November 2014

SPWLA Houston Chapter Newsletter

Luncheon meetings *in November*	
Northside **Thu, Nov 6, 2014** Talisman Energy USA Inc. Suite 1200, 2445 Technology Forest Blvd, The Woodlands, TX 77381	**Kimbal Skinner**, FEI Pore to Core Workflow for Improved Reservoir Characterization
Westside **Wed, Nov 12, 2014** BP Plaza Westlake 4	**Mark Proett,** Aramco Services Company Objectively Quantifying Wireline and LWD Pressure Test Quality
Downtown **Tue, Nov 18, 2014** Kinder Morgan	**Shreya Biswas Ley, Partha Biswas,** GeoBiz Technology, Inc Bringing Seismic Ideas to Acoustic Logging

Houston Chapter News

- **Save the date!**

  Dec 1, 2014 - SPWLA Houston Chapter Technology Show

  This year featuring technology show and short presentation sessions. Participants and exhibitors registration is now open (see page 6 for more details)

- **Volunteering opportunity!**

  We are planning our website makeover. Let us know if you're interested to help out!

- **Welcome!**

  Please join us in welcoming our new volunteer!

  Gerardo Gonzalez (Schlumberger) – our coordinator for chapter events!

SPWLA Upcoming Events

SPWLA 56TH Annual Symposium | Long Beach, CA, July 18-22, 2015

AAPG/SEG/SPWLA HEDBERG CONFERENCE *"Fundamental Parameters Associated with Successful Hydraulic Fracturing – Means and Methods for a Better Understanding"* [Link] | Austin, Tx, December 7-11, 2014

SPWLA 57th Annual Symposium | Reykjavik, Iceland, June 26-30, 2016

President's Corner

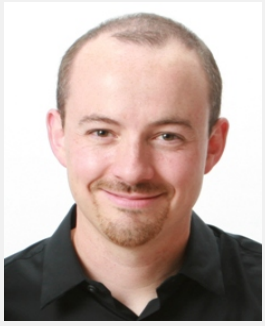
Dear Chapter Members,

The Houston SPWLA chapter speaker luncheons have continued through October with three more sessions. On the Westside Mark Kittridge (Hess) returned to deliver his talk on the influence of pore shape and mineralogy on the velocity of carbonate rocks. Downtown Cary Purdy (FEI) presented on a pore to core workflow for improved reservoir characterization and on the Northside Malleswar Yenugu (Ikon Science Americas) delivered a talk on the elastic, petrophysical, geochemical and micro-structural characterization of kerogen maturity for Green River shale. I would like to thank all our presenters and attendees for their time and help along with BP, Kinder Morgan and Talisman for kindly hosting our events.

We have now finalized the date of the December Technology Show. The event will take place on Monday December 1st at the Hilton Westchase Hotel (details in this newsletter). The event will feature the usual wide mix of companies who work in the petrophysics fields; however a new addition this year is that we are also inviting people to submit abstracts for short presentations during the event. These will be short (15-20min) presentations that are focused on new technologies, applications, workflows and case studies of direct relevance to the petrophysical community. This will be an off the record presentation and nothing will be published so it is a chance to show new ideas you are working on without having to worry about full paper submission. In keeping with SPWLA practice all commercialism should be kept to a minimum. The deadline for abstract submission is November 16th.

I would also like to announce that we have a new volunteer on the board. Gerardo Gonzalez has kindly offered to help with the coordination of the chapter events for this year and I would like to thank him for volunteering to help out! We are also looking for someone to help with an overhaul of the chapter website. If you are interested in this, and perhaps have some knowledge of building websites that could be useful, then please contact me at **president@spwla-houston.org**. Once again I would also like to encourage you to join the global SPWLA organization if you are not already a member. Remember, we always welcome your feedback and ideas and for more information on chapter events please visit our website.

Regards,
Matt Blyth
Houston SPWLA Chapter President



Matt Blyth
Houston Chapter President
president@spwla-houston.org

SPWLA Houston Chapter Officers 2014 – 2015	
President **Matthew Blyth**, Schlumberger president@spwla-houston.org	**Treasurer** **Zhipeng (Z) Liu**, Kinder Morgan CO2 treasurer@spwla-houston.org
Vice President – Northside **Robin Slocombe**, Schlumberger northvp@spwla-houston.org	**Secretary** **Lucy Plant**, FEI secretary@spwla-houston.org
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Vice President – Downtown **David Diaz**, Schlumberger downtownvp@spwla-houston.org	**Webmaster** **Chicheng Xu**, BHP Billiton webmaster@spwla-houston.org

Useful links

Houston Chapter
spwla-houston.org

SPWLA International
spwla.org

Join SPWLA – become a member
http://www.spwla.org/member/join

Houston Chapter LinkedIn page

SPWLA Symposium 2015

Northside Luncheon Meeting

Thursday, Nov 06, 2014 | Lunch: 11:30 | Talk: 12:00

Pore to Core Workflow for Improved Reservoir Characterization

Kimbal Skinner, FEI

Mineralogy and microstructure are key variables defining the physical properties of a rock. Rocks that have a heterogeneous mineralogy/microstructure will exhibit equally heterogeneous physical properties.

For shale reservoirs quantifying mineralogy and microstructure permits more accurate determination of a variety of physical properties important to modeling production potential: e.g. organic versus inorganic porosity, permeability, brittleness etc...

Three recent technological advances have paved the way for routine, accurate microstructural characterization from the nanometer to meter scales: Ultrahigh resolution scanning electron imaging, automated mineralogy and 3D imaging (X-ray computed tomography (CT) and FIB/SEM analysis). When combined, data from these sources can be used to quantify shale at a resolution that is only now possible.

We present examples of integrating multi-scale 2D and 3D electron imaging with proven automated mineralogy algorithms to more accurately evaluate the mineralogy/microstructure of shale and other fine-grained reservoir rocks. This multi-scale multi-dimensional workflow also provides a pathway for upscaling observations in a repeatable and quantifiable way. Integration of mineralogical and microstructural data provides a unique opportunity to evaluate shale and other fine-grained reservoir systems with unparalleled fidelity.

Kimball Skinner is the Product Marketing Manger for FEI's Oil and Gas business unit. Originally graduating with degrees in Geology and Chemistry from Virginia Tech Kimball soon found his calling and specialised in electron microscopy.

For the past 20 years Kimball has been actively involved in the research and application of ion and electron beam based microscopy across various fields. Previously working for USGS, NSA and Intel.

Venue Details Northside

Talisman Energy USA Inc.
Suite 1200, 2445 Technology Forest Blvd, The Woodlands, TX 77381

Parking: Parking Garage adjacent to the Talisman building. Visitor Parking available in 5th floor and above.

Reservations:
Email **Robin Slocombe**
northvp@spwla-houston.org

RSVP by Oct 30.

Cost: $30.
Lunch is included.
Please use PayPal
(click this link to pay)

Student discount rate $15
(Students use this link)

Westside Luncheon Meeting

Wednesday, Nov 12, 2014 | Lunch: 11:30 | Talk: 12:00

Automated Methods to Objectively Quantify Wireline and LWD Pressure Test Quality

Mark Proett, Aramco Services Company

In the literature regarding wireline (WL) and logging-while-drilling (LWD) pressure testing analysis, theoretical transient models are promoted to evaluate the quality of pressure test points. However, in practice, other criteria are normally used to judge the test quality. Some are ad hoc, but there is a growing consensus that several convenient, simple, and effective real-time measurements are needed to evaluate the quality of the test points. The primary measurements made now include the drawdown mobility (md/cp) and buildup stability (psi/min). Although these measurements can be effective independently, they are also a source of information that can be expanded upon to further analyze the data. For example, how does the pressure stability compare to what is expected considering the drawdown mobility? Rather than using an arbitrary cutoff stability of less than a given psi/min, the measured value could be compared to the spherical or radial buildup trends expected using the measured mobility. If the stability is greater or less than expected, that implies some irregularity in the testing. Noise in the pressure data caused by mud flow is particularly evident in LWD pressure testing and the standard deviation of the pressure data during the buildup is another consideration for test quality. The radius of investigation is another estimate that can be made using the drawdown/buildup times with the mobility estimate to quantify the testing effectiveness. Supercharging is a concern for pressure measurements when the pressure measured is influenced by mud filtrate invasion that has elevated the pressure at and near the wellbore. By including the amount of time that has elapsed since the interval was drilled, the supercharge potential can be determined to further evaluate the data points. These calculations can be made by using basic principles and will guide the analyst monitoring the test to determine the relative quality of the test points. In this way, the best quality test points are used in the analysis of fluid gradients or for integration into the petrophysical analysis.

Mark Proett is a Sr. Petroleum Engineering Consultant for Aramco Services Company, Upstream Group in Houston. Mark is best known for his publications advocating the viability of the formation testing-while-drilling (FTWD), introduced in 2002, with the Sperry GeoTap service. He has been awarded 52 US patents and authored over 50 technical papers, most of which deal with sampling and testing analysis methods. He has been an SPWLA Distinguished Speaker and SPE Distinguished Lecturer. In 2008 Mark received the SPWLA Distinguished Technical Achievement Award and in 2013 the SPE Gulf Regional Formation Evaluation Award. Mark has a Bachelor of Science in Mechanical Engineering from the University of Maryland and his Master of Science from Johns Hopkins University.

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Venue Details Westside

BP Plaza Westlake 1– Pondview 1
Westlake Park Blvd
Houston, TX 77079

Reservations:
Register online Here

RSVP by Nov 11

Cost: Free
Lunch: not provided, bring your own or purchase in the BP cafeteria

Parking:
Visitor parking is available at Westlake 4 overflow lot

Downtown Luncheon Meeting

Tuesday, Nov 18, 2014 | Lunch: 11:30 | Talk: 12:00

Bringing Seismic Ideas to Acoustic Logging

Shreya Biswas Ley, Partha Biswas, GeoBiz Technology, Inc

Most acoustic logging processes were developed for conventional plays. As other technology became better adapted to directional drilling and unconventional plays became the norm, certain limitations in acoustic logging have become more apparent. Two limitations, in particular, come to mind: First, shear anisotropy does not always demonstrate anisotropy in softer rock formations and, even when it does, the technique is unable to distinguish between anisotropic characteristics and natural fractures. Second, the azimuth computed using Alford from fast shear becomes error prone as the well deviates more than 20 degrees from the vertical. Instead of abandoning the use of acoustic logging, it may be time for the acoustic logging community to explore new methods adapted to these new challenges. Our seismic cousins have already begun to explore these limitations and begun researching ways to account for them. Why not borrow from their research and find ways to adapt their ideas to our own processes?

The following discussion will address the problems at hand with the use of shear anisotropy and Alford in unconventional plays and then propose solutions based on seismic research for, first, fracture identification in unconventional reservoirs and, second, for azimuth calculation for directional drilling.

SHREYA BISWAS LEY began her career as a chemical engineering graduate from the University of Texas at Austin. She promptly moved to Houston and began working for Mustang Engineering. After a couple of years working as a chemical engineer, Shreya moved on to go to law school at Tulane. Since becoming an attorney, she has worked almost exclusively with technology companies and honed her entrepreneurial tendencies. Although her background has not been in geophysics, she has been subjected to it her whole life as a product of the oil industry and watching her father plot acoustic logs from a young age. When her father approached her with his new ideas, she not only helped him with his patent and business from a legal aspect but jumped in with two feet to help him develop and commercialize his ideas. GeoBiz Technology, Inc. was thus founded around the Thanksgiving table.

PARTHA BISWAS began his career as a petrophysicist when he accepted a position at ONGC approximately 45 years ago. Since then he has worked for the Kuwait Oil Company and Sonatrach before moving to the United States to work for Western Atlas (now, Baker Hughes). He spent a number of years at Baker working in Houston, Alaska, Saudi Arabia, and Norway. After leaving Baker, Partha has worked as both an independent consultant and as lead petrophysicist for Fronterra Geosciences before striking off on his own again. His extensive and diverse work experience as well as his obsession with finding the best possible answer have lead to his innovative ideas in Acoustic Logging. He is both excited about his new entrepreneurial venture with family and unhappy with being bossed around by his daughter.

Venue Details Downtown

Kinder Morgan
1st Floor Conference Rm
1001 Louisiana St
Houston, TX 77002

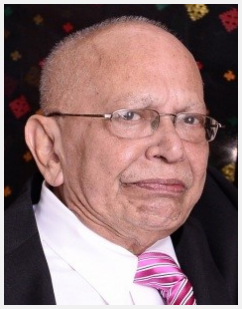
Reservations:
Email to **David Diaz**
downtownvp@spwla-houston.org

RSVP by Mon., Nov 17

Cost: $30. Lunch is included.
Please use PayPal
(click this link to pay)

Students discounted rate $10 (Link for students)

Parking: closest options:
- Travis Garage across milam, in front of Kinder Morgan
- Open Air parking between Kinder Morgan and Shell N 2



2014 Technology Show
SPWLA Houston Chapter
Dec 1st, 2014. 9AM- 4PM
Hilton Houston Westchase
9999 Westheimer Rd, Houston, TX 77042
Registration is Free. Lunch provided

Save the date for the SPWLA Houston Technology Show

The event will host vendor exhibition and a technical presentations session

Stay tuned for more details

Participant Registration is now OPEN

Registration is required. Free of charge. Lunch is provided for registered participants.

To register online: please fill in a short **online application form**

To register via email send an email to **Gerardo Gonzalez** <*GGonzalez@slb.com*> with a Subject ***"Technology Show Attendee"***, include your name and company affiliation.

RSVP before NOON, Friday **November 28, 2014**

Call for abstracts

In a change from previous events the show will now feature a series of short technical presentations. The aim of these presentations is to showcase new technologies, applications, workflows and case studies of direct relevance to the petrophysical community. This will be an off the record presentation and nothing will be published. No papers are required. In keeping with SPWLA practice all commercialism should be kept to a minimum. If you are interested in presenting, submit an abstract for a 15 min presentation by email to **Matt Blyth** <*president@spwla-houston.org*> with a Subject "***Technology Show Abstract***". **Deadline** for submission: **November 16, 2014**

Exhibitors

Limited Exhibitor Space ($600) is available; please contact **Gerardo Gonzalez** <*GGonzalez@slb.com*> for more details.

Date: Monday, December 1st, 2014. 9AM-4PM
Venue: Hilton Houston Westchase
9999 Westheimer Rd, Houston, TX 77042
map

Dear Houston SPWLA Chapter Members,

The following training class will take place in Houston, on January 19-23. The instructor has kindly offered to make a donation from the course proceeds to the SPWLA Foundation in the name of the Houston SPWLA Chapter.

Integrated Petrophysics for Reservoir Characterization

Instructor: **Mark Deakin, PhD (Petrophysics)**

This course will teach you how to evaluate reservoirs and quickly identify flawed results. A carefully interleaved sequence of lectures, PetroDB-Vault demos, micro-practicals, movies and Excel workshops is presented to convey a flexible and very powerful petrophysical method. The Comprehensive Manual and Petrophysical Toolbox include templates for Quick Look Log Analysis and Essential Core-Log Integration.

Continually updated this course remains The Benchmark Petrophysics Course today!

What is PetroDB-Vault?
"PetroDB-Vault" is a fully flexible IP or Geolog evaluation command file linked to a generic petrophysical database, PetroDB. This combination creates a convincing and uniquely powerful formation evaluation tool.

Petrophysical Competency Rank
You may choose to take a confidential, 100-point multiple-choice test to assess your mainstream petrophysical competency.

Testimonials

'Best course attended. Well presented, excellent manual'
'Comprehensive, Well Presented, Relevant, Practical, Entertaining, Technically Strong!'
'A powerful, highly technical and industry relevant course'
'The single most important course I have attended'
'An insightful and excellent presentation'
'Thank you so much Dr Mark!'
'An extremely practical and powerful course'
'Excellent lecturer, enthusiastic and knowledgeable…'
'…has a passion for his subject'
'THE LECTURER IS GREAT! I learnt things I could actually use!'
'…like having a Master Degree in just one week!'
'Mark is very knowledgeable and open to questions and new ideas from

Venue & Details

19-23 January 2015 (Mon through Fri) 8am- 4pm

Omni Hotel, Riverway, W. Loop 610, Houston

Course Details & Registration:

Click for Full Details

Advanced Registration Required
Space is Limited (*max* 25)

For additional information contact:

Dr Mark Deakin
PETROPHYSICS Pty Ltd

Tel: +61 416058 916