Q3 2022

# **SPWLA Houston Chapter Newsletter**

#### SPWLA Board for 2022 – 2024



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# **President's Corner**

Dear fellow members of the Houston Chapter,

Since this summer the Houston Chapter Board has a few new faces, and the new team with help of the experienced re-elected members has already produced an impressive line-up of activities for the remains of the year. Javier, former Houston chapter president, is helping us with the transition, and we are very grateful for that.

Our primary focus will be on in-person events rather than virtual meetings. The latest event, which maxed out the registration on our website, was a wonderful opportunity for many to re-establish a connection to old and new friends. Thanks to STRATUM RESERVOIR for sponsoring the event and thank you to all attending. Yes, we know the event "disappeared" on our website on the day of the event and we are working to fix this.

Most important, as it already happens in a few days, we would like to invite you to the first in-person social networking event on the Westside for over 3 years. This networking event will take place on October 6th (5pm-8p) at the Kirby Ice House Memorial (1015 Gessner Rd). No registration needed - just come and meet your fellow Petrophysicist for a drink and a bite to eat.

Please stay tuned for upcoming news on this year's Annual SPWLA Technology Show (former Software Show) which will happen on Friday December 9th, at the beautiful Hyatt Regency Houston Westside with full breakfast/lunch and afternoon snack to send you off in the proper holiday spirit. We will also host a social networking right after the show at the same location. More info will follow soon on our website.

The board is actively working with SPWLA International to plan and execute the 2023 Annual Symposium in Lake Conroe, Texas on June 10th - 14th, 2023. Please check out the SPWLA website as call for Abstracts is already open as well as Sponsorship opportunities and savings on early birds for hotel room reservations.

We are hoping to organize a Spring Topical conference on April 2023, with focus on CCS/Geothermal, building on the success of the seminars from this fall touching this topic. Feel free to send me an e-mail about how the "Stimmung" is around such a slightly off-mainstream topic. The massive attendance at the STRATUM lunch seminar gives me the courage to try it out further and for sure was "proof of the pudding" that interest in our community is present and worth to engage in.

If you would like to receive notifications of upcoming events and chapter news, please, go ahead and register at the SPWLA Houston Chapter website. Please, reach out to us in case you are interested or if you would like to receive additional information. As always, we are open for new speakers in our seminars and we are looking forward to bringing other guests in addition to SPWLA DS, if the topic is of interest to the petrophysics audience. Contact any board members in case you have a presentation you would like to share. As always, feel free to contact any of the board members if you have any questions or comments using our contacts included below.

Kind regards,

Bernd Ruehlicke



Bernd Ruehlicke Houston Chapter President president@spwla-houston.org

### **Useful links**

Sign up for the Houston Chapter Mailing List [Link]

Houston Chapter

**SPWLA International** 

Join SPWLA – become a <u>member</u>

Houston Chapter LinkedIn page

# **Upcoming Seminars**

#### UDAR: PAST, PRESENT & FUTURE. AN OPERATOR'S EXPERIENCE AND PERSPECTIVE ON THE CHALLENGES AND OPPORTUNITIES IN APPLICATIONS WITH ULTRA-DEEP RESISTIVITY TOOLS

Date	: Wednesday, Oct 19, 2022
Time	: 11:30 pm – 1:00 pm (US CDT)
Location	: Baker Hughes, 2001 Rankin Rd, Houston, TX 77073
Contact	: Amer Hanif (SPWLA Houston VP Northside)
Corresponding	: vpnorthside@spwla-houston.org
	Online registration:

https://spwla-houston.org/seminar-detail.php?id=52

#### BIOGRAPHY

**John Bergeron** is currently the Global Operations Petrophysics Adviser for bp where he oversees data acquisition planning, execution, and supplier integration across bp's portfolio. Prior to this position, John worked as a petrophysicist in bp GoM supporting both reservoir description and new well delivery. Prior to bp, John worked for Schlumberger wireline. He holds a B.S. in Materials Science and Engineering from Michigan Tech University.

#### ABSTRACT

Proactive geosteering, landing, geostopping, geomapping and look ahead (LAH) applications of Ultra-Deep Azimuthal Resistivity (UDAR) tools are becoming more common in operator new well delivery practices. In very specific and niche wells, almost exclusively HAHZ, the value of information provided by these tools can significantly exceed the high cost of the service. In the past, UDAR technology was primarily used only for geosteering high value, generally offshore, horizontal wells, where the objective is typically to increase net pay. As time progresses, the application of UDAR has grown past HAHZ-limited applications to now include look around for geomapping and look ahead for geostopping. From an operator's perspective, the justification for high cost of UDAR is always challenged by not only the uncertainty of what the tool will deliver, but what will be the reasonable actions based on the provided deliverables at the time of drilling. UDAR service companies seem to be in a depth of detection "arms race" but what operators really want is greater understanding of uncertainty with the goal of better well delivery through confident decision making. One way to hedge this risk is to have clear KPI (key performance indicator) based pricing strategy, where vendor pre-drill study claims are tested during and after the drilling and compensation is based on their validation. Another limitation contributing to the underutilization of the UDAR service, and associated operator increased risk exposure, is the present-day inability for operators to verify predrill studies, real time inversions, and post drill interpretations via in-house modelling. Modelling is particularly important for the UDAR service where the scientific and mathematical complexity of inversion extends far beyond human intuition. We believe that with the right application and pricing strategies, UDAR could grow past the high-value / high-cost portfolio of the past and be used on a more typical borehole assembly (BHA) in the future. In this presentation, we will discuss our UDAR journey thus far, including reflections on past applications, present challenges and we will propose some improvements, including standardization, that we hope the industry accepts to grow the quality and the number of future applications.

#### CCUS PETROPHYSICS: HOW IS IT DIFFERENT? HOW IS IT THE SAME?

Date :	Wednesday, November 9, 2022
Time:	11:30 am – 1:00 pm (US CDT)
Location:	GEOLOG Americas, 10402 Valley Forge Dr., Houston, TX 77042
Contact	: Neal Cameron (SPWLA Houston VP Westside)
Correspond	ing : vpwestside@spwla-houston.org
	Online registration:

https://www.spwla-houston.org/seminar-detail.php?id=51

#### BIOGRAPHY

**Adam Haecker** works in Houston as a Petrophysicist III at Battelle Memorial Institute, a research institute founded 90 years ago to translate scientific discovery into societal benefit. His research interests include supercritical CO2 relative permeability, advances in MICP, organic shale petrophysics, and rock mechanics. Prior to Battelle, Adam worked as a petrophysicist for Continental Resources, Chesapeake Energy, and Cabot Oil and Gas (now Coterra), as well as Weatherford Wireline as a field engineer. Adam graduated from Texas A&M in 2007 with a B.S. in Geology. He currently serves as the Vice President of Finance, Secretary and Administration for the international SPWLA (2021-2023) and previously served as North America Regional Director 1 (2018-2020). Adam speaks English and conversational Japanese.

#### ABSTRACT

Carbon Capture Utilization and Sequestration (CCUS) Petrophysics has significant overlap with existing workflows used in oil and gas exploration, but CCUS also has key differences. In this presentation I will examine (1) the regulatory requirements, set by the Environmental Protection Agency (EPA), that drive the CCUS industry, (2) The differences in core testing that are recommended and required, (3) Fluid properties that are very impactful, (4) How storage calculations differ from the standard OOIP and OGIP equations and finally (5) how all these values affect the geomodelling and reservoir simulations. All these parameters are needed by the modern CCUS Petrophysicist to

effectively evaluate if a reservoir is viable for brine sequestration. Petrophysics is at the center of CCUS evaluation. Many things that are critical to a successful permit can only be determined by detailed petrophysical work. This talk will follow some of the ideas discussed at the SPWLA Stavanger workshop on CCUS Petrophysics that was taught by Katy Larson1, Neeraj Gupta1, Erik Nickel2 and Philip Ringrose3. 1, Battelle Memorial Institute; 2, Saskatchewan Energy and Resources; 3, Norwegian University of Science and Technology

### FRACTURECHARACTERIZATION COMBINING BOREHOLE ACOUSTIC REFLECTION IMAGING AND GEOMECHANICAL ANALYSES

#### Speaker: Dr. XiaoMing Tang

#### Details will be announced soon

#### Contact : Artur Posenato Garcia (SPWLA Houston VP Downtown)

Corresponding : vpdowntown@spwla-houston.org

## **Details information:**

https://spwla-houston.org/

# SPWLA Houston chapter TECHNOLOGY SHOW



Friday, Dec 9 2022, 7:45AM–3:00PM Where: Hyatt Regency Houston Westside 13210 Katy Fwy, Houston, TX 77079

The SPWLA Houston Chapter invites you to join us at the 2022 SPWLA Houston Chapter Technology

Show on December 9th to learn about recent innovations and technology advancement in software for formation evaluation and data interpretation. Details can be found at:

https://www.spwla-houston.org/event-detail.php?id=9

#### SPWLA HOUSTON CHAPTER NETWORKING EVENT

Date : Thursday, Oct 6, 2022

Time : 5 pm – 8:00 pm (US CDT)

Location :Kirby Ice House Memorial 1015 Gessner Rd, Houston, TX 77055

The entire SPWLA community is invited; no need to RSVP. Come at your own leisure; no payment is required. Come and mingle with fellow petrophysics enthusiasts. Our social events are well attended by Petrophysicists, Geologists, Geophysicists, Engineers and Managers. We also expect to have current and past SPWLA international board members and recognized names in our industry! This will be a partly outdoor event!

A huge thanks to CORE GEOLOGIC, GEOLOG, and ROGII for sponsoring the SPWLA Houston Chapter Networking event.

Appreciate their continuous support for SPWLA Houston Chapter. SPWLA Houston Chapter will continue to organize informed and fun activities for our members.



# **Recent Events**

#### SPWLA Houston Chapter Jun Lunch Seminar

SPWLA Houston Chapter recently organized a lunch seminar with **Dr. Jennifer Adams** (Stratum Reservoir) titled "STRATUM RESERVOIR: SOLVING CO2 SEQUESTRATION CHALLENGES" on **Sep 14**. We would like to thank Dr. Adams for presenting her work to our chapter members and other attendees who were interested in the topic. A huge thanks to Stratum Reservoir for sponsoring the event.

We hope to see y'all there next time!

### More details available in the Houston Chapter's website

https://www.spwla-houston.org/

### and the Houston Chapter LinkedIn profile

https://www.linkedin.com/company/houston-chapter-of-spwla/

# Stay always tuned!

# **Photos**



Dr. Jennifer Adams made a technical talk talking about solution of CO2 sequestration challenges in the Stratum reservoir facility.



The SPWLA Houston Chapter Vice-President north side Amer Hanif was shaking hands with speaker Dr. Adams.



Presenters met with SPWLA Houston chapter board members. From left to right, Dr. Matt Flannery, SPWLA Houston Chapter president Bernd Ruehlicke, Chapter Vice-President north side Amer Hanif, and Dr. Jennifer Adams.