

Houston Chapter Officers 2011-2012

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# **SPWLA - Houston Chapter News**

November, 2011

# Luncheon Meetings

Northside	The Value of Measurements in a Shale
Monday, Nov 7, 2011 The Greenspoint Club	Gas Reservoir
·	by Keith Atwood, Schlumberger
Westside Wednesday, Nov 9, 2011 BP Plaza Terrace Room	<b>Unconventional Shale Reservoirs:</b>
	Challenges, Observations and Insights
	by Carl Sondergeld, University of Oklahoma
<b>Downtown</b> Wednesday, Nov 16, 2011 Chevron Auditorium	From Correlation to Mechanisms:
	Petrophysical Models for Organic
	Mudstone
	by Peter Day, Marathon Oil

# **Local SPWLA Upcoming Events**

## **Software and Hardware Vendor Show**

6<sup>th</sup> December

OMNI Hotel, Westside

### Golf Tournament

Spring, 2012

Event Sponsors required, contact Rob Hengel

## Spring Topical Conference

16<sup>th</sup> May, 2012 (topic to be confirmed)

Chevron Auditorium, 1500 Louisiana St, Houston, 77002

## 53rd Annual SPWLA Symposium

16<sup>th</sup> to 20<sup>th</sup> June

Cartagena, Columbia

**Complete Calendar of Events** 









Evaluating Unconventional Reservoirs Since 1984

## **President's Corner**

November, 2011

Dear Chapter Members,

Boo!

I hope everyone had a Happy and safe Halloween. I know that I collected a good haul in my Trick-or-Treat bag.....a bucket full of talks on one of my favorite topics for our November Luncheon Seminar program — unconventional shale reservoirs. All three of our section VP's (Thaimar Ramirez, Jack Douglas, and TA Ma) have scheduled talks that pertain to this industry-changing topic, and each talk addresses a different aspect for your consideration and broadening. If you haven't already, have a look at the titles and abstracts located under the "Seminars" section of this Website. If I could, I'd make it to all three.

Like last month, pay close attention to the dates for these Seminars; we've shuffled the schedule a bit this month to accommodate the Thanksgiving Holiday. You'll note that the Northside (7th) and Westside (9th) are in the same week, and coming up fast! Get your reservations made early, all of these talks may fill up quickly.

We did get one potato in our Trick-or-Treat bag.....due to some time complications, we'll need to defer our Golf Tournament until spring - - probably March, so visit the Website to stay abreast of those developments. On the upside, that just gives our potential sponsors some more time to pick and plan the type of item or event they wish to sponsor. Contact any Chapter Board member ("Officers" page of this Website) to learn more about how to participate.

Finally, we are on-track for our annual Software/Hardware vendor's show, which will again be held at the OMNI Westside hotel, on Tuesday, December 6th. Mark your calendars and join us for an informative event, and a free lunch!

Here's wishing everyone a Happy Thanksgiving!

Paul Connolly Houston Chapter President

# **Northside Luncheon Meeting**

Date: Monday, Nov 7, 2011

Lunch: 11:30 Talk: 12:00

Place: The Greenspoint Club

16925 Northchase Drive,

Houston, TX 77060

The Value of Measurements in a Shale Gas Reservoir by Keith Atwood, Schlumberger

RSVP before 9:00 a.m. Thursday, Nov 3

E-mail: Jack Douglas

<u>Map</u>

Cost: Pre-payment. Please, use PayPal

\$35 (lunch\* if paying at the door) \$32 (lunch\* if using PayPal)

\$20 (venue charge without lunch)

Cash, Check or Credit Card is acceptable for payment. Receipts will be provided.

\*This is a fixed meal package including Chef's choice of salad, chicken entrée served with vegetable and starch, dinner rolls, dessert, iced tea, and coffee. The salads, desserts and beverages will be pre-set menu.

**Directions: Map** 

From I-45, go East on Greens Rd. Turn right at 3rd light, onto Northchase Drive. The Greenspoint club is 1/4 mile on the right.

<u>From Beltway 8 (going West)</u>, Exit Imperial Valley and turn right. Turn left at first light onto Benmar. Stay on Benmar to Northchase. Turn right onto Northchase Drive. The Greenspoint club is on the left.

<u>From Beltway 8 (going East)</u>, Exit and turn left on Greenspoint Drive. Go right at first light onto Benmar. Turn left at next light onto Northchase Drive. The Greenspoint club is on the left.

**Parking:** Ground, 4th and 5th Levels. To access the 4th & 5th levels, pull up to the contract parking gates. There is a call box on the left-hand side. Press the button, release and gates will open. Follow park signs to the 4th and 5th level. The Greenspoint Club is located on the 5th Floor.

### Abstract

The Haynesville Shale has been a focal point for shale gas exploration in the United States during the past few years. Shale gas reservoirs, in general, are said to be complex due to vertical and lateral heterogeneity. Additionally, this heterogeneity is said to be large over short distances. It has been stated that the coupling between depositional sequences and reservoir quality are weak and conceptualized as finding "raisins in the pudding, where the raisins are good reservoir properties."

This presentation will demonstrate that there is a direct correlation between reservoir petrophysical properties enabled by spectroscopy measurements and production in the Haynesville Shale Gas play. Furthermore, this presentation will show that we are not seeking "raisins" but rather defining reservoir quality and isolating mineralogy that positively and negatively impacts production.

A baseline predictive production curve, based upon petrophysical properties, will be established. The impact of completion parameters, such as stage length, number of perforation clusters, cluster spacing, and landing location will be evaluated and quantified.

### **Biography**

**Keith Atwood** is an Interpretation Development Petrophysicist with Schlumberger's Unconventional Reservoir Optimization Team based in Houston, Texas. Additional responsibilities include mutli-well statistical and production analysis for Schlumberger's North American Consulting Services group. Atwood was previously Lead Petrophysicist and Production Analyst for Schlumberger's Reservoir Technology Group (formerly HRT) located in College Station, Texas. Prior assignments include leadership positions as a Production Enhancement Engineer charged with optimizing production and completions in tight gas reservoirs. An alumnus of the University of Texas, Atwood has over 30 years of experience working in a number of unconventional and tight gas reservoirs.

# **Westside Luncheon Meeting**

**Date:** Wed, Nov 9, 2011

Lunch: 11:30 Talk: 12:00

**Place:** BP Plaza Terrace Room, 1<sup>st</sup> floor, next to cafeteria 501 Westlake Park Boulevard,

Houston, TX 77079

Map

**Unconventional Shale Reservoirs: Challenges,** 

**Observations and Insights** 

by Carl Sondergeld, University of Oklahoma

RSVP Thaimar Ramirez before 3:00 p.m. Tuesday, Nov 8

E-mail: Thaimar Ramirez

Cost: Free.

Lunch is not provided, bring your own or purchase in the BP cafeteria.

Parking: BP Plaza Garage (4200 Westlake Park Boulevard, Houston, TX 77079).

### Abstract

Unconventional shale reservoirs are a new class of unconventional where organic material plays a crucial but unknown role in making plays successful. Conventional wisdom held that these were just tighter "tight sands" and that the organics contributed an insignificant adsorbed gas volume. Observations suggest that organics have multiple influences on storage, adsorption, density, permeability, wettability, elastic moduli and anisotropy. Measurements of "petrophysical" properties present new challenges as well as conflicting numbers from various vendors. Measurements techniques are challenged to resolve small changes in small values. Mineralogy is quite variable within shale and certainly among shale plays. Microstructure varies too, within a shale play and from shale to shale. Microstructural imaging and reconstructions yield insights in to shale productivity and seismic signatures. Challenges remain to define and quantify those properties useful for the economic exploitation of shales and to make stimulation more effective.

### **Biography**

Carl Sondergeld is currently Professor and the Curtis Mewbourne Chair at the Mewbourne School of Petroleum and Geological Engineering, University of Oklahoma. He earned a Ph.D. in Geophysics from Cornell University and a B.A. and M.A. in Geology from Queens College CUNY. He spent 19 years at the Tulsa Research Center of Amoco Production Company. He holds 14 US patents. He worked one year with BP-Amoco in technology transfer and as a technology advisor. He has been at the University of Oklahoma for 11 years; teaching petrophysics, geological well logging, and seismic reservoir modeling. He is the recipient of 3 departmental outstanding professor awards and the Brandon Griffith Engineering Professor Award. He has been instrumental in building world class research and undergraduate instructional facilities at OU. He currently conducts research on unconventional reservoir rocks, in particular shales, and in the areas of microstructural characterization, anisotropy, NMR, petrophysics, hydraulic fracturing and seismic reservoir modeling. He shares responsibilities for two industrial supported research consortia: 1) "Experimental Rock Physics" and 2) "Unconventional Shale Gas" with Dr. Chandra Rai. He is an active member of the SPE and SEG, serves as the Faculty Advisor to the OU SPE student chapter, and coaches the OU Petrobowl team which has won the SPE international competition an unprecedented three times (2007, 2008 and 2010). He was the SEG/AAPG Distinguished Lecture for the Fall 2010.

## **Downtown Luncheon Meeting**

**Date:** Wed, Nov 16, 2011

Lunch: 11:30 Talk: 12:00 Place: Chevron Auditorium

Ground Floor 1500 Louisiana St Houston, TX 77002 From Correlation to Mechanisms: Petrophysical Models

for Organic Mudstone by Peter Day, Marathon

RSVP: before 4:00 p.m. Monday, Nov 14

E-mail: Tsoan Ma

Cost: \$15 Pre-payment (includes lunch\*) Please, use PayPal

Cash, Check or Credit Card is acceptable for payment. Receipts will be provided.

\*Lunch will be a boxed sandwich, chips, cookie and soda or water.

Parking: Regency Parking, Allen Center Visitor Garage, various outdoor lots.

### **Abstract**

Often the first stage in understanding how to interpret data in new environments is to look for correlations between measured properties. While this is a useful activity, a series of correlations should not be the end of the story: some effort should be made to convert empirical correlations into more general physics-based models – "mechanisms" – that explain why the correlations exist, and how they can be generalized to novel situations. Although it seems that interpretation of "organic mudstones" is moving along from the stage of generating correlations to developing and using mechanisms, there are still some areas in the industry where we could probably be doing a better job. This talk – which was first presented at the Unconventional Resources SIG Meeting in July, 2001 – will walk through a couple of simple examples using log and core data showing how mechanisms that reflect underlying physical principles can be teased out of some organic mudstone correlations.

### **Biography**

Peter Day is currently a Senior Technical Consultant with Marathon Oil Corporation with oversight responsibility for unconventional resources. He earned a Ph.D., M.A. and B.A. in Electrical Sciences from Cambridge University, England. He started his oil-field career with Schlumberger, spending 3 years in Field Operations in the Middle East followed by 8 years at Schlumberger-Doll Research in Ridgefield, Connecticut. He then relocated to Unocal Science & Technology for an 11 year term in Brea, California and Sugarland, Texas. After 3 misspent years with another service company, followed by a year in preretirement, he moved to Marathon Oil Company in Houston, Texas where he will reach his 10 year anniversary early in early 2012. He has taken a leading role in a number of professional society activities, including Chair of the Technical Program Committee for the 1994 SPE Annual Technical Conference, Cochair of the 1995 Joint SPE/SEG Reservoir Development Forum, and has been on the steering committees for various SPE and SPWLA technical conferences.