed 65th Annual Symposium graphics. Most recently, we've communicated the call for special sessions and call for abstracts with this consistent template:

If you have any specific events, news, or information you would like SPWLA to share, send me an email or message.

Like and comment!

~ Chelsea Newgord
VP Social Media 2023–2025
VP-SocialMedia@spwla.org

The Annual Symposium hangover might be gone by now but not the same passion and volunteerism to do the best for SPWLA in this new year full of several upcoming exciting activities at the local and international level! The Brazil Chapter started their work in putting together an excellent symposium for us next May 18 to 22 at the Sheraton Grand Rio Hotel & Resort. I met last month with Lucas Abreu Blanes de Oliveira and his Brazil Chapter team to share our experience in Lake Conroe this year, and I am really impressed how organized they are. They have put together an incredible and diverse team with members from operating and service companies. I invite you to read Lucas' welcome letter in the SPWLA website for further details and stay tuned for more announcements related to next year's symposium:

Javier Miranda
2022–2024 North America 1
Regional Director

Welcome to the 65th Annual Symposium – SPWLA World

Let's Make Rio 2024 the Best SPWLA International Annual Symposium Ever!
Hey, it is never too early to plan! In fact, we at the SPWLA have also started working towards bringing you a very exciting and excellent conference next year. Considering the clash with a popular unconventional reservoirs conference in recent years, we have moved ours a little bit earlier and hopefully that will take care of it. That means we at the SPWLA, and especially on the Technology Committee, led by Bob and Harry, had to start planning and executing some activities earlier this year. Special sessions were a great success last year, and they will be present again in 2024. I have already seen some very interesting proposals out there. The Call for Abstracts is now open. Abstracts must be submitted no later than Sunday, October 1, 2023, midnight (Central Time; GMT-6:00). I encourage you to share your work with our members. This is the best venue to share your petrophysics-related work!

Speaking of the 2023 Symposium, we had a strong performance marked by a great attendance number and technical and financial success in Lake Conroe as you will see in the report presented in this newsletter. I invite you to look at it. All of it was the product of great volunteers and the SPWLA International and Houston local boards working together to make it possible. Thanks again to all of them!

The local chapters remain strong in the region, especially in Houston, where we keep having technical seminars in the different sections (North, West, and Downtown) and networking activities every month. The happy hour in July was well attended, and we had a nice crowd and lots of fun, as shown in the pictures at the end of my column. The latest networking event was held on Thursday, August 31 at the Cedar Creek Bar & Grill, 1034 W. 20th Street, Houston, TX 77008. The Houston Chapter is hosting these events on the last Thursday of the month at the same location. I encourage you to attend. You will regret not attending before! The next event will be on September 28, 2023, at the same location. The entire SPWLA community is invited. No need to RSVP, so join us even if you are in town for a visit. Come at your own leisure; no payment is required. Come and mingle with fellow petrophysics enthusiasts. These social events have become a tradition in Houston and are well attended by petrophysicists, geologists, geophysicists, engineers, and managers. You can also expect to see current and past SPWLA International board members and recognized names in our industry, including SPWLA Distinguished Speakers!

Finally, aligned with our early start this calendar year, we had our first SPWLA International Board 2023–2024 meeting in mid-July. Looking forward to continuing working with some board members, and to the new ones, welcome to the team!

Best wishes to all my fellow SPWLA members, especially those located in my North America region, in the new year 2023–2024. Let's stay strong. Please continue being involved in your local and international activities, professional and student chapters, and **volunteer and join SPWLA initiatives if you have not done so. Let's bring our society to the next level!**

Feel free to reach me at my official email address below for any recommendations, ideas, questions, etc. I also encourage local professional and student chapters to reach me out if they need my support or to advertise anything happening in their local professional and student chapters!

Javier Miranda
2023–2024 North America Region 1 Regional Director
Director-NA1@spwla.org
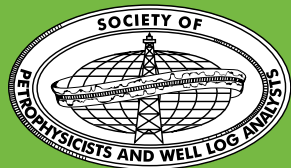
SPWLA Houston chapter July networking event at Cedar Creek Bar & Grill, 1034 West 20th Street, Houston, TX 77008.

Part of the crowd having a good time at the Houston Chapter's most recent networking event. I'm pictured here with Scott Birkhead (left) and Joe Termina (right).

First meeting of the SPWLA International Board 2023–2024 in mid-July. Other officers in attendance not shown.

SPWLA Paper of the Quarter Series

This new Bridge feature covers recently published papers in the SPWLA Annual Symposium/*Petrophysics* journal. We identified the three most popular papers among these venues based on the number of technical downloads, relevance and impact on the industry, and practical applications. The Bridge editorial committee specifically chose these papers. We hope our readers enjoy reading them as much as we did.

We encourage readers to nominate any papers they have enjoyed and would like to see summarized in the next issue. The contact email address for nominations is SPWLAYP@spwla.org.

A Novel Workflow Based on Core and Well-Log T_1T_2 NMR Measurements for Improved Field-Scale Assessment of Fluid Volume in Shale and Tight Reservoirs

Authors: Luisa Crousse, Artur Posenato Garcia, Boqin Sun, Elton Yang, Mason Edwards, Robert Mallan, and Mehrnoosh Saneifar

Summary: The paper presents a novel workflow for assessing fluid volumes in shale and tight reservoirs. The workflow achieves improved field-scale characterization of fluid and pore types by integrating core and pore-scale experimental data, such as SEM images, thin sections, and laboratory low-field NMR measurements with T_1-T_2 2D NMR logs. The method's reliability is verified across various wells and formations, demonstrating consistency with traditional methods and accurate predictions of movable water and hydrocarbon volumes.

State of Integrated Formation Evaluation for Site-Specific Evaluation, Optimization, and Permitting of Carbon Storage Projects

Authors: Robert Laronga, Erik Borchardt, Barbara Hill, Edgar Velez, Denis Klemin, Sammy Haddad, Elia Haddad, Casey Chadwick, Elham Mahmoodaghdam, and Farid Hamichi

Summary: The paper details a well-based appraisal workflow for CO_2 storage in saline aquifers based on 80+ carbon capture projects spanning over 25 years. Customized for CCS applications, this process addresses vital reservoir parameters, permitting needs, and unique challenges. These encompass storage capacity, injectivity, and containment, complicated by rock-brine-CO_2 interactions. Adapting techniques from related fields, including oil recovery and reservoir evaluation, the approach involves core analysis, downhole imaging, and geomechanical modeling. The process is demonstrated using North American CCS projects, culminating in a model predicting CO_2 plume behavior across diverse horizons.

Best Practices in Automatic Permeability Estimation: Machine-Learning Methods vs. Conventional Petrophysical Models

Authors: Oriyomi Raheem, Wen Pan, Carlos Torres-Verdín, and Misael M. Morales

Summary: This research addresses the complexity of estimating permeability from intricate geological formations. It establishes effective methods by contrasting machine-learning approaches and traditional petrophysical models. The process involves preprocessing core data, constructing log and core resolution samples, and training with predicted porosity and smoothed permeability. Feature engineering identifies pertinent well logs, and dimensionality reduction generates latent-space well logs for permeability estimation model training. Machine-learning algorithms, especially random forests and neural networks using latent-space logs, exhibit improved accuracy. The Timur-Coates model excels with prior data knowledge regarding irreducible water saturation. The approach is computationally efficient and provides accurate permeability estimations contingent on meticulous data treatment and model selection.

Sharing Knowledge and Perspective – Call for Memos

Readers, please share your depth and breadth of knowledge and experience to strengthen the community, better educate the end users of our products and learn from cross-functional collaborators.

The *SPWLA Today* newsletter has opened a new section meant to exchange:
- (1) Basic knowledge
- (2) "War stories" – success or misuses/mistakes
- (3) Exposure to new technologies or field of applications
- (4) Viewpoints
- (5) Summary of key papers
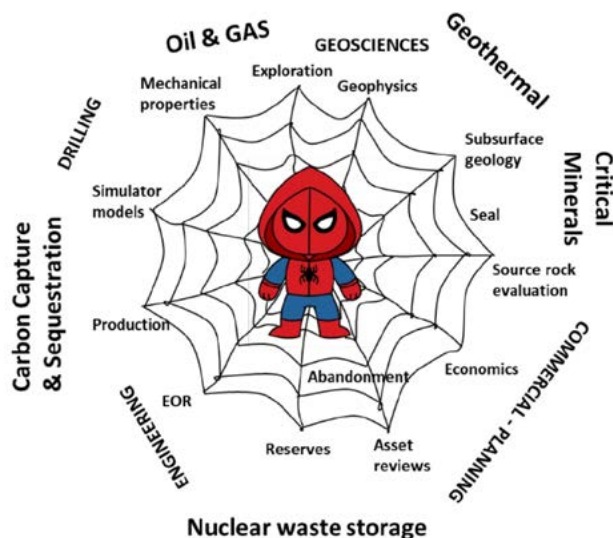- (6) A space to cross-functional colleagues to present their fields and challenges

Fig. 1—Web of connection and interconnection of the petrophysicist, who is a scientist, a magician, and a diplomat all-in-one or, in other words, a super spiderman/spiderwoman (inspired by Dawson Grove, 1980, *The Log Analyst*, **21**(3), and Ko Ko Ki, retired principal petrophysicist).

Under the form of a short (1–2 page) shareable memo, welcomed topics include:
- General topics bypassed by seasoned petrophysicist but of value to generalists
  - o Openhole vs. casedhole/production logging
  - o Wireline vs. LWD; LWD vs. MWD; Mud log vs. Mudgas
- Clarification of jargon and even perhaps attempt to correct improper terminology
- Log (first principle, applications, limitations/concerns)
- Core analysis (first principle, applications, limitations/concerns)
- Technology/workflow – Challenges (uncertainties, thin beds, etc.) and new fields of applications
- Integration of petrophysics with other disciplines
  - o Geosciences (geochemistry, reservoir quality, rock physics, stratigraphy, assessment, etc.)
  - o Drilling (pore-pressure, fracture gradient), Engineering (geomechanics, completion, etc.)
  - o Planning – Commercial – Management
- War stories – success/failure; "opinioned" viewpoints
- Old but recurring topics such as VCL vs. VSH, (PHIT-SWT) vs. (PHIE-SWE)
- And everything else about petrophysics you have passion for sharing with others

We recommend interested contributors contact the editorial office (editor@spwla.org) and Philippe Gaillot (Philippe.gaillot@exxonmobil) to express early interest and avoid duplicates. If successful, at some point, all memos will be compiled into an online reference volume.

The Classic "Thin-Bed" Problem in Unconventional Reservoirs (UR)
By Philippe Gaillot, Global New Opportunity, Exploration & New Venture, ExxonMobil, Houston

In a petrophysical sense, thin beds can be defined as beds that are thinner than the vertical resolution of the logging tools used to characterize them. This implies that the direct log values do not represent the true bed or layer properties but an average of multiple beds, often, at first, resulting in an underestimation of hydrocarbon resource density and producibility. Therefore, different tools and interpretation techniques have been developed and used to properly characterize the true hydrocarbon production potential of beds of clastic turbiditic, deltaic, and tidal series where thin beds are common occurrences (see Passey et al., 2006 for a review).

Unconventional reservoirs (UR), such as organic-rich mudstones (e.g., Barnett), hybrid sequences (e.g., Wolfcamp, Eagle Ford), or tight formations (e.g., Lower Jurassic to Permian Abu Dhabi reservoirs), are an important—but also challenging—part of current and future hydrocarbon demand.

The heterogeneous and strongly layered nature of UR requires an appropriate representation of the high intra-bed contrast in anisotropic deformation and flow behavior and the representation of pre-existing mechanical discontinuities (faults, bedding planes, and natural fractures) in terms of mechanical and hydraulic coupling. Assessments of reservoir quality (hydrocarbon storage and producibility) and engineering design for optimal completion quality (i.e., cost-effective generation of fracture surface area contacting the reservoir during stimulation and maintaining this contact once the well is placed on production) require that direct observations of composition, texture, and in-situ stress are made at the appropriate scale of heterogeneity and anisotropy (Suarez-Rivera et al., 2013)

Field observations, large-scale laboratory rock mechanics experiments, and theoretical modeling works (see Gaillot et al., 2020 for review and references) have shown the importance of rock fabric on hydraulic fracture (HF) height growth and containment. As discussed in Diaz et al. (2018 and references within), rock fabric elements relevant to HF modeling include thin and hard layers (stringers), weak beds (e.g., ash beds), and weak interfaces (e.g., mineralized fractures, lithology contacts). The previously listed heterogeneous and laminated nature of UR, as well as their vertical and lateral variabilities at all scales, impact the local reorientation and growth of the HF propagation through step-overs and branching. Perhaps of even greater importance, these heterogeneities also impact the geometry and productivity of the effective stimulated rock volume and proppant transport efficiency within a complex fracture network of flow constrictions and rough wall surfaces.

As geological complexity cannot be mitigated, the challenge of the heterogeneous and anisotropic nature of UR must be embraced through fit-for-purpose, fine-scale characterization and innovative engineering. Advances in optimizing field development relying on the understanding of the cause (geology-completion engineering) and effect (production) relationships can only be made through the development of high vertical resolution (cm-scale) petrophysical and geomechanical models (See Gaillot et al., 2020 for details on proposed workflow).

The resulting high vertical resolution well framework (see Fig. 1) enables (i) a detailed well-scale calibration and recognition of facies and stacking patterns, (ii) an accurate and core-calibrated geochemical, petrophysical, and geomechanical characterization of individual beds, and (iii) an identification and characterization of the interfaces between beds. Once upscaled, the effective flow and mechanical properties of the formation enable a more realistic borehole view of reservoir quality, fluid flow units, and geomechanical stratigraphy – all key information to more optimal asset development.
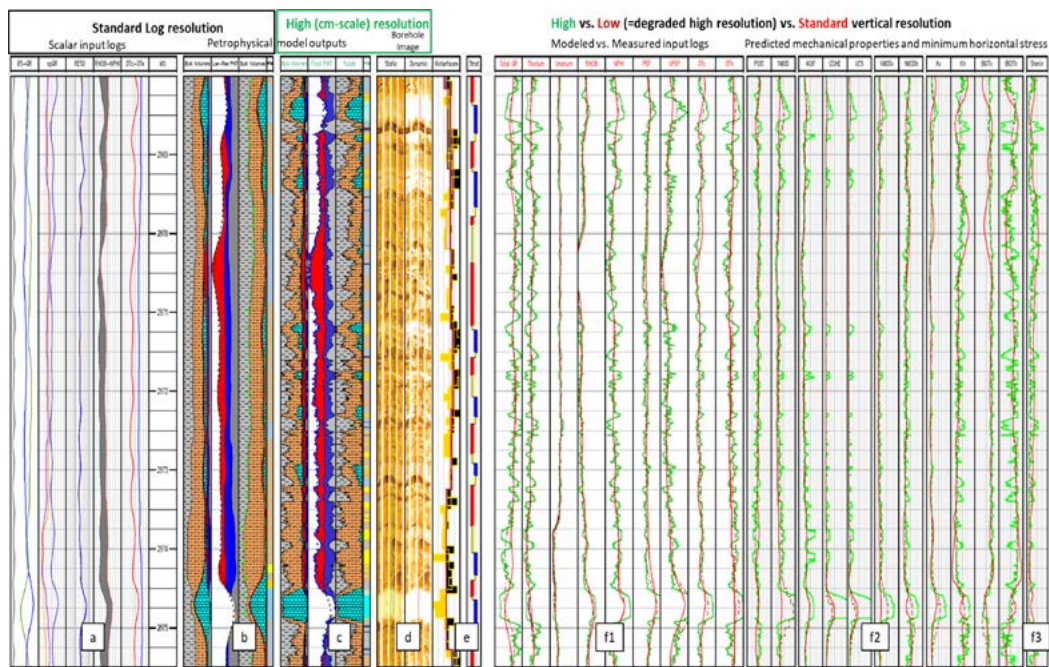
Fig. 1—Close-up of a 7-m interval showing from left to right: (a) standard scalar logs with vertical resolution ranging from 0.6 to 1 m, (b) outputs of petrophysical model (based solely on scalar logs), (c) same petrophysical outputs at high (cm-scale) vertical resolution obtained by combining the standard resolution multiphysics model with (d) the high vertical resolution mono-physics (resistivity) borehole image, (e) identified bed interfaces and stacking pattern, (f) comparison of high (solid green), standard (solid red), and low (dash brown) vertical resolution of (f1) input logs (measured and reconstructed (i.e., modeled), (f2) mechanical properties, and (f3) minimum horizontal stress (shmin) assuming anisotropic properties. In those panels, the low-resolution version of the logs (dash brown) is obtained by "degrading" the high-resolution version (solid green) of the petrophysical and geomechanical models by applying a 1-m Gaussian filter mimicking the "average" tool response. Theoretically, the low-resolution version (dash brown) of every log should match its equivalent standard resolution (solid red) version. Note: Without integration of high (cm-scale) vertical resolution data, such as borehole images or core X-ray computed tomography (CT) images, standard meter-scale petrophysical and geomechanical outputs typically used for hydraulic fracture (HF) and flow modeling are, at best, standard scalar log (~m-scale) average compositional volume-weighted representations of subsurface reality, which can be highly misleading when considering that mechanical and flow properties are actually ultimately controlled by fine-scale contrasts and extremes, rather than by arithmetic composition weighted averages. See Gaillot et al. (2020) for a detailed description of log headers.

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Passey, Q., Dahlberg, K.E., Sullivan, K.B., Yin, H., Brackett, R.A., Xiao, Y.H., and Guzmán-Garcia. A.G., 2006, Petrophysical Evaluation of Hydrocarbon Pore-Thickness in Thinly Bedded Clastic Reservoirs, AAPG Archie Series, Volume 1, American Association of Petroleum Geologists. URL: https://doi.org/10.1306/A11157.

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64th Annual

Symposium

Post-Event

Summary

Society of Petrophysicists

The 64th Annual SPWLA Symposium at Lake Conroe, Texas

We gathered again in the USA for the highly anticipated SPWLA 64th Annual Symposium. On behalf of the organizing committee, the SPWLA International Board and many volunteers involved in this conference extended a warm welcome to each attendee.

The 2023 annual conference, organized by our Society of Petrophysicists and Well Log Analysts (SPWLA), served as an excellent platform for industry experts, researchers, academia, students, and professionals from around the world to come together and exchange knowledge, experiences, and insights on the latest advancements in petrophysics, well-log analysis, specialized measurements techniques and interpretation, core-log integration, logging tools, carbon capture, usage and storage (CCUS), machine learning and artificial intelligence, and many other related disciplines. All these topics were gathered in 22 technical sessions members enjoyed.

At the SPWLA's most important event, we had the privilege of hearing from an exceptional lineup of speakers in 3 days, experts in their respective fields from operating, service, and consulting companies and academia, who shared their expertise, learnings, discoveries, and visionary insights. Our program was carefully designed to encompass a wide and diverse range of topics.

This year's conference was not only a great opportunity to showcase research and advancements; it was also a space for collaboration, networking, and fostering meaningful connections. It was great to see so many familiar faces and finally meet some people we had only met via virtual meetings in the past 4 years since our last conference in the USA. We started in a great way with the workshops, SIGs meetings, and an icebreaker at the poolside, then continued with well-attended technical sessions, exhibitions, and social events from Monday to Wednesday.

The interactions and dialogues that took place in Margaritaville this year inspired breakthrough ideas, sparked new partnerships, and accelerated the translation of knowledge into actionable solutions. Collaborating as SPWLA members, we can address the challenges that lie ahead and collectively shape the future of our industry.

It is important to recognize that the success of the 2023 Symposium would not have been possible without the unwavering dedication and tireless efforts of the organizing committee, the support of our sponsors, and the commitment of all the members participating this year. Their contributions, whether in the form of papers, insightful discussions, ideas, and practical experiences, were the driving force behind the intellectual vibrancy of this symposium. Together, we illuminated the frontiers of petrophysics and created a brighter and better future for our energy industry. We definitely are here to stay with tons of potential, as our keynote speaker highlighted!

Participants in Lake Conroe enjoyed not only a conference with a robust technical program but also workshops, a field trip, specialized technical sessions, an exhibition, social events, a golf tournament, and other activities. All that was possible because of the remarkable work of some dedicated professionals who devoted their time and efforts to preparing the 2023 conference's activities. Once more, I want to express my sincere gratitude to all of them for their volunteerism and sacrifice. Finally, I want to thank my family for all the support, my wife and kids, especially my son, who helped me with the graphics and video you saw promoting the event, and my employer, DeGolyer and MacNaughton, and its management. It could not have been done without their patience and understanding.

On behalf of the organizing committee, I again extend my heartfelt gratitude to those of you who joined us this year!

THANK YOU!

Javier Miranda
SPWLA 2023 Annual Symposium Chair

The 64th Annual SPWLA Symposium at Lake Conroe, Texas

VENUE

Conroe is a city in, and the county seat of, Montgomery County, Texas, United States, about 40 miles (64 km) north of Houston. It is a principal city in the Houston–The Woodlands–Sugar Land metropolitan area. As of 2022, the population exceeds 100,000. According to the Census Bureau, Conroe was the fastest-growing large city in the United States between July 2015 and July 2016. The city is named after Union Cavalry officer and Houston lumberman Isaac Conroe. He founded a sawmill in the area in 1881. The city originally gained wealth due to the lumber and oil industries, and it was incorporated in 1904.

George W. Strake discovered the Conroe Oil Field in 1931. Condensate and natural gas were produced from the Cockfield Formation at a depth of about 5,000 ft (1,500 m). A second well in 1932 produced 1,200 BOPD. By 1935, the field had produced 40 million barrels of oil. During the 1930s, because of oil profits, the city boasted more millionaires per capita than any other US city, though only briefly. After the construction of Interstate 45, many Houstonians began to settle communities around Conroe. Freeway I-45 provides a convenient way to reach Houston today.

Texas is the most active US state in the oil and gas industry and has the most rig counts in the USA. In addition, several corporations are headquartered in Houston, providing a great opportunity for business, development, and networking. SPWLA is also headquartered in Texas.

Margaritaville Lake Resort also offered a great variety of activities for those visiting with family while they were attending the technical sessions. We offered excellent spouse and guest events where they had the opportunity to learn more about Texas. The Houston metro area also was a great option, with several attractions for all tastes nearby and very competitive prices for shopping.

The island-inspired suites and cottages at Margaritaville Lake Resort, Lake Conroe.

The Margaritaville Lake Resort instantly put attendees in a vacation state of mind. Decorated with a light and airy color palette that channels the lake, sand, and sky, accommodations here start at 600 square feet apiece, with separate bedrooms, high-end furnishings, and lavish bathrooms with walk-in rain showers and granite vanities. Attendees even had their own private, furnished balcony, perfect for enjoying morning coffees and evening cocktails over views of the lake.

Mixing work and play, Margaritaville Lake Resort was completely family-friendly, so members in attendance took this opportunity to bring them along. Resort guests had access to the pool, bars, waterpark amenities, spa services, fitness center, and lakeside fun like boat rentals, party boat excursions, golf, and local winery/brewery tours.

WORKSHOPS

Seven full-day workshops with a diverse range of formation evaluation topics and very forward-looking subjects were held on Saturday and Sunday with great attendance. They all received extremely good feedback because of the high-technical content and educational matter by subject matter experts from different companies and academia.

WORKSHOP 1: Wellbore Diagnostics for CCUS
INSTRUCTORS: Dr. Luis Quintero, Robert Gale, Dr. Hani Elshahawi, and Katy Larson

WORKSHOP 2: New Frontiers in NMR – High Magnetic Fields and Machine Learning
INSTRUCTORS: Nate Bachman, Bruce Balcom, Zonghai Harry Xie, Philip Singer, Holger Thern, and Lalitha Venkataramanan,

WORKSHOP 3: Advances in Resistivity and Dielectric Logging
INSTRUCTORS: Barbara Anderson, Hanming Wang, Jim Hemingway, Martin Luling, Scott Jacobsen, Michael Rabinovich, Terry Hagiwara, and John Rasmus

WORKSHOP 4: The Importance of Petrophysics in Resources and Reserves Estimation
INSTRUCTORS: Joshua Oletu, Luis F. Quintero, Javier Miranda, Philip Gibbons, and Cecilia Flores

WORKSHOP 5: Introduction to Borehole Image Logs from Acquisition to Interpretation
INSTRUCTORS: Bernd Ruehlicke, Bastian Roters, Susana Gutierrez Carrilero, Shim Yen Han (Yenny), Chandramani Shrivastava, and Peter Barrett

WORKSHOP 6: Introduction to Formation Testing – Data and Analysis
INSTRUCTORS: Juan Carlos Nunez, Dr. Gibran Hashmi, Dr. Sefer Coskun, and Shahid Azizul Haq

WORKSHOP 7: Machine Learning and Artificial Intelligence Within Petrophysics
INSTRUCTORS: Lei Fu, Chicheng Xu, Andy McDonald, and Lalitha Venkataramanan
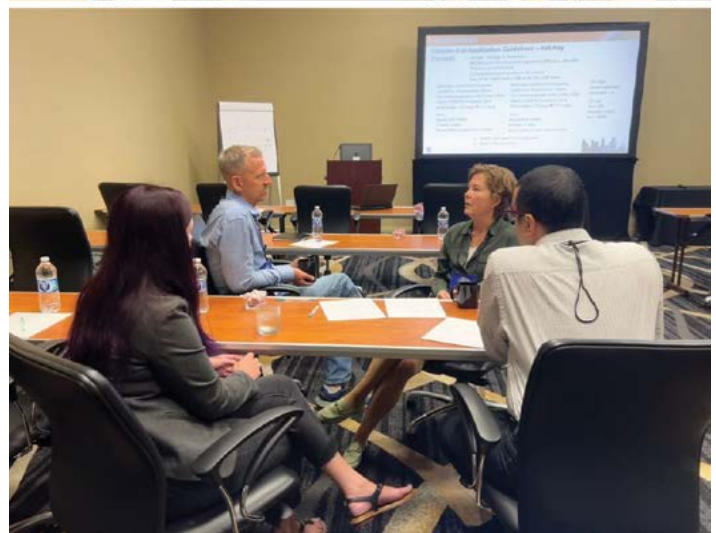
Geological field trip on Saturday.

FIELD TRIP
TEXAS COASTAL PROCESSES
Brazos River Delta to Galveston Island
Discipline: Geology (Sedimentology)
Guide: Dr. Erik Scott
Length: 1 Day

Sites 60 miles south of Houston along 35 miles of the SE Texas coastline provided excellent locations to observe coastal sedimentological processes and their resultant deposits. This section of the Texas coast is characterized by barrier islands separated by tidal inlets and river outlets. The larger, sand-ridge-cored, prograding Galveston Island contrasts with the smaller, washover-dominated, retreating Follets Island and is separated by the stable, long-lived San Luis Pass that exhibits well-developed flood and ebb tide delta systems.

The Brazos River empties into the Gulf of Mexico to the south of Follets Island and forms a wave-dominated delta system. The Brazos River Delta has undergone significant changes due to human intervention and demonstrates the dynamic nature of sediment movement and deposition along the coast. This section of the coast provides insight into the mechanisms of sediment movement and the resultant reservoir characteristics of clastic coastal deposits that can be applied as an analog for subsurface exploration and production.

SPWLA INTERNATIONAL STUDENT PAPER COMPETITION WINNERS

Congratulations to the SPWLA 2023 winners of the International Student Paper Contest and all participants. It was another great year for this popular contest, with excellent representation from several universities from different continents for a truly worldwide competition. We encourage students to prepare their work and continue participating. There are a few surprises coming in for SPWLA 2024 you will like!

This event allowed students competing to engage with colleagues from other schools and industry professionals. Graduate and undergraduate students shared their work and research for the opportunity to be awarded "Best Paper Presentation." The competition was held in three groups: Bachelor, MSc, and PhD.

Undergraduate:
Mohammed Alyousef
Dilshad Raza
Muhammad Maaz Ali

Masters:
Julio C. Villarroel Salvatierra
Blessed Amoah
Ghaleb Al-Gobi

PhD:
Felipe Adrião Cruz
Ahmad Bahaa Ahmad
Evgeny Ugolkov

Thanks to the organizers, Kelly Skuce and Artur Posenato Garcia, and the judges!

List of Judges

Name	Email
Robert Gales	Robert Gales Robert.Gales@halliburton.com
Geoff Page	Page, Geoff C Geoff.Page@BakerHughes.com
Jinhong Chen	Chen, Jinhong jinhong.chen@AramcoAmericas.com
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Alexei Boshakov	Bolshakov, Alexei Alexei.Bolshakov@chevron.com
Chandramani Shrivastava	Chandramani Shrivastava CShrivastva@slb.com
Elton Frost	Frost, Elton Elton.Frost@bakerhughes.com

OPENING SESSION AND KEYNOTE SPEAKER SESSION
Monday, June 12, 8:00 am

General Chair and SPWLA International North America Regional Director Javier Miranda delivered the SPWLA 64th Annual Logging Symposium opening remarks in Lake Conroe, Texas, USA. Most of his opening speech is at the beginning of this report, where he highlighted the importance of this symposium for our society and the energy industry in general.

Immediately after, he introduced the Keynote Speaker Rami Yassine (senior vice president drilling and evaluation for Halliburton). Mr. Yassine delivered a very thought-provoking speech, motivating the audience and putting us all in a great state of mind to enjoy the 3 days of the technical program. He also showed several examples and applications how we, as petrophysicists, are key for the future of energy and developments to come, sharing with us some of the most recent advancements in formation evaluation.

Immediately following his address, SPWLA Vice President Technology Iulian Hulea officially opened the technical sessions.

SPWLA opening remarks were made by Speaker Mr. Javier Miranda, SPWLA 2023 Annual Symposium general chairman.

SPWLA 2023 Keynote Speaker Mr. Rami Yassine (senior vice president, Halliburton Drilling and Evaluation division).

The 64th Annual SPWLA Symposium at Lake Conroe, Texas

SPWLA 2023 Opening Ceremony with a full house.

SPWLA 2023 Annual Symposium General Chairman and Keynote Speaker, respectively, Mr. Javier Miranda (left) and Mr. Rami Yassine (right).

Part of the SPWLA 2023 Technical Committee Members. What an honor to serve with this incredible and talented group of volunteers led by Iulian Hulea.

TECHNICAL PROGRAM

The SPWLA 2023 Annual Symposium served as an excellent platform for industry experts, researchers, academia, students, and professionals from around the world to come together and exchange knowledge, experiences, and insights on the latest advancements in petrophysics, well-log analysis, specialized measurements techniques and interpretation, core-log integration, logging tools, carbon capture, usage, and storage (CCUS), machine learning and artificial intelligence, and many other related disciplines. All these topics were gathered in 22 technical sessions as follows:

Session 1
SPECIAL ORGANIZED SESSION: PETROPHYSICS BEYOND PETROLEUM – STATE OF TECHNOLOGIES
Chairpersons: Ahmed Badruzzaman (Pacific Consultants and Engineers) and Kelly Skuce (Core Petrophysical Consulting)

Session 2
GENERAL-SATURATION
Chairpersons: Nelson Suarez Arcano (Halliburton) and Robert Gales (Halliburton)
Sponsored by: Shell

Session 3
SPECIAL ORGANIZED SESSION: BEYOND PICKING DIPS FROM IMAGE LOGS I
Chairpersons: Peter Barrett (Halliburton) and Christian Rambousek (NiMBUC Geoscience)

Session 4
GENERAL: FLUID CHARACTERIZATION
Chairpersons: Sami Eyuboglu (Halliburton) and Sanaz Javid (AkerBP)
Sponsored by: Baker Hughes

Session 5
POSTER SESSION 1
Chairperson: Javier Miranda (DeGolyer and MacNaughton)

Session 6
SPECIAL ORGANIZED SESSION: BEYOND PICKING DIPS FROM IMAGE LOGS II
Chairpersons: Peter Barrett (Halliburton) and Christian Rambousek (NiMBUC Geoscience)

Session 7
GENERAL: FLUID CHARACTERIZATION
Chairpersons: Zoya Heidari (The University of Texas at Austin) and Tom Bradley (Baker Hughes)
Sponsored by: BP

Session 8
SPECIAL ORGANIZED SESSION: GEOLOGICAL EVALUATION WHILE DRILLING
Chairpersons: Chandramani Shrivastava (SLB) and Maneesh Pisharat (SLB)

Session 9
SPECIALIZED MEASUREMENT TECHNIQUES AND INTERPRETATION: NMR
Chairpersons: Adam Haecker (Milestone Environmental Services) and Tegwyn Perkins (Geoactive Limited)
Sponsored by: Halliburton

Session 10
SPECIAL ORGANIZED SESSION: MONITORING AND VERIFICATION OF CONTAINMENT IN CCUS PROJECTS
Chairpersons: Juun VanDerHorst (Shell) and Luis Quintero (Halliburton)
Sponsored by: Woodside Energy

Session 11
GENERAL: CASED HOLE AND WELL INTEGRITY
Chairpersons: Marvin Rourke (GOWell) and Giuseppe Galli (ENI)
Sponsored by: BP

Session 12
GENERAL: IRM
Chairpersons: John Zhou (Maxwell Dynamics) and Mathilde Luycx (ExxonMobil)
Sponsored by: Halliburton

Session 13
GENERAL: FORMATION CHARACTERIZATION: BEYOND BOREHOLE
Chairpersons: Vanessa Mendoza Barron (Shell) and Matt Blyth (SLB)
Sponsored by: Baker Hughes

Session 14
POSTER SESSION 2
Chairperson: Keith Boyle

Session 15
SPECIAL ORGANIZED SESSION: PETROPHYSICAL WORKFLOW AUTOMATION WITH AI/ML
Chairpersons: Wen Pan (The University of Texas at Austin) and Tianqi Deng (The University of Texas at Austin)

Session 16
ROCK AND ROCK-FLUID CHARACTERIZATION
Chairpersons: Marco Pirrone (ENI) and Don Clarke (ExxonMobil)
Sponsored by: SLB

Session 17
SPECIAL ORGANIZED SESSION: NMR FOR THE NEXT FRONTIERS: MACHINE LEARNING, HIGH FIELD, AND NEW LOGGING APPLICATIONS
Chairpersons: Tianmin Jiang (ConocoPhillips) and Jinhong Chen (Aramco Americas)

Session 18
FORMATION EVALUATION OF CONVENTIONAL AND UNCONVENTIONAL RESERVOIRS
Chairpersons: Shelby Plitzuweit (OXY) and Mark Bacciarelli (Weatherford)
Sponsored by: SLB

Session 19
SPECIAL ORGANIZED SESSION: NMR FOR THE NEXT FRONTIERS: MACHINE LEARNING, HIGH FIELD, AND NEW LOGGING APPLICATIONS
Chairpersons: Tianmin Jiang (ConocoPhillips) and Jinhong Chen (Aramco Americas)

Session 20
FORMATION EVALUATION OF CONVENTIONAL AND UNCONVENTIONAL RESERVOIRS
Chairpersons: Marie Van Steene (SLB) and Lori Hathon (University of Houston)

Session 21
SPECIALIZED MEASUREMENT TECHNIQUES AND INTERPRETATION
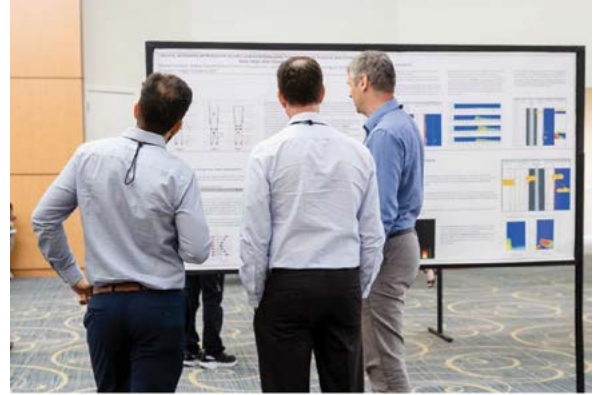**Chairpersons:** Essi Kwabi (Apache Corp.) and Joe Comisky (Devon Energy)

Session 22
AUTOMATED METHODS OF FORMATION EVALUATION
Chairpersons: Chicheng Xu (Aramco Americas) and Amer Hanif (Baker Hughes)

Technical sessions were well-attended during the 3 days of the symposium, with dual sessions happening again.

A wide variety of topics were covered during the two poster sessions, which were well-visited by attendees.

All posters were visited, with some speakers staying longer to take care of attendees' questions.
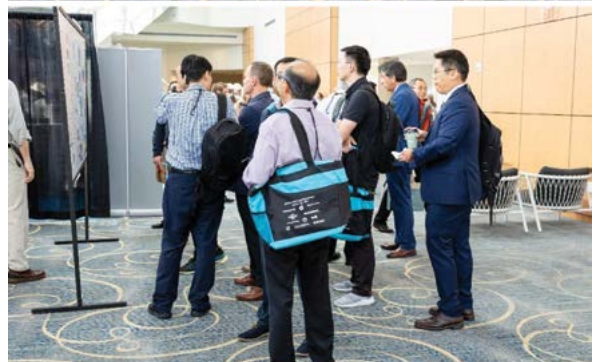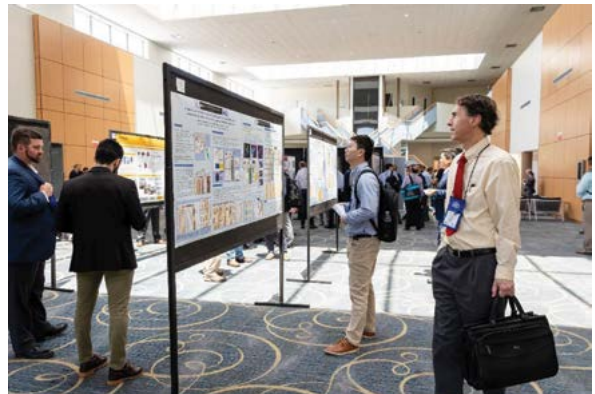
Attendees never wasted any time by visiting the posters, even during the breaks, one of the advantages of having in-person conferences again!

EXHIBITORS

Organization Name
AspenTech Subsurface Science & Engineering
Baker Hughes
Brazil Chapter
Conroe Visitors Center
Core Geologic
Core Laboratories
ECOTEK Corporation
Eriksfiord
Gaia Earth Group
Geoactive Limited
Geolog
GeoMark Research
Geoprance LLC
GOWell
H2 Laboratories
Halliburton
Intertek Westport Technology Center
Jules DEI Booth
KAPPA Engineering
No Hidden Pay, LLC
Oliden Technology, LLC
Openfield Technology
Petromac
ROGII, INC
Scientific Drilling International
SLB
Sodern
Task Fronterra Geoscience
University of Houston
US Coring
Vidence Inc
Weatherford

EXHIBITORS

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SOCIETY FUNCTIONS

SPWLA AWARDS PRESENTATION AND LUNCH
Date: Monday, June 12

The Annual Awards luncheon was open to all symposium delegates, their spouses, and guests. During the lunch, individuals were honored and rewarded for their outstanding achievements and contributions to the Society and the industry. All awardees' bios and their pictures are included in this report.

SPWLA ANNUAL BUSINESS MEETING AND LUNCH

Date: Tuesday, June 13

    The SPWLA Annual Business Meeting is a lunch meeting open to all delegate attendees. During this lunch, the 2022–2023 President Tegwyn Perkins and Board Members shared the accomplishments made during their tenure, followed by the introduction and welcoming of the 2023–2024 President and Board Members.

SPWLA International Board 2022–2023 (some members are missing).

SPWLA International Board 2022–2023 (some members are missing).

2022–2023 SPWLA President Tegwyn Perkins passing the gavel to 2023–2024 President Jennifer Market.

SPWLA LEADERSHIP LUNCH*

Date: Wednesday, June 14

*All current SPWLA Chapter Presidents (outgoing and incoming), past and current SPWLA International Presidents, SPWLA International Regional Directors, and SIG coordinators were invited to join this luncheon, where several important topics for our society were discussed.

EVENING RECEPTIONS

All attendees were invited to spend their evenings while at SPWLA 2023 at receptions proudly hosted by our sponsors. We thank our loyal sponsors for their generous contributions and hospitality during our program.

ICEBREAKER RECEPTION

Hosted by

Place: Margaritaville Resort

Attendees joined their colleagues at the Halliburton Ice Breaker event on Sunday night for "It's Five O'Clock Somewhere."
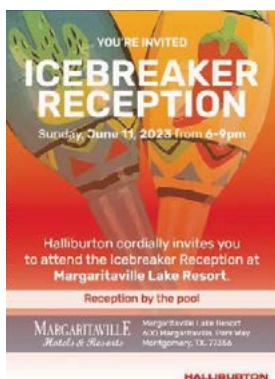
MONDAY EVENING SOCIAL

Hosted by

Place: Margaritaville Resort

Everyone enjoyed an evening with industry friends and new acquaintances. This was a night to unwind after a full day at the conference and exhibition with some "Summer Vibes."

TUESDAY EVENING SOCIAL

Hosted by

Everyone closed the social events on a high note, attending the outdoor social event in a famous brewery nearby with live country music and several food trucks where we all had a great time!

GOLF TOURNAMENT

Almost 100 members joined us for our preconference SPWLA Golf Tournament by testing their skills on the golf course. This prepared them for the dynamic, high-stakes Q&A Sessions the following week, where no holds were barred. Additionally, there were prizes for answering petrophysics-themed questions on the course. A prize was awarded to

the team with the most correct answers; other teams got strokes removed from their score sheet. This was a four-player scramble format at The Golf Club at Margaritaville Lake Resort. Peacefully perched by the shores of Lake Conroe, The Golf Club at Margaritaville Lake Resort features a beautiful 18 holes by the water. Redesigned in 2007, this friendly resort course offers challenging doglegs, several risk/reward holes, subtle breaks, and true roll putting surfaces. The fairways meander through a landscape of tall pines, sandy beaches, and cascading waterfalls that create one of the most enjoyable golf experiences in the State of Texas. A putting green, driving range, club rentals, and PGA-certified golf instruction encouraged players to perfect their game. This was the perfect choice for the golfer who could solve Archie's equation.

GOLF TOURNAMENT

THANK YOU, 2023 SPONSORS!


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FUN RUN / SPOUSE/ PARTNER PROGRAM

Early Morning Run Around the Lake

A group of members, including VP Technology and now President-Elect Iulian Hulea, enjoyed an early morning run. They started bright and early (and humid!) for this fun 5K run before breakfast, sponsored by Geoactive Limited.
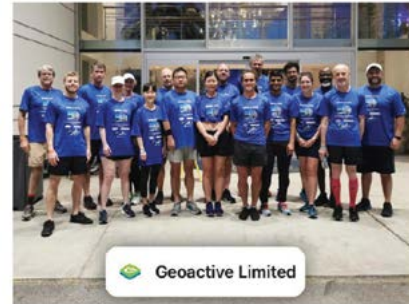
Spouse/Partner Tours

Spouses/partners enjoyed a Chocolate and Wine Pairing with a winery visit at a famous place in Conroe: Chocolate Passion. They started the day with brunch at Chocolate Passion, a Venezuelan chocolatier using fine and rare Criollo chocolate located in Conroe, followed by a chocolate presentation and wine pairing. Brunch included a glass of wine or other beverages of their choice and coffee. Then, they boarded the bus to go to the beautiful Tuscan-style, award-winning Bernhardt Winery located in Plantersville for a sumptuous wine tasting and tour with the proprietor, including a port barrel opening event and tasting. They surely came back happy right on time for the evening social event.

TECHNOLOGY COMMITTEE

Vice-President Technology

Iulian Hulea, PhD, *Shell*

Technical Program Co-Chair

Robert H. (Bob) Gales, *Halliburton*

COMMITTEE MEMBERS

Adam Haecker, *Milestone Carbon/SPWLA VP Finance*

Alessandra Simone, *Consultant and University of Houston*

Amer Hanif, *Baker Hughes*

Austin Boyd, *Federal University of Rio de Janeiro*

Chicheng Xu, *Aramco Americas*

Chris Skelt, *Independent Consultant*

Don Clarke, *ExxonMobil*

Essi Kwabi, *Apache*

Giuseppe Galli, *ENI SpA*

Harry Xie, *Core Lab/SPWLA VP IT*

Hendrik Rohler, *Petronas*

Irada Yusufova, *Equinor*

Javier Miranda, *DeGolyer and MacNaughton/SPWLA Regional Director*

Joe Comisky, *Devon Energy*

John Zhou, *Maxwell Dynamics*

Kavita Agarwal, *Petroleum Development Oman*

Keith S. Boyle, *Chevron*

Kelly Skuce, *Core Petrophysical Consulting*

Lalitha Venkataramanan, *SLB*

AWARDEES

GOLD MEDAL FOR TECHNICAL ACHIEVEMENT

Hanming Wang received his BS degree in science in 1989, MS degree in geoscience in 1992, and PhD in electrical engineering in 1999. He has coauthored 65 scientific papers and established 13 patents. Dr. Wang received SPWLA Distinguished Technical Achievement Award in 2014, Best *Petrophysics* Journal Paper Award in 2019, and Student Scholarship Award in 1997.

Dr. Wang began his professional career in 1992 when he worked at the China Petroleum University as an assistant professor from 1992 to 1996. He pioneered the research study of resistivity logging response and interpretation in 3D environments, such as in dipping formations in high-angle, horizontal wells and in fractured reservoirs, with the assistance of 3D finite-element codes he developed on a SunMicro workstation. He also explored full 2D inversion of dual induction/dual laterolog with the help of fast 2D axis-symmetrical modeling codes using a numerical mode-matching method.

From 1999 to 2008, Dr. Wang was a research scientist and engineer at the SLB Sugar Land Product Center, and during his tenure, he dedicated his effort to several new resistivity logging technologies: LWD borehole imaging, wireline triaxial induction, and LWD multicomponent measurements. Sensor modeling, sensitivity analysis, measurement calibration, data processing/inversion, and interpretation of triaxial measurements were challenging and exciting topics he experienced. Another exciting project during his tenure with SLB was the development of LWD data compression and inversion algorithm to make high-resolution LWD images delivered in real time to identify formation structures and geological features, enabling better and faster geosteering decisions.

Since 2008, Dr. Wang has been the lead scientist and subject matter expert (SME) in resistivity and dielectric logging at the Chevron Technology Center. His main responsibility is to establish R&D directions and carry out R&D projects to improve Chevron's ability to use resistivity and dielectric logging data to manage reservoirs, quantify reserves, improve geosteering and reservoir imaging capability, and reduce uncertainty. Dr. Wang dedicated his endeavors specifically to routinely applying resistivity modeling and inversion to improve petrophysical analysis and real-time G&G decisions. In addition, he also put lots of effort into bridging vendors' new technologies to Chevron's oil fields. More recently,

exploring the interpretation methodology of dielectric logging data is a new addition to his R&D portfolio.

Hanming Wang has been an active participant in the industrial societies and academic communities. He served as the co-chair of the SPWLA Resistivity SIG in 2002, 2003, 2012, and 2013. He has also been serving as an adjunct professor and PhD thesis advisor at The University of Houston and Duke University since 2006.

DISTINGUISHED TECHNICAL ACHIEVEMENT
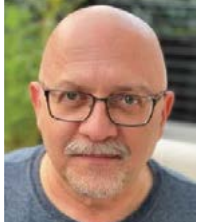
Ridvan Akkurt is a petrophysics advisor in the SLB Artificial Intelligence and Analytics Group, based out of Denver, Colorado, USA. He was previously a research director at Schlumberger-Doll Research in Boston, heading the Reservoir Geosciences Department and a petrophysics advisor at SLB SIS Headquarters in London.

Ridvan began his career in 1983 as a SLB wireline field engineer in Africa, then worked for a number of companies in international and domestic assignments, including Geophysical Service Incorporated (GSI) as a field seismologist, Shell as a processing geophysicist, NUMAR as a research scientist, NMR+ as owner and petrophysicist, and Saudi Aramco as a petrophysicist. While his earlier focus was on NMR logging, he has been actively involved in the development of machine-learning-based solutions for petrophysical applications since 2017.

Ridvan has a BS degree in electrical engineering from the Massachusetts Institute of Technology, Cambridge, USA, and a PhD degree in geophysics from the Colorado School of Mines in Golden, Colorado, USA. His PhD thesis was entitled "Effects of Motion in Pulsed NMR Logging." Ridvan has taught industrial courses in NMR logging over the years, has 80+ publications and 25 granted US patents, received the SPWLA symposium Best Paper Award in 1995 and 2009, and served as a Distinguished Lecturer for SPWLA (1996–1997, 1999–2000, 2008–2009, 2009–2010) and as a Distinguished Lecturer for SPE (1998–1999, 2021–2022). Having participated in many SPE and SPWLA committees over the years, he is currently a technical reviewer for several industrial journals.

DISTINGUISHED TECHNICAL ACHIEVEMENT

Chengbing (CB) Liu is an accomplished petrophysicist with over 30 years of experience in the oil industry. He received a BS in petrophysics from China University of Petroleum in 1983 and a PHD in geology from the Chinese Academy of Science in 2000.

Throughout his career, CB has made significant contributions to the industry through his research, development, and implementation of new technologies. He has authored 26 technical papers and two books, as well as completed three important company internal technical reports. His work has resulted in 16 US patents, and many of the methods described in his inventions, papers, books, and reports have been widely used in the oil industry in the form of software packages, tools, or workflows.

CB's expertise in petrophysics and geology extends to four major oil-producing regions worldwide, including the Middle East, the USA, China, and Southeast Asia. He has worked in a variety of roles throughout his career, including operations, management, and R&D of new technology in tool physics, data interpretation, and application. CB has worked at CNPC, SLB, Chevron, Aramco, and LeadingWheel – a new technology company specializing in unconventional reservoir evaluation methods and software development and service. Currently, he serves as the petrophysics advisor and director of the LeadingWheel-LOGIC Center.

CB has received numerous awards and recognitions for his technical contributions, including the President's Award and Chairman's Award from SLB, the Excellence in Reservoir Management Award for Shale Gas and Tight Gas from Chevron, the Outstanding Award for Innovation from Aramco, the Best SPWLA Symposium Poster Paper First Place Award, and the *HART's E&P* Award for Engineering Innovation.

In addition to his technical work, CB serves as an associate editor of the *Petrophysics* journal and as a reviewer for multiple technical journals. His contributions to the oil industry have been significant, and his expertise and leadership have helped to advance the field of petrophysics and formation evaluation.

DISTINGUISHED TECHNICAL ACHIEVEMENT

Boqin Sun is a Chevron Fellow and a research consultant at the Chevron Technology Center (CTC). He joined Chevron in 2001 and has been working on various NMR applications in solution, solid, and petrophysics. He received his BS degree from Zhejiang University in 1982 and his MS degree from Wuhan Institute of Physics in 1985, both in physics, and his PhD degree from UC Berkeley in 1991 in chemistry. Previously, he worked as an NMR tool physicist for SLB at the Sugar Land product center for four years. Before that, he was a post-doctoral associate at MIT.

DISTINGUISHED SERVICE

Mathias Horstmann has been with SLB for more than 20 years and works as a principal petrophysicist currently in Scandinavia out of Stavanger, Norway. His domain of expertise is well operations, formation evaluation acquisition planning and execution, log data processing and its interpretation, and inversions applied to multiphysical measurements. Mathias' professional career in SLB started in 2002 after working for a short period in academia and the mining industry.

As a field engineer, he logged reservoirs in all continental and offshore Europe as well as in West Africa, then held management positions and various petro-technical roles in formation evaluation and geosteering in Asia and Europe. During his assignments, Mathias studied many of the geological environments around the world, including complex clastic and carbonate reservoirs, both from a lithological and structural aspect. Mathias received a master's degree in geology from the EUCOR University in Freiburg, Germany. This academic background and now heading the petrophysics, geology, and acoustics domain teams in Scandinavia allows him to explore classic and automated workflows – bridging geology and petrophysics by taking integrated approaches.

During his tenure first as VP Program of the Norwegian Formation Evaluation Society (NFES) from 2012 to 2016, and since 2016 presiding over this local Norwegian chapter of SPWLA, he helped in organizing more than 80 technical meetings, workshops, and seminars as well the two annual symposia hosted by NFES, 2016 in Reykjavik, where we met in the middle, and last year as general chair of SPWLA '22 in Norway's energy capital Stavanger. Mathias is also a member of the EAGE, the OGV Germany, and since 2023, is serving as an appointed "Region Stavanger Ambassador," representing the energy sector and supporting individuals and organizations to increase awareness of formation evaluation and subsurface geoscience.

DISTINGUISHED SERVICE

Lin Liang is a scientific advisor and program manager at the Schlumberger-Doll Research Center, specializing in research related to the modeling, inversion, and interpretation of subsurface measurements. He has been with SLB since 2002 and has contributed to various fields, including geophysics, petrophysics, reservoir engineering, multiphysics modeling and inversion, machine learning, and automation. He has authored or coauthored over 70 technical papers and holds 38 granted or pending patents. He has received four international conference best paper/poster awards and was a Distinguished Speaker for SPWLA in 2019–2020. He is a member of SPWLA, SPE, and SEG, an associate editor for the *SPE Journal* and *Geophysics*, and a member of the SEG Technical Program Committee and SEG Research Committee. Lin served as the SPWLA Vice President Information Technology from 2019–2021. During the pandemic, in collaboration with other colleagues, Lin co-organized two virtual SPWLA Annual Symposia in 2020 and 2021.

DISTINGUISHED SERVICE

Abbie Morgan is a petrophysicist at Aera Energy in Bakersfield, California. She holds a bachelor's degree in physics from Cornell University and started her oil industry career as a wireline field engineer with SLB. Prior to being recruited into the industry, she held internships at the Laboratory for Elementary Particle Physics at Cornell University and in the optics lab at the National Institute of Standards and Technology. She also spent some time as an editorial assistant at *Seed* magazine, where she researched and wrote about science and technology.

Abbie's passion for teaching and writing about science followed her into the oil industry. She was awarded Best E-Poster at the 2017 SPWLA Annual Symposium and was an SPWLA Distinguished Speaker for 2017–2018. She has served on the SPWLA Technical Committee and was on the founding board of the SPWLA Young Professionals (YP) group, contributing to writing and editing the YP newsletter. She gave a presentation at the 2014 SPWLA Topical Conference on "Educating the Petrophysicist "and was later asked to serve as Vice Chair of the Organizing Executive Committee for

The 64th Annual SPWLA Symposium at Lake Conroe, Texas

the new SPWLA Education Special Interest Group (SIG). She has spent the last few years working to establish the SIG to support the continued growth and development of the SPWLA community. She would like to thank all her SPWLA colleagues who have been part of her journey and who continue to make this society such a valuable and enjoyable group.

MERITORIOUS SERVICE

JinHong Chen is the technical lead for nuclear magnetic resonance (NMR) and physics-related projects within reservoir engineering technology at the Aramco Research Center-Houston.

Chen joined Aramco Americas in 2013 and is credited with founding and building its NMR research lab and programs, including both low-field and high-field NMR. He has been investigating fluid distribution and flow in unconventional source rocks, developing new advanced mud-logging methods, and exploring equations of state and fundamental NMR relaxation mechanisms for nano-confined fluids in source rock shales. His work has led to breakthroughs in fracking technology, advancing methods and software to calculate capillary pressure and relative permeability from images and developing NMR technology to accurately quantify CO_2 in formation rocks for carbon capture, utilization, and storage.

Prior to joining Aramco Americas, Chen worked for Memorial Sloan-Kettering Cancer Center in New York, managing a research group working on magic-angle-spinning NMR and MRI technology for sarcoma diagnosis and treatment. He entered the energy industry in 2010 when he became an NMR formation evaluation specialist at Baker Hughes, leading their NMR research and development efforts. His work included the investigation into the nano-confined fluid phase behavior on the reserve estimation and production of a shale 2 reservoir, an industry first.

Born and educated in China, Chen holds a BSc degree from Wuhan University and a PhD in physics from the Chinese Academy of Sciences. He performed his post-doctorate work in Lausanne, Switzerland, and held a three-year joint appointment as a Salem Fellow at Harvard University and a Visiting Scientist at MIT.

Chen holds more than 30 patents, contributed to three books, and published more than 100 papers, many in high-impact journals, including *Nature Communications* and *The Journal of the American Chemical Society*. He has served as VP Technology, is currently President-Elect of the Society of Core Analysts, and serves as an associate editor for *Petrophysics* journal.

MERITORIOUS SERVICE

Marie Van Steene is a principal petrophysicist and is presently the LWD petrophysics domain champion for SLB Well Construction Measurements in Saudi Arabia. Marie graduated in 2000 with an MSc degree in mechanical engineering from Ecole Centrale Paris and Universite Libre de Bruxelles. She started in 2000 with SLB as a wireline field engineer and went on to work in Australia, New Zealand, and India. She started her petrophysics career in 2006 in Malaysia. She then worked in Egypt and Kuwait and moved to Saudi Arabia in 2016. Her interests include formation evaluation in open hole and cased hole. She has been a leader of the SLB Dielectric and NMR special interest groups for several years. She is currently VP Technology in the SPWLA Saudi Arabia Chapter committee.

MERITORIOUS SERVICE

Ulises D. Bustos is a geologist/petrophysicist with 28 years of experience in the oil & gas Industry. He joined the oil & gas industry in 1995 with Total Austral, Buenos Aires, Argentina. He then moved to SLB in 2001, occupying positions as a petrophysicist, data services manager, and petrophysics domain champion across all the countries in America. Currently based in Houston, Texas, he is working as a formation evaluation and new technology advisor in SLB, in charge of South America, US Land, and Canada. Ulises was also involved in reservoir evaluation special projects in Latin American countries, from Argentina to Mexico, linked to onshore and offshore exploration, development, mature fields, and EOR in both conventional and unconventional reservoirs, as well as participation in mining and geothermal projects. Since 2022, Ulises has been the Vice President of SPWLA – Colombia Chapter, promoting knowledge sharing across professional communities and universities. In 1995, Ulises got his degree in geology from the Universidad Nacional de Cordoba, Argentina, having accessed more than 42 courses and has more than 23 published papers to date.

YOUNG PROFESSIONAL TECHNICAL

Shaina Kelly is an assistant professor in the Department of Earth and Environmental Engineering at Columbia University. Shaina and her research team investigate and optimize the interplay between transport phenomena and fluid-rock interactions in geologic porous media for sustainable energy applications, including carbon storage, improved oil recovery, and geothermal energy. Shaina joined the faculty at Columbia in July 2022. Prior to her appointment, Shaina's 6+ years of industry experience include roles as a senior petrophysicist at ConocoPhillips Company (2016–2021) and senior geoscience engineer at AquaNRG Consulting Inc. (2021–2022), working on the advanced characterization of transport in porous media, enhanced fluid-rock interactions, and related technical service topics. Shaina received her PhD in petroleum and geosystems engineering from The University of Texas at Austin in 2015 and her BSc degree in environmental engineering from the University of Florida in 2011. Her published works and collaborations range from nanofluidic quantification of the effect of nanopore confinement on effective transport variables such as viscosity and capillary pressure to digital core analysis (computational fluid dynamics) to NMR-based quantification of wettability in unconventional rocks. In addition to technologies for reservoir characterization, Shaina has worked on core and well-log analysis projects for 10+ global assets in both exploration and production settings.

YOUNG PROFESSIONAL TECHNICAL

Ishank Gupta is currently working as a senior reservoir engineer at Pioneer Natural Resources in Irving, Texas. He received his MS and PhD degrees in petroleum engineering from the University of Oklahoma. His research interests include rock physics, petrophysics, reservoir engineering, and machine learning. His thesis and dissertation work focused on unconventional shales, understanding source rock potential, improving hydraulic fracture efficiency, and understanding/developing frac hit mitigation strategies. His research work resulted in publications in 20 journals, and he also presented his work at 11 conferences. He has also served as a peer reviewer for more than 20 international journals. He is currently serving as an assistant editor for the *Interpretation* Journal of the Society of Exploration Geophysicists (SEG).

YOUNG PROFESSIONAL TECHNICAL

Olabode (Bode) Ijasan is a petrophysicist with 10 years of industry-experience and is currently a research advisor with ExxonMobil Technology and Engineering Company. He received MS and PhD degrees in petroleum engineering from The University of Texas at Austin, where he conducted research on nuclear logging and inversion-based petrophysical interpretation. He also holds a BSc degree, with first-class honors, in electrical and electronics engineering from the University of Lagos, Nigeria. His areas of expertise include NMR petrophysics, nuclear logging, inverse problems, and unconventional petrophysics. He is a member of SPWLA, SPE, SEG, and IEEE.

In 2020, Dr. Ijasan was a recipient of the prestigious ExxonMobil Research and Engineering (EMRE) Technology Award, a recognition that rewards the best inventions by ExxonMobil scientists across engineering and geoscience. This was for his "Innovative use of NMR in Unconventional Tight-Liquid Resources to predict fluid content; quantifying the mobile, immobile hydrocarbon fluids, and brine; and delivering significant value to the Upstream business partners." Within ExxonMobil, Bode served as lead petrophysicist for Guyana Exploration during the 2015 world-class discovery at the Liza-1 well and is recognized as a company-wide technical leader and expert in formation evaluation, petrophysics, and NMR logging. His 2014 SPWLA paper on field examples of inversion-based interpretation of LWD measurements in high-angle and horizontal wells was awarded the Best Oral Presentation at the 55th SPWLA Annual Symposium, and as a result, he served as an SPWLA Distinguished Speaker in 2014–2015.

Dr. Ijasan is the primary inventor of two US patent applications pertaining to the analysis of NMR measurements, has published eight peer-reviewed papers across the *Petrophysics*, *Geophysics*, and *Interpretation* journals, and has presented several papers at various SPE, SEG, and SPWLA conferences.

YOUNG PROFESSIONAL TECHNICAL

Yegor Se is a senior petrophysicist at Chevron Energy Technology Company in Houston, TX. He currently specializes in well integrity, production optimization, and through-casing reservoir characterization for various Chevron operations worldwide, consulting on all stages of casedhole logging operations from planning and execution to interpretation and results diagnostic. He received his BS degree in petroleum engineering and minor in petroleum geology from Colorado School of Mines in 2009 and graduated from his first Chevron PPOC program in 2012. In his previous work assignments, Yegor supported multi-rig drilling campaigns, sour gas injection, and waterflood projects in Kazakhstan and has rich cross-discipline operational experience with well planning, drilling and completion, workover, production optimization, stimulation, reservoir surveillance, and modeling in naturally fractured carbonate reservoirs.

YOUNG PROFESSIONAL TECHNICAL

Chelsea Newgord currently works as a petrophysicist at ExxonMobil in Spring, Texas. In the past 3.5 years, she has supported operations and petrophysical interpretations in ExxonMobil's Permian, Brazil, and Guyana assets. Chelsea earned an MSc degree in petroleum engineering in 2019 from The University of Texas at Austin. She was a student in Dr. Zoya Heidari's Multi-Scale Rock Physics research group. Chelsea has authored and coauthored several papers presented in SPWLA annual meetings and in the *Petrophysics* journal. Two of these papers led to her participation as an SPWLA Distinguished Speaker in 2018–2019 and in 2019–2020. Chelsea started her career in the energy industry as a reservoir geophysicist working at Sigma Cubed (a medium-sized integrated service company) in Denver for 5 years. In this role, she worked on geomodelling projects for clients ranging from small independent companies to NOCs and for a wide range of geologic areas. Chelsea earned a BSc degree in geophysics with minors in geology and public affairs from the Colorado School of Mines in 2012.

AWARD OF APPRECIATION

Ghadeer Alsulami is a geoscientist working for Saudi Aramco for 13 years in the fields of geoscience and petrophysics. Her experience includes working in exploration, unconventional resources, and openhole and casedhole projects. Ghadeer graduated from the Colorado School of Mines with a degree in geophysics and geophysical engineering.

AWARD OF APPRECIATION

Faisal Alenezi is a petroleum engineering specialist and acting manager of the Reservoir Description Division at Saudi Aramco. Faisal is the current SPWLA Saudi Arabia Chapter President. Faisal held several technical and management positions in the areas of exploration, production, and reservoir management. In 2001, Faisal received his BS degree in petroleum engineering from King Saud University, Riyadh, Saudi Arabia. He received his MS and PhD degrees in petroleum engineering from West Virginia University, USA, in 2011 and 2017.

OUTSTANDING PROFESSIONAL CHAPTER
2022–2023 Saudi Arabia Chapter

OUTSTANDING STUDENT CHAPTER
2022–2023 Argentina Student Chapter

SYMPOSIUM BEST PAPER PRESENTATIONS 2022
PRESENTERS: Olga Podgornova and Pierre Bettinelli
TITLE: Full-Waveform Inversion of Fiber-Optics VSP Data From Deviated Wells
AUTHORS: Olga Podgornova, Pierre Bettinelli, Lin Liang, Joël Le Calvez, Scott Leaney, Marco Perez, and Ahmed Soliman
PAPER ID: SPWLA-2022-0012

SYMPOSIUM BEST POSTER PRESENTATION
PRESENTER: Alexei Bolshakov
TITLE: SOURCELESS LWD BOREHOLE ACOUSTICS: FIELD TESTING THE CONCEPT
AUTHORS: Alexei Bolshakov, Kris Walker, Andee Marksamer, Lorelea Samano, and Andrew Reynolds
PAPER ID: SPWLA-2022-33

OUTSTANDING *PETROPHYSICS* JOURNAL PAPERS 2023
First Place
TITLE: Fracture Characterization Combining Borehole Acoustic Reflection Imaging and Geomechanical Analyses
AUTHORS: Xiao-Ming Tang, Pei-Chun Wang, Shengqing Li, Lei Xiong, and Hanlin Zhang
Published: (DECEMBER 2022); PAGES 650–657; Paper ID: PJV63N6-2022a5

Second Place
TITLE: Mud-Filtrate Invasion in Laminated and Spatially Heterogeneous Rocks: High-Resolution In-Situ Visualization and Analysis Using Time-Lapse X-Ray Microcomputed Tomography (Micro-CT)
AUTHORS: Colin Schroeder and Carlos Torres-Verdín
Published: (OCTOBER 2022); PAGES 614–641; Paper ID: PJV63N5-2022a4

OUTSTANDING *PETROPHYSICS* JOURNAL REVIEWER 2022–2023
First Place: Tianmin Jiang
Second Place: Oriyomi Raheem

2022–2023 Distinguished Speakers Laura Lima Angelo dos Santos, Frank Antonsen, Mustafa A. Al Ibrahim, Xiao-Ming Tang, John Bergeron, Olga Podgornova, Isa Silveira de Araujo, Muhammad Nur Ali Akbar, Brian C. Seabrook, Vanessa Simoes, Supriya Sinha, Marco Pirrone, Pierre Bettinelli, and Arthur Walmsley

2022–2023 Global Distinguished Speakers
Adesoji Adedamola, Amr Serry, Chiaki Morelli, Lucas Abreu Blanes de Oliveira, Mahmoud Eid, Marie Lefranc, Rodney Garrard, Takeaki Otani, and Zoya Heidari

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FUTURE SPWLA

65th Society of Petrophysicists and Well Log Analyst Symposium

Sheraton Grand Rio Hotel & Resort Rio de Janeiro, Brazil

May 18–22, 2024
Hosted by the Brazil Chapter

SPWLA
BRAZIL CHAPTER

66th Society of Petrophysicists and Well Log Analyst Symposium

May 2025
Hosted by the Dubai Chapter

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS
DUBAI CHAPTER

SPWLA 64TH ANNUAL SYMPOSIUM

- 603 Attendees
- 127 Technical Presentations / Posters
- 20 Exhibitors
- 16 Finalists at the Student Paper Contest
- 7 Workshops + 2 Field Trips
- 3 Evening Receptions
- Countless Networking!

Thanks to the authors, Houston SPWLA chapter, volunteers, exhibitors, sponsors, and many others for a great conference! Lake Conroe, TX, USA

HOUSTON CHAPTER
Society of Petrophysicists and Well Log Analysts

&

65th Annual Symposium: May 18-22, 2024 in Rio de Janeiro, Brazil

Part of the SPWLA membership during the Awards ceremony, recognizing some of the best professionals in our society.

Here are some of our hosts for next year from the SPWLA Brazil Chapter.

What you could name a "Presidential Picture" with four former SPWLA International Presidents who are well respected and appreciated among our members (from left to right): David Kennedy (2014–2015), Elton Frost (2013–2014), Terry Quinn (2008–2009), and Matt Bratovich (2010–2011), accompanied by SPWLA North America Director 1 Javier Miranda.

Past President David Kennedy and Graduate Student Pallavi Sahu. They are a great example of the spread of the amount of experience in our members but also what they share: talent, knowledge, and passion for petrophysics.

SPWLA North America Director 1 Javier Miranda, with past presidents Luis Quintero, 2016–2017 (first from left to right) and Jesus Salazar, 2019–2020 (last on the right).

Some members were very lucky to get an excellent gift from the great Oliver Mullins, his book "Reservoir Fluid Geodynamics and Reservoir Evaluation" with his autograph included!

SPWLA North America Director 1 Javier Miranda, delivering recognition to Neal Cameron, Houston Chapter VP Westside and part of the organizing committee on several fronts.

SPWLA Regional Directors in the Americas, Clara Palencia (NA2, first on the left), Javier Miranda (NA1, second from left to right), and Nelson Suarez (LA, first on the right) with the General Chairman for SPWLA Rio de Janeiro 2024 Annual Symposium (Lucas Blanes, second from right). We will all work together to bring you an exceptional conference next year!

Sharing a good time with SPWLA Dallas Chapter leadership, including Jim Lewis (second from right to left), Ray Wydrinski (second from left to right), and Melissa Evans.
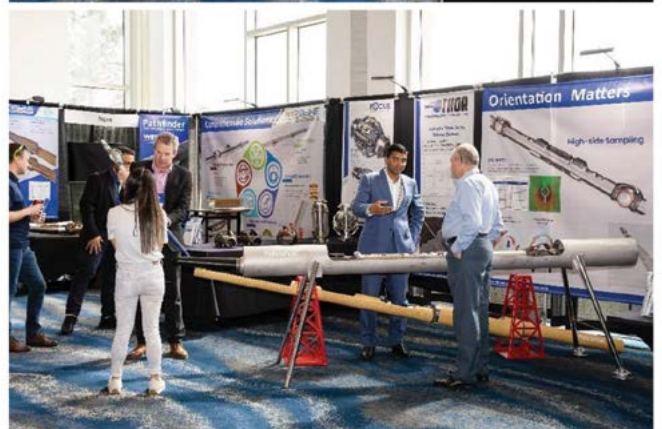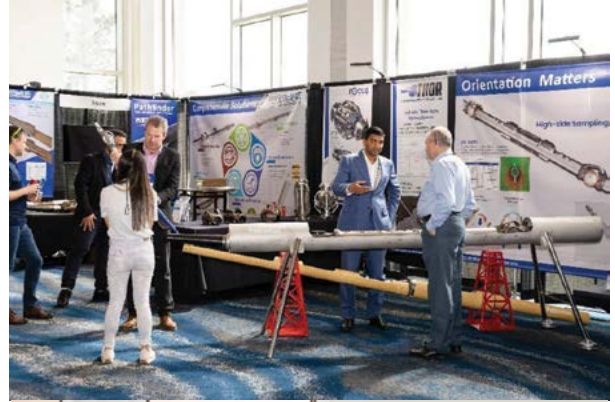

SPWLA Workshop 4 participants and instructors.

General Chairman for SPWLA Lake Conroe 2023 (Javier Miranda, left) and Rio de Janeiro 2024 (Lucas Blanes, right) Annual Symposiums.

SPWLA FIRST BOARD OF DIRECTORS MEETING
REMOTE
July 21, 2023

President Jennifer Market called the meeting to order at 6:05 am. In attendance, President-Elect, Iulian Hulea, Vice President Education, Kelly Skuce, Vice President Finance, Secretary and Admin, Jing Li, Vice President Social Media, Chelsea Newgord, Vice President Technology-Elect, Harry Xie, Regional Director Europe, Mathias Horstmann, Regional Director Middle East/Africa, Jennifer Duarte, Regional Director N. America 1, Javier Miranda, Regional Director N. America 2, Clara Palencia, Regional Director Asia Pacific/Australia, Yuki Maehara, and Executive Director, Sharon Johnson. Absent, Vice President, Publications, Stephanie Perry, Vice President Information Technology, Tom Bradley, Vice President Technology, Robert "Bob" Gales, and Regional Director Latin America, Nelson Suarez Arcano,

A motion made by President-Elect Iulian Hulea to waive the reading of the minutes from the May BOD meeting was seconded by Vice President Education Kelly Skuce. This motion passed by majority vote.

A motion made by Vice President Education Kelly Skuce to accept the Japan Chapter Bylaw changes as presented by their Governing Committee was seconded by President-Elect Iulian Hulea. This motion passed by majority vote.

Action Item: Regional Director Asia Pacific/Australia Yuki Maehara to notify the Chapter of the positive approval.

Action Item: President-Elect Iulian Hulea will write a proposal of the duties of the newly created Vice President Technology-Elect position and present it to the Board for their feedback.

A motion made by President-Elect Iulian Hulea to reduce the number of required persons from nine to three to form/create a new Student Chapter was seconded by Regional Director Middle East/Africa Jennifer Duarte. This motion passed by majority vote.

Action Item: Vice President Education Kelly Skuce to reach out to the BHI and Acoustic SIG to inquire about their upcoming event filling the annual parent body Topical Conference.

A motion made by President-Elect Iulian Hulea to initiate an incentive Speaker pilot program applicable to the Bangkok Chapter for monthly meetings with a gift of up to five free memberships in the parent organization was seconded by Regional Director Asia Pacific/Australia Yuki Maehara. This motion passed by majority vote.

A motion made by President-Elect Iulian Hulea to increase the annual membership dues to Life Member $330, Member $110, Member Tier II $45, Senior Member $55 was seconded by Vice President Education Kelly Skuce. This motion passed by majority vote.

A motion made by Vice President Education Kelly Skuce to adjourn the meeting was seconded by Regional Director N. America 1 Javier Miranda. 9:42 am.

Respectively Submitted by
Sharon Johnson
Executive Director

NEXT MEETING; Friday, September 8, 2023, 6 am CST.

ACOUSTICS SIG

The Acoustics SIG is pleased to announce that it will be holding an SPWLA fall workshop in partnership with the Borehole Imaging SIG. This workshop will take place on November 8 and 9 in Houston and will explore a wide variety of topics surrounding the synergies between borehole imaging and borehole acoustics technology.

The call for abstracts is open and will close on September 18. Attendance at the workshop can be either in-person or online, and further details will be made available shortly.

To submit an abstract or for further details on the event, please visit the workshop website at https://www.afes.org.uk/spwla-2023-fall-topical-conference/

ARGENTINA CHAPTER

Over the past 2 months, our team has been immersed in internal meetings and discussions aimed at refining our plans for the second half of the year. While this internal focus has been intense, it has allowed us to lay a solid foundation for the upcoming activities. I am pleased to inform you that, starting from August 23, we are all set to roll out a series of engaging initiatives.

Our immediate attention will be directed toward a series of Instagram Live sessions focusing on the topic of lithium. These sessions aim to provide valuable insights into this critical subject and foster meaningful discussions within the community. We believe that this platform will allow us to connect more directly with our audience and address their queries effectively.

Furthermore, we are excited to announce a range of training workshops centered around the use of Python and reservoir evaluation in casedhole wells. Our team of experts is committed to delivering engaging and informative sessions that will enable you to apply these skills effectively in your work.

Additionally, we're delighted to unveil a special event—a hybrid experience centered around nuclear magnetic resonance (NMR). This event will provide an exclusive look at cutting-edge advancements in NMR technology for formation evaluation. Participants will also have the opportunity to visit a laboratory housing a low-frequency NMR device, enhancing their understanding of this technology. This event is planned for November.

ARGENTINE STUDENT CHAPTER

General News

The Argentine Student Chapter has been honored with the prestigious Outstanding Student Chapter Award by SPWLA. This remarkable achievement is a testament to our collective dedication, hard work, and passion for advancing the field of petrophysics. Receiving this award serves as an inspiration for us to continue our pursuit of excellence. We remain committed to providing valuable resources, educational opportunities, and enriching networking events that contribute to professional growth and development.

Recent Events

The Board of Directors is currently engaged in the initial stage of the SWOT analysis, which is a framework used to evaluate the strengths, weaknesses, opportunities, and threats of our student chapter. This analysis allows us to assess our current position and identify areas for improvement as well as areas where we can capitalize on our strengths.

Once the SWOT analysis is completed and the four key elements (strengths, weaknesses, opportunities, and threats) are identified, we will proceed to the next stage of the process. This involves conducting a CAME analysis to develop

strategies for improving our present situation. The CAME analysis focuses on addressing weaknesses, confronting threats, maintaining strengths, and exploiting opportunities.

Following the CAME analysis, we will shift our focus to the future. At this stage, we will conduct a group-level FOAR analysis to ensure that our team is aligned and moving toward the same destination. This analysis will leverage the data obtained from previous analyses and will involve harnessing our strengths, capitalizing on opportunities, and effectively distributing tasks. It emphasizes respectful collaboration, idea alignment, and the balancing of differences.

The FOAR analysis will enable us to define our aspirations and desired outcomes as a student chapter, serving as a guide for making informed decisions and measuring our progress along the way.

Slide showcasing the SWOT (FODA) analysis conducted by the Board of Directors.

Furthermore, we are excited to inform you that we have initiated a series of training sessions, starting with the following event:
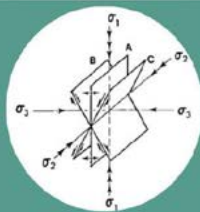
9 June 2023—Rafael Aguilar (ROGII) presented **"Geonavigation Techniques and Applied Digital Technology."** Participants gained valuable insights into the fundamental principles of geonavigation, focusing on the roles and responsibilities of geonavigators. The session also highlighted the wide range of digital tools and technologies that are commonly employed in the field on a global scale. The primary objective of the event was to provide attendees with a comprehensive understanding of geonavigation methodologies and introduce them to the diverse digital solutions used to optimize workflow efficiency. Furthermore, the session explored the evolving role of geonavigators in the digital era, discussing the impact of cutting-edge technologies such as cloud computing and machine learning on geonavigation practices.

Image displaying the virtual webinar on Geonavigation Techniques and Applied Digital Technology presented by Rafael Aguilar (ROGII).

20 and 21 June 2023—Andri Ferrer (FEP Consulting) spoke on the **"Evaluation of Naturally Fractured Formations Through a Deterministic Model."** The deterministic or conventional method is used to characterize formations based on well-log data and the application of predetermined parameters and equations (clay volume, water resistivity, saturation equations, porosity equations, among others). This approach yields a set of petrophysical parameters such as clay volume, porosity, water saturation, permeability, and more.

27 and 28 June 2023—Ailen Borya (LCV Group) presented a **"Virtual Workshop on Core Analysis and Sedimentological Processing."** The event spanned 2 days, featuring the following sessions:

- Day 1: "Operational Sequence of Core Analysis Work"
- Day 2: "Sedimentary Environments, Petrography, and Petrophysics"

4 and 5 July 2023—Carolina Bernhardt (YPF) and Diana Masero (Y-TEC) conducted a two-day course on "**Unconventional Evaluation: Logging and Laboratory Analysis."**

Upcoming Events

We are actively engaged in sharing and extensively showcasing our chapter across 15 universities nationwide. This involves compiling a comprehensive list that includes the contact details of both professors and students from each university in Argentina (four from each institution). The aim is to acquaint them with the Student Chapter of SPWLA Argentina.

Additionally, it's worth mentioning that we are in the process of outlining a fresh series of webinars as part of our upcoming plans.

To learn more about us:
Mail: spwla.arg.sc@gmail.com
LinkedIn: www.linkedin.com/in/spwla-argentine-student-chapter
Instagram: https://www.instagram.com/spwlaarg/

BANGKOK CHAPTER

2023 Chapter Committee Members are:

Chapter President	Andrew Cox
Technical Coordinator	Ryan Lafferty
Sponsorship	Marvin Rourke
Secretary	Ronald Ford
Treasurer	Panasa (Ammy) Panpheemachai
Web Coordinator	Alex Beviss
Media Coordinator	Ryan Banas
Student Liaison	OPEN

Website: https://www.spwla.org/SPWLA/Chapters_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx
Email: bangkok.chapter@spwla.org

Recent Events

July 2023—Summer Break

August 2023—"The How, Why, and What of Rotary Wireline Coring" was presented by Marvin Rourke (GOWell). ABSTRACT: Obtaining rock samples via a downhole mechanical coring system was first introduced 100 years ago and was developed alongside the early electric logs. While wireline and, more recently, LWD logs have advanced tremendously in the intervening years and are now ubiquitous, obtaining core samples hasn't changed very much and is now considered a specialized operation. Conventional core that are cut while drilling is typically time consuming and expensive to acquire; they also require good geological control to pick the required coring depths. Conversely, wireline-conveyed coring is faster; it provides precise depth control, and core plugs can be selected from a wide range of formations, which would not be practical for conventional coring. This talk briefly looked at the history of wireline coring, the challenges, and recent improvements in the technology partly driven by the need to evaluate unconventional reservoirs. The original 1-in. OD cores were of sufficient size and quality for conventional analysis, but recent 1.5-in. OD cores provide a larger amount of material that has proven helpful for SCAL, mechanical properties, and other types of analyses. Case examples were discussed in which wireline-acquired cores were drilled in various carbonate and silica-clastic reservoirs of the Middle East. The cases included carbonates with oomoldic porosity and brittle-fissile shales.

Upcoming Meetings

28-Sep-23
26-Oct-23
30-Nov-23

Marvin Rourke (VP Technology – GOWell).

Special thanks to our corporate sponsors.

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

https://www.spwla.org/SPWLA/Chapters_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx
or visit us on LinkedIn (SPWLA Bangkok Chapter)

BATANGAS STATE UNIVERSITY STUDENT CHAPTER

General News

On April 30 2023, the Society of Petrophysicists and Well Log Analysts – Batangas State University Student Chapter (SPWLA BatStateU SC) was delighted to announce its new set of officers, who will be at the helm of the organization's affairs for the academic year 2023–2024. Headed by the newly elected President, Mary Jane Diasanta, the fresh batch of officers geared up to bring forth a series of exciting programs and activities to steer the organization to greater heights. The organization was also thrilled to introduce the newly appointed advisor, Engr. John Kevin de Castro, who will guide the officers in the upcoming academic year. Engr. de Castro has shown a keen interest in expanding the SPWLA BatStateU SC and providing students with distinctive learning opportunities.

Furthermore, assisting the president in her endeavors are Jacob Rubenecia and Hannah Peñamente as the Vice President for Internal and External Affairs, respectively; John Kenneth Navarro and John Carlo Doria as the Secretary for Internal and External Affairs, respectively; Sarah Sajili and Dona Lheila Evaristo as the Treasurer for Internal and External Affairs, respectively; Michael Perez as the Auditor; Matthew Dimaandal as the Membership Chairperson; Marcus Gabriel Gutierrez as the Communications Chairperson; Jonizey Hanna De Vera as the Events Chairperson. The SPWLA BatStateU SC also appointed two Technical Officers, namely Chery May Unlayao and Jules Andrei Florendo, to provide specialized expertise and support in technical operations during meetings and events.

The first official meeting of SPWLA BatStateU SC was held on June 17, 2023, which included the following agendas: accomplishing the documents for the renewal of student organizations, planning for upcoming activities, and brainstorming for possible organization merchandise. Headed by the President, the organization was able to submit the renewal forms required by the Office of the Student Organizations on time. Additionally, the officers were also able to come up with 14 events for 2023–2024. Six of these events, including the General Assembly, Paper Competition and Quiz Bee, Career Orientation, Mental Health Awareness Seminar, SPWLA Slay, and Coastal Cleanup, were planned to be carried out in the first semester. The remaining eight, including Blood Donation, E-Mentorship, Group Study, BOSH Training, Benchmarking, Software Workshop, Job Fair, and Election and Turnover Ceremony, would be conducted during the second semester. All of the events have their corresponding target Sustainable Development Goals aligned with the United Nations' universal call for action. Finally, the officers also proposed eight pieces of merchandise, comprising a shirt, ID, tote bag, pins and keychains, laces, a jacket, a handkerchief, and a cap, to promote unity among members and to contribute to funding for the upcoming activities.

Another meeting was conducted on the July 14, 2023 by the SPWLA BatStateU SC with Mr. Abel Angel Ablang, a member of the Geological Society of the Philippines (GSP), for a possible partnership with the latter organization. The GSP is the only accredited integrated professional organization of geologists in the Philippines by the Professional Regulation Commission. With this, a potential collaboration with the GSP would present a unique opportunity for knowledge growth as well as expand the organization by encouraging geological engineering students to become a member. The meeting was headed by the President, Ms. Diasanta, beginning with the presentation of the proposed events, including research competition, networking, career orientation, and mentorship programs, which the organization can offer with the aid of the GSP. Our advisor, Engr. de Castro also added that strengthening the student chapter through collaboration with the GSP can pave the way for creating a Philippine section of the SPWLA.

Recent Events

10 June 2023—Turnover Ceremony: The Turnover Ceremony of the SPWLA BatStateU SC was held with the theme: "Glimpse of Hope Towards the Future." The momentous event marked the passing of the torch from the outgoing executive board to the incoming new set of leaders, signaling a fresh beginning for the organization. The event commenced with the opening remarks from the outgoing President, Ms. Andrea Lorraine Manalo, followed by the recognition of officers. The seniors of the organization also took the opportunity to share valuable insights and advice, setting the incoming officers on a path to success and inspiring them to make their mark on the organization. Through the event, it became evident how SPWLA BatStateU SC is committed to ensuring strong bonds between its student officials.
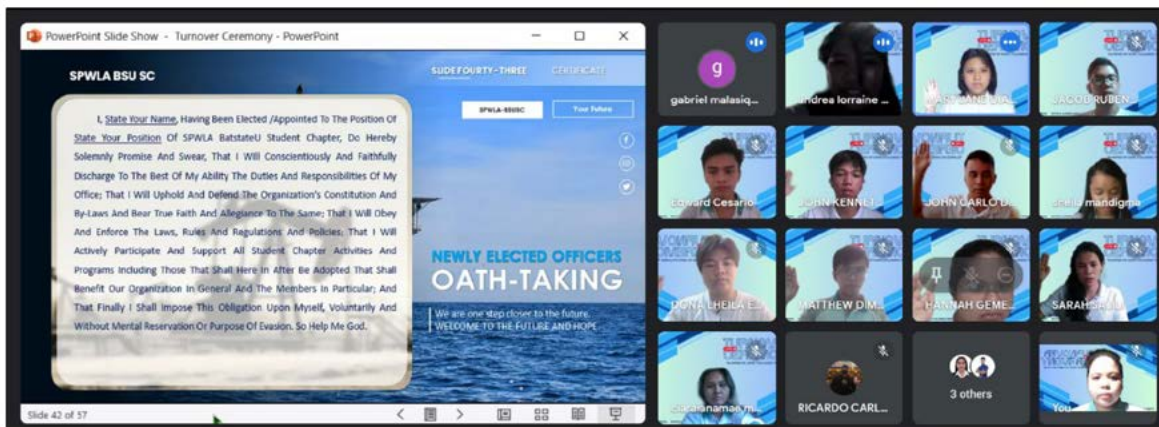
The oath-taking ceremony of the newly elected officers during the Turnover Ceremony of the SPWLA BatStateU SC via Google Meet. The pledge was headed by the outgoing President, Ms. Manalo, and was well-attended by both incoming and outgoing sets of officers.

Upcoming Events

Second Week of September 2023—SPWLA General Assembly III: The SPWLA BatStateU SC is a nonprofit organization whose mission is to heighten awareness about petrophysics, formation evaluation, and well-logging practices in the oil and gas industry. It also promotes education and advancements in the field of petrophysical sciences. The event will be held using Google Meet/face-to-face collaboration with some experts from a similar field.

Fourth Week of September 2023—From Rocks to Riches: This event, with the theme: "Logging into a World of Gushing Career Opportunities," is a unique opportunity for students to delve into the world of petrophysics and well-log analysis. The distinguished panel of industry professionals will guide students through the essential aspects of these fascinating fields, offering valuable insights, real-world experiences, and exciting career prospects. Participants will also be able to engage in hands-on workshops where experts will demonstrate the usage of cutting-edge software tools used for well-log interpretation and petrophysical analysis. The webinar will be held using Google Meet/face-to-face with the collaboration of career guidance counselors and prominent figures from different fields.

Fourth Week of October 2023—Mental Health Awareness: The emotional, psychological, as well as social well-being of every individual is included in mental awareness. This is possibly a reminder that mental health is essential and everyone suffering from mental health should be cared for, loved, healed, and recovered. The webinar will be headed by the SPWLA-BatStateU SC and will be conducted using Google Meet/face-to-face in collaboration with psychological experts.

First and Fourth Week of November 2023—ExSPWLAtory Investigations: The SPWLA BatStateU SC has been showcasing the analytical and technical knowledge of its members through a paper competition. This time around, our chapter has decided to step up side-by-side with the mother organization by conducting an internal paper competition and quiz bee. With this competition, it will help the students to have belief in themselves and enhance their respective skills, which would be helpful in the future. Students will be given enough time for the preparation of their respective studies.

Fourth Week of November 2023—SPWLA Slay: Playing online games is one of the ways to cope with stressful times. Online games are pretty popular nowadays due to the entertainment it brings. These games often require players to work together, communicate effectively, and coordinate their efforts to achieve common goals or overcome challenges. The objective is to foster social interaction, build relationships, and encourage cooperation. SPWLA Slay serves a purpose by giving members a chance to form bonds with their fellow members through playing.

First Week of December 2023—Coastal Cleanup: Coastal habitats, including beaches, wetlands, and coral reefs, are vital for maintaining biodiversity and providing essential ecological services. Cleanup initiatives help preserve these ecosystems by removing debris that can harm their health and integrity. By protecting coastal habitats, we also ensure the well-being of countless plant and animal species that rely on these environments. Through education and outreach, cleanup initiatives aim to

inspire individuals and communities to adopt sustainable practices and reduce waste generation. Coastal cleanup will be in the first week of December.

Fourth Week of January 2024—Blood Donation: Voluntary blood donation is one of the ways to ensure that there is a sufficient supply of blood used in surgeries, therapies, and transplants, as well as to provide a further understanding of the benefits of blood donation. The project is in recognition of National Blood Donor Month.

February–March 2024—Group Study: The study is designed to encourage the student members to think more creatively while building strong communication with other members. It will allow the students to refine their understanding of their chosen field of interest. The SPWLA BatStateU SC is dedicated to ensuring its members have an environment that would give them an opportunity to learn, grow, and prosper as a professional. The program will be on the second week of February and will last until the second week of March 2024.

First Week of March 2024—Empowering Digital Transformation: The workshop can focus on familiarizing participants with a particular software tool, framework, or library. The objective could be to enable participants to understand the tool's features, best practices, and how to leverage it effectively in their projects or school tasks. This aims to improve participants' software development skills by focusing on specific areas or software, such as Petrel and Eclipse. The objective could be to provide participants with practical knowledge and techniques they can apply to their projects. The training will be conducted face-to-face or online in the first week of March.

March–April 2024—SPWLA MentorConnect: This event title emphasizes the mentorship aspect ("MentorConnect") and the focus on developing the next generation of petrophysics and well-log analysts ("Empowering the Petrophysics and Well Log Analysts of Tomorrow"). The event would serve as a platform for fostering meaningful connections between experienced professionals and aspiring individuals, creating a supportive network for knowledge sharing and career growth within the SPWLA community. The e-mentorship program is designed to provide the student members with in-depth knowledge of their chosen petrophysical course through a three session program with professionals or volunteer mentors who have actual experience in the field. The program will run from March up to the fourth week of April 2024 via Google Meet or through a face-to-face session.

April 2024—BOSH Training: The basic principles of BOSH Training include preventing any harm and accidents. Through this event, the student members will be exposed to the proper ways to prevent harm and keep the workers from accidents in the workplace. The training will be conducted face-to-face/via Google Meet in the month of April 2024 and will be facilitated by the organization officers.

Second Week of April 2024—Benchmarking: Benchmarking is a process of comparing an organization's performance, practices, or processes against those of industry leaders or best-in-class companies in order to identify areas for improvement and set performance targets. It involves measuring performance metrics, analyzing data, and learning from the successes and strategies of top-performing entities. Benchmarking can be applied to various aspects of an organization. Benchmarking is done in order to form connections or partnerships with another organization. This will take place in the second week of April.

Fourth Week of April 2024—Election of Officers and Turnover: The event is organized to serve as a transition to prepare for an orderly and efficient turnover for the incoming officers of the organization. The SPWLA BatStateU SC is committed to ensuring strong bonds between its incoming and outgoing student officials. The ceremony will be during the fourth week of April 2024 using Google Meet and Google Forms.

Second Week of May 2024—Job Opportunity/Job Fair Event: Job employment events provide knowledge about the recruitment process and give insights for potential applicants among the student members. The program would be composed of experts from different companies that could promote and help the students as they start planning or pursuing their careers. The event will be on the second week of May 2024.

The first official meeting of SPWLA BatStateU SC was held on June 17, 2023, via Google Meet. The meeting highlighted the plans of the organization for the upcoming academic year as well as the submission of renewal requirements imposed by the university. The meeting was well-attended by the new set of officers.

A face-to-face meeting of SPWLA BatStateU SC together with Mr. Abel Angel Ablang (fourth person from the left), a member of the Geological Society of the Philippines, for a proposed partnership with the latter organization.
The meeting was held on the July 14, 2023, and was well-attended by the SPWLA BatStateU SC officers with the newly appointed organization advisor, Engr. John Kevin de Castro (first person from the right).

BRAZIL CHAPTER

General News

Our monthly meetings are being held online every third Tuesday of the month at 4 pm (Brasilia Time). Anyone wishing to participate is welcome. We also post chapter updates and meeting links on our LinkedIn page (SPWLA Brazil Chapter). Check us out! For further information about the chapter, please contact our secretary, Leonardo Gonçalves (leonardo.g@petrobras.com.br). Membership to our chapter is free and can be claimed by filling out the form available at https://lnkd.in/g4KQjYf. Meetings are held in Portuguese or English, depending on the preference of the speaker. Even if it is held in Portuguese, questions in English are also welcomed!

SPWLA 65th Annual Logging Symposium

SPWLA Brazil is honored to announce that we will host the SPWLA 65th Annual Logging Symposium in Rio de Janeiro in 2024. We are still starting the organization, so stay tuned to our LinkedIn page for new information. SPWLA Brazil would like to thank the SPWLA board and the entire petrophysics and formation evaluation community for their trust. Brazil will certainly make it the best event ever!

Webinar Format and YouTube page

As of 2023, SPWLA Brazil has changed the format of its monthly technical meetings. They will now be webinars streamed through our YouTube page: https://www.youtube.com/@spwlabrazil/streams.

In this way, the talks will be available to be watched after the presentations, reaching a larger audience and expanding our mission to disseminate petrophysics and formation evaluation in Brazil.

Recent Events

20 June 2023—We had Guy Wheater (wireline conveyance specialist at Gaia Technologies), who gave a talk entitled "Adventures in Research for Wireline Conveyance AND Wellbore Diagnostics." You can watch this webinar using the link: https://www.youtube.com/watch?v=en6EF9iPFoo.

Invitation to the June webinar of the SPWLA Brazil Chapter.

18 July 2023—We had Jânio Cornélio (domain champion at SLB), who presented a talk entitled "Application of Advanced Ultrasonic Measurement on De-risking Intervention and Well Decommissioning Operations." You can watch this webinar using the link: https://www.youtube.com/watch?v=50zJJBb1CyM.

Invitation to the July webinar of the SPWLA Brazil Chapter.

21 August 2023—We hosted Adam Haecker (director of geoscience at Milestone Carbon), who presented "CCUS Petrophysics: How Is It Different? How Is It the Same?"

Invitation to the August webinar of the SPWLA Brazil Chapter.

Upcoming Events

19 September 2023—We'll host Ronaldo Herlinger (senior petrophysicist at Petrobras), who will present "Investigation of Residual Oil Saturation in the Barra Velha Formation: A Study Integrating Petrography, RCAL, SCAL, and mCTs." The meeting will take place at 4 pm GMT-3 and can be accessed by a link to be released on our LinkedIn page.

Invitation to the September webinar of the SPWLA Brazil Chapter.

FEDERAL UNIVERSITY OF RIO DE JANEIRO STUDENT CHAPTER

Our chapter maintains normal activities, now with 14 active members organized below:

Board Members
- President: Gabriel Ferraz
- Vice President: Guilherme Lontra
- Treasurer: Sofia D'Orsi
- Secretary: Diana Tabach
- Professor Advisor: Jorge Picanço

Executive Members
- Rodrigo Azambuja
- Iago da Costa
- Sarah Aleixo

Marketing Members
- Renan Camilo
- Luís Henrique Trianon
- Marina Alfradique

Logistic Members
- Alexandre Nobre
- Vittor Cambria
- Enzo Borges

Recent News

Our chapter had the first in-person selection process since the return of presential activities in 2022, and now, we have three new active members that have been organized into the Marketing and Logistics sectors.

Also, we have scheduled a technical visit to the laboratories of petrophysics and geophysics at the Development and Research Center of Petrobras (CENPES) for September.

The post we made for our Instagram showing our new team, including the new members.

Upcoming Events

We are in contact with our supervisor professor, Jorge Picanço, to do an internal presentation about the petroleum system. We are trying to make it an in-person event that will occur in September.

We also managed to talk with a member from PetroRio to do an in-person presentation about the acquisition of seismic data. We still don't have a specific date for the event.

We are trying to get in contact with a member from the Sedimentary Laboratory of UFRJ (LAGESED) to have a webinar or a presentation about acoustic borehole images.

HOUSTON CHAPTER

General News

The SPWLA Houston Chapter is forging ahead in its commitment to serve the local petrophysics community by delivering informative and engaging technical seminars. Alongside these enriching seminars, our chapter is proud to host a variety of networking events that provide a valuable social platform for local professionals.

As summer takes center stage, we recognize that this season is typically associated with reduced activity due to business commitments and family vacations. However, we're happy to witness an influx of new members joining our activities—not only participating in the technical seminars but also actively engaging in our social networking events.

With great excitement, we present to you the freshest updates and news from the vibrant third quarter of 2023. **Technical Seminars:** Our chapter hosts a technical seminar each month. A seminar was held on July 19. CCUS is one of the key focuses. The seminar was titled "The Role of Petrophysics in Hydrocarbon Resources and Reserves, and CO2 Storage Assessment Using PRMS and SRMS" was presented by Joshua Oletu (Gaffney, Cline & Associates). We thank Baker Hughes for sponsoring the event. Another seminar was held in August titled "Latest Developments in Portable Active Seismic Source (PASS) System," presented by Takeshi Tsuji (University of Tokyo).

To provide more networking opportunities, the SPWLA Houston Chapter continuously hosts networking events on the last Thursday of each month, from 5:07 to 8:08 pm, at the same location for easy recall. The events were hosted on June 29, July 27, and August 31 in the last 3 months. The entire SPWLA community was invited, and the outdoor party was attended by petrophysicists, geologists, geophysicists, engineers, managers, and others, including current and past SPWLA international board members.

Please join us at our monthly networking events on the last Thursday of each month. The next networking event will be on September 28. The time and location will be the same. Hope to see you there!

The SPWLA Houston Chapter continues to host lunch seminars on various topics, with more in-person events taking place recently. Slots are limited for in-person seminars; please visit spwla-houston.org for details and registration.

To receive notifications of upcoming events and chapter news, register on the new SPWLA Houston Chapter website and follow us on LinkedIn. You'll also find sponsorship opportunities and job postings. If you're interested or would like more information, please contact us. We are always open to new speakers for our seminars and welcome guests to present on topics of interest to the petrophysics audience. Contact our VPs if you have a presentation to share.

We are committed to fostering a thriving community and offering events that cater to both your professional growth and your social connections. Stay tuned as we continue to explore new avenues for learning, networking, and collaboration.

Stay tuned for upcoming news and events! As always, feel free to contact any of the board members if you have questions or comments using the contact information provided on our website: https://spwla-houston.org/. Please follow our LinkedIn account "Houston Chapter of SPWLA" for the latest updates.

Recent Events

29 June and 27 July 2023—We hosted two in-person social networking events. The whole SPWLA community was invited. That was an outdoor party attended by petrophysicists, geologists, geophysicists, engineers, managers, etc. We have current and past SPWLA International board members joining our events. We plan to have such a networking event last Thursday **monthly** from 5:07 to 8:08 pm at the same location to make it easier to remember. Hope to see you there!

19 July 2023—SPWLA Houston Chapter Lunch Seminar: Houston Chapter Northside hosted a lunch seminar titled "The Role of Petrophysics in Hydrocarbon Resources and Reserves, and CO2 Storage Assessment Using PRMS and SRMS" presented by Joshua Oletu (Gaffney, Cline & Associates). We thank Baker Hughes for sponsoring the event.

3 August 2023—Houston Chapter Downtown hosted an online seminar titled "Latest Developments in Portable Active Seismic Source (PASS) System," presented by Takeshi Tsuji (University of Tokyo).

24 Aug 2023—"Petrophysics Intelligence and Automation – A Case Study of Utilizing Machine Learning to Integrate Multi-Scale Data for TOC Characterization in Unconventional Reservoirs" was presented by Chicheng XU (Aramco).

31 August 2023—A Happy Hour was held at **Cedar Creek Bar & Grill**. The entire SPWLA community was invited. The Houston Chapter hosts this networking event **every month at the same time and location**. Hope to see you at the next one!

More details available on the Houston Chapter's website https://www.spwla-houston.org/
and the Houston Chapter LinkedIn profile https://www.linkedin.com/company/houston-chapter-of-spwla/

Stay always tuned!

Amer Hanif, the Vice President of the Northside SPWLA Houston Chapter, warmly greeted the speaker and presented a gift as a token of appreciation.

Joshua Oletu made a presentation about the role of petrophysics on CCUS.

The success of another fantastic networking event hosted by the SPWLA Houston Chapter on June 28.

SPWLA Houston Chapter President Bernd Ruehlicke introduces the upcoming events organized by the chapter.

Houston Chapter networking time on June 28.

The whole SPWLA community was invited. Happy to have current and past SPWLA international board members joining our event.

More enthusiastic participation from industry professionals and esteemed members of academia joined the event on July 27.

We warmly invite the entire SPWLA community to join us at our monthly networking events, which take place on the last Thursday of each month. The Houston Chapter hosts networking events **every month at the same time and location**. Don't miss this opportunity to connect with others in the SPWLA community. We look forward to seeing you there!

SPWLA Houston Chapter Board for 2022–2024

Bernd Ruehlicke **PRESIDENT** president@spwla-houston.org	**Amer Hanif** **VICE-PRESIDENT NORTH SIDE** vpnorthside@spwla-houston.org
Artur Posenato Garcia **VICE-PRESIDENT DOWNTOWN** vpdowntown@spwla-houston.org	**Neal Cameron** **VICE-PRESIDENT WESTSIDE** vpwestside@spwla-houston.org
Ronke Olutola **TREASURER** treasurer@spwla-houston.org	**Hans Wong** **SECRETARY** secretary@spwla-houston.org
QinShan (Shan) Yang **EDITOR** editor@spwla-houston.org	**Tianmin Jiang** **WEBMASTER** webmaster@spwla-houston.org

HYDROCARBON RESOURCES SIG

General News

The SPWLA Hydrocarbon Resources SIG held its first open virtual meeting under the "Porosity Chat Series 2023" in May, where Dr. Stefan Calvert presented on "An Exploration of Porosity Methods and Their Respective Water Saturations." Joshua Oletu, SIG President, started with an introduction and pointed out the relevance of these "Porosity Series" to continue refining Chapter 5 of the PRMS guidelines dedicated to petrophysics. The presentation was followed

by an interesting discussion about the integrated approach for calibrating porosity estimations, the confidence in the calculations, and the major challenges when data are limited. Our meeting was held online, with members in North America and Europe representing several companies and different expertise levels.

Attendees from the first "Porosity Chat Series 2023" meeting in May 2023.

In June, the SIG delivered a workshop on "The Importance of Petrophysics in Resources and Reserves Estimation" at the SPWLA Annual Symposium in Conroe, Texas. The workshop was well attended, with some interesting discussions between participants and presenters.

Picture of attendees and presenters (left) and workshop discussions (right) during the SPWLA Annual Symposium Workshop on "The Importance of Petrophysics in Resources and Reserves Estimation" in June 2023.

In July, Joshua Oletu presented a one-hour lunch session at the SPWLA Northside Houston Chapter on "The Role of Petrophysics in Hydrocarbon Resources and Reserves and CO_2 Storage Assessment Using PRMS and SRMS." The event was well attended, with an engaging Q&A session following the presentation.

Joshua Oletu presenting to the SPWLA Northside Houston Chapter audience, July 2023

The SIG's webpage is now live on the SPWLA website under the Chapters/SIGS section, where you can find further information on the SIG, its vision, mission, past and upcoming events, and contact information.

Upcoming Events
6 October 2023—The SIG will participate in a half-day workshop in Bogota, Colombia, for the local SPWLA Chapter with the presentation "The Importance of Petrophysics in Resources and Reserves Evaluation."

The SIG is also planning its next virtual meeting on its Porosity Chat Series.

Finally, we solicit for new members to join the SIG, given the importance of resources and reserves estimation in our industry. SIG contact email: reserves_sig@spwla.org

JAPAN CHAPTER – (JFES)

Recent Events
25 July 2023—The 121st Chapter Meeting was held as an online event. We welcomed 63 audience members and two lecturers for a series of technical presentations, which were followed by lively discussions.

Presentation 1
Green Tuff Reservoir Rock Type Classification by Integrating Petrography and Petrophysics Data (Case Study in Higashi Kashiwazaki Gas Field, Japan)
Keitaro Kojima (INPEX)

Presentation 2
**DX in Subsurface Evaluation: INPEX's Initiatives and Challenges**
Hiroyuki Inoue (INPEX)

Upcoming Events

13–14 September 2023—The 28th JFES Symposium: The 28th JFES Symposium will be held as an "in-person with streaming" event. The onsite venue will be the Japan Organization for Metals and Energy Security – Technology & Research Center (JOGMEC-TRC), Chiba. Nine special speakers are invited to this symposium. More than 20 papers have been submitted and will be presented. In addition, the High Angle and Horizontal Wells (HAHZ) Special Interest Group (SIG) of the SPWLA will facilitate the workshop on 11–12 September ahead of JFES Annual Symposium at the same place, JOGMEC TRC (2023 SPWLA HAHZ Workshop Program).

Registration: Visit and fill out the Registration form
August 25: Deadline for Early Registration
September 10: Deadline for Regular Registration

Date & Time: **HAHZ SIG WS:** September 11–12, 2023, Monday–Tuesday, 8:30 am (JST)
JFES 28th Symposium: September 13–14, 2023, Wednesday–Thursday, 9:00 am (JST)

	September			
	Mon	Tue	Wed	Thu
	11	12	13	14
	HAHZ Workshop		JFES Symposium	
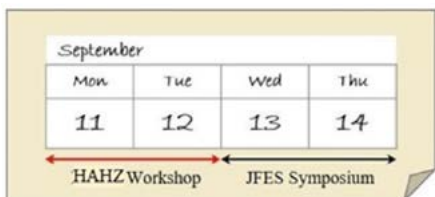
	JFES Symposium only (2Days)		HAHZ workshop only (2Days)		JFES Symposium + HAHZ (4Days)	
	Early bird	Regular	Early bird	Regular	Early bird	Regular
Member	6,000	7,000	6,000	7,000	6,000	7,000
non Member	9,000	10,000	9,000	10,000	9,000	10,000
Student	1,000	1,500	1,000	1,500	1,000	1,500

Program: JFES website – https://www.spwla-jfes.org/
Contact: info@spwla-jfes.org

MALAYSIA CHAPTER
Formation Evaluation Society of Malaysia (FESM)

General News

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

General News

On July 6, 2023, FESM announced new committee members for 2023. Below are the committee:
- Advisor/Intersociety Liaison: Grant Heavysege
- President: Thanapala Singam Murugesu (PETRONAS)
- VP Technology: Samie Lee (SLB)
- Secretary: Siti Nurzahira (PETRONAS)
- Treasurer: Edwin Wong (Aspentech)
- Sponsorship: Nor M Kamar Ghaz A Ghani (PETRONAS)
- PR/Marketing/Publications: Afiqah Zahraa Ahmad Zailani (Beicip Franlab Asia)
- Meetings and Arrangements: Hazreen Bt Harris Lee (PETRONAS)
- Special Event: Alexander Belevich (Dialog) and Nur Atiqah Hassan (PETRONAS)

Recent Events

6 July 2023—FESM hosted an insightful talk on "Machine-Learning Application: Implementation of Log Prediction in Various Depositional Environments Through ERMAI." The talk was given by Jamari M. Shah (PETRONAS). The event brought together experts and industry professionals to discuss cutting-edge approaches and advancements in using machine learning to predict petrophysical properties accurately. The presenter highlighted multiple key points:
- Harnessing the Power of AI: The speakers emphasized the growing significance of AI in the field of petrophysics and its potential to revolutionize the analysis of subsurface data. They showcased how AI techniques, such as machine learning, can process large volumes of data, including multiple fields in Malaysia, and extract valuable insights more efficiently.
- Enhanced Predictive Capabilities: The event emphasized how AI models can enhance the accuracy of petrophysical predictions by learning from training data and identifying patterns that human analysts might overlook. By leveraging these predictive capabilities, companies can make more informed decisions during reservoir characterization and production optimization processes.
- Case Studies and Success Stories: Attendees were presented with real-world case studies showcasing successful applications of AI in predicting petrophysical analysis. These examples demonstrated how AI algorithms outperformed traditional techniques, leading to time savings and improved reservoir characterization. The presenter shows several examples of AI in predicting improved petrophysical properties, such as water saturation in multiple depositional environments.

- Challenges and Opportunities: The event also shed light on the challenges associated with AI implementation in the petrophysical domain. Issues such as results validation and logs condition were discussed. However, the speakers emphasized that with proper data input and continuous model validation, these challenges can be overcome, opening new opportunities for AI-driven petrophysical analysis.

The event on the approach of artificial intelligence in predicting petrophysical analysis provided attendees with valuable insights into the transformative potential of AI in the field. By harnessing AI algorithms and integrating multiple data sources, the industry can unlock new levels of accuracy and efficiency in petrophysical analysis, ultimately leading to more informed decision-making and optimized oil and gas operations.

26 August 2023—FESM hosted its 2023 Talk Series for August with the topic of "Machine Learning for Facies Distribution of Large Carbonate Reservoir Models – A Case Study" by Frederic Robail. The talk showed examples of using a machine-learning approach to tackle subsurface complexity within a multidisciplinary integrated study to construct a field-scale reservoir model for a large carbonate reservoir. The results of the machine learning have also been validated using a production/injection log survey (PLT, ILT), core CT scan, and core descriptions.

Upcoming Events

25 September 2023—FESM also plans to conduct an online master class talk with Steve Cuddy to explore theoretical and practical aspects of the volumetric BVW solution.

NMR SIG

The SPWLA NMR SIG is excited to share two updates. First, we are sad to accept Harry Xie's resignation from our NMR SIG executive committee, but we know he is only a phone call or text or email away. Harry is now VP-Elect Technology and thus has a lot on his plate. We thank Harry for his past role as president of the executive board of the SPWLA NMR SIG and for being one of our strongest motivators. Harry's creative energy, ability to follow through, and never-ending positivity will be missed! We are simultaneously glad to welcome Kris Farmer, our new board member. You can see in our picture we are celebrating!

Second, we want to share a quote from the Student Paper contest winner Evgeny Ugolkov. In addition to his award from the general competition, he was also our first-ever NMR Award recipient, which came with a monetary amount. In response, Evgeny shared a lovely email with us, from which is taken the following excerpt:

"I would like to express my separate sincere gratitude for the monetary prize and for everything that SPWLA did for the industry, for the society, and for me personally. … Your contribution has a big positive [impact] in my life. …My story with SPWLA started in 2017, when I was a sophomore. This time, SPWLA awarded me a scholarship for academic successes, and I believe the same scholarship was assigned in 2018 and 2019 as well. These scholarships helped me a lot in these times: I got an opportunity to focus on my studies and not to interrupt it with a part-time job."

Stay tuned for future NMR SIG initiatives and be sure to join the fun.

NUCLEAR LOGGING SIG

Nuclear Education Fund

This fund, established under the SPWLA Foundation and formally announced at the 2023 SPWLA Annual Symposium in June, was created by the Nuclear SIG Executive Committee to promote education and research by students on nuclear logging technologies by students. The fund will be dedicated to scholarship awards or best student paper awards on nuclear logging science and technology. The starting contribution was approximately $5,200. Of this amount, $3,127.83 came

from established funds of the Nuclear Logging SIG that were retrieved from the State of Texas. The rest were from member contributions. If you would like to contribute, please click on the following link, and follow along to locate this Fund:

https://www.spwla.org/SPWLA/Foundation/Make_A_Donation.aspx

The Nuclear SIG is working with the foundation to set up processes for the awards. Please contact Ahmed Badruzzaman (ahmed.badruzzaman@gmail.com) or Shikha Prasad (sprasad9@slb.com) if you have any questions, comments, or suggestions.

Recent Events
Nuclear SIG Meeting
11 June 2023—This meeting was held at Lake Conroe. This was the first in-person meeting since 2019. The discussion topics included (i) a recap of SIG activities during the peak COVID-19 years, 2020–2022, (ii) the Nuclear SIG Educational Fund (noted above), (iii) future Nuclear R&D and SIG Activities, and (iv) the way forward on technical areas and potential leadership changes. You can find the minutes of the meeting at **New==>Minutes 6-11-23** on the Nuclear SIG Webpage.

2023 SPWLA Symposium – Nuclear Papers
A number of papers were presented at the 2023 SPWLA Annual Symposium, primarily or exclusively on nuclear logging techniques. These include the following:

1. **A Novel Oil Saturation Evaluation Method by Using Double Particle Detector CS2LiyYCL6:ce(CLYC)** (Q. Liang et al., China University of Petroleum (East China), Qingdao, China)
2. **Time-Lapse Pulsed-Neutron Logs for CCS: What Have We Learned From All These Monitoring Runs?** (R. Laronga et al., SLB)
3. **A New Petrophysical Workflow to Characterize Magnesium-Rich Clay Minerals in Presalt lacustrine carbonate reservoirs** (P. Guo et al., ExxonMobil)
4. **A Method for Determining the Porosity of Pulsed Neutrons by Combining Gamma Energy and Time Spectrum** (H. Zhang et al., China University of Petroleum (East China)
5. **A New Method to Improve the Calculation Accuracy of Element Content in Natural Gamma Spectrometry Logging While Drilling** (Z. Liu et al., China University of Petroleum (East China), Qingdao, China & Laoshan Laboratory, Qingdao, China)

6. **A Compact Multisensor LWD Tool Optimized for Unconventional Reservoirs** (C. Langford et al., Scientific Drilling)
7. **An Adaptive Spectra Fitting Method for Elemental Concentration Measurement Using a Pulsed-Neutron Tool** (Yi Ge et al., University of Electronic Science and Technology of China)
8. **A Step Change in Neutron-Induced Gamma Ray Spectroscopy: Using a High-Resolution LaBr3:ce Detector in an Integrated LWD Tool** (F. Haranger et al., SLB)
9. **Accurate Mineralogy When Logs Are Scarce or of Limited Fidelity: Innovative Data Analytics Solution Leveraging Core-Logs Integration** (L. Mosse and C. Cavalleri, SLB, and M. Borgi and M. Pirrone, ENI s.p.A)
10. **Development and Baseline Comparison of a New Pulsed-Neutron Spectroscopy Tool for Carbon-Oxygen Analysis and Three-Phase Saturation Monitoring** (I. McGlynn et al., Baker Hughes)
11. **Nuclear Logging in Geological Probing for a Low-Carbon Energy Future – A New Frontier?** (A. Badruzzaman, Pacific Consultants and Engineers)
12. **The Effective Diagnostic Capability of Pulsed-Neutron Logging for CCS Monitoring Purposes** (S. Machicote et al., Eni S.p.A.)

We plan to cover these papers in more detail at upcoming Nuclear SIG Technical Meetings.

Potential Application of Nuclear Logging in Energy Transition
With energy transition being actively discussed, nuclear logging techniques are expected to play a key role in that transition. The following papers, presented at the Special Session, **Petrophysics Beyond Petroleum-State of Technologies**, at the 2023 Annual Symposium, are brought to the attention of the reader to illustrate that.

- **State of Integrated Formation Evaluation for Site-Specific Evaluation, Optimization, and Permitting of Carbon Storage Projects** (R. Laronga et al., SLB)
- **Integrated Petrophysical Studies for Subsurface Carbon Sequestration** (S. Bhattacharya et al., Bureau of Economic Geology, UT Austin)
- **Nuclear Logging in Geological Probing for a Low-Carbon Energy Future—A New Frontier?** (A. Badruzzaman-PCE and UC Berkeley). This was also noted above in the list of nuclear papers.
- **Petrophysical Analyses for Supporting the Search for a Shale-Hosted Nuclear Repository** (J. Strobel, Bundesgesellschaft für Endlagerung mbH (BGE) Peine)

Journal Publication: Review Papers on Nuclear Logging

The attention of the reader is drawn to the following recently published peer-reviewed papers illustrating the evolution, current state, and potential future of nuclear logging techniques.

- Richard Pemper, 2020, A History of Nuclear Spectroscopy in Well Logging, *Petrophysics*, **61**(6), 523–548. DOI: 10.30632/PJV61N6-2020a1.
- Ahmed Badruzzaman, 2023, Accelerator Technology for Well Logging: Advances, Challenges and Opportunities, *Nuclear Science and Engineering*, DOI: 10.1080/00295639.2023.2177073.
- Dale E. Fitz, 2023, Evolution of Casedhole Nuclear Surveillance Logging Through Time, *Petrophysics*, **64**(4), 473–501. DOI: 10.30632/PJV64N4-2023a1.

PDDA SIG

SPWLA PDDA Topical Conference

10–11 October 2023—We are delighted to extend a warm invitation to you for the upcoming 2023 SPWLA Petrophysical Machine-Learning Conference scheduled to take place in the vibrant city of Houston. This event promises to be an exceptional gathering of leading petrophysicists, researchers, students, and enthusiasts in the field of machine learning. Join us as we delve into the latest advancements, share insightful research findings, and engage in enlightening discussions that are shaping the future of data analysis and machine learning. Your presence at this conference would contribute to the richness of knowledge exchange and networking opportunities. We eagerly await your participation in this dynamic and intellectually stimulating event. We appreciate Halliburton for sponsoring this event, and tentative schedules are as below:

Location: Halliburton North Belt Campus –Auditorium (3000 N. Sam Houston Pkwy East, Houston, TX 77032)
Date: Tuesday and Wednesday, October 10–11, 2023
Time: 8:00 am – 4:30 pm CDT
Registration fee: $300 for professionals and $80 for students
Registration: link to be updated – In-person only

Conference Committee:
Hyungjoo Lee (Helmerich & Payne), Fransiska Goenawan (Halliburton), Wen Pan (Shell), Michael Ashby (Devon Energy), Jaehyuk Lee (Baker Hughes), Lei Fu (Saudi Aramco), Yanxiang Yu (Amazon), and Andy McDonald (Geoactive)

Corresponding: http://pdda_sig@spwla.org
Submission deadline: September 15, 2023

Topics
1. Depth Matching, Well-Log Alignment, and Depth Shift
2. Supervised and Unsupervised Regression and Classification
3. ML for the Next Frontiers: Semi-Supervised and Reinforcement Learning
4. Petrophysical Workflow Automation with AI/ML

Sponsorship Opportunities

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

Please stay tuned and check us 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 included below.

More details 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 always tuned!

UNIVERSITY OF THE PUNJAB STUDENT CHAPTER (IGUP)

General News

A meeting of the newly elected board members of the SPWLA IGUP Student Chapter-Pakistan was held to introduce them and outline their respective responsibilities. The team also introduced the SPWLA and its associated chapter in Pakistan and encouraged all the students, including freshers, to give their full potential and use this prestigious platform to

thrive in the industry and represent both their chapter and country internationally. The team also managed to launch the first teaser for SPWLA-IGUP FIELD EXCURSION-23. There were multiple meetings on how to execute the field excursion in the summer. All the members participated in it with different ideas. The SPWLA-IGUP Student Chapter's recent successful university trips have ignited collaboration and passion for petrophysics across diverse academic backgrounds. Beyond technical knowledge, the platform offers holistic growth through events, resources, and collaborations. Accomplished members' stories inspire others, highlighting the impact of knowledge and community support. Despite a weather delay, an immersive field excursion remains on the horizon. The team encouraged the youth to join our collective journey of curiosity, knowledge, and passion by exploring the chapter, engaging in events, and connecting with like-minded enthusiasts.

The Board of Directors—The names of the elected board of directors with their designation and contact details are as follows:

Sr. No.	Board of Directors	Designation
1	Dr. Muhammad Armaghan Faisal Miraj armghan.geo@pu.edu.pk	Faculty Advisor
2	Miss Maha Ali Haider mahaalihaider26@gmail.com	President
3	Mr. Shan Shahzad shan.mphil.geo@pu.edu.pk	Vice President
4	Miss Pal Washa Shahzad Rathore palwashashahzad97@gmail.com	Treasurer
5	Miss Ayesha Ejaz ayesha.mphil.geo@pu.edu.pk	International Spokesperson Chairperson
6	Mr. Muhammad Hamza hamza-930233@pu.edu.pk	Membership Chairperson
7	Mr. Muhammad Waqas Javed geo747@outlook.com	Event Manager
8	Miss Syeda Fakiha Ali Zaidi fakihaali5@gmail.com	Social Media Chairperson

Recent Events
18 July 2023—As the SPWLA-IGUP Student Chapter continues to carve its path in the realm of petrophysics and well-log analysis, our journey has been nothing short of exciting and enlightening. Over the past months, our dedicated team has orchestrated successful trips to a diverse array of universities, fostering connections and igniting discussions that propel the passion for our field to new heights.

These university trips stand as a testament to our commitment to knowledge dissemination and collaboration. We have had the privilege of engaging with a multitude of bright minds eager to explore the nuances of petrophysics and well-log analysis. Through interactive sessions, insightful discussions, and sharing experiences, we have aimed to broaden perspectives and lay the foundation for meaningful partnerships. It is through these endeavors that we not only share our expertise but also learn from the diverse insights of fellow enthusiasts.

In our pursuit of fostering a community driven by curiosity and excellence, we invite all students to explore the myriad opportunities our chapter has to offer. This platform isn't just about technical learning; it's a gateway to holistic growth. By diving into our resources, attending our events, and engaging with our collaborations, you open doors to understanding the depths of petrophysical exploration and the multitude of career pathways it offers.

As part of our commitment to showcasing the potential that our chapter holds, we spotlight the remarkable achievements of our accomplished members who have presented their research on esteemed platforms. Their journey is a living testament to the power of knowledge and the transformative effect of community support. We encourage you to draw inspiration from their stories and realize the boundless potential that awaits you within our chapter's vibrant ecosystem.

Moreover, we extend a heartfelt invitation to join us on an upcoming field excursion—an opportunity to connect theory with practice and witness petrophysics in action. We understand that our initial plans had to be momentarily deferred due to weather concerns in our country, but rest assured, our determination to provide an unparalleled experiential learning opportunity remains steadfast. The field excursion is not merely a trip; it's an adventure that will unravel the layers of geological wonders and reinforce your understanding of petrophysics in its natural habitat.

In conclusion, the SPWLA-IGUP Student Chapter's journey is a collective effort fueled by curiosity, passion, and the relentless pursuit of knowledge. We invite you to become a part of this journey—a journey that transcends the boundaries of academia and fosters a lifelong love for petrophysics. Explore our chapter, engage in our events, connect with fellow enthusiasts, and embark on a voyage that promises enlightenment, camaraderie, and endless possibilities.

The faculty advisor of the SPWLA-IGUP Student Chapter, Pakistan, Dr. M. Armaghan Faisal Miraj, engages students in enlightening discussions about the transformative power of petrophysics and the diverse opportunities awaiting within the SPWLA-IGUP Student Chapter.

The President of the SPWLA-IGUP Student Chapter, Pakistan, Miss Maha Ali Haider, addresses a captivated audience of students, sharing insights on the significance of accomplishments and highlighting the achievements of our members who have presented their research on esteemed platforms of SPWLA Symposiums every year.

Upcoming Events

SPWLA IGUP Student Chapter-Pakistan is planning to organize a geological field excursion, a closing ceremony, and elections. The tentative plan for the rest of the term (2022–23) is below:

Sr. No.	Plan	Month-Year
1.	SPWLA-IGUP Field Excursion-23	Mid-Sept-2023
2.	Closing Ceremony of SPWLA-IGUP-(2022-2023)	End-Sept-2023
3.	Elections	Start-Oct-2023

UNIVERSITAS PERTAMINA STUDENT CHAPTER

General News

SPWLA Universitas Pertamina Student Chapter 2023/2024 is facing a new journey. Our fifth cabinet is named Integration Cabinet. Among the two chapters that still remain in Indonesia, SPWLA Universitas Pertamina SC is still the most active student chapter. The student chapter officers are undergraduate students that come from three majors, which are petroleum engineering, geological engineering, and geophysical engineering.

In this fifth cabinet, we seek to find good opportunities that can increase our officers' welfare. We're also ready to manage our future activities, like IPW (International Petrowell Event), which is held annually. We're committed to growing and improving our officers' skills in order to prepare them to face a new phase in their life. For one period, SPWLA Universitas Pertamina Student Chapter will conduct interesting work programs that align with our purpose. To gain more information, please follow our official Instagram account (@spwla.upsc).

Recent Events

7 May 2023—SPWLA UPer SC Open Recruitment of Officers: At the end of the Propagation Cabinet in the 2022–2023 period, we prepared for a new chapter of the SPWLA UPer SC. Our preparation began with the presidential election held on May 7, 2023, at the Universitas Pertamina. After the election, Raihan Dhia Nandika and Syaloom Zefanya Tampi from Petroleum Engineering 2020 batch were chosen to be the elected President and Vice President for the SPWLA UPer SC 2023–2024 period. To gain more manpower and the productivity of SPWLA UPer SC, we must find the next officers who will join our journey for one period. We hope that every applicant who enrolls in this organization can maintain and develop the skills to face the journey that awaits.
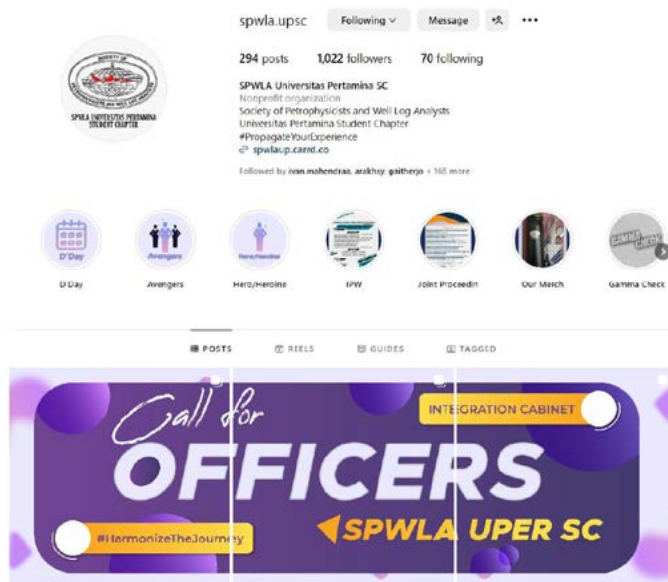
SPWLA UPer SC's open recruitment announcement on the official Instagram account of SPWLA UPer SC.

Welcome New Members – June 11, 2023–August 14, 2023

Abdelmoula, Hichem, Gowell, Houston, TX, United States
Abdou, Mohamed, Saudi Aramco, Dhahran, Saudi Arabia
Ademilola, Joshua, Oklahoma State University, Stillwater, OK, United States
Al-Asfour, Shaima, Kuwait Oil Company, Kuwait
Ali, Abid, Lamar University, Spring, TX, United States
Aljehairan, Ameena, Saudi Aramco, Dhahran, Saudi Arabia
Alshaikhmubarak, Tariq, Saudi Aramco, Dhahran, Saudi Arabia
Amoura, Saliha, USTHB, Krouchen, Oudjana, Algeria,
Ansa, Idongesit, West Virginia University, Morgantown, WV, United States
Baptista, Rafael, Universidade Do Estado Do Rio De Janeiro, Rio De Janeiro, Brazil
Barankiewicz, Pawel, PKN Orlen, Warsaw, Mazovian, Poland
Bello, Aliyu, Universiti Malaya, Sokoto, Nigeria
Benavides, Marcia, SLB, Bogota, Colombia
Borges, Lindemberg, Petrobras, Rio De Janeiro, Brazil
Campbell, Timothy, Diversified Well Logging, The Woodlands, TX, United States
Campelo, Fabiana, Petrobras Petróleo Brasileiro, Rio De Janeiro, Brazil
Chandra, Tanmay, ONGC, Ahmedabad, India
Chatterjee, Debasish, ONGC, Ahmedabad, India
Crowley, Camden, Stratagraph Geosteering, Opelousas, LA, United States
Das, Bhaswati, SLB, Navi Mumbai, India
De Oliveira, Rafael, Petrobras, Rio De Janeiro, Brazil
Dobbs, James, Bureau of Ocean Energy Management, Heath, TX, United States
Garduno, Amy, Openfield Technology, Katy, TX, United States
Gurgel, Cristiano, Petrobras, Rio De Janeiro, Brazil
Hann Woei, Loo, TotalEnergies, Courbevoie, France
Jensen, Kåre, Equinor, Hjellestad, Norway
Jin, Yuchen, Aramco Americas, Houston, TX, United States
Jones, Lloyd, Applied Petroleum Technology, Conwy, United Kingdom
Kumar, Akhilesh, ONGC, Ahmedabad, India
Laieb, Oulaid, ALNAFT/USTHB, Les Eucalyptus, Algeria
Li, Dan, SLB, Paris, France
Li, Chaoliu, PetroChina, Beijing, China
Ljønes, Marthe, Exploro Petrophysical AS, Lysaker, Bærum, Norway

Luo, Jihong, Saudi Aramco, Dhahran, Saudi Arabia
Machicote, Saida, Eni S.P.A., San Donato Milanese, Milan/Lombardia, Italy
McGlynn, Ian, Baker Hughes, Houston, TX, United States
Mezzomo, Eduardo, Petrobras, Rio De Janeiro, Brazil
Mirzayeva, Tahmina, University of Alberta, Edmonton, AB, Canada
Morani, Beatriz, UFSC, Florianópolis – SC, SC, Brazil
Mukherjee, Sanchay, Pennsylvania State University, State College, PA, United States
Najm, Ehab, Halliburton, United Arab Emirates
Panhuis, Peter, Shell, Den Haag, Netherlands
Parkins, Steve, Whitecap Resources, Calgary, AB, Canada
Raslan, Hytham, Dana Gas Egypt, New Cairo, Cairo, Egypt
Rossi, Tiago, Petrobras, Rio De Janeiro, Brazil
Ryder, Roza, ZO PGNIG/PKN Orlen, Warsaw, Mazovian, Poland
Sarwar, Hina, University of the Punjab, Lahore, Pakistan
Schuab, Frederico, PETROBRAS, Niteroi, Rio de Janeiro, Brazil
Sedrati, Khaled, TGT, Abudhabi, United Arab Emirates
Silvers, Kurt, PNNL, Richland, WA, United States
Tang, Huan, Halliburton, Houston, TX, United States
Trevizan, Willian, Petrobras, Rio De Janeiro, Brazil,
Van Vliet, Francois, SLB, Houston, TX, United States
Van Wyk, Daniela, Halliburton, Neuquen, Argentina,
Volkov, Maxim, TGT Diagnostics, Katy, TX, United States
Wiecek, Boguslaw, Halliburton, Houston, TX, United States

Alexander A. Kaufman
(August 1, 1931—June 7, 2023)

With deep sadness in our hearts, we inform you that Alexander Kaufman—an outstanding scientist in the field of geophysics, great teacher, incredibly compassionate human being, loving husband, father, grandfather, and great-grandfather—passed away on June 7, 2023.

Kaufman was born in Moscow, Russia, on August 1, 1931. After graduating from the Moscow Geological Prospecting University, he completed his PhD (1960) and moved with his family to the Siberian city of Novosibirsk to join the newly established Siberian Branch of the Russian Academy of Sciences. After completing his DrSc degree (1964), Kaufman accepted the leadership of the Electromagnetic Laboratory (EML) in the Institute of Geology and Geophysics.

At EML, Kaufman assembled a group of talented young scientists and opened a new chapter in the development of geophysical electromagnetic methods. Unsurpassed achievements of that time (1965 to 1975) include transient electromagnetics for deep sounding with a small separation of transmitters and receivers, induction logging with transverse sensors for detection and evaluation of thinly laminated oil reservoirs, and a multifrequency approach for increasing depth of investigation in borehole geophysics. Later, after emigrating in 1975 to the US, Kaufman patented a method of measuring formation resistivity through borehole metal casing. Theoretical studies implemented as industrial technologies continue to be used in oil exploration, mining prospecting, and borehole geophysics.

The young core of EML matured into the powerful and influential Kaufman's scientific School. Three generations of Kaufman's School have been successfully working in senior positions around the world in numerous universities, academies, and companies.

Kaufman was a great teacher serving as a professor for the Geophysical Department of Novosibirsk University, which he cofounded, and later at the Colorado School of Mines. He was passionate about education and passed this passion on to his students and colleagues. Kaufman's lectures were always brilliantly clear, appealing with very thoughtful examples, and demanded the undivided attention of the audience.

Kaufman was one of those educators who cared about sharing his vast knowledge via publishing books. While in the US, he authored, together with colleagues, 14 monographs that became an encyclopedia of geophysical science in electromagnetics, seismic, gravity, magnetics, and specific applications. Publishing this series was a 40-year-long journey. Kaufman finished the last book of the series at the age of 90.

Kaufman cared about people and was always ready and happy to help. He established a charity to support Russian scientists with medical needs and helped scores of new immigrants find their place in American life.

Kaufman was married to his first wife, Irina, for 56 years until her death. Surviving him are his second wife Natalie, sister Inna, son Dimitri, six grandchildren, and six great-grandchildren.