

ISSUE 5 | VOL 2 | SEPTEMBER 2019

THE SPWLA TODAY

NEWSLETTER



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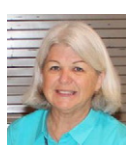
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Notice: Articles published in SPWLA Today are not subject to formal peer review but are subject to editorial review and are verified for technical consistency and relevance.

September 16–19, 2019

11th UPC International Symposium
Theme: “New Well Logging Techniques”
School of Geosciences – China University of Petroleum (East China)
Qingdao, China
www.spwla.org

September 25–26, 2019

25th Formation Evaluation Symposium of Japan
JOGMEC-TRC
Hosted by the Japan Formation Evaluation Society – A Chapter of SPWLA
Chiba, Japan
<https://jfes-spwla.org/symposium>

November 1–2, 2019

Porous Media: Structure, Flow, and Dynamics Workshop
Hosted By: The Boston Chapter of SPWLA
Cambridge, MA, USA
www.spwla.org

March 1–5, 2020

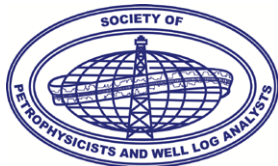
SPWLA Bangkok – Asia Pacific Regional Conference
Theme: “Petrophysics: From Exploration to Brownfield—The Impact of Formation Evaluation on Oil and Gas Field Development Decisions”
Bangkok, Thailand
www.spwla.org

June 20–24, 2020

SPWLA 61st Annual Symposium
Banff, Alberta, Canada
www.spwla.org

About the Cover

“The Fairmont Banff Springs Hotel, Banff, Alberta, Canada, venue for the SPWLA 61st Annual Logging Symposium, to be held in conjunction with the CWLS June 20–24, 2020. Check out the Call for Abstracts in this issue of *SPWLA Today* for details on how to submit an abstract for what will surely be a fantastic event.”



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CALL FOR ABSTRACTS

61st Annual Logging Symposium
Banff, Canada • June 20–24, 2020

The SPWLA Board of Directors invites you to join us at the Fairmont Banff Springs in Alberta, June 20–24, 2020, to showcase your case studies, new technologies and innovations at the 61st Annual Logging Symposium. We are soliciting papers in the following categories;

- New Borehole Logging Technology
- Advances in Machine Learning
- Deepwater Reservoir Analysis
- Petrophysics in Brownfields
- Case Studies
- Formation Evaluation Behind Casing
- Completion Petrophysics and Reservoir Surveillance
- Formation Evaluation of Conventional Reservoirs
- Formation Evaluation of Unconventional Reservoirs

Abstracts must be submitted no later than **Sunday, 27 October 2019**, via online submission at www.spwlaworld.org/abstract-submission

The information contained in your abstract is the basis for the acceptance of your paper into the technical program. Your abstract should contain 200–500 words. Do not feel obligated to use the full allocated length. Our members look for papers containing strong technical and innovative content. We ask you to refrain from commercialism and focus on the promotion of petrophysics and formation evaluation. Your submitted abstract needs to be the same as the abstract published in your paper. Before submitting you must agree to meet all deadlines.

Notification of acceptance will be made in **December 2019**. If selected, your abstract will be published online on the Symposium's website in March 2020. You will be required to submit a draft manuscript for the Symposium transactions by **12 April**, and your final by **3 May 2020**. Any paper not submitted in finalized format by then shall be removed. After submitting, you shall work with two members of the Technical Committee for a review of the manuscript to ensure clarity and to avoid commercialism. For questions, please contact Stephanie Turner at SPWLA, Ph. (+1) 713-947-8727, or email stephanie@spwla.org.

We look forward to reviewing your abstracts!

Best Regards,

Michael O'Keefe
Vice-President Technology
International Board of Directors 2019–2020.



Jesús M. Salazar
2019–2020 SPWLA President
salazarjm@utexas.edu

Despite Houston’s average mid-day temperature hovering around 40°C the last few weeks, the fall season is upon us, and with that comes lots of work and planning. Your SPWLA Board is in full swing, it seems that the 60th Symposium was a long time ago and we’re already prepping for the 61st to be held next year in Banff jointly with the CWLS.

Fiscal Year Budget

We held our second board meeting on August 7 where we focused on building an operational budget to guarantee that our organization keeps working as a well-oiled machine to bring maximum benefits to its membership. In so doing, we made every effort to maintain conservative spending to keep our fiscal health.

As you must already know, I always like to present visuals of our numbers, whatever they may be, for your delight I present Fig. 1 showing the split of our 2019–2020 budget. Besides the mandatory Operations allocation, we continue to focus on keeping the high quality of our flagship journal *Petrophysics* and to keep you informed of our activities with the *SPWLA Today*. On the education front, we strive to bring you high-caliber distinguished speakers to the various chapters around the world and organizing webinars and technical courses. Information and technology are fixed expenses to maintain the website and modernizing our database. The Heritage Project is an initiative spearheaded by the VP Technology, Michael O’Keefe, to rename all our symposium papers in chronological order for easier search and to assign DOI numbers to all of them. As you may have noticed, two years ago we started assigning DOI numbers to new *Petrophysics* papers and this year we started with the new Symposium papers. It’s time to look back and modernize our records.

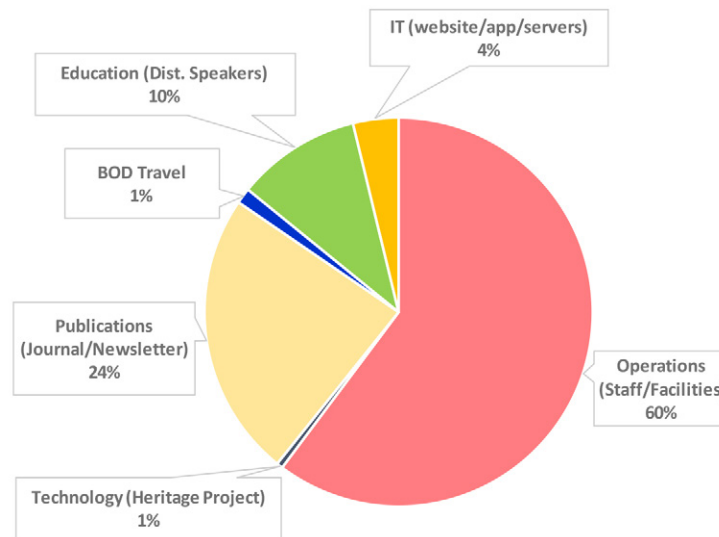


Fig. 1—SPWLA’s budget for the 2019–2020 fiscal year (symposium to symposium).

This year we are officially bringing back the travel budget (last year there was some travel budget as well, but was hardly used), now known as the BOD Travel. These funds are not limited to the President, as it used to be, but also available to any member of the board who needs to visit local chapters and get closer to the membership. Please bear in mind that this travel allocation is not a fancy business class flight or five-star hotels. The idea is to help pay a night at a hotel here and there and/or an (very) economic airline ticket. As you can see in Fig. 1, the BOD Travel budget is equivalent to the amount allocated for two or three distinguished speakers. Board members are always encouraged to piggyback chapter visits to business trips whenever possible, I’ve done just that for the last two years. For this quarter, I’m planning to visit the Texas Tech Student Chapter in Lubbock, Texas, the local chapter of EAGE here in Houston, and the JFES (Japan Chapter) in Chiba, Japan, as a keynote speaker at their annual conference, which is a tradition. In all of them I’ll be talking about the SPWLA and its benefits and also present a technical talk.

From the President

Proposed Bylaws Changes

During the last two months we also worked on fine-tuning the proposed changes to the Bylaws and restated Articles of Incorporation. This was a team effort. Again, I want to thank the hard work put by the members of the committee, Katerina Yared, Adam Haecker, and Carlos Torres-Verdin. Also, special recognition to Past President Eric Pasternack, who proofread the first draft and provided insightful suggestions that improved the document. The final touches to the proposal were provided by the new board of directors. All the proposed changes were edited by a lawyer as well. Sometimes it was hard to honor everyone's suggestions but we managed to reach consensus for the benefit of the Society. My appreciation to everyone involved in the process. Make sure to read the proposal that Sharon sent in late July. So far, I have received a handful of emails from concerned members inquiring about some of the changes. I have replied to each one of them and made (very) minor modifications to the proposal based on their feedback, you will see those changes in the ballot. A survey to express your opinion on these changes will be sent via email one week after the release of this newsletter. Please cast your ballot, per our current Bylaws, only paying member can vote. We will have the option to vote in bulk or by item. Remember that for each change to pass it requires two-thirds of the total number of ballots. I'm hopeful that most of the changes will pass. We want to make sure that the SPWLA is governed by its members through a modern set of Bylaws and Articles of Incorporation rather than by a particular board or president. So, do me a favor, VOTE!

Volunteers Wanted

With all the planning and new projects for this year we're continually welcoming volunteers. Your local chapter or favorite SIG is your first stop. Furthermore, in direct connection with the BOD there are also opportunities. The VP Technology Heritage Project may use the help of members with coding skills. The VP Education needs some social networks savvy to be part of our social media committee. If you have written papers before, you are a candidate to be technical reviewer for *Petrophysics*, this the VP Publications' domain. Our YP section of the *SPWLA Today* is always looking for new blood to be part of their group. There are countless opportunities to volunteer and get involved. If you are interested in any of these opportunities, please send me an email and I'll direct you to the right person.

I'd like to close with a social note. Last month we had our now traditional bimonthly SPWLA (Houston) Happy Hour, the first one of this fiscal year. It was a great event as you can see in the The Bridge section. I usually try to attend each one of them. It's a good opportunity to meet the members and potential members, make new connections and friends while discussing petrophysics and enjoying a brew. I encourage everyone to attend our future technical and social events here in the States and around the world.

Stay connected my friends,

Jesús M. Salazar, Ph.D.

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James Hemingway
2019–2020 SPWLA
President-Elect

Hello Fellow Petrophysicists,

Our symposium in June was a great success with total attendance exceeding 850. That's the highest attendance in several years. Hopefully everyone enjoyed the program and social events. As with every symposium, I realize how many people I have lost touch with once the event starts.

Our experiment with parallel sessions seems to have been a success. Over the past five years or so support for parallel sessions had gradually increased to slightly over 50% based on surveys at the end of each symposium. Based on a quick show of hands at the end of this last symposium, the majority that was present liked the idea. Issues that were anticipated, such as conflicting interest in simultaneous presentations was probably the biggest issue. Another experiment was the anonymous abstract submissions. Feedback was very positive for this concept as well.

The Best Paper and Best Poster Awards went to:

Best Paper: "Thermal Maturity-Adjusted Log Interpretation (TMALI) in Organic Shale,"
Paul Craddock, Richard Lewis, Jeffrey Miles, and Andrew Pomerantz.

Best Poster: "A Machine Learning Framework for Automating Well-Log Depth Matching."
Lin Liang, Thai Le, Timon Zimmermann, Smaïne Zeroug, and Denis Heliot.

Several names have been submitted for the Distinguished Lecturer program and hopefully there will be a few more nominees from local chapters. Please pass local nominations for Distinguished Lecturer on to Katerina Yared, Vice President Education.

Suggestions are now open for hosting the 2021 symposium. We generally alternate between a US location and a location outside the US but that is not a rigid rule.

The Call for Abstracts should be going out soon and I'd like to encourage people to submit as many new and innovative ideas as possible. Our industry is changing, so too must our profession adapt. Relatively stable oil prices combined with innovative production techniques in unconventional formations are leaving our profession out in the cold so to speak. We need to deal with the changes in our industry and look for opportunities in the environment we have to work with. Please consider submitting an abstract for the 2020 symposium in Banff, Canada.

Best Regards,
James Hemingway



Michael O'Keefe
2019–2020 VP Technology

Welcome to all Well Log Analysts!

I am honored to have the opportunity to serve as VP Technology, and look forward to giving back to our Society just a little of the support, mentorship, and technical knowledge that I have received from SPWLA over many years.

As this is my first article, let me share a paragraph about my career so we can get to know each other better; I started life as a wireline field engineer for Schlumberger in 1990, logging in openhole, casedhole and production (with Quicklook interpretations, as one used to do back then!). I studied the physics of NMR before starting to specialize in formation testing. A lengthy position in new technology development with research and engineering followed, before moving to London in 2011 as the subject matter expert on formation testing. It was here I became President of the LPS for two years and successfully bid for the 59th Symposium. I then transferred to Schlumberger headquarters in Paris to be the stakeholder of wireline interpretation software. This year I find myself assigned to a new technical center, performing log analysis for the 'Eastern Hemisphere', and based in beautiful Bucharest. My focus is formation testing once again, yet now integrated with a healthy dose of daily petrophysics and geomechanics—and what a privilege it is

to be back with real-time data from the forefront of exploration!

Call for Abstracts

The Call for Abstracts is out now for the SPWLA 61st Annual Logging Symposium. You will find it in your inbox, on social media (including LinkedIn—thank you Katerina), and also attached to this Newsletter. As you have likely heard, this will be held at the (rather luxurious) Fairmont Banff Springs resort in Alberta, Canada late next June. Please distribute it within your company to reach all those who are not yet members of SPWLA.

I would like to invite, in particular, integrated practical case studies from all petrophysicists in O&G operating companies. In my personal view, there is no better method to pass on the knowledge and experience that we need to do as a technical Society to the new 'talent funnel' coming up through the ranks (the great crew change is already upon us). The main blocker here has always been to get appropriate clearance levels within your company for release of the data. So, start early (this week!), and make the data as generic or anonymous as required to clear those hurdles. It certainly IS possible even for the larger IOCs—as evidenced by the many excellent papers contained in the transactions in the SPWLA archives. If you have limited time for writing, be sure to take advantage of the many service companies who would be more than happy to assist!

Abstracts must be submitted no later than **Sunday, 27 October 2019**, via online submission at;
www.spwlaworld.org/abstract-submission



www.spwlaworld.org/welcome-to-spwla-2020

SPWLA Heritage Project: Renumbering of Technical Papers in SPWLA Transactions and Publications

I have initiated the move to a new indexing system for our Symposium transactions. From 2020 onwards we shall leave behind the legacy alphabetical referencing of papers (A–Z, AA–ZZ, AAA–ZZZ, etc.) that was introduced before the age of digital archives. And instead we shall switch to a numerical system, based upon chronological order. DOI (Digital Object Identifier)

references will be attached to each paper in the transactions volume and, as in the past, there will be no distinction between oral and poster presentations. Further details will be provided in the November newsletter.

Furthermore, the (truly) International Board of Directors has agreed to fund a project to renumber every single paper contained in the Symposium Transactions over our 60-year history, starting from scratch. With possible watermarking and cross-referencing of all previous publications. And this is will likely be extended to also include our peer-reviewed Journal publications (under the auspices of VP Publications, my fellow antipodean Tom Neville). As you may guess, this is a rather large undertaking, so we have given it the name ‘SPWLA Heritage Project’. My hope is that this will both increase the number of author citations, and also the number of authors ready to publish within SPWLA—given the more easily searchable acknowledgement for their work.

But we need somebody to deliver this project. I call upon University Students looking for a project that will make a distinct watermark on the History of Petrophysics—or any other interested persons - willing to assist in this project, to contact me directly at the following email: VP-Technology@spwla.org, with cc to VP-Publications@spwla.org.

Introducing the 2019–2020 Technology Committee

I would like to give my sincere thanks and congratulate all those who have volunteered their valuable time to serve on the 2019–2020 Technology Committee. I have increased the size to 45 members this year, so as to spread the workload due to the high number of abstracts we’ve been receiving in the last few years: 450 in 2019, and even more anticipated for 2020. Here are some Fun Facts about the committee;

- A maximum of two committee members from any single company.
- 28 from Operators, including 15 new O&G companies—to spread SPWLA participation.
- 12 from Service Companies, with new faces and also from smaller companies—for a healthy mix.
- Two from Universities, three SPWLA Regional Directors, and three independent consultants.
- Geographic Diversity: A significant increase in the number of members from outside the USA.
- Age Diversity: Included five petrophysicists with < 10 years of experience (talent funnel). The average is still 19 years of experience.
- Gender Diversity: 21 women invited, 14 accepted. >30% is our highest level ever!

Best Regards,

Michael O’Keefe
Vice-President Technology.

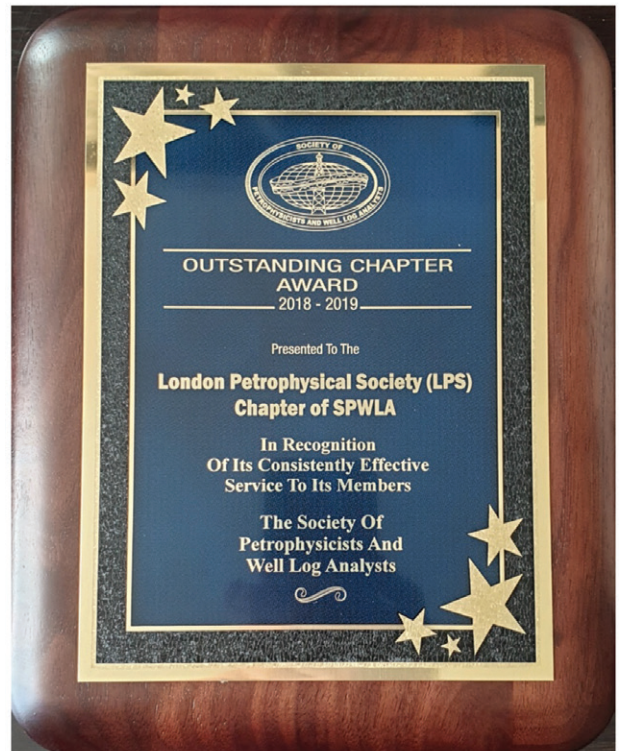
2019–2020 SPWLA Technology Committee

Name	Company	Country
Yngve Johansen	Aker BP	Norway
Caren Harris	Apache	USA
Mark Ma	Aramco	Saudi Arabia
Terry Hagiwara	Aramco	USA
Lara Demirezen	Assala Energy	UK
Geoff Page	Baker Hughes - GE	UK
Ian Draper	Baker Hughes - GE	UK
Jorge Sanchez Ramirez	BHP Billiton	USA
Haijing Wang	Chevron	USA
Mehrnoosh Saneifar	Chevron	USA
Bjorn Sirum	Clarios	USA
Ruza Gagnon	CNOOC	UK
Hesham El-Sobky	ConocoPhillips	USA
Sap Basu	ConocoPhillips	USA
Carole Reynaud	Consultant	France
Adam Haecker	Continental Resources	USA
Kelly Skuce	Core Petrophysical Consulting	Canada
Javier Miranda	DeGolyer and MacNaughton	USA

Richard Bootle	Delonex Energy	UK
Giuseppe Gali	ENI	Italy
Marco Pirrone	ENI	Italy
Marianne Iversen	Equinor	Norway
Sandrine Donnadiou	Equinor	Norway
Donald Clarke	ExxonMobil	UK
David Baldwin	Genel Energy	UK
Matt Jamieson	Glencore	UK
Lu Chi	Halliburton	USA
Weijun Guo	Halliburton	USA
Alberto Mendoza	Lytt	UK
Brian Moss	Mantra Petrophysics	UK
John Zhou	Maxwell Dynamics	USA
Eva Gerick	Neptune Energy	France
Vanessa Barron	Norske Shell	Norway
Lalitha Venkataramanan	Schlumberger	USA
Michel Claverie	Schlumberger	USA
Iulian Hulea	Shell	Netherlands
Josephine Wheeler	Shell	UK
Emmanuel Caroli	Total	France
Assia Belhaouas	Tullow Oil	UK
Tim Pritchard	University - Leicester	UK
Phillip Singer	University - Rice	USA
Natasa Mekic	Weatherford	USA
Robert Christie	Weatherford	USA
Andrew Carnegie	Woodside	Australia
Chris Woods	Woodside	Australia

Photos from the SPWLA 60th Annual Logging Symposium

I would like to share with you some photos from the SPWLA 60th Annual Logging Symposium. Aside from the technical knowledge sharing, we also had a very FUN time 😊





Learning Opportunities



Katerina Yared
2018-2020
Vice President Education

Hello Dear Petrophysics Enthusiasts,

I would like to extend an invitation for nominations of “Global Distinguished Speakers” to all of you and encourage your chapter officers and regional directors to send in the nomination of your favorite speaker today! The Global Distinguished Speaker list is an evolving list refreshed every year that YOU get to choose!

“Dear SPWLA Chapter Representatives and Regional Directors:

We need your help in continuing to find ways to better serve our members.

This year we want to continue to accept nominations for the SPWLA Distinguished Global Speakers from all the SPWLA chapters and regions. The primary objective behind this call for nominations is to support regional activities and ensure coverage of the Distinguished Speaker program to our chapters worldwide.

I would like to invite you to nominate at least one potential distinguished global speaker from your region for 2019–2020. Please send the nomination via email to VP-Education@spwla.org no later than October 5, 2019. Please provide the following information in your email:

1. Full name and company affiliation of the nominee as well as an active email address.
2. Maximum of 200 words on why this person should be considered as a SPWLA distinguished global speaker.
3. An abstract of the nominated distinguished speaker presentation (200–500 words) if available, and a brief biography of the speaker.”

Along the lines of knowledge sharing I am very excited to announce the selection of the 14 Distinguished Speakers that will be travelling and giving webinars to our members in the coming months.

Social Media is now an official responsibility of the VP of Education (thank you very much) and I am recruiting volunteers to help us keep on top of chapter activities on all the main social media channels; LinkedIn, Facebook and Twitter.

Please also consider volunteering for the Education SIG or Social Media Committee and email me VP-Education@spwla.org if interested.

Do you want to share your “nugget of wisdom”? We would love to capture for generations of petrophysicist to come. Please contact me today.

Yours truly,
Katerina Yared

SPWLA BOARD OF DIRECTORS E-BOARD MEETING AWARDS 2019
REMOTE
HOUSTON TX
April 9 -16, 2019

President Zach Liu called the meeting to order at April 9, 1:42 p.m. in attendance via email exchanges President-Elect, Dr. Jesus Salazar, VP Technology, Jim Hemingway, VP IT, Mehrnoosh Saneifar, VP Education, Katerina Yared, VP Finance, Secretary and Administration, Jennifer Market, VP Publications, Dr. Carlos Torres-Verdin, Regional Directors, NA 1, Adam Haecker, NA 2, Doug Patterson, Latin America, Dr. Nadege Bize Forest, Europe, Mike Webster, Middle East/Africa, Mark Ma, Asia Pacific/Australia, Rick Aldred, and Executive Director, Sharon Johnson.

A motion made by Jim Hemingway to accept the Awards Committee recommendations for 2019 to receive recognition at the SPWLA Awards Luncheon by individual vote for each nominee was seconded by Adam Haecker. The motion passed by majority vote except for Gold Medal for Technical Achievement

Distinguished Technical Achievement: Songhua Chen

Distinguished Technical Achievement: Ahmed Badruzzaman

Distinguished Technical Achievement: Geoff Page

Distinguished Service: Tegwyn Perkins

Meritorious Service: Chicheng Xu

A motion made by Jesus Salazar was seconded by Adam Haecker to accept late nominees to send to the Awards Committee for consideration. The motion passed by majority vote

A motion made by Dr. Carlos Torres-Verdin to send his Distinguished Service Award nomination back to the awards committee for reconsideration based on reasons stated in Carlos's following email sent on Monday, April 15, 2019 6:38 PM. was seconded by Nadège Bize-Forest. The motion passed by majority vote

Dr. Carlos Torres-Verdin has declined his award nomination. He however, issued the following statement to be published for the record.

"After learning the Award Committee (AC) recommended recipients for the 2019 SPWLA Awards and the ones that were not selected, Dr. Carlos Torres-Verdin asked to include on the record that the AC should not unilaterally deny an award to a Board member because he/she is currently serving on the Board. This year a deserving current board member was not selected to an award because the AC considered inappropriate. The BOD accepted this reason even though the SPWLA Bylaws do not explicitly indicate that current Board members are not allowed to receive SPWLA awards while still serving on the Board. The BOD agreed that the AC decision should have been consulted with the board in advance. In the last 5 years a Gold Medal and a Distinguished Technical Achievement awards have been bestowed to serving BOD members, which contradicts this year decision. Subsequently, the Board has appointed Dr. Jesús Salazar to form a committee and make an amendment to the Bylaws so that in the future it is ab-initio stated that no SPWLA Board member can receive an award while still serving on the Board. This committee will also review any other article that may cause discriminatory or any other legal issues and provide additional guidelines for the awards."

Action item: President Zach Liu appoints Dr. Jesus Salazar to lead a committee to look into potential bylaw and guideline revisions to improve the award process and election process.

Meeting adjourned April 18, 2019 8:00 a.m.

Respectively Submitted by
Sharon Johnson
Executive Director

**SPWLA FIRST BOARD OF DIRECTORS MEETING
THE WOODLANDS HOTEL AND CONFERENCE CENTER
THE WOODLANDS, TEXAS
JUNE 19, 2019**

President, Jesús M. Salazar called the meeting to order at 5:33 pm/ In attendance President-Elect, James “Jim” Hemingway, Vice President Technology, Michael O’Keefe, Vice President Education, Katerina Yared, Vice President Publications, Thomas Neville, Vice President Information Technology, Lin Liang, Regional Director N. America 1, Adam Haecker, Regional Director N. America 2, Kelly Skuce, Regional Director Latin America, Nadege Bize Forest, Regional Director Asia/Australia, Jennifer Market, Executive Director, Sharon Johnson. Remote attendance Regional Director Europe, Craig Lindsay

Visitor, Woodlands Symposium Chairman, Jeff Crawford gave a brief report on hosting the symposium. Jeff shared with the board both positive and negative feedback from attendees and the venue. Jeff has instructed his committee to send a report on their “lessons learned” which will be compiled and shared at a later date. Concerns of inadequate spacing of the poster stands and noise from the neighboring exhibitions was noted during the meeting. Discussion over attendees waiting in the registration line 10 minutes or more was addressed and tabled for research on a solution.

Action Item: All Board of Directors to include an article in the SPWLA Today Newsletters, starting with July 2019 issue.

Action Item: Lin Liang find an alternative solution for housing board reports that are currently in DropBox folders.

Action Item: Sharon Johnson change the spwla.org email addresses for the new board members.

A motion made by Adam Haecker to amend the minutes from the 2019 awards e-board meeting was seconded by Jennifer Market. All approved, and the motion passed.

A motion made by Kelly Skuce to approve Jesús Salazar’s proposed board meeting dates as follows was seconded by Jennifer Market. All approved, and the motion passed.

August 7, 2019, SPWLA Business Office Houston and Teleconference

October 9, 2019, SPWLA Business Office Houston and Teleconference

December 4, 2019, SPWLA Business Office Houston and Teleconference

February 12, 2020, SPWLA Business Office Houston and Teleconference

April 15, 2020, SPWLA Business Office Houston and Teleconference

A motion made by Jennifer Market to adjourn the meeting was seconded by Kelly Skuce. All approved and the motion passed. Meeting adjourned 7:45 pm.

Respectively Submitted by
Sharon Johnson
Executive Director

Next BOD meeting: August 7, 2019, SPWLA Business Office Houston

**SPWLA SECOND BOARD OF DIRECTORS MEETING
SPWLA BUSINESS OFFICE
HOUSTON, TEXAS
AUGUST 7, 2019**

President, Jesús M. Salazar called the meeting to order at 8:00 am. In attendance Vice President Finance Doug Patterson, Executive Director, Sharon Johnson. Remote attendance President-Elect, James “Jim” Hemingway, Vice President Technology, Michael O’Keefe, Vice President Education, Katerina Yared, Vice President Publications, Tom Neville, Vice President Information Technology, Lin Liang, Regional Director N. America 1, Adam Haecker, Regional Director N. America 2, Kelly Skuce, Regional Director Latin America, Nadege Bize Forest, Regional Director Europe, Craig Lindsay, Regional Director Asia/Australia, Jennifer Market,

A motion made by Doug Patterson to waive the reading of the minutes from the June 19th board meeting was seconded by Adam Haecker. All approved, and the motion passed.

A motion made by Tom Neville to approve the requested Staff/ Operations/Facilities proposed budget request of \$465,295.00 from Executive Director, Sharon Johnson was seconded by Doug Patterson. The motion passed by majority vote.

A motion made by Nadege Bize Forest to approve the requested Publications proposed budget request of \$183,775.00 from Vice President Publications, Tom Neville was seconded by Kelly Skuce. The motion passed by majority vote.

A motion made by Jennifer Market to approve the requested Education proposed budget request of \$80,000.00 from Vice President Education, Katerina Yared was seconded by Craig Lindsay. The motion passed by majority vote.

A motion made by Kelly Skuce to approve the requested BOD Travel proposed budget request of \$10,000.00 from President, Jesús M. Salazar was seconded by Jennifer Market. The motion passed by majority vote.

A motion made by Jennifer Market to approve the requested Technology proposed budget request of \$4,000.00 from Vice President Technology, Michael O’Keefe was seconded by Doug Patterson. The motion passed by majority vote.

Action Item: Michael O’Keefe to research options for re-defining the SPWLA numbering of all symposium and journal technical manuscript files. Contacts should but not be limited to SPE, Data Antics SIG group and Independent Services.

Action Item: Lin Laing, Doug Patterson and Sharon Johnson clarify items on the IT budget pending approval.

Action Item: Stephanie Turner to move the membership directory on the website under member resource tab.

Action Item: Sharon Johnson to send the *Petrophysics* Journal Editing/Production fees form to Tom Neville.

Action Item: Sharon Johnson to send the “Call for Abstracts” announcement to CWLS for local distribution.

Action Item: Jesus Salazar to send “Call to Chapters to Host Annual Symposium” announcement to Jim Hemingway. Jim to solicit chapters for a host for 2021.

Action Item: Jesus Salazar to send Nadege Bize Forest contacts in the Latin America region for possible leaders for Chapters, Colombia, Mexico and Brazil.

Action Item: Doug Patterson to send Kelly Skuce contact information for Louisiana area Student Chapters.

Action Items: All Board members to help with Social Media – repost announcement.

Action Item: Sharon Johnson to send a ‘Call for Volunteers for a Social Media Committee’ announcement.

A motion made by Jim Hemingway to adjourn the meeting at 12:07 pm was seconded by Katerina Yared. All approved, and the motion passed.

Respectively Submitted by
Sharon Johnson
Executive Director

Next BOD meeting: October 9, 2019, SPWLA Business Office Houston and Remotely.

**SPWLA ACTION ITEM APPROVAL BOARD OF DIRECTORS
MEETING REMOTE
AUGUST 12, 2019**

Action Item: Lin Laing, Doug Patterson and Sharon Johnson clarify items on the IT budget pending approval.

A motion made by Katerina Yared to approve the updated IT proposed budget request of \$29,263.00 from Vice President Information Technology, Lin Liang was seconded by Doug Patterson. The motion passed by majority vote.

Proposed Amendments to SPWLA Bylaws and Articles of Incorporation

One of the duties of the Board of Directors of the Society of Petrophysicists and Well Log Analysts is to review the Corporation's Bylaws and Article of Incorporation from time to time. This is stated in Article VI, Section I of the current Bylaws. The proposed amendments to the Bylaws and Articles of Incorporation below are a side-by-side comparison of the current articles and sections against the changes. The yellow color highlighted text indicates changes proposed.

The Board of Directors strongly urge you to vote for these changes using the ballot link that will be sent to all eligible members via Survey Monkey in the next few weeks

Current	Proposed
ARTICLE I Officers and Duties	
<p>Section 1.</p> <p>The officers of the Corporation shall be: President, President-Elect, Vice President Technology, Vice President Information Technology, Vice President Publications, Vice President Education and Vice President Finance, Secretary and Administration</p>	<p>The officers of Society of Petrophysicists and Well Log Analysts, Inc. (the "Corporation" or "SPWLA") shall be: President, President-Elect, Vice President Technology, Vice President Information Technology, Vice President Publications, Vice President Education and Vice President Finance, Secretary and Administration.</p>
<p>Section 2.</p> <p>The terms of office shall be as follows: a. President, President-Elect, Vice President Technology, and Vice President Publications: from one Annual Meeting to the next Annual Meeting b. Vice President Information Technology, and Vice President Finance, Secretary and Administration: from one Annual Meeting in an odd-numbered year to the next Annual Meeting in an odd-numbered year c. Vice President Education: from one Annual Meeting in an even-numbered year to the next Annual Meeting in an even-numbered year.</p>	<p>The terms of office shall be as provided for in Article 6 of the Amended and Restated Articles of Incorporation.</p>
<p>Section 4</p> <p>The President shall preside at all meetings of the corporation and of the Board of Directors and shall be an ex officio member of all Corporation committees. The President shall appoint all Standing Committees and shall perform duties that pertain to the direction of the Corporation.</p>	<p>The President shall preside at all meetings of the Corporation and of the Board of Directors and shall be an ex officio member of all Corporation committees. The President shall appoint all Standing Committees and shall perform duties that pertain to the direction of the Corporation. The President has the authority to approve single expenses for a total of up to 2% of the total budget per year. Beyond this amount, the President must obtain the approval of the Board of Directors.</p>
ARTICLE II Board of Directors	
<p>Section 5.</p> <p>Any member of the Board of Directors may be removed from office if they fail to meet minimum levels of participation in Board meetings or fail to execute their required duties expressed in these bylaws. Removal shall be confirmed by two thirds majority vote. President is eligible to vote. The Board shall appoint a replacement from the Membership by a two thirds majority vote. President is eligible to vote.</p>	<p>Any member of the Board of Directors may be removed from office if they fail to meet minimum levels of participation in Board meetings or fail to execute their required duties expressed in these bylaws. Removal shall be confirmed by the affirmative vote of two-thirds of the full Board of Directors. The Board shall appoint a replacement from the membership by the affirmative vote of two-thirds of all persons who then constitute the Board of Directors. The President is eligible to vote.</p>

ARTICLE V Local Chapters	
<p>Section 3.</p> <p>Chapters of the Corporation may be organized as local chapters, established to further the purposes of the Corporation as stated in Article IV of the Seventh Amended Articles of Incorporation, representing a limited geographical area. The geographical areas of the local chapters shall be approved and/or designated by the Board of Directors of the Corporation.</p>	<p>Chapters of the Corporation may be organized as local chapters, established to further the purposes of the Corporation as stated in Article IV of the Amended and Restated Articles of Incorporation, representing a limited geographical area. The geographical areas of the local chapters shall be approved and/or designated by the Board of Directors of the Corporation.</p>
<p>Section 5.</p> <p>No member of the Corporation shall be denied membership in a chapter. Corporation members can only hold membership in one chapter at a time. Chapter membership classes, rights, and obligations shall be established in the Chapter bylaws.</p>	<p>No member of the Corporation shall be denied membership in a chapter. Members in the corporation can only hold membership in one chapter at a time. Chapter membership classes, rights, and obligations shall be established in the Chapter bylaws.</p>
ARTICLE VI Amendments	
<p>Section 1.</p> <p>Amendments to the bylaws may be proposed by a committee appointed by the President or by the Board of Directors, or by petition in writing by 10 Members of the Corporation. Proposed amendments shall be published prior to being submitted to vote by the membership. All such amendments must be submitted to the voting membership by letter mail, electronic mail or other suitable means within one year of the date of receipt. A two-thirds majority vote (abstentions and no response not included in the count) will be required for adoption of an amendment.</p>	<p>Amendments to the bylaws may be proposed by a committee appointed by the President or by the Board of Directors, or by petition in writing by ten members of the Corporation. Proposed amendments shall be published prior to being submitted to vote by the membership. All such amendments must be submitted to the voting membership by letter mail, electronic mail or other suitable means within one year of the date of receipt. The affirmative vote of two-thirds of the membership (abstentions and no response not included in the count) will be required for adoption of an amendment.</p>
ARTICLE VIII Standings Committees	
<p>Section 1.</p> <p>Appointments to all Standing Committees shall be made by the President upon recommendation of the specific committee chairmen. Tenure of all Standing Committee members shall be at the discretion of the committee chairmen.</p>	<p>Appointments to all Standing Committees shall be made by the President upon recommendation of the specific committee chairpersons. Tenure of all Standing Committee members shall be at the discretion of the committee chairpersons. The President shall make every effort to appoint diverse Committees without discrimination of on the basis of age, race, religion, gender, sexual orientation, geographical origin, or company affiliation.</p>
<p>Section 2.</p>	

<p>Technology Committee: The Vice President Technology shall chair the Technology Committee. The committee shall be composed of the chair and a minimum of ten members, two of whom must be Regional Directors. The Technology Committee shall have the following responsibilities:</p> <p>Arrange the technical program of the Annual Meeting. Supervise publication of the Transactions of the technical program of the Annual Meeting. Recommend and supervise workshops and short courses associated with the Annual Meeting. Promote research, both applied and basic, toward the resolution of well logging problems. Foster the acceptance by the industry of the basic nature of well log analysis in formation evaluation. Accumulate, catalog and make available to all members basic data such as water resistivities, core porosities, etc.</p>	<p>Technology Committee: The Vice President Technology shall chair the Technology Committee. The committee shall be composed of the chair and a minimum of ten members, two of whom must be Regional Directors. The Technology Committee shall have the following responsibilities:</p> <ul style="list-style-type: none"> • Arrange the technical program of the Annual Meeting. Supervise publication of the Transactions of the technical program of the Annual Meeting. Recommend and supervise workshops and short courses associated with the Annual Meeting. Promote research, both applied and basic, toward the resolution of petrophysics and well logging problems. • Foster the acceptance by the industry of the basic nature of well log analysis in formation evaluation. • Accumulate, catalog and make available to all members basic data such as water resistivities, core measurements, etc.
<p>Section 4.</p> <p>Awards Committee: The Immediate Past President shall be chairman of the Awards Committee. The committee shall be composed of the chairman and a minimum of five members. Those five members shall include the Vice President Technology and at least one Past President. The Awards Committee shall be responsible for recommending recipients of awards of the Corporation to the Board of Directors.</p>	<p>Awards Committee: The Immediate Past President shall be chairman of the Awards Committee. The committee shall be composed of the chairman and a minimum of five members. Those five members shall include the Vice President of Technology, at least one Past President, and at least one former recipient of an award of the Corporation. The Awards Committee shall be responsible for recommending recipients of awards of the Corporation to the Board of Directors.</p>
<p>NEW</p>	<p>Section 7</p> <p>Social Media Committee: The Vice President Education shall chair the Social Media Committee. The Social Media Committee shall be composed of the chair and at least four other members, two of whom must be presidents of chapters including student chapters. The Social Media Committee shall have the following responsibilities:</p> <ul style="list-style-type: none"> • Distribute updates from the SPWLA that usually get distributed via email from the SPWLA office, in multiple social media channels. • Distribute news from all chapters by re-posting and commenting on chapters' social media channels. • Accept new followers on the various social media platforms. • Keep track of communications from followers on the various social media platforms. • Promote SPWLA events and feed news during SPWLA Events like the Annual Symposium.
<p>ARTICLE X Awards</p>	

<p>Section 2</p> <p>Awards for Technical Achievement: Awards for technical achievement may be granted by the Board of Directors to members or non-members of the Corporation as follows:</p>	<p>Awards for Technical Achievement: Awards for technical achievement may be granted by the Board of Directors to members or former members of the Corporation as follows:</p>
<p>Section 3.</p> <p>Awards for Service: Awards for service to the Corporation may be granted by the Board of Directors to members of the Corporation as follows:</p>	<p>Awards for Service: Awards for service to the Corporation may be granted by the Board of Directors to members or former members of the Corporation as follows:</p>
<p>Section 4.</p> <p>Other Awards: Other awards of the Corporation shall include:</p> <p>SPWLA Award of Appreciation: The SPWLA Award of Appreciation is awarded by the Board of Directors to a non-member of the Corporation who has performed some notable service to the Corporation. This award is made as needed, and need not be awarded every year.</p> <p>Outstanding Chapter Award: The Outstanding Chapter Award is awarded by the Board of Directors in recognition of an outstanding accomplishment by a Chapter of the Corporation. The accomplishment shall further the purposes of the Corporation, as set forth in Article IV of the Amended Articles of Incorporation. It may have occurred over one or more years and have involved the participation of numerous members of the chapter. No more than one Outstanding Chapter Award shall be awarded in a calendar year. The Outstanding Chapter Award need not be awarded every year.</p>	<p>Other Awards: Other awards of the Corporation shall include:</p> <p>SPWLA Award of Appreciation: The SPWLA Award of Appreciation is awarded by the Board of Directors to a non-member of the Corporation who has performed some notable service to the Corporation. This award is made as needed, and need not be awarded every year.</p> <p>Outstanding Chapter Award: The Outstanding Chapter Award is awarded by the Board of Directors in recognition of an outstanding accomplishment by a Chapter of the Corporation. The accomplishment shall further the purposes of the Corporation, as set forth in Article IV of the Amended and Restated Articles of Incorporation. It may have occurred over one or more years and have involved the participation of numerous members of the chapter. No more than one Outstanding Chapter Award shall be awarded in a calendar year. The Outstanding Chapter Award need not be awarded every year.</p> <p>Young Professional Technical Award: the Young Professional Technical Award is bestowed by the Board of Directors to a member or a student member of the corporation who has distinguished him/herself with impactful technical achievements. A nominee for this award shall be a member in good standing, has at least one paper published or peer-approved in <i>Petrophysics</i>, and has less than twelve years of experience in petrophysics for the exploitation and development of hydrocarbons and other mineral resources, at the date of the ceremony during the annual Symposium. Post-graduate work may count up to four years' experience. This award needs not be awarded every year.</p>
<p>Section 5.</p> <p>Award Nominations Process: The Awards Committee shall solicit documented nominations for award candidates from the membership and all Standing Committees. The Awards Committee shall meet to decide on recommendations for candidates for all awards except the Meritorious Service and Meritorious Technical Achievement awards, and transmit these recommendations to the Board of Directors. The Board</p>	<p>Award Nominations Process: The Awards Committee shall solicit documented nominations for award candidates from the membership and all Standing Committees. The Awards Committee shall meet to decide on recommendations for candidates for all awards except the Meritorious Service and Meritorious Technical Achievement awards, and transmit these recommendations to the Board of Directors. The Board of Directors shall decide on these recommendations at a</p>

<p>of Directors shall decide on these recommendations at a meeting of the Board of Directors. The Board of Directors may grant Meritorious Service and Meritorious Technical Achievement awards without input from the Awards Committee, at any meeting of the Board of Directors.</p>	<p>meeting of the Board of Directors. The Board of Directors may grant Meritorious Service and Meritorious Technical Achievement awards without input from the Awards Committee, at any meeting of the Board of Directors. All the awards shall require the approval of at least one-half of the Board of Directors except for the Gold Medal for Technical Achievement and the Medal of Honor for Career Service, which shall each require at least the affirmative vote of two-thirds of the full Board of Directors. Members of the Board of Directors and the Awards Committee shall not be eligible for any award while serving on the Board of Directors or the Award Committee.</p>
<p>ARTICLE XI Conflict of Interest</p>	
<p>New</p>	<p>ARTICLE XI Conflict of Interest</p> <p>Conflict of Interest: whenever a member of the Board of Director has a financial or personal interest in any matter coming before the Board of Directors, the affected person shall (a) fully disclose the nature of the interest and (b) withdraw from discussion and voting on the matter. Any transaction or vote involving a potential conflict of interest shall be approved only when a majority of disinterested members of the board determine that it is in the best interest of the corporation to do so. The minutes of meetings at which such votes are taken shall record such disclosure, abstention and rationale for approval.</p>

Articles of Incorporation: Items to be voted by Membership

Current	Proposed
<p>ARTICLE I</p>	
<p>The name of this corporation is SOCIETY OF PETROPHYSICISTS and WELL LOG ANALYSTS, INC.</p>	<p>The name of this corporation is SOCIETY OF PETROPHYSICISTS and WELL LOG ANALYSTS, INC. ("SPWLA").</p>
<p>ARTICLE II</p>	
<p>The address of its registered office in the State of Oklahoma is Statutory Representation, InCorp Services, Inc, Braniff Building, 324 North Robinson, Suite 100, Oklahoma City, Oklahoma 73102.</p>	<p>The name and address of its registered agent in the State of Oklahoma are InCorp Services, Inc., Braniff Building, 324 North Robinson, Suite 100, Oklahoma City, Oklahoma 73102.</p>
<p>ARTICLE VI by Paragraph</p>	
<p>The Board of Directors shall consist of the officers defined as President, President-Elect, Vice President Technology, Vice President Publication, Vice President</p>	<p>The Board of Directors shall consist of the officers defined as President, President-Elect, Vice President Technology, Vice President Publication, Vice President</p>

<p>Information Technology, Vice President Education and Vice President Finance, Secretary and Administration and six Regional Directors. Not more than three representatives of any one company may serve on the Board of Directors during a given term. The Board of Directors shall transact all business of the corporation not otherwise specified. It shall approve all memberships in the corporation, shall authorize all expenditures, shall direct investment of the corporation funds, shall appoint the Nominating Committee, and shall approve and recommend all proposals for assessments against members. A majority affirmation vote of the Board of Directors shall be required for Board action except on matters otherwise specified.</p>	<p>Information Technology, Vice President Education and Vice President-Finance, Secretary and Administration and six Regional Directors. Not more than two representatives of any one company may serve on the Board of Directors during a given term. Directors shall not be officers of Chapters or Chapters-at-large, but may serve as officers of Special Interest Groups. The Board of Directors shall transact all business of the corporation except as otherwise specified in these Articles of Incorporation. It shall approve all memberships in the corporation, shall authorize all expenditures, shall direct investment of the corporation funds, shall appoint the Nominating Committee, and shall approve and recommend all proposals for assessments against members. A majority affirmation vote of the Board of Directors shall be required for Board action except on matters otherwise specified.</p>
<p>Election of officers of the corporation and Regional Directors of the Board of Directors, with the exception of the President, shall be conducted in the following manner: By November 1st of each year, the Board of Directors shall appoint a Nominating Committee consisting of the Past President as chair and four members, each of whom must be a Member, Honorary Member or Senior Member of the corporation. This committee shall nominate a slate of qualified candidates for the officers and regional directors whose terms are due to expire at the following Annual Meeting. They shall diligently seek two candidates for each office and shall nominate no more than one candidate per company for any one office except Regional Directors which may have two candidates per company. The slate of candidates shall be delivered via letter mail, electronic mail, or other suitable means to the voting membership by February 1st.</p>	<p>Election of officers of the corporation and Regional Directors of the Board of Directors, with the exception of the President, shall be conducted in the following manner: By November 1st of each year, the Board of Directors shall appoint a Nominating Committee consisting of the Past President as chair and four members, each of whom must be a Member, Honorary Member or Senior Member of the corporation. This committee shall nominate a slate of qualified candidates for the officers and regional directors whose terms are due to expire at the following Annual Meeting. They shall diligently seek two candidates for each office and shall nominate no more than one candidate per company for any one office except Regional Directors which may have two candidates per company. The nominating committee shall make reasonable efforts to have a diverse slate and shall not discriminate based on age, race, religion, gender, sexual orientation or geographical origin. The slate of candidates shall be delivered via letter mail, electronic mail, or other suitable means to the voting membership by February 1st.</p>
<p>Additional nominations may be made by submitting a petition signed by at least ten voting members, to the Nominating Committee within three weeks following publication of the Nominating Committee's slates of candidates.</p>	<p>Additional nominations may be made by submitting a petition signed by at least ten voting members, to the Nominating Committee within three weeks following publication of the Nominating Committee's slate of candidates. No single company shall have more than three candidates in the final slate.</p>
<p>New</p>	<p>Nominees for Vice President Technology shall have previous experience in a technical committee of SPWLA or sister organizations and a minimum of two papers published in international conferences.</p>
<p>New</p>	<p>Nominees for Vice President Education shall be knowledgeable and active on social media channels.</p>
<p>New</p>	<p>Nominees for Vice President Publication shall have previous experience as technical editor for a peer-reviewed journal and a minimum of two papers published in peer-reviewed journals.</p>

New	Nominees for Vice President IT shall have some experience on web standards and tools to regularly update and modernize the SPWLA website.
New	All qualified candidates in the slate must have been an SPWLA member in good standing for at least three years and abide by the SPWLA Code of Ethics.
Properly executed ballots must be available to the Executive Director by April 1. Where more than two candidates for an office appear on the ballot, election shall be by simple plurality. Where there are only two candidates for an office, a simple majority of votes will control. Installation of the electives shall be in the order of the officer listing in Article 1, Section 1 of the Society Bylaws. In each case where the election results cause a single company to be represented by more than three electives, the electives to the two highest offices shall be installed; each other office of the case shall be filled by the highest runner-up from a company not already represented by three installed officers.	Properly executed ballots must be available to the Executive Director by April 1. Where more than two candidates for an office appear on the ballot, election shall be by simple plurality. Where there are only two candidates for an office, a simple majority of votes will control. Installation of the elected individuals shall be in the order of the officer listing in Article 1, Section 1 of the corporation Bylaws. In each case where the election results cause a single company to be represented by more than two elected individuals, the elected individuals to the two highest offices shall be installed; each other office of the case shall be filled by the highest runner-up from a company not already represented.
In each case of a tie vote involving two or more electives installation to office or offices shall be made holding a runoff election. If a tie vote results in the runoff an open vote will be held at the Annual meeting. Current and elected board members will not participate in the vote.	In each case of a tie vote involving two or more elected individuals' installation to office or offices shall be made holding a runoff election. If a tie vote results in the runoff, a secret vote will be carried out at the Annual Business meeting. The current Board of Directors and President can vote in such runoff election.
The terms of office shall be as follows: a. President, President-Elect, Vice President Technology, and Vice President Publications: from one Annual Meeting to the next Annual Meeting b. Vice President Information Technology, Vice-President Finance, Secretary and Administration, and three (3) regional directors: from one Annual Meeting in an odd-numbered year to the next Annual Meeting in an odd-numbered year c. Vice-President Education and three (3) regional directors: from one Annual Meeting in an even-numbered year to the next Annual Meeting in an even-numbered year	The terms of office shall be as follows: a. President, President-Elect, and Vice President Technology: from one Annual Meeting to the next Annual Meeting b. Vice President Information Technology, Vice President Finance, Secretary and Administration, and three (3) regional directors: from one Annual Meeting in an odd-numbered year to the next Annual Meeting in an odd-numbered year c. Vice President Publications , Vice President Education, and three (3) regional directors: from one Annual Meeting in an even-numbered year to the next Annual Meeting in an even-numbered year.
New	The Vice President Technology shall not publish papers as lead author or be the presenting co-author at the SPWLA Annual Symposium during his/her term to avoid conflicts of interest. However, the VP of Technology may still be a co-author on up to two papers presented at the symposium.
New	The Vice President Publications shall not publish papers in petrophysics during his/her term to avoid conflicts of interest.
New	A Director shall not serve on the Board for more than five consecutive years unless elected as President-Elect.
ARTICLE VIII	
New	The email address of the primary contact for the registered business is sharon@spwla.org.

	<p>The governing body of the corporation adopted a resolution setting forth the amendments proposed and declaring their advisability. At a subsequent meeting held upon notice stating the purpose thereof and given in accordance with the provisions of Title 18, Section 1067, a majority of all the members of the governing body voted in favor of the amendments.</p>
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Tom Neville
2019–2020 VP Publications

Greetings and welcome to the September edition of *SPWLA Today*. This month I would like to take the opportunity to explain the rationale behind why we now have two publications, *Petrophysics* and *SPWLA Today*.

Historically, *Petrophysics*—and before that *The Log Analyst*—was asked to do double duty as both scientific journal and society newsletter. This was to an extent a disservice to both of these functions. The inclusion of society news and other information distracted from its role as a technical publication, and hindered our objective to make *Petrophysics* the premier scientific journal in the fields of petrophysics and formation evaluation. At the same time, the rigid structure imposed by the needs of such a publication restricted the flexibility to try new ways of communicating with, and providing more value to, our membership. Therefore, two years ago the decision was made to remove the nonpeer-reviewed technical content from *Petrophysics*, and host it in a new publication, *SPWLA Today*. This need has long been recognized by our sister societies, with AAPG publishing the *AAPG Explorer* alongside its journal the *AAPG Bulletin*, SEG producing both *The Leading Edge* and *Geophysics*, and SPE pairing *JPT* with its range of peer-reviewed journals.

So, what can you expect to see in *SPWLA Today*? Foremost, this is a vehicle for society communications. You will find in these pages information on upcoming events and other notices from the Society, as well as reports on the governance of the Society from the Board of Directors. You will also find news of the activities of our regional chapters and special interest groups. There are also several regular sections in each edition. The Bridge provides a home for our Young Professionals to share content of special interest to that group, and I would like to take this opportunity to commend the team behind The Bridge for their passion and commitment to this cause. Technology Innovations provides a forum for communicating on new technology developments of interest to our membership. Expect to see other regular sections in the future as *SPWLA Today* evolves. Finally, although *Petrophysics* remains our flagship technical publication, I believe there is still a role for technical content in *SPWLA Today*. We aim for technical articles in a style that the full spectrum of SPWLA membership can appreciate and enjoy, with the ultimate objective to inform, entertain, and educate.

As I mentioned in my last column, *SPWLA Today* is still evolving and we want to ensure that it provides real value to you as members of SPWLA. Therefore, as always, we welcome your feedback about what we are doing right and what we are doing wrong, and what else we should be doing.

Tom Neville
Vice President Publications
tom.neville@formation-evaluation.asia

Humorous Poems About Serious Science



Barbara Anderson
SPWLA President
1994–1995
SPWLA Gold Medal for
Technical Achievement
2007

I've spent all of my wage-earning time since 1966 working in the area of resistivity logging. Before I joined Schlumberger-Doll Research, the only sondes I'd ever heard of were weather forecasting probes. I was a mathematics major and had taken enough physics and numerical analysis courses to be able to solve physics problems using a computer. However, I hadn't done any lab work in theoretical electromagnetics. My main skill was being able to write relatively error-free Fortran and assembly language code (my attention to detail probably came from having embroidery as a hobby).

My first job at Schlumberger was writing Fortran codes for physicists in the Electrical Logging Department. I was fortunate to be working in the same department as Stan Gianzero, Jim Moran and Christian Clavier, so I quickly learned a lot about resistivity logging and log interpretation in general. After a while, some of my software was used by Houston Engineering, and I learned about tool design from Tom Barber. Along the way, I joined SPWLA, coauthored papers with many Schlumberger physicists and engineers, and eventually ended up attending meetings and presenting papers on my own.

During the 1980s, SPWLA started holding Topical Conferences and Schlumberger instituted Electromagnetic Workshops. The informal roundtable discussions at these gatherings generated a lot of new ideas, particularly at the corporate level, where everybody involved had signed confidentiality agreements. The noticeable difference between the attendance at workshops and annual conferences was the large number of university professors at the workshops.

University professors seem to be able to sum up their points of view most concisely, and memorably, using poetry. The poem "Making Waves about Waves" was presented by Professor Leopold Felsen of New York Polytechnic Institute as a closing statement for a 1985 Schlumberger Electromagnetic and Acoustic Waves in Inhomogeneous Media Workshop. It cautions against relying on theory alone or computers alone in problem solving.

Two "electromagnetic songs" (poems set to music) were performed at the 2004 Schlumberger Electromagnetics Workshop held in Round Top, Texas. You may be wondering if people exist who are foolish enough to actually perform the songs. The photo in Fig. 1 shows that there were three of them. To make it more ridiculous, two of them are SPWLA Gold Medal winners. (I'm playing the piano because the case for my electric bass looked too much like it concealed an automatic weapon to bring on an airplane.)

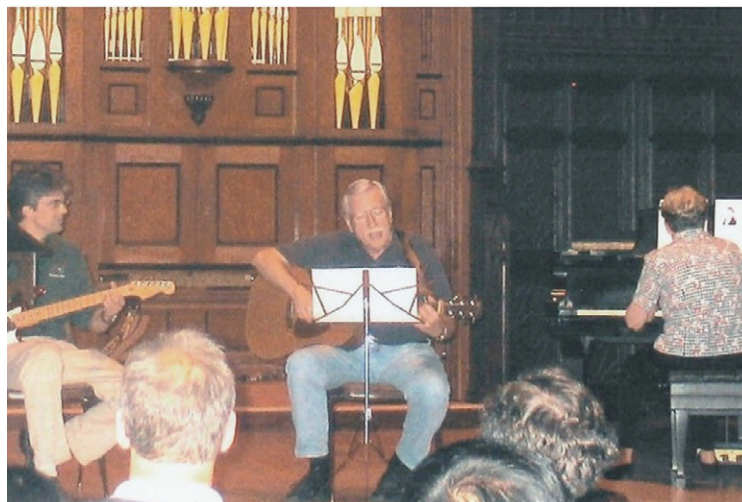


Fig. 1—Photo of (left to right) Jan Smits, Tom Barber and Barbara Anderson performing "Ions Mine" and "Spelling Maxwell's Name" at the 2004 Schlumberger Electromagnetics Workshop in Round Top, Texas.

The poem "Ions Mine" is by Sir Joseph James Thomson, who won the 1906 Nobel Prize in physics for his work on the conduction of electricity in gasses. Thomson is also credited with the identification of the electron.

The poem "Spelling Maxwell's Name" was published in the *American Physical Society News* humor column, "Zero Gravity". The column claims the poem was written by several staff members late one night after a hard day's work, when they were discussing the proper spelling of Maxwell's full name.

Humorous Poems About Serious Science

The final verses are an excerpt from a longer poem on the subject of the Universe by James Clerk Maxwell. It appears that physicists can also be good poets when they are in the university environment and have time to let their minds wander and ponder.

Making Waves About Waves

Leopold B. Felsen

On Ridgefield they converged to meet
And tell about their latest feat
Concerning smooth and crooked waves
In layers, oceans, rocks and caves.

No matter where, around the globe,
They measure using waves as probe,
And hope the waves will thus reveal
What they can't see and cannot feel.

Some sense the sky, some sense the air.
Some do it crudely some with flair.
At Schlumberger, just like a mole,
They do it sensing in a hole.

Yet, real world events are tough,
But if you idealize enough,
Then you will reach a reference frame
Where you can hope to play the game.

Analysis can wipe you out.
You substitute computer clout
To discretize, and let evolve
What your analysis can't solve.

The world is now a happier place.
You look at your computer's trace,
And see a wiggle, see a trend,
Which you now try to understand.

To start with, all is in a mess,
But with much work there is success.
Your efforts were not spent in vain;
Each wiggle you can now explain.

But then, alas, you find a flaw.
You can't believe the plot you saw
Because your program had a glitch
That caused a sneaky wiggle switch.

Success gives way to sudden gloom.
But there is hope, not all is doom.
Tomorrow, try a different mode;
Construct another wiggly code.

And hope you all the errors purge
So that the program will converge.

Thus, we conclude there's no quick fix.
To move ahead we need a mix
Of theory and big machine
To verify that both are clean.

This workshop serves us well indeed
If all of us this message heed.

Ions Mine

By J.J. Thomson

Can be sung to the tune of "Clementine"

In the dusty laboratory,
'Mid the coils and wax and twine,
There the atoms in their glory
Ionize and recombine.

CHORUS:
Oh my darlings! Oh my darlings!
Oh my darling ions mine!
You are lost and gone forever
When just once you recombine!

CHORUS

In a tube quite electrodeless,
They discharge around a line,
And the glow they leave behind them
is quite corking* for a time.

CHORUS

And with quite a small expansion,
1.8 or 1.9,
You can get a cloud delightful,
Which explains the snow and rain.

CHORUS

In the weird magnetic circuit
See how lovingly they twine,

Humorous Poems About Serious Science

As each ion describes a spiral
Round its own magnetic line.

CHORUS

*“Corking” is British slang for excellent.

Spelling Maxwell’s Name

From: “Zero Gravity”, *APS News*, May, 2003

(The words can be sung with guitar accompaniment using the chords above the first verse)

G.....C.....G
Listen my children and shortly you’ll hear
G.....A.....D
How Jimmy C. Maxwell cost me some beer.
G.....C.....G
It happened the day I decided to bet
G.....D.....G
On spelling his name, which I now do regret.

I’d heard the name spoken, and clear as a bell
It sounded exactly like James Clark Maxwell.
“I know how to spell that,” I thought, “I’m no jerk,
The name is spelled Clark, and it cannot be Clerk.”

But what I forgot was that Maxwell was British,
And spelling in Britain is, at its best, skittish.
I don’t take it lightly, but view it quite darkly,
That something spelled “Berkeley” is verbalized “Barkley”.

Driving to Louisville, you can quite sure be
That you will witness the Kentucky Derby.
Driving to Ascot, if in your car be,
Brings you—surprise!—to a race called the “Darby”.

In England, the way that they spell is perverse;
In Scotland, if anything, it’s even worse.
Jimmy C.’s middle name’s spelling is queer,
And that’s why I owe everybody a beer.

Excerpt from a Poem about the Universe

By James Clerk Maxwell

My soul is an entangled knot,
Upon a liquid vortex wrought,
By Intellect in the Unknown abiding.

And others like a convict sit,
With pointed stick untwisting it,
Only to find its knottiness abiding;

Since all the tools for its untying
In four-dimensional space are lying.

Quick-Look AML Evaluation of the SPWLA 60th Annual Logging Symposium in The Woodlands



Ton Loermans
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Introduction

We may assume that our annual symposium gives a pretty good impression about which areas of technology are undergoing active development and how well all of the various established techniques available in the discipline are used. I.e.: really new technologies are likely to be presented as such, and from what is used for all the other work shown, one may deduce the state of the art and current practices in our discipline.

Over the past 15 years several new advanced mud logging (AML) technologies have been developed. There were some significant efforts already in the 1990s, but the major breakthrough came with advanced mud gas analysis in the early 2000s, followed by elemental analysis. Archie's Dream = AML papers started around 2004. However, it was in/after presentation of the paper by Marsala et al. (2011) at the SPWLA Annual Logging Symposium in Colorado Springs that many of us first saw some exciting pictures of AML mud gas and elemental and mineralogical results.

It has been claimed that AML could become a workhorse and first among equals (the others being LWD and WLL) for our routine data and information gathering (Loermans, 2014). Consequently, it is interesting and worthwhile to judge the current state of AML affairs from the program presented at the 2019 Annual Symposium in The Woodlands.

General Statistics

One of the first things that strikes the eye of an AML-viewer from the program booklet, is that of the eight workshops, not a single one had any significant AML element. Apparently, expectations were that there was nothing from AML worthwhile enough to be taught or learned through a workshop and announced in the program.

Next, for the main program, 67 oral presentations and 47 posters, Table 1 gives a breakdown of author affiliations. I hope you'll forgive me for lumping all Chinese organizations together; other than convenience and my ignorance and inability to distinguish those, there is no specific reason for it.

Table 1—Companies Contributing Two or More Papers at the 2019 SPWLA Annual Symposium
(114 papers were presented: 67 Oral and 47 Poster)

Company	Total	1st Author	2 nd /3 rd Author
Schlumberger	26	23	3
University of Texas	19	19	0
Halliburton	17	12	5
Chinese	10	6	4
Chevron	9	6	3
BP (including Aker)	8	4	4
Baker Hughes	6	5	1
Shell	4	2	2
Eni	3	3	0
Weatherford	3	2	1
Aramco	3	2	1
Conoco	3	0	3
University of Houston	2	2	0
Lloyds Register	2	2	0
UWA/CSIRO	2	2	2
eGAMLS	2	2	0
Petrobras	2	2	0
Equinor	2	1	1
Geolog	2	1	1
Total	2	1	1
TOTAL		96	31

There were some 20 companies with one paper.

You will quickly notice that next to all the expected major, reportedly integrated, service providers, this list features one 'pure' mudlogging company, with two papers, so chances are there were at least two papers with some serious AML element.

Quick-Look AML Evaluation of the SPWLA 60th Annual Logging Symposium in The Woodlands

On average there were five authors per paper. There were almost 75 people who were (co)author of more than one paper: 61 people contributed to two different papers, 8 people to three different papers, 3 people to 4 papers, one person to 6 papers and even one person who coauthored 14 papers.

The spread in the distribution of the various companies, with more than half the papers from only three organizations, might deserve some further discussion, especially when compared with such splits from 10 to 12 years ago, but such falls outside the scope of this article.

AML Still Hardly Used

Let's first consider papers that may be classified as an "AML paper." This includes any paper about furthering development of some "pure/largely" AML technology or with a major part of the evaluation work presented based on data and information from mudlogging, including new analysis of old cuttings. With this classification, I find only one oral AML (Althaus et al., 2019) and two AML posters (Pozzi et al., 2019; Dashti et al., 2019).

Secondly, to determine whether AML or just conventional mudlogging is used at all for our normal work, we may simply count the number of papers where some mudlogging is being mentioned and used. Sadly, we then have to conclude that the large bulk of our profession doesn't even seem to think ever about doing anything serious with (A)ML. In addition to the three full AML papers mentioned above, only five others show signs of mudlogs having been used. For example, in more than 90% of all the papers there's not a word about any form of mudlogging, conventional or advanced, being used for our work. (In this respect, very generously, a paper, or presenter had to do barely more than mention a word like mudlog, mud gas or cutting, or show some actual mudlog use, however little. The borderline case being one where a paper as published doesn't contain a word or sign of mudlog usage, but the presenter at the conference is telling us about it. So, in total, there were only eight papers with some (A)ML content. Just as an illustration: Tugan and Yuce (2019) is one of those eight, fully deserving the term integrated field study. Note that while Saxena et al. (2019) is about technologies which are perfectly suited for cuttings, since these techniques are also, and currently maybe even largely, used for core chips, it is not classified as a (pure) AML-paper, but is included in the eight with some AML aspect. Also, while the concepts in Glaser et al. (2019) might well have AML applicability, since this paper is geared solely towards a strict LWD set up, including real-time transmission as distinct from downhole memory of a near-bit sub, Glaser et al. (2019) is not counted as having any AML content.

It is particularly intriguing, that none of the papers from any of the major service companies, all with supposedly some considerable mudlogging activities, is among these eight. For a company with only two or three papers, one may argue that simple statistics then allow to have none with any AML input. However, when considering this huge stack of 26 papers from the most prolific contributor, many of which are claimed to be integrated studies, none even mention a word of mudlogging, I would be particularly interested to investigate matters a little further. In my opinion, equally worrying is the fact that none of the 19 research papers from the most prolific university even touch on mudlogging. And here too, I dare to claim that there are several where scientific rigor should have led to at least making a few comments on possible merits of some (advanced) mudlogging techniques.

At Least 30 Papers Would Have Benefitted From AML

I will be the first person to say that we shouldn't expect, or suggest, "equal opportunities/representation" of the various main routine data-acquisition technologies (AML, LWD and WLL). Yet, in the figures above, that only three AML papers and less than 10% even mention any word in that direction, are worryingly low, leading to an attempt to assess how many papers would have benefitted from some AML input.

Hence, as a third category I've counted that number of papers, where AML wasn't used, but should have been considered. Doing so, I come to what I deem a pretty conservative estimate, of at least 30 papers which could have been improved had some AML input been used. These include cases where the available data (LWD, WLL and sometimes core analysis) fall short of requirements, i.e., where it is clear that the uncertainties in the end results are still worrying, when with some reasonable judgement, AML data at least would have provided another dimensional view of the matter, and possibly some very useful data, information and insights.

A Vault With Cuttings From 70,000 Wells: a Fort Knox or "Not for Us"??

As another illustration of how mudlogging actually features in the minds of our discipline professionals, we may consider a store that exists in the USA, with cuttings from some 70,000 wells. For those who missed this from the relevant stand at the exhibition, see e.g., Bell, (2019). To my mind, at least what Daniel Kahneman (2011) calls System 1 of my brain, then immediately

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brings associations with Fort Knox, immense value, worth maintaining. Such a store could be invaluable as an information source for analysis work for many new developments to be undertaken. However, many parties in the industry thought and think otherwise—all those cuttings might have been thrown away for perceived lack of value, and as described above, the bulk of the people in our discipline are not doing anything substantial at all with cuttings, old or new.

A Quantified and Very Clear AML Metric

We can easily, albeit somewhat arbitrarily, combine and convert the abovementioned counts of three categories into an overall AML score for each participating company. When we give 2 points for a full AML paper, 1 for a paper that in some manner does something with (A)ML and -1 for a paper that should but doesn't mention a word about (any form of) mudlogging, we get the results shown in Table 2.

Table 2—Number of Papers and AML Score

Company	Papers	AML Score
Geolog	2	4
Aramco	3	2
Total	2	2
Lloyds Register	2	1
Shell	4	0
Conoco	3	0
UWA/CSIRO	2	0
Petrobras	2	0
Halliburton	17	-1
Baker Hughes	6	-1
Weatherford	3	-1
University of Houston	2	-1
eGAMLS	2	-1
Equinor	2	-1
Eni	3	-2
Chinese	10	-3
BP (including Aker)	8	-3
University of Texas	19	-4
Chevron	9	-4
Schlumberger	26	-9

A Way Forward

The potential of AML remains unchallenged, and to be able to reap the benefits, some more development and research work needs to be done.

Nevertheless, these statistics from the Annual Symposium in The Woodlands appear to confirm a serious underutilization of one of our three main data acquisition technologies, with unnecessarily lengthy and expensive data acquisition programs that result in inferior evaluations and, hence, greater risk for developments going wrong.

Clearly, the initiative in this should come primarily from the Operators, i.e., the petrophysicists doing the evaluations. One could simply pick up on any of the proposals made by several parties in the recent past or just start further implementation of AML technologies, rather than continuing the current status quo.

The SPWLA can of course stimulate developments a little bit, e.g., by explicitly calling for AML papers for next year's conference in Canada. So I do hope we'll see some better AML scores there, and remain open for any suggestions to that end.

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E C Thomas

(Author's note: Not everything proceeded smoothly during this decade, or even worked at all. I hope these anecdotes will be of interest even if you are less than 50 years young; they should bring grins to those who have fond memories of working during those days. Who among you know what a slide rule is, or possibly even used one? We actually wrote everything down in cursive pen, and relied on typists to record it in type, with three carbon copies. Didn't you love reading files with only the 3rd carbon copy. Enough of this already; on to the stories.)

Another Tale of Woe Using the NML Logging Tool

My previous tale about using the NML centered on the need to kill the borehole signal with a water-soluble paramagnetic ion, such as Mn^{+2} . This time the application needed an insoluble magnetic particle. Again, it was an openhole test aimed at measuring the remaining oil saturation in a watered-out reservoir that was a candidate for tertiary recovery. The process was to work as follows: Clay-sized magnetic particles were to be dispersed in an extremely low water-loss mud and the reservoir section drilled with minimum mud-weight overbalance. The aim was to invade the formation with mud filtrate, but to not inject any of the magnetic particles into the reservoir. Then, the reservoir was to be logged immediately with the NML. If the process was working correctly, then we would not see any signal in the shales, i.e., FFI = 0. In the reservoir zone, the NML signal would be due to a combination of remaining oil and mud filtrate. This would be followed up with a DIL-LL8 logging pass to check that the reservoir section was indeed invaded with mud filtrate. Then the next step of the plan was to spot a pill of water containing a paramagnetic ion across the reservoir zone and 50 feet above the reservoir, then underream the borehole across the reservoir to scrape off all of the mudcake and ensure invasion with filtrate containing the water-soluble paramagnetic ion. This was to be followed by a second NML pass, but this time the NML signal would be due solely to the remaining oil saturation. Anyway, that was the plan.

The chosen magnetic particle was magnetite. The experts all assured with us that this would be sufficient to kill the water signal. The vendor agreed as well. The operation proceeded until the first NML run. Horrors! We had not succeeded in killing the borehole signal. The magnetite-infused drilling mud was not working. Why?

Too late we got smarter and realized that the step that produced clay-sized magnetite from larger particles (which we had checked earlier were indeed magnetized) resulted in demagnetized clay-sized magnetite grains. We had all forgotten that our 8th grade science teacher had demonstrated for us that a sharp mechanical pulse can scramble all the magnetic domains resulting in no net magnetism remaining in what used to be a magnet. Color us embarrassed!

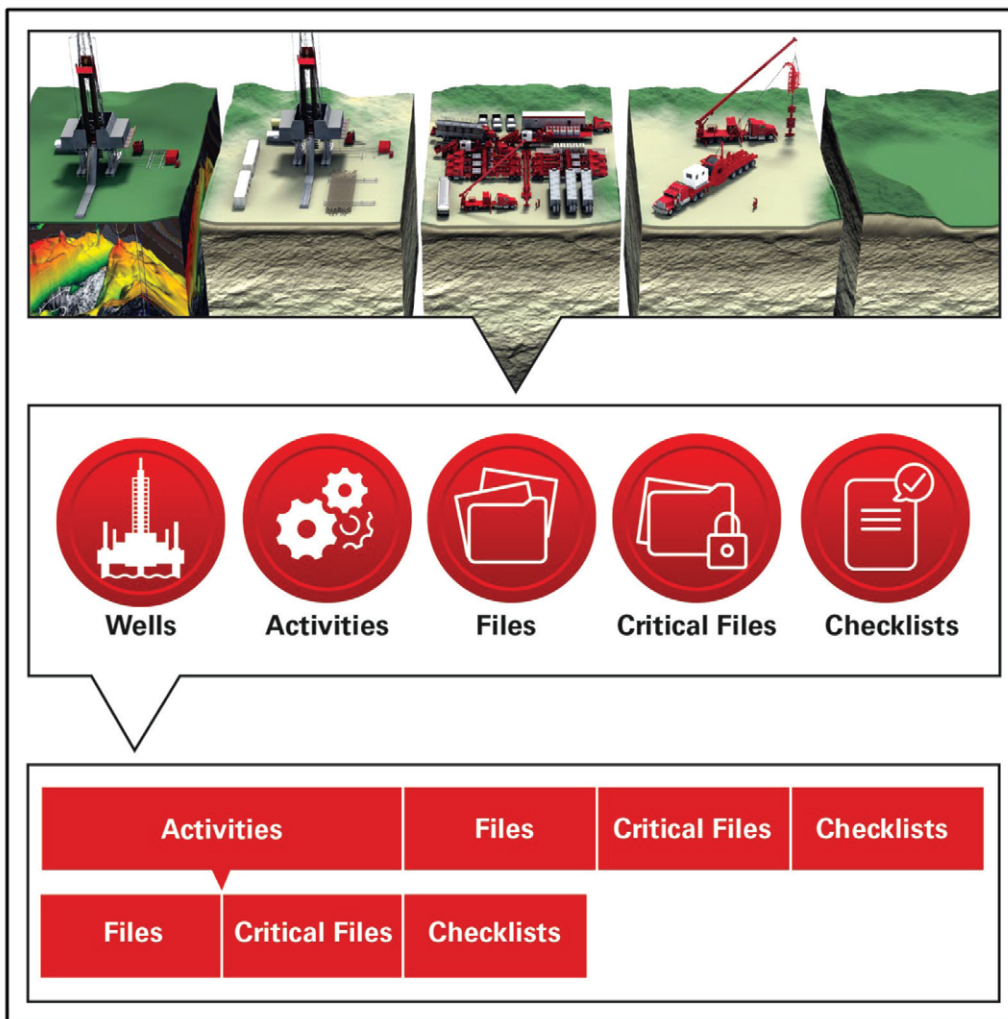
Thus, we ordered another batch of clay-sized magnetite, but had the vendor remagnetize it. From then on, we called it premagnetized magnetite; the "pre" indicating before the next time we put it in a mud. And when we used this premagnetized magnetite in future NML runs it worked as advertised, killing the borehole signal and returning FFI = 0 across shales. And were able to measure the remaining oil saturation. Oh happy days! But unfortunately, the volume of oil was too low to support a tertiary recovery project. C'est la vie.

Stay tuned; More anecdotes to come.

XSpace™ Data Management Platform – Collaborative Data Management for Efficient Workflow and Superior Decision Making

The Halliburton XSpace™ data management platform was created to enable increased net present value (NPV) from investments in exploration and production. It was recognized that provisioning an intuitive, easy-to-use, and agnostic data management platform to support all of the stakeholders for developing a well or project will deliver improved economics, i.e., more BOE per unit of investment. The XSpace platform optimizes workflows to enable personnel to work more efficiently, which can also create additional time for elaborations to make a better decision by a deadline. Both contractors and oil and gas companies are participating, giving more perspectives and knowledge to aid in superior decision making. Together, this adds to the potential production from the well, increasing the value delivered by the integrated team.

The XSpace data management platform offers a one-stop solution for file management across the entire well life cycle. This dynamic management platform offers a simple way to acquire and/or publish aggregated well data, making workflow tasks more efficient to complete. It enables productive collaboration between team members for better decision making via automatic notifications to entitled parties when new files are available. End-user controls eliminate nonessential communication. This scalable solution has the flexibility to cover the full range of projects—from a single well to the most complex multiwell field-development projects. End-user controls enable folder or file-level data entitlements, handily supporting any workflow requirements. Standardization on a common platform and an intuitive interface furthers workflow efficiency.



The XSpace™ platform enables creation of a project that can store and distribute project-level data and have links to authorized wells. Activities are subrepositories of a project or well and can have mirroring of entitlements from the parent or completely different entitlements assigned to maintain high flexibility. The platform has a workflow manager called checklists that enables efficient tracking and review of documentation to fulfill processes, procedures, or regulatory requirements. Critical file items can be created to highlight very important or niche data sets to streamline their access. These items or checklists can be applied to a project, project/activity, well, or a well/activity for overall flexibility.

Functionality and ease of use ensures a team can work faster. This includes streamlining and automating communication, organization, and work status, as well as reducing project management workloads, which frees up E&P personnel to focus on core duties. Data tagging enables fast-search routines via “And” or “Or” statements involving multiple tags. Multiple views to display data files support any workflow and allow for quick data extraction. The platform has a search field above all columns for tabular listings, quickly capturing required data. Well-organized checklists track files published for management of processes, procedures, and regulatory requirements.

It also allows an asset team to subdivide projects or wells into activities that further enable workflow efficiencies for complex situations. These activities can inherit entitlements from the parent or have their own hybrid entitlements. The XSpace platform supports up to 100-gigabyte files for robust file sharing. It enables rapid data capture with its ability to support searching and retrieving designated file types across multiple projects and wells in a single download operation. The platform also has a user datagram protocol (UDP) option that provides extremely high transfer rates up to 700 megabits per second (Mbps), along with Pause/Resume and Crash recovery.

A Discussion With Jinhong Chen, Petroleum Engineering Specialist at Aramco Services Company, on Being Recognized as a SPWLA Distinguished Speaker for 2018–2019.

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*A Discussion With
Jinhong Chen, Petroleum
Engineering Specialist at
Aramco Services Company*

*A Discussion With
Zheng Gan,
Technical Advisor at
Core Laboratories*

*Crossword
Puzzle*

*Happy Hour
Announcement*



Jinhong Chen

Dr. JinHong Chen joined Aramco Research Center-Houston in 2013 and is working on developing technologies for improved evaluation and production in unconventional source-rock reservoirs. Previously, he was a petrophysicist responsible for R&D in NMR formation evaluation technology at Baker Hughes and prior to that, he was a senior scientist working at Sloan-Kettering Cancer Center leading the research in development of NMR technology for applications in cancer diagnosis and treatments. He was also a research fellow at Harvard University and a visiting scientist at MIT. He has a PhD in Physics from the Chinese Academy of Science. He has published more than 80 papers, contributed to two books, and holds dozens of patents.

You were selected as an SPWLA Distinguished Lecturer in 2018. Please share with us a short description of the work that led to this prestigious recognition.

The work being presented for the first time is a simultaneous dual neutron and X-ray tomography study of shales at core scale, in collaboration with scientists at the National Institute of Standards and Technology (NIST) Center for Neutron Research (NCNR). This is a nondestructive method used to map unambiguously the 3D distribution of organic matter, inorganic minerals, and open and healed fractures in unconventional shale samples. The significance of the research illustrates the distribution of kerogen and fractures that can be used in the modeling of hydrocarbon flow at the core scale, a 10^9 upscaling from current methods that model the flow based on SEM images.

How did you start your career in petrophysics and formation evaluation?

My career began in academics, developing and applying nuclear magnetic resonance (NMR) and magnetic resonance imaging (MRI) technology to study different materials at Harvard and Sloan-Kettering Cancer Center. In 2010, I joined a team at Baker Hughes to develop NMR logging and interpretation methods for different applications in Formation Evaluation. In 2013, I joined Aramco's global R&D network, working at the Aramco Research Center—Houston with emphasis on the characterization of unconventional reservoirs.

What do you consider important achievements/accomplishments in your career? How did you go about attaining these achievements/accomplishments? What were the challenges/sacrifices on the way to those achievements/accomplishments?

It is gratifying to see some of the concepts and methods I have developed over the years applied by different groups of scientists and engineers to solve problem in their respective fields. In addition, helping early career scientists develop their research skills and successfully complete research projects has been personally fulfilling. Along the way, I have published more than 70 papers and the majority of them are in prestigious, peer-reviewed journals, such as Natural Communication and JACS. I believe that any achievement is a result of hard working and deep passion in what one is doing.

Share with us any interesting challenges you have faced in your career or technical projects.

We need to have a good understanding of nanoscale physics to make real breakthrough for developing better long-term recovery strategies for shale reservoirs. I am fascinated by the physics phenomenon at the nanoscale that is also critical for unconventional shales. At this scale, many theories and concepts that work well for macroscopic state require revisiting. Working at Aramco, I have been able to pursue further studies in this area.

How do you convey the importance of petrophysics/formation evaluation to your colleagues from other discipline? Share with us any such interesting case.

The work we do provides the fundamental data for making reservoir strategies and decisions. I think it is important to know your audience. I generally explain the big picture and then lay out some specific problems that we can solve. For instance, I once discussed with a highly respected geophysicist the specifics of spatial resolution to NMR logging. He was intrigued and this persuaded him to work with me to improve a spatial resolution of NMR logging using his data-processing skills and experience. The collaboration was quite rewarding.

Which petrophysical or formation evaluation concepts/workflows/methods do you find most useful and impactful for upstream O&G projects?

I prefer anything based on measurements.

Please share with us few emerging petrophysical or formation evaluation concepts/workflow/methods that will benefit the upstream O&G projects?

I consider nanoscale physics, including nanofluidics behavior and surface-nanofluidics interaction, to be an emerging area of interest due to the importance of improving production strategies from shale reservoirs. In addition, artificially intelligence will soon play an essential role in petrophysics.

What important skills (technical or otherwise) do you rely on in your day-to-day work? How do you keep your skills sharp?

From a technical perspective, I like to identify the physical foundations of the acquired data in the lab or in the field. Also, I like to compare data obtained with different methods. Keeping up-to-date with the latest literature is important. Therefore, it is always good to read as many publications as possible. It is equally important to monitor the most recent progress in relevant fields and what my peers are working on.

What were the most useful subjects/topics/concepts you learned in college that help you in your day-to-day work?

I apply many of the basics physics principles we learned in college, such as mechanics, thermodynamics, and electromagnetism into my daily research. A great number of innovations actually use very basic physics to solve a specific problem for a specific material.

How were you mentored and how did you seek mentors? Share with us any valuable learning or experience shared by your mentors.

I was fortunate to have a great working relationship with my advisor in graduate school. We are still good friends. I genuinely appreciate what he has done for me in shaping my research behavior and advancing my academic achievements. For example, when collaborating we polish a manuscript over several iterations to make sure that every sentence in the manuscript is not only scientifically correct but also has the relevant context to the topic.

What are the most significant changes you think the industry or your area of work has had since you started?

It seems that the big service companies were building different state-of-the-art logging tools 10 years ago, and now focus more on developing more sophisticated interpretation methods for different formations.

Technical vs. Management roles? What is your advice or experience for those still undecided on which to pursue in their careers?

I like technical challenges; but a technical project involves a team to work together and management skills are equally important. A management job in a technical company requires vision and direction. Therefore, I think it is important to have both skills.

How do you motivate people to be interested in petrophysics and in the oil industry in general?

Data measurement and data science is a topic with such career growth potential. I tell people that we involve real data measurements and we develop petrophysical models based on science.

What your advice to those starting their careers in the oil industry, especially to those starting in the areas of petrophysics and formation evaluation?

I tell them to pay attention to data and how those data were acquired and measured. It is important to know that data need to be acquired based on relevant conditions and using the right approach.

What advice do you have for those affected by the downturn, especially when just starting in the business?

Sharpen the skills you have and remain relevant. Discovery and recovery now has so many integrated disciplines—petrophysics and the geosciences field in general has grown so much. Develop strong technical skills but also refine your business acumen to effectively contribute to an organization.



Zheng Gan

Dr. Gan is a scientist with 11+ years of experience in mathematical modeling, machine learning, high-performance computing, optimization, and software development. As a researcher in petroleum engineering, he has 6+ years of experience in the oil industry in the areas of geophysical/ petrophysical inversion modeling, reservoir characterization, rock classification, 3D digital rock (micro-CT imaging) pore-scale modeling, core testing data analysis and well-log interpretation, and multiphysics modeling and optimization. He is an expert in 3D digital rock (micro-CT imaging) and 2D thin-section pore-scale modeling; an expert in unconventional EOR experiment design, setup, and numerical simulation; and an expert in unconventional core analysis.

You were selected as the SPWLA Distinguished Lecturer in 2018. Please share with us a short description of the work that led to this prestigious recognition.

In this work we proposed a new pressure-decay permeability measurement for tight rocks, such as shale. The measurement can be completed within one hour and the measurement range is from 1.0×10^{-1} to 1.0×10^{-6} md. This new permeability measurement has the following advantages (1) measured matrix permeability isn't affected by the open, connected fractures, (2) it is 10 times faster than the pulse-decay experiment and 20 times faster than the steady-state experiment, and (3) it can provide the gas-filled pore volume and the fracture volume during the permeability measurement.

How did you start your career in petrophysics and formation evaluation?

I got my PhD in mathematics from Rice University in 2012, and started my career at CGG as a geophysicist, which requires a strong mathematics background. I joined Core Lab in 2013 as technical advisor to do mathematical modeling and algorithm development in shale gas flow, digital rock physics, NMR inversion, etc. While working at Core Lab, I've gained extensive knowledge about core analysis, well logs, geology, and mineralogy. Now my job at Core Lab is not limited to mathematical modeling. I am devoting myself to improving Core Lab's existing services and developing new commercial services in petrophysics and formation evaluation.

What do you consider to be important achievements/accomplishments in your career? How did you go about attaining those achievements/accomplishments? What were the challenges/sacrifices on the way to those achievements/accomplishments?

As technical advisor, the most important achievements are to provide new commercial services that can bring real benefits to the industry and generate additional revenues for the company. For example, this new pressure-decay permeability measurement has been commercially available since last year, and it has successfully tested thousands of shale samples for E&P companies. The challenges are the follows: (1) to understand whether there is a good market for this new product, (2) the need to get approval and support from the upper management, and (3) making this new product commercially mature.

Share with us any interesting challenges you have faced in your career or technical projects.

The challenge I am facing is how to transform a new idea to a commercial product. There is always a big gap between the idea and commercial application. For instance, as a commercial application, cost is a big factor which needs to be taken into account. If cost is too high, the idea cannot be commercially implemented. Also, instrument and environment limitations are big factors as well. I spend a lot of time thinking about how to reduce costs and overcome practical limitations.

Which petrophysical or formation evaluation concepts/workflows/methods do you find most useful and impactful for upstream O&G projects?

I would like to recommend a core analysis workflow for shale samples: (1) prepare fresh shale plugs (1 or 1.5-in. diameter), (2) use high-frequency NMR (22 MHz) T_1 - T_2 maps to scan shale plugs to get water volume and oil volume, and (3) use pressure-decay permeability measurements to get gas permeability and gas volume. Using this workflow, we can quickly get basic fluid properties, such as water saturation, oil saturation, gas saturation, and gas permeability for a shale sample within two hours in a nondestructive noninvasive manner. The measured properties are crucial for formation evaluation.

Share with us few emerging petrophysical or formation evaluation concepts/workflow/methods that will benefit the upstream O&G projects?

(1) Machine learning, (2) noninvasive nondestructive scanning, such as CT, XRF, NMR of full-diameter core, and (3) high-resolution imaging technology such as FIB-SEM.

What important skills (technical or otherwise) do you rely on in your day-to-day work? How do you keep your skills sharp?

I think the most important skill is the self-learning ability. If one has strong self-learning ability, she/he should be fine in her/his career. The internet provides huge resources of knowledge. When she/he encounters new stuff, she/he can just learn it quickly by her/himself. I keep reading research papers and talking to industry peers.

What were the most useful subjects/topics/concepts you learned in college that help you in your day-to-day work?

Self-learning ability.

How were you mentored and how did you seek mentors? Please share with us any valuable learning or experience shared by your mentors.

I really learned a lot by asking, talking, and discussing with my colleagues. You may not need an assigned mentor. All you need is to be friendly and familiar with your colleagues then if you have any questions, you know which colleague is the right person to ask.

What are the most significant changes you think the industry or your area of work has had since you started?

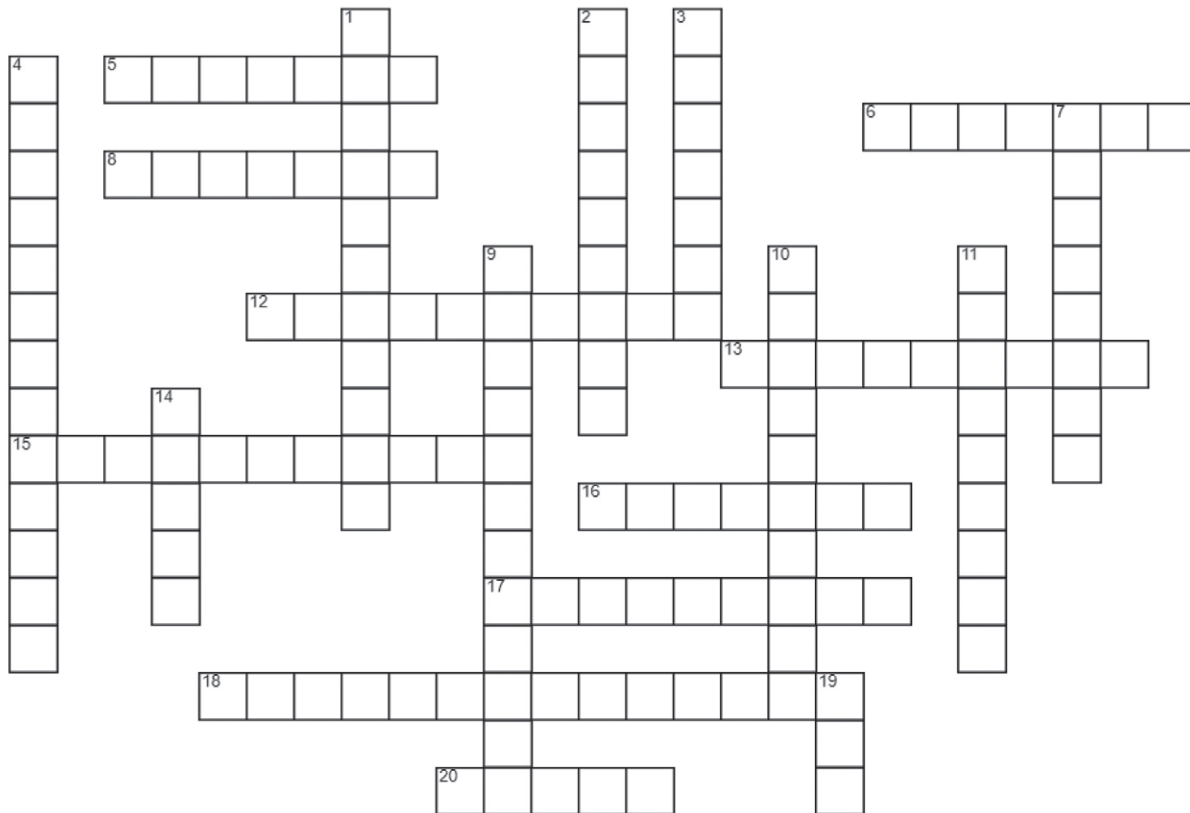
We are still in the downturn market. Our industry wants to accomplish projects more efficiently and effectively. Our industry is now focusing on applying new technologies to help reduce costs and improve efficiency.

Technical vs. Management roles? What is your advice or experience for those still undecided on what to pursue in their careers?

(1) Follow your personal interest, (2) understand what you are really good at, (3) choose the role in which you can maximize your potential.

What your advice to those starting their careers in the oil industry, especially to those starting in the areas of petrophysics and formation evaluation?

(1) Keep your petrophysics and formation evaluation knowledge up to date, (2) attend conferences and workshops and talk to industry peers, (3) always try new methods and new workflows, (4) learn other petroleum knowledge to broaden your horizon and see the big picture.

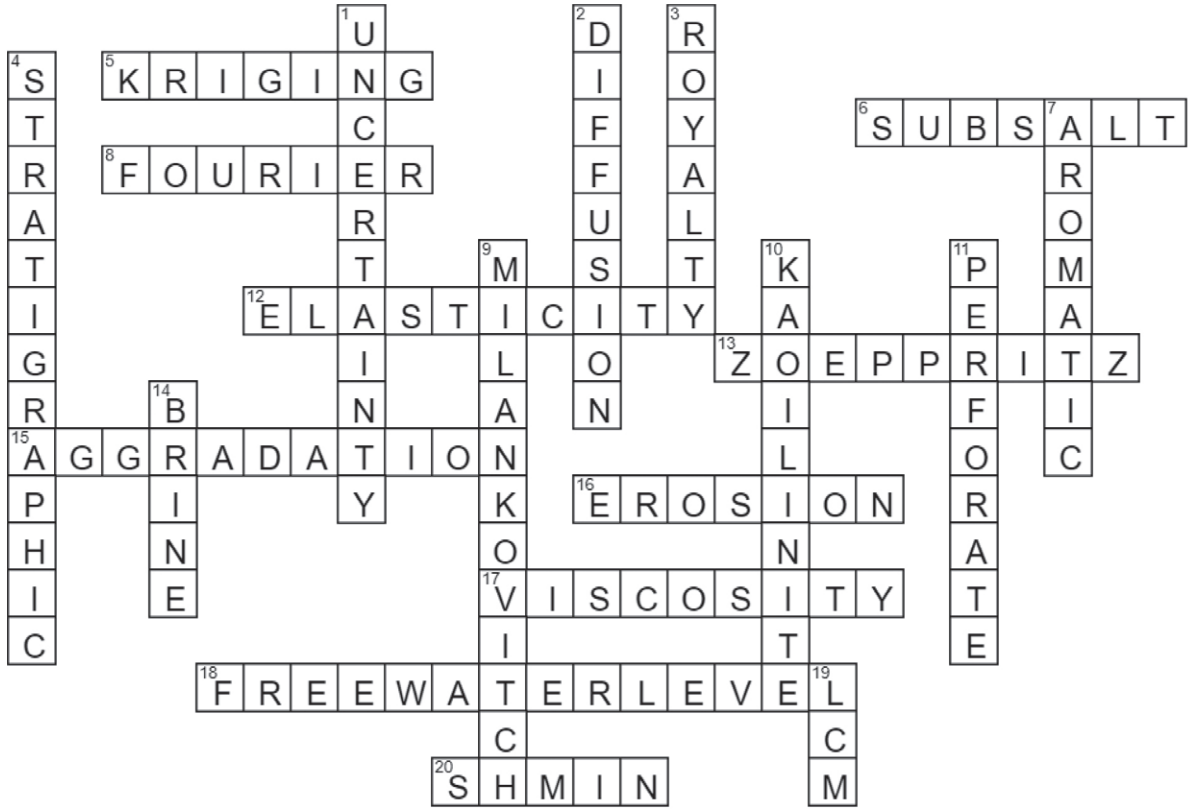


ACROSS

- 5 A statistical technique used with variograms to describe the changing correlation between sample values as separation between them increases
- 6 An exploration and production play type in which prospects exist below salt layers
- 8 This transform converts data from time domain to frequency domain
- 12 Ability of a material to undergo stress and recover to original shape
- 13 Equations that describe the partitioning of energy in a wavefield relative to its angle of incidence at a rock-fluid boundary
- 15 Accumulation of stratigraphic sequences by deposition that stacks beds atop each other, building upwards during periods of balance between sediment supply and accommodation
- 16 The process of denudation of rocks, including physical, chemical and biological breakdown and transportation
- 17 A fluid property described by ratio of shear stress to shear rate
- 18 Capillary Pressure = Zero
- 20 Drillers prefer to drill a horizontal well parallel to this subsurface stress

DOWN

- 1 The amount of possible inaccuracy determined using statistical methods
- 2 The process by which particles move over time within a material due to their kinetic motion
- 3 Percentage share of production paid from a producing well
- 4 Pinch-outs, unconformities, or sedimentary features such as reefs are examples of this type of trap
- 7 Class of compounds containing hydrogen and carbon atoms arranged in a symmetrical 6-carbon ring structure with single (C-C) and double (C=C) bonds alternating around the ring
- 9 Ice ages might be a consequence of these cycles, named after a Yugoslavian physicist
- 10 This non-swelling clay is formed by weathering of feldspar and mica
- 11 Using shaped charges to connect the wellbore to the reservoir
- 14 Water containing dissolved inorganic salts
- 19 This concoction of solids is introduced into a wellbore mud system to prevent mud loss in weak or fractured formations



SPWLA Networking Happy Hour in August 2019

SPWLA members in the great Houston Metro area and others visiting the city gathered recently in a known location to network in a relaxed atmosphere with a wide variety of food and brew. SPWLA members with varied backgrounds and experience were able to mingle and network with old friends and colleagues and meet new ones. Attendees included 2019–2020 SPWLA President Dr. Jesus Salazar, as well as officers of the local chapter. The 2020 symposium in Banff, Canada, in June 2020 sparked a special interest among attendees as the call for papers was recently announced. Upcoming technical meetings organized by the Houston Chapter were also discussed with the first one taking place on the second Wednesday of September. Several faculty and a group of students from the SPWLA University of Houston Student chapter also joined us.

These bimonthly events, already popular among SPWLA's Houston area members and visitors, are rotated to different locations across the Houston metro area. We are open to suggestions for new places to meet. It could even be at location near your office, especially if doing so will encourage your colleagues and team to attend. So far, we have rotated locations among the energy corridor and uptown, midtown, and downtown.



SPWLA Happy Hour August 2019. Conveniently located Cedar Creek Cafe was the perfect place to enjoy the most recent SPWLA's networking event.

SPWLA Networking Happy Hour in August 2019



SPWLA Happy Hour August 2019. 2019–2020 SPWLA International President, Jesus Salazar (third from left to right) and SPWLA Houston Chapter VP Downtown Javier Miranda (first on the right) sharing his ideas for the upcoming technical and networking events of the society at the local, regional and international level.



SPWLA Happy Hour August 2019. SPWLA members and petrophysics enthusiasts gathered during August to kick off the events for the 2019–2020 season!



SPWLA Happy Hour August 2019. Not even the hot summer weather in Houston stopped these enthusiastic SPWLA members from having a great evening full of laughs and conversation in a very diverse environment with people representing four continents.



SPWLA Happy Hour August 2019. SPWLA members and petrophysics enthusiasts sharing a good time during the most recent networking event at a known Houston cafe.



SPWLA professional and student members having a great time in a known cafe in the great Houston Metro area.



More than thirty people attended the SPWLA's Happy Hour coming from industry and academia (University of Houston faculty and students), August 2019.

SPWLA Networking Happy Hour in August 2019



SPWLA Happy Hour August 2019. This lovely patio was the right place where SPWLA members gathered to network after a Texas' sunset.

Don't Miss Our Next Event!

Join us for our next event in fall 2019. Our fourth SPWLA Networking Happy Hour in 2019 will be held at a place to be announced, it will be as usual, a location accessible for anyone in the greater Houston area on October 17, 5:00–8:00 pm. We are listening to our members' suggestions and will decide on a place several people can attend. You are also welcome to recommend new locations close to you, especially if you and your colleagues will attend!

The entire SPWLA community is invited, no need to RSVP, come at your own leisure, no payment required. Come and mingle with fellow petrophysics enthusiasts. Recent events have been well attended by geoscientists, engineers and managers!

Everybody is welcome!

When: 5–8 pm, Thursday, October 17, 2019

Where: TBD, Houston, TX, USA



What is your favorite science or math joke?

Please, send us some nice jokes, memes or comic strips at spwlaysp@spwla.org or through SPWLA social media, and we'll choose some responses to publish in the next issue!

Thanks for your participation.

Contact us: SPWLAYP@SPWLA.ORG

We encourage you to contact us with any suggestions for improving our group and/or if interested in participating in our activities.

**GO AHEAD,
SEND US
A MESSAGE!**



Oklahoma City Chapter

Data Analytics in Reservoir Evaluation Workshop

Date:

Tuesday, October 15th, 2019
 Workshop 8 am - 4 pm
 Happy Hour 4 - 6 pm

Location:

OCGS Devon Geoscience Center
 10 NW 6th Street, OKC 73102

Cost:

\$195 per person
 \$135 current SWPLA members

[SPWLA Member PayPal Link](#)

[Non Member PayPal Link](#)



RSVP:

By September 30th to
nkhan19@slb.com

Overview

Join us for an all-day workshop in data mining, machine learning, and other data analytics techniques applied to reservoir evaluation.

Breakfast, lunches, and refreshments will be provided. After the workshop, please join us at the Twisted Spike for happy hour.

Happy Hour Sponsor



Breakfast Sponsor



Speaker	Organization	Topic
Ridvan Akkurt	Schlumberger	A Machine Learning Based Automated System for Well Log Editing
Richard Batsell	Rice University	Successful Multivariate Modeling of Production from Oil and Gas Wells Enabling the Testing of Significant Managerial Questions
Siddharth Misra	Texas A&M	Machine Learning Applications in Reservoir Characterization
Matt Belobraydic	Schlumberger	Geology at the Crossroads of the Future
Ishank Gupta	University of Oklahoma	Machine Learning Regressors and their Metrics to predict Synthetic Sonic and Brittle Zones
Zoya Heidari	University of Texas	Automatic Production- and Fabric-Oriented Rock Classification and Reservoir Evaluation in Organic-Rich Mudrocks through Integration of Multi-Scale and Multi-Physics Formation Data
David Robinson	Devon Energy	Classifying Thin Section Cuttings using Deep Learning
Hani Elshahawi	Shell	Machine Learning for Improved Directional Drilling

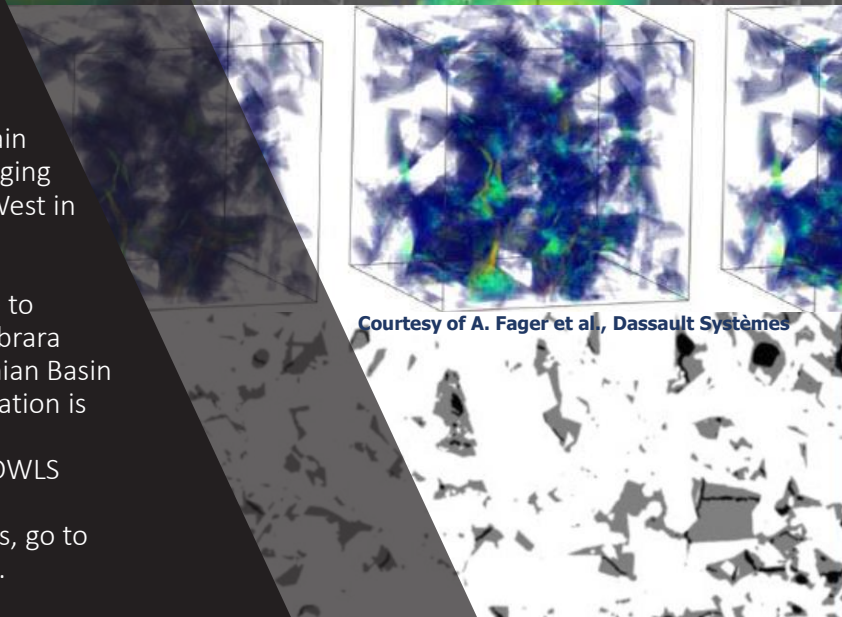
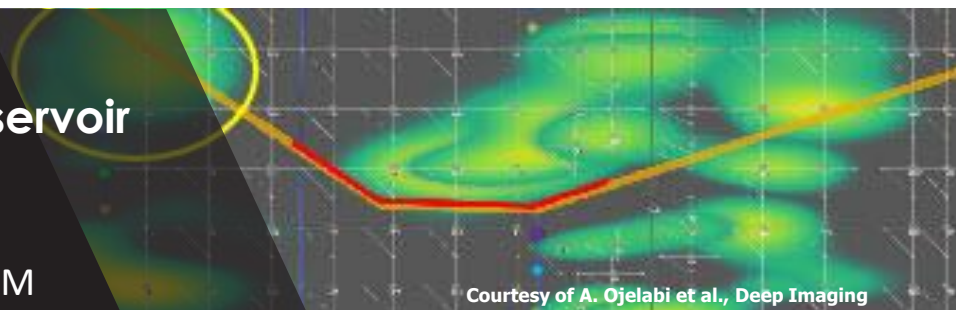
Multiscale Imaging for Reservoir Optimization

RMAG DWLS FALL SYMPOSIUM
OCTOBER 22nd, 2019
Sheraton Denver West, Lakewood, CO

This joint symposium is being offered by the Rocky Mountain Association of Geologists (RMAG) and the Denver Well Logging Society (DWLS) on Oct. 22, 2019, at the Sheraton Denver West in Lakewood, Colorado.

The talks will encompass imaging techniques, analysis, and interpretation across a range of scales, from the pore scale to beyond the wellbore. Hot topics to be covered include Niobrara and Mowry reservoirs in the Powder River Basin, and Permian Basin reservoirs. The list of presentations is available, and registration is now open at <https://www.rmag.org/events/symposiums/> Early bird registration discounts, as well as for RMAG and DWLS members, are now available .

For information on sponsorship and exhibitor opportunities, go to the same link or contact the RMAG office at 800-970-7624.



2020

SPWLA BANGKOK

1st to 5th March



Call for Abstracts

SPWLA Bangkok – Asia Pacific Regional Conference 2020

“Petrophysics: From Exploration to Brownfield”
*The Impact of Formation Evaluation on Oil and Gas
Field Development Decisions*

Theme of the conference

Ideas, technology or case studies that are directly applicable to the Asia Pacific region.

Submit your abstract to:

ap2020@spwla.org

Deadline for submission:

30th September 2019.

Details

Maximum of 500 words.

Please provide title, full name of authors and affiliation, name of presenter and contact email address.

Please note the conference will be presentation only. Authors can choose to publish on OnePetro (but not mandatory).

Conference Schedule (*Notional*)

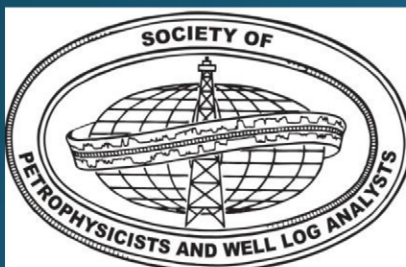
Sunday 1st – Field Trip (optional)

Monday 2nd - Technology Day

Tuesday 3rd – Technical Session 1

Wednesday 4th – Technical Session 2

Thursday 5th – Golf Day (optional)



ABU DHABI CHAPTER

General News

The Chapter encourages all Petrophysicists interested to join and become an active member. Get in touch if you wish to attend our local events. If you want to be added to our email list, please email us at admin@spwla-abudhabi.com. We look forward to welcoming you!

Recent Events

June 2019 – The chapter hosted Dr. Frans Mulders (Lloyd’s Register) who delivered a presentation titled “A multidisciplinary Approach to address Wellbore Stability Issues Offshore West Madura: Post-Drill Well Analysis Results.”



Abu Dhabi Chapter June 2019 meeting. Dr. Frans Mulders (Lloyd’s Register, Geomechanics Software Product Champion) giving his presentation.

AUSTRALIA CHAPTER

(Formation Evaluation Society of Australia, FESAus)

General News

FESAus, the Australian chapter of SPWLA combines the formation evaluation societies from around Australia predominantly FESQ. Technical meetings are held in Perth on the second Tuesday of each month, with webcasts of the presentations available soon after for members from other states to view. Please visit www.fesaus.org for meeting information.

2019 Committee members:

President	Adrian Manescu
Vice President/ Assistant Treasurer/ Newsletter Coordinator	Wesley Emery
Company Secretary	Callum Rideout
Treasurer	Vacant
Website Coordinator/ Data Standards Focal Point	Martin Storey
Secretary/Intersociety Liaison/ Social Coordinator/ Special Events and Awards	Leanne Brennan
Monthly Meeting Coordinator	Meretta Qleibo
Membership Coordinator	Siobhan Lemmey
New Technology Forum Coordinator	Vacant
New Technology Forum Coordinator	AbdelRahman Elkhateeb
Education Group Leader	Matthew Josh Nigell Deeks
Audio Visual Coordinator	
Sponsorship Coordinator/ Education Group Leader	Vacant
Sponsorship Coordinator	Andrea Paxton
Audio Visual Coordinator	Yang Xingwang
Queensland Representative	Marcel Croon
South Australian Representative	Matthew Pfahl
Victoria Representative	Matthew Durrant
NSW Representative	Harris Khan

Recent Events

9 July 2019 – The technical meeting presentation on “Advanced Petrophysical Applications for the Australian Mining Industry” was conducted by Jennifer Market (senior geophysicist for MPC Kinetic). The introduction of advanced petrophysical measurements in Australian mining is opening the door for exploiting new applications, many centered around “big data” or machine-learning techniques, such as automated facies identification, high-resolution mapping of both major and minor minerals, and 3D visualization of ore properties. Jennifer’s talk was well received with a great deal of discussion and sharing of ideas.



FESAus July 2019 meeting. Speaker Jennifer Market (Senior Geophysicist for MPC Kinetic) (left) with Chapter President Adrian Manescu.



FESAus August 2019 meeting. Jonathan Slade, (Senior Petrophysicist, Woodside Energy) (left) and Chapter President Adrian Manescu.

13 August 2019 – Jonathan Slade, (Senior Petrophysicist, Woodside Energy) gave a presentation titled “What You Need to Know to Drill a HPHT Well.” This presentation establishes a holistic workflow by collating many seemingly disparate crossdiscipline elements into a coherent, easy to understand guide to successfully execute a HPHT well. The aspects where petrophysical involvement is especially critical include planning, logistics, contract tendering and management, internal and external stakeholder management, data acquisition program and efficient communication protocols. Each of these key aspects requires customization to the well in order to achieve and communicate accurate, timely and cost-effective decisions. For every one of these elements petrophysical technical support is a critical enabler for successful well delivery. Jonathan’s talk was well received with a great deal of discussion and sharing of ideas.

Upcoming Events

- 06 September 2019 – New Technology Forum “Software”
- 08 October 2019 – Vanessa Lim (Woodside) TBA
- 12 November 2019 – Master Class (TBA)
- 10 December 2019 – End of Year Xmas Luncheon

BANGKOK CHAPTER

General News

The Bangkok Chapter of SPWLA holds Technical Meetings in Bangkok on the last Thursday of each month. There was no meeting in July for the summer break. Meetings are fully sponsored for SPWLA Members. Nonmembers can attend free of charge with email registration prior to the meeting. Students are always free of charge. Please visit https://www.spwla.org/SPWLA/Chapters_SIGs/Chapters/Asia/Bangkok/Bangkok.aspx for meeting information. Email: bangkok.chapter@spwla.org

2019 Chapter Committee Members:

President	Andrew Cox
Technical Coord	Numan Phettongkam
Treasurer	Sirinya Maykho
Web Coordinator	Alex Beviss
Secretary	Ronald Ford
Sponsorship	Ryan Lafferty
Student Liaison	Kruawun Jankaew
Member at Large	Greg Heath

Recent Events

29 August 2019 Khun Paphitchaya Kamkong (Ammy) presented her paper entitled, “Disclosing Hidden Hydrocarbon Reserves Using the Dt-LogR Method in Lunar Field, Gulf of Thailand” (IPTC-19129). The paper outlines an extensive case study into the process and benefits of using Dt-LogR in the evaluation of questionable gas sands.



Bangkok Chapter August 2019 Meeting. Paphitchaya Kamkong (Ammy) was the presenter.

Upcoming Events

- 26 September 2019 – Nick Last (title TBA).
- 17 October 2019 – A Joint SPWLA/SPE meeting featuring Jennifer Market (Principal Geophysicist MPC Kinetic) speaking on “3D Geomechanics Applications.”
- 1–5 March 2020 – The chapter will host the Asia Pacific Regional Conference. The conference theme is “Petrophysics: From Exploration to Brownfield—The Impact of Formation Evaluation on Oil and Gas Field Development Decisions.”

BOSTON CHAPTER**General News**

SPWLA general and Boston-affiliate members are invited to browse our chapter website <http://boston.spwla.org> for up-to-date information on our mission and events, including event details and registration.

The Boston Chapter is pleased to introduce our 2019–2021 Chapter Officers:

President	Paul Craddock
Vice President	Yi-Qiao Song
Vice President Outreach and Technology	Lin Liang
Treasurer	S. Sherry Zhu
Secretary	Jeffrey Miles.

We thank our outgoing officers for their extremely successful tenure over the past two years!

Zikri Bayraktar, Lin Liang, and Paul Craddock were selected by the technical committee of the SPWLA 60th Annual Symposium as Distinguished Speakers for 2019–2020. The Chapter wishes them all the best as they travel to other Chapters to spread the joy of petrophysics and log analysis.

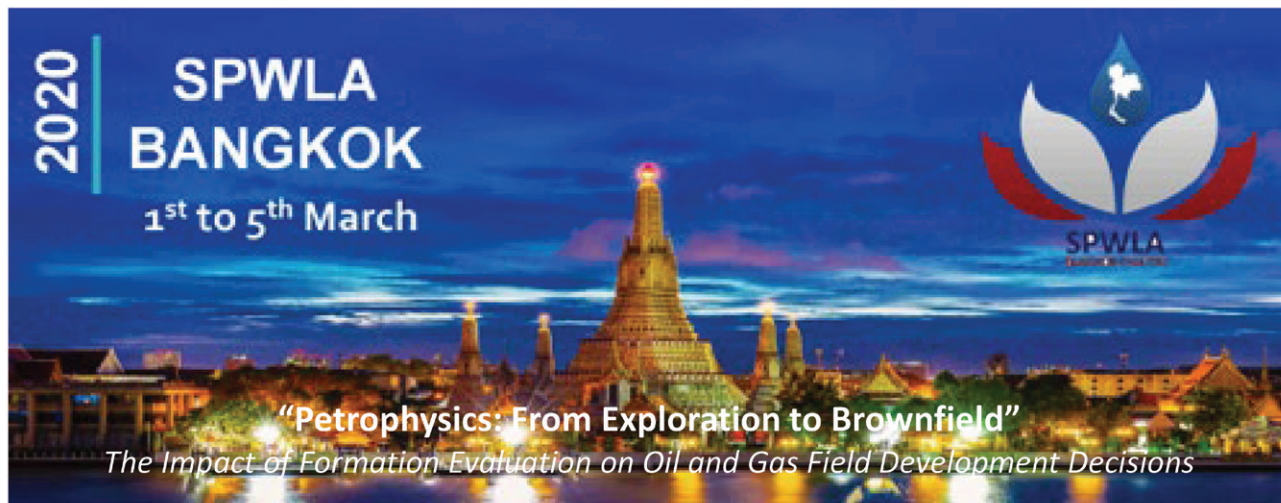
Paul Craddock, Jeff Miles, and Drew Pomerantz (all of Boston), and Rick Lewis (Denver) were additionally awarded the honor of Best Oral Presentation at the SPWLA 60th Annual Symposium for their work on “Thermal Maturity-Adjusted Log Interpretation (TMALI) in Organic Shale.”

Recent Events

The Boston Chapter begins a new season of events! We look forward to hosting the 2019-2020 Distinguished Speakers over the coming year.

16 August 2019 – The Chapter hosted Chicheng Xu (Petrophysicist, Aramco Houston Research Center) for his lecture titled “When Petrophysics Meets Big Data: What can Machines Do?” The talk was highly informative and well attended.

30 August 2019 – Zoya Heidari (Associate Professor, University of Texas at Austin) presented a talk titled “Physics-Based Machine Learning Algorithms for Automatic Production- and Fabric-Oriented Rock Classification and Reservoir Evaluation through Integration of Multi-Scale and Multi-Physics Formation Data.” Her presentation was informative, engaging and well attended.



BRAZIL CHAPTER

General News

Our monthly meeting takes place every third Tuesday of the month, at 4 pm in Rio de Janeiro downtown. Anyone wishing to participate or receive information about the chapter should contact our secretary, Andre Bertolini (abertolini@slb.com). We also post chapter updates on our Facebook page (fb.me/SPWLABrazil) and our LinkedIn page – check us out!

Recent Events

25 June 2019 – Dr. Jorge L. Lopez (Senior Principal Acquisition Geophysicist, Shell) spoke on “Monitoring Pre-Salt Reservoirs: Geophysical and Petrophysical Challenges and Outlook.”

16 July 2019 – Dr. Enrique Estrada (Senior Regional Geoscience Advisor, Halliburton) spoke about “The Post-Salt, Salt and Pre-Salt Challenges, Improvements and Optimizations. Reductions in Time and Cost of the Appraisal Wells”.



Brazil Chapter July 2019 meeting. Dr. Enrique Estrada (Halliburton) (left) and Fernando Maia (Petrobras).



Brazil Chapter June 2019 meeting. Speaker Dr. Jorge L. Lopez (Shell) (right) and Lenita Fioriti (Petrobras).

DALLAS CHAPTER

General News

The 2019–2020 Dallas Chapter officers were announced during the May 2019 meeting:

- President Steve Brackeen (Primexx Energy Partners Corp)
- Vice President Technology Matt Drouillard (Schlumberger)
- Secretary Aaron Green (Lonestar Resources)
- Treasurer Mike Caputi (Pioneer Natural Resources)

Recent Events

March 2019 – Scott P. Cooper (FractureStudies, LLC) gave a talk titled “Distinguishing Drilling-Induced from Natural Fractures in Core.” The talk’s content provided the attendees with useful insights for distinguishing between natural extension fractures and shear fractures, which is important as they can have significantly different effects on the vertical continuity of reservoir permeability, the lateral interconnectivity of a fracture system, and the interaction between natural fractures and hydraulic stimulation fractures. Common in cores, some types of induced fractures provide important information on in- situ stress orientation. Examples were provided to distinguish these from natural fractures that form the fracture-permeability system in a reservoir. The talk was well received by the group representing several different geoscience and engineering disciplines.



Dallas Chapter March 2019 meeting. Chapter President Mriganko Sarkar (PXD) (left) presents speaker Scott P. Cooper (FractureStudies LLC) with the speaker’s gift.

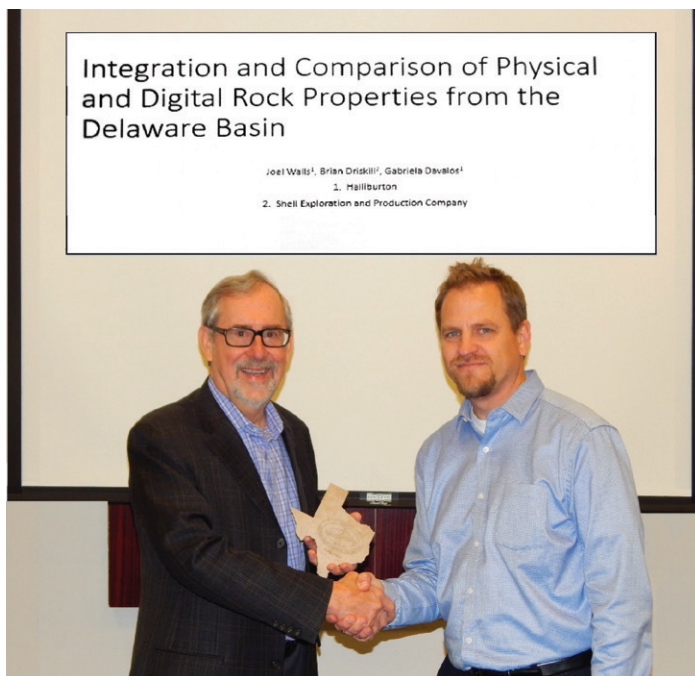
April 2019 – Chelsea Newgord, a petroleum engineering Master’s student in the Hildebrand Department of Petroleum and Geosystems Engineering at The University of Texas at Austin, was the invited speaker. Her presentation, titled “Improved Interpretation of Electrical Resistivity Measurements in Mixed-Wet Rocks: An Experimental Core-Scale Application and Model Verification,” discussed a new analytically derived resistivity model that incorporates parameters to account

for wettability and complexity of pore structure. The experimental procedures used to quantify the influence of wettability on electrical resistivity measurements were explained in detail. The introduction of a new interpretation diagram, called the wettability triangle, was given. This diagram can potentially be used to quantify wettability from resistivity measurements, if combined with other geophysical measurements. The talk was well accepted with considerable discussion and questions from the attendees.



Dallas Chapter April 2019 meeting. Speaker Chelsea Newgord (left) receives the speaker’s gift from Chapter Vice President Steve Brackeen.

May 2019 – A near-record group attended to hear Joel Walls (Ingrain, a Halliburton Service) speak on “Integration and Comparison of Physical and Digital Rock Properties From a Delaware Basin Well.” Total organic carbon (TOC), clay content, and clay-bound water values were determined from Second Bone Spring and Wolfcamp cores, along with other parameters from X- ray diffraction (XRD) mineralogy, pyrolysis, DRA, and retort analysis. The primary objective was to understand reservoir quality, including porosity, fluid saturation, mineralogy, pore size, and pore type. Possible explanations were offered to explain parameter differences from different methodologies. A relationship between clay-bound water, SEM porosity and GRI porosity was discussed. A lengthy discussion followed before the meeting was adjourned.



Dallas Chapter May 2019 meeting. Speaker Joel Walls (Ingrain) (left) receives the speaker's gift from Chapter Vice President Steve Brackeen.

**DENVER CHAPTER
(Denver Well Logging Society, DWLS)**

General News

Join us for the monthly DWLS meetings, which are held the third Tuesday each month, beginning in September and running through May. Meetings take place in the Mercantile Room at the Wynkoop Brewing Company in downtown Denver, Colorado. The networking social begins around 11:20 am, lunch is served at 11:45 am, and the technical presentation starts at Noon. The cost for the DWLS luncheon is \$20 and guests are welcome to attend. Visit the DWLS website at <http://dwls.spwla.org> to make your luncheon reservations, renew your membership, or join the society.

The new 2019–2020 DWLS Board of Directors members were voted in and met for a transition dinner at Rialto Café on June 11, 2019. The new Board Members are:

- | | |
|-----------------------------------|---|
| President | Patricia Rodrigues (Whiting) |
| Vice President Technology | Jenny LaGesse
(Jagged Peak - Consultant) |
| Vice President Membership | Stefani Brakenhoff
(The Discovery Group) |
| Treasurer | Peter Kaufman (QEP) |
| Secretary | Jennifer Haynes (Whiting) |
| Director: Social Events | Tyler Izykowski
(Schlumberger) |
| Director: Editor for Petrophysics | Amanda Waller (Core Lab) |
| Director: Technology | Vahid Shabro (BPX) |

Director at Large
Editor
Webmaster

Juan Escobar Gomez (BPX)
Dominic Holmes (Digital Formation)
Tony Holmes (Digital Formation)

Recent Events

21 May 2019 – Alan Byrnes (Consultant) presented his lecture, “Unconventional Core Analysis—What Do We Do ‘Right’, What Do We ‘Misinterpret’, and the Importance of Reference Frame (Pvtxt).” The talk was well attended.



DWLS May 2019 meeting. Alan Byrnes (Consultant) made the technical presentation.

Upcoming Events

- 17 September 2019 – Natasa Mekic (Weatherford) will be presenting a talk entitled “Interpretation of Cased-Hole Pulsed-Neutron Logs in Complex and Unconventional Formations.” Visit the DWLS website at <http://dwls.spwla.org> to make your reservations.
- 22 October 2019 – DWLS will jointly cohost the Fall Symposium with RMAG at the Sheraton Denver West in Lakewood, Colorado. The topic of the joint symposium is “Multiscale Imaging for Reservoir Optimization.” The talks will encompass imaging techniques, analysis, and interpretation across a range of scales, from the pore scale to beyond the wellbore. Hot topics to be covered include Niobrara and Mowry reservoirs in the Powder River Basin, and Permian Basin reservoirs. The list of presentations is available and registration is now open at <https://www.rmags.org/events/symposiums/> and there is a discount for early registration as well as for RMAG and DWLS members. For information on sponsorship and exhibitor opportunities, go to the same link or contact the RMAG office at 800-970-7624.

MALAYSIA CHAPTER
(Formation Evaluation Society of Malaysia, FESM)

General News

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

Recent Events

25 April 2019 – Jules Reed (Lloyd’s Register) delivered a talk entitled “Heavy Oil and Unconsolidated Core—Challenges of Laboratory Testing.” He illustrated the challenges associated with handling and testing on unconsolidated sand and heavy oils. During the talk, he described how coreflood experiments are designed to investigate fluids and chemicals for injection purpose while designed experiments investigate the diverse challenges associated with reservoir management. On the same day, FESM hosted Suzie Hamzah (EMEPMI) who delivered a talk on “Application of Acoustic Noise and Temperature Logs in Idle Well Restoration and Qualitative Assessment of Reservoir Performance.” She explained how to use acoustic noise together with a temperature log in idle well restoration to access reservoir performance. A couple of strategies were discussed for leak detection and log interpretation analysis.

27 June 2019 – FESM hosted Zarool Hassan (Vestigo) who delivered his talk on “Fluid Typing Based on Logs Signature.” During his talk, he demonstrated a few examples of openhole log signatures acquired from basic wireline logging tools, which are used to identify reservoir fluid types. Subsequently, other associated data, e.g., formation pressure, mud log data, production data will be included to assist in more accurately identifying the fluid type.



FESM June 2019 meeting. Zarool Hassan (Vestigo) (right) receives a token of appreciation from Grant Heavysage (left).



FESM April 2019 meeting. Jules Reed (Lloyd’s Register) (left) and Suzie Hamzah (EMEPMI) (right) receive the token of appreciation from Max Podolyak and Grant Heavysage, respectively.



NMR SIG

Recent Events

The recently created SPWLA NMR Special Interest Group held its second meeting at Southwestern Energy on June 20–21, 2019, following the SPWLA 60th Annual Logging Symposium. The title of the NMR SIG conference was “NMR Today and Tomorrow: Downhole, at the Wellsite, and in the Lab.” More than 100 participants came from all over the world to discuss the latest advances in NMR petrophysics, representing various affiliations including: oilfield and mining industries, service companies, academia, operating companies, and consulting companies.

All of the 24 abstracts received were of high quality and were therefore selected for oral presentation (titles and presenter names listed below). The presentations led to discussions during the Q&A time and during the numerous breaks. Animated discussions continued during the breakout sessions, with one session focused on hardware, and the other session focused on software/interpretation. The underlying theme of both breakout sessions was “breakthrough innovations by 2025.” A Q&A session was also held for NMR-related papers that were presented at the SPWLA 60th Annual Logging Symposium.

Appreciation goes to our keynote speakers Susan Rosenbaum and Ron Hyden, both of whom were very engaging. Susan Rosenbaum (Director of Discipline Career Management and Knowledge Management, Schlumberger) inspired us to ask

“what are we going to do for the NMR SIG?” Several actions items were put forth, including regular webinars to connect with NMR SIG members around over the world, and to create an NMR SIG social media page on LinkedIn (for example). Ron Hyden (Vice President of Technology, Southwestern Energy) asked us to “switch on the light for today’s formation evaluation challenges,” which inspired the audience to translate the success NMR has had in conventional formations into the more challenging unconventional formations.

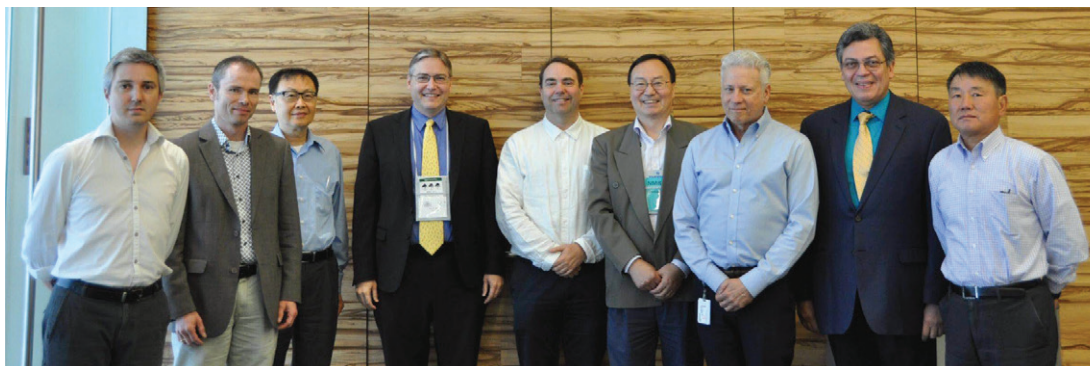
Great appreciation goes to the organizing committee: Nate Bachman, Philip Singer, Holger Thern, Pedro Romero Rojas, Harry Xie, Emmanuel Caroli, Boqin Sun, Songhua Chen, Paulo Netto, Ron Bonnie, Gabor Hursan, Olabode Ijasan, Scott Jacobsen. Special mention goes to Scott Jacobsen who was our liaison to Southwestern Energy. As usual, Stephanie Turner and Sharon Johnson at the SPWLA office were instrumental in helping us manage our participant list, conference finances, and every other question we asked toward preparing for the meeting. We also thank the NMR SIG executive board (Mark Butler, Stefan Hertel, Ron Bonnie, Tianmin Jiang, Lu Chi, Jinhong Chen, Paul Connolly, Abraham Simanjuntak, Harry Xie) for their strong participation.

Lastly, we wish to thank our sponsors: CoreLab, Halliburton, Schlumberger, Baker-Hughes GE.

We hope to see you in 2020 for the third NMR SIG conference. Final agenda for the NMR SIG 2019 conference:



NMR SIG 2019 meeting. Key note speakers Susan Rosenbaum (left) and Ron Hyden (right).



NMR SIG 2019 meeting. Some members of the organizing committee: (left to right) Emmanuel Caroli, Holger Thern, Songhua Chen, Nate Bachman, Philip Singer, Harry Xie, Scott Jacobsen, Pedro Romero Rojas, Boqin Sun

Title	Presenter
Probing Pore Connectivity of Rock Cores by PCT2 Correlation Spectroscopy	Yi-Qiao Ray Tang
Present-Day Opportunities and Challenges for NMR LWD Reservoir Characterization	Holger Thern
Improving Permeability Prediction in the Brazilian Pre-Salt Carbonate Reservoirs by Using Gaussian-Based NMR Porosity Partitioning	Nadege Bize-Forest
Detection and Application of Oil-Wet Signatures in San Andres Dolomite Using 2D NMR Log Measurements	Erik Rylander
NMR Used as a Standalone Tool for Thin-Bed Analysis	Christopher Blair
NMR Wettability of Indiana Limestone Cores	Gabriela Leu
Saturation T_2 Cutoffs in a Clastic Reservoir With a Large Transition Zone	Stefan Hertel
Use Of NMR Time Lapse Logging for Early Detection of CO ₂ : A Case Study	Enrico Pernarcic
Use of Nuclear Magnetic Resonance as an Alternative Tool to Evaluate the Fluid Efficiency of Viscoelastic Surfactant Fluids With Nanoparticles	H. Kesserwan (and H. Thern)
Can Statistical Methods Improve NMR Data Denoising?	P. R. A. Netto (and P. R. Rojas)
NMR Interpretation Methods for Unconventional Permian Basin Reservoirs	Wei Shao
Frequency Dependence of NMR Relaxation of Polymers and Bitumen	Philip M. Singer
Wireline and LWD NMR Unravelling the Native Oil Properties in the Complex Injectites Reservoir—A Case Study From Norwegian Sea	Harish Datir
Modeling Crude Oil Relaxation in Indiana Limestone	Yaoming Mu
Optimizing Stimulated Diffusion Measurements for Borehole Magnetic Resonance in Coal-Seam Gas	Marcus Donaldson
NMR Measurement of Porosity and Density From Drill Cuttings of Unconventional Tight Reservoirs	Jin-Hong Chen
Measurement of 3D Spatially-Resolved Flow Propagators in Rock Using Compressed Sensing RARE MRI	Daan W. de Kort
A Rigorous Algorithm for 2D NMR Data Inversion	Naveen Krishnaraj
Concepts in Depth Resolution of NMR Logs	Nate Bachman
Magnetic Resonance Corrections Within Inhomogeneous High Temperatures	Rebecca Jachmann
Practical Interpretation of Combined Inversion Recovery and CPMG Measurements for Saturation Quantification in Unconventional Reservoirs	Robert L. Krumm
Wettability and Gas Isotherms From NMR	Derrick Green
Molecular Simulation of NMR Relaxation Behavior of Fluids in Polymer-Alkane Mixtures and Model Nano-Porous Systems: Implications for Understanding Fluids in Shale	Dilip Asthagiri
A New Workflow to Quantify Clay-Bound Water, Capillary-Bound and Movable Fluids for Organic Shales Using 2D NMR Relaxometry	Zheng Gan



NMR SIG 2019 meeting. Q&A session for NMR-related papers that were presented at the SPWLA 60th Annual Logging Symposium.

OKLAHOMA CITY CHAPTER

General News

The Oklahoma City chapter will kick off its 2019–2020 luncheon season on September 12.

Recent Events

14 May 2019 – SPWLA Distinguished Speaker Nicholas Bennett spoke about “Borehole Acoustic Imaging Using 3D STC and Ray Tracing to Determine Far-Field Reflector Dip And Azimuth.”

Upcoming Events

12 September 2019 – Michael Ashby will present “Petrophysics-Driven Well Log Quality Control Using Machine Learning.”

15 October 2019 – Data Analytics in Reservoir Evaluation workshop. Join us for an all-day workshop in data mining, machine learning and other data analysis techniques applied to reservoir evaluation.

QATAR CHAPTER

General News

We are based in Doha and welcome any professional/student interested in well logging and formation evaluation. The SPWLA Qatar Chapter (QSPWLA) promotes technical talks in close partnership with our sister and well-established Qatar SPE Section (QSPE).

QSPWLA went quiet during Ramadan and the summer break, but in September we will be back full steam ahead for the 2019–2020 year. As people move across as so does our committee. We say a goodbye and thank you to Vice-President Calvin Myers (Qatargas) and board member Shehab Ahmed (Texas A&M University at Qatar) for all their contributions. We are also pleased to announce that Faisal Abdulrahman Al-Mutawa accepted our invitation for IT Coordinator role and will be helping us to set up our QSPWLA website. The 2019–2020 updated committee is:

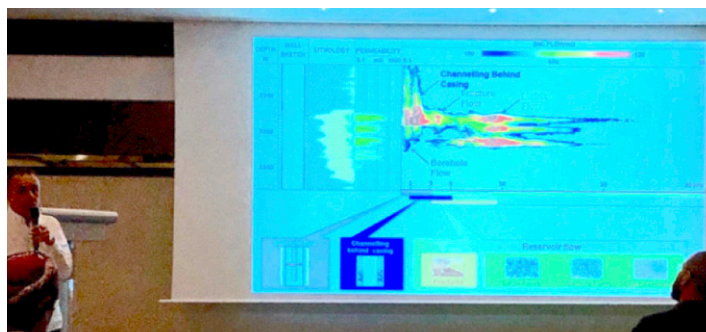
President	Sharon Finlay (NOC)
Vice-President	Open Position
Secretary	Jose Oliveira Neto (Qatar Shell)
Social Media Coordinator	Hussein Jichi (BHGE)
IT Coordinator	Faisal Abdulrahman Al-Mutawa (Qatargas)
Registration & Mailing List	Open Position
Active Board Members	Ali Zwali (Halliburton), Enrique Diaz (BHGE), Ashok Srivastava (QP), Mauro Viandante (SLB), Khaled Sassi (SLB), Mohamed Fadlemula (TAMUQ).



SPWLA Qatar. Part of the SPWLA Qatar Chapter Committee at our last talk. (Left to right): Jose Oliveira Neto (Qatar Shell); Ashok Srivastava (QP); Sharon Finlay (NOC); Ali Zwali (Halliburton); Enrique (BHGE); Khaled (SLB).

Recent Events

29 April 2019 – Antoine Elkadi (Geoscience Manager, TGT Diagnostics) gave an interesting and well-attended talk focused more on the surveillance side of our work as petrophysicists. The talk entitled, “True Flow Analysis With the Aid of Spectral Noise Logging and High Precision Temperature Modelling,” showed several examples on the it powerful application when combined with production logs.



SPWLA Qatar April 2019 meeting. Antoine Elkadi (Geoscience Manager, TGT Diagnostics) giving his presentation.

Upcoming Events

September 2019 – For our first presentation of the 2019–2020 season we are preparing a talk on well integrity or Logging While Drilling and it should be kindly sponsored by Halliburton. More details to come out soon!!

If you want to be added SPWLA Qatar Chapter mailing list, please email us at QSPWLA@gmail.com or talk to any of the committee member! We look forward meeting you!

Please remember: SPWLA Qatar Chapter in on LinkedIn! ☺ Follow us to stay updated about what is going on in the petrophysics community in Qatar and to hear about our chapter activities!

SAUDI ARABIA CHAPTER

Recent Events

20 June 2019 – At the SPWLA Saudi Arabia Chapter (SAC) monthly technical luncheon Denis Klemin (Schlumberger) gave a talk titled "Advancements in Digital Rock Physics: Density Functional Hydrodynamics for Heterogeneous Rocks." The first part of the talk started with discussing two main aspects of Digital Rock (DR) technology (imaging & modeling) and highlighted the need for general purpose pore-scale modeling solution capable to perform 3D pore-scale multiphase multicomponent flow simulation that accounts for interfacial surface tension, surface tension at contact with solid surfaces, moving contact lines, dynamic changes of topology interfaces, complex phase composition, phase transitions, phase rheology, EOR agents. The second part of the talk was focused on the problem of numerical modeling of fluid transport in heterogeneous pore systems. This event was well attended.

31 July 2019 – SAC held a technical luncheon using a video recorded by David Kennedy as trial for a new method of disseminating technology. In the talk, titled "Deriving the Archie Equation From First Principles," David tried to answer the question "Can the Archie model be derived from first principles?" More than 65 participants attended this event. The event was considered a success and more are planned.

Upcoming event:

Additional interesting events are in the planning stages, including a workshop on geochemistry to be held in November 2019. Please stay tuned to our chapter website for details (spwla-saudi.org) and event announcements will be sending as usual.



SAC June 2019 meeting. Denis Klemin (third from left) receiving the chapter speaker's award from SPWLA SAC Committee.



SAC July 2019 meeting.

TEXAS TECH UNIVERSITY STUDENT CHAPTER

General News

New officers:

President	Rushil Pandya
Vice President	Edwyn Bougre
Treasurer	Bianca Igodan
Secretary	Garrett Payne
Membership Chair	Kristofer Aasen
SORC/Community Service Advisor	Janett Lopez

No meetings were held during the summer.

Recent Events

15–19 June 2019 – We attended the SPWLA 2019 Annual Symposium in The Woodlands, Texas. Our members Rushil Pandya and Edwyn Bougre participated in the International Student Paper Contest in the undergrad and graduate level categories, respectively. Attending the symposium first time as a group, our organization also manned a booth at the event. Our sponsors, Oxy and Halliburton, helped make this possible.

Upcoming Events

- 03 September 2019 – SPWLA Texas Tech First General Meeting, Petroleum Engineering Building, Texas Tech University, 6:00 pm – 8:00 pm. Dr. Jesus Salazar, SPWLA International President, will be the guest speaker for this event. The meeting would provide insight to students regarding the organization and its mission, more specifically the benefits of being a student member and the years activities.
- 05 October 2019 – SPWLA Texas Tech vs. Oklahoma State pregame tailgate Party with SPE and AADE, Petroleum Engineering Building, Texas Tech University, details TBA.
- 12 October 2019 – SPWLA Texas Tech Susan G. Komen Race for the Cure (Community Service), Lubbock, Texas, 8:00 am – 10:00 am. SPWLA Texas Tech is proud to be participating in the Susan G. Komen Race for the Cure in Lubbock, Texas. The Susan G. Komen Race for the Cure Series is the world’s largest and most successful education and fundraising event for breast cancer ever created. The series of 5K runs and fitness walks raises significant funds and awareness for the breast cancer movement, celebrates breast cancer survivorship and honors those who have lost their battle the disease. For more information on this cause, please visit: https://ww5.komen.org/raceforthecure/#RFTC_AboutRace



(a)



(b)

Texas Tech Chapter at the SPWLA Symposium. (a) International Student Paper Content presenters, Edwyn Bougre (left) and Rushil Pandya. (b) group photo of the student attendees from Texas Tech.

SPWLA TULSA CHAPTER

Greetings and salutations from Tulsa, Oklahoma – The Oil Capital of the World. The members and officers of the SPWLA Tulsa Chapter are proud to announce the restart one of the founding chapters of this prestigious and international Society of Petrophysicists and Well Log Analysts. Please join us as we continue to promote and advance the science of formation evaluation.

General News

Luncheon Meetings are held bimonthly on the second Thursday of the month at the University of Tulsa, Room 121 of Helmerich Hall, 800 S. Tucker Drive, Tulsa, Oklahoma, 74104, 11:30 am – 1:30 pm.

2019–2020 Officers are

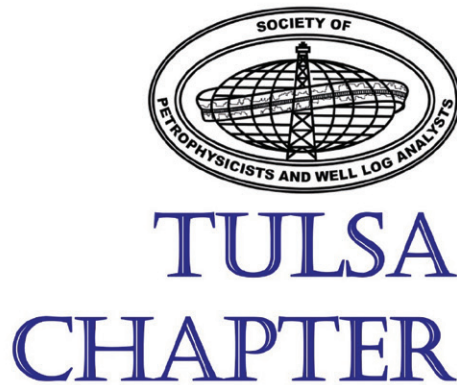
President	Elizabeth Dickinson,
Vice President of Technology	Maureen McCollum
Treasurer/Secretary	Patrick Ryan

Upcoming Events

- 12 September 2019 – James J. Howard (DigiM Solution) will speak on “Machine Learning Methods: Analysis of Rock Images and Beyond.”
- 14 November 2019 – Paul Craddock (Schlumberger) will speak on “Thermal Maturity-Adjusted Log Interpretation (TMALI) in Organic Shales.”
- 09 January 2020 – TBA
- 12 March 2020 – TBA
- 14 May 2020 – TBA

Reach out to us with any questions you may have regarding membership in SPWLA, our luncheon meetings and distinguished speakers, or just drop us a message and let us know how you are and what you are doing. We would love to hear from you!

SPWLA Tulsa Chapter’s email address is tulsa.chapter@spwla.org or you can send a letter to our post office box: SPWLA Tulsa Chapter, PO Box 14495, Tulsa OK 74104-9998



At the corner of East 21st Street and South Pittsburg Avenue in front of the International Petroleum Exhibition Building on the *Tulsa* County Fairgrounds stands The Golden Driller, a monument to oil field workers (photo credit: Elizabeth Dickinson 2019).

Welcome New Members—June 25, 2019—August 14, 2019

- Adl Zarabi, Elnur**, TTU, Lubbock, TX, United States
Al Beshr, Hana, ADNOC, Abu Dhabi, United Arab Emirates
Al Shaikh, Firas, Schlumberger, United States
Al Touqi, Wiaam, Occidental Petroleum Corporation, Houston, TX, United States
Al-Omair, Abdullatif, Saudi Aramco, Dhahran, Saudi Arabia
Alshaikhli, Muthanna, Colorado School of Mines, Golden, CO, United States
Armitage, Peter, BP, Middlesex, United Kingdom
Arthur, Liz, Stratum Reservoir, Golden, CO, United States
Bougre, Edwyn, Texas Tech University, Lubbock, TX, United States
Brahimi, Ghalib, Lloyd's Register, Dubai, United Arab Emirates
Brandi De Souza, Rogerio, Petrobras, Sao Paulo, Bahamas
Bravo, Maria Cecilia, Schlumberger, Tananger, Rogaland, Norway
Brazell, Seth, Anadarko Petroleum Corporation, Conroe, TX, United States
Cassel, Chelsea, Stratum Reservoir, Houston, TX, United States
Ceresa, Niccolò, ENI, Lodi Vecchio, Lombardia, Italy
Chalmers, Philip, Ikon Science, Houston, TX, United States
Cheng, Weiyang, CNPC, Beijing, China
Cheryauka, Arvidas, Baker Hughes a GE Company, Houston, TX, United States
Cordova Jimenez, Ileana, University of Houston, Spring, TX, United States
Da Fonseca, Monica, Petrobras, Rio De Janeiro, Brazil
Damasceno, Andrea, Colorado School of Mines, Golden, CO, United States
De Nicolais, Nelly, Weatherford, Houston, TX, United States
Deng, Denny, Southwestern Energy, Spring, TX, United States
DOUMBIA, Sékou, PETROCI, Abidjan, Cote D'Ivoire
Dunkel, Caroline, Bowling Green State University, Punxsutawney, PA, United States
Estill, Martin, Fracture ID, Denver, CO, United States
Ferreira DaCosta, Leandro, Petrobras, Rio De Janeiro, Brazil
Gao, Zihui, Shell, Houston, TX, United States
Gross, Benjamin, ConocoPhillips, Anchorage, AK, United States
Haranger, Fabien, Schlumberger, Sugar Land, TX, United States
Hirabayashi, Nobuyasu, Sugar Land, TX, Schlumberger,
Jacobs, Pat, Stratum Reservoir, Houston, TX, United States
Johansen, Asbjørn Lund, Schlumberger, Houston, TX, United States
Jones, Barry, Oxford Instruments, Abingdon, Oxfordshire, United Kingdom
Kalaliya, Sameer, Curtin University, Williston, ND, United States
Lapointe-Aubert, Marjorie, Université Laval, Quebec, QC, Canada
Li, Weidong, Baker Hughes GE, Houston, TX, United States
Lin, Yang, CNPC Logging Co, China
Liu, Xiuju, ALS, Houston, TX, United States
Machado, Rogério, UNICAMP, Campinas, São Paulo, Brazil
Maehara, Yuki, Schlumberger, Tokyo, Japan
McAndie, Vienna, ExxonMobil, Leatherhead, Surrey, United Kingdom
McPherson, Josh, Heriot-Watt, Katy, TX, United States
Mews, Kim, University of Kansas, Lawrence, KS, United States
Monlevade, Audrey, Universidade Do Estado Do Rio De Janeiro, Rio de Janeiro, Brazil
Mushir Ahmed Khan, Kashif, Weatherford International, Islamabad, Pakistan
Nassau, Gabriel, Petrobras, Rio De Janeiro, Brazil
Neira, Angela, Schlumberger, Houston, TX, United States
Nguyen, Duong, Oxy, Houston, TX, United States
Nikitin, Anton, Shell, Houston, TX, United States
Obasi, Christian, Chevron, Tomball, TX, United States
Pan, Li, Halliburton, Singapore
Pessanha, Leonardo Moreira, UFRJ, Rio de Janeiro, RJ, Brazil
Pestana, Rosa, Baker Hughes, Spring, TX, United States
Reis, Felipe, Petrobras SA, Macaé, Rio de Janeiro, Brazil
Reyes, Claudia, UNAM, México City, Mexico
Rezende Alves, Anderson, Petrobras, Rio De Janeiro, Brazil
Ricketts, Sandor, Auburn University, Auburn, AL, United States
Rodriguez, Maria Cecilia, YPF S.A., CABA, Argentina
Roth, Justin, Schlumberger, Houston, TX, United States
Roux, W. Roy, Roux Resources, LLC, Golden, CO, United States
Sa, Liming, CNPC, Beijing, China
Schimschal, Stefan, Baker Hughes, a GE Company, Celle, Lower Saxony, Germany
Schoen, Robert, SM Energy, Midland, TX, United States
Se, Yegor, Chevron, Houston, TX, United States
Silver, Andrew, Adret LLC, Houston, TX, United States
Story, Stacy, ExxonMobil, Spring, TX, United States
Suarez, Mario, EGAD, Santa Catarina, Nuevo Leon, Mexico
Thomas, Kendall, Schlumberger, Houston, TX, United States
Tianzhi, Tang, CNPC Logging Co, China
Torruellas, Francheska, American Military University, Orlando, FL, United States
Ud Din, Syed Muhammad Fahim, Schlumberger, Houston, TX, United States
Vaitekaitis, Tracey, BP, ABERDEEN, United Kingdom
Vazquez Benitez, Roberto Alejandro, Universidad Del Noreste, DF, Mexico
Vu, Brent, Bureau of Ocean Energy Management, New Orleans, LA, United States
Walker, Michael, Stratum Reservoir, Houston, TX, United States
Walrond, Kenny, Schlumberger, Stavanger, Rogaland, Norway
Wei, Wang, CNPC Logging Co, China
Wujun, Jin, SINOPEC, Beijing, Haidian, China
Xie, Ronghua, CNPC, Beijing, China

Welcome New Members—June 25, 2019—August 14, 2019

Yuan, Chao, PetroChina, Beijing, Haidian, China

Zauner, Micha, TU Clausthal, Leipzig, Saxony, Germany

Zhang, Jon, Sinopec Tech Houston, Houston, TX, United States

Zhang, Qian, Baker Hughes, Houston, TX, United States

Zhou, Cancan, CNPC, Beijing, China

Zhu, Shitong, Aramco Services Company, Cambridge, MA,
United States