SPWLA - Houston Chapter News
April 2011

Houston Chapter Officers 2010-2011

Interim President/Vice President – Westside
ALEXANDER KOSTIN
BHP Billiton
1360 Post Oak Boulevard
Houston, TX 77056
Office: 713.599.6477
alexander.kostin@bhpbilliton.com

Vice President – Northside
ROB HENGEL
Consulting Petrophysicist
Oil and Gas Industry
Home: 281.893.5504
northvp@spwla-houston.org

Vice President - Downtown
RANDY MITCHELL
Hess
500 Dallas Street
Houston, TX 77002
Office: 713.609.4427
ramitchell@hess.com

Treasurer
PAUL CONNOLLY
EOG Resources
1111 Bagby
Houston, TX 77002
Office: 713.651.6700
paul_connolly@eogresources.com

Secretary
LOREN ROBERTS
Baker Hughes, Inc
2001 Rankin Road
Houston, TX 77073
Office: 713.966.3321
loren.roberts@bakerhughes.com

Editor
THAIMAR RAMIREZ
ConocoPhillips
600 N. Dairy Ashford
Houston, TX 77079
Office: 281.293.1781
ramirtr@conocophillips.com

Webmaster
MAYANK MALIK
Chevron
1400 Smith St, #43034
Houston, TX 77002
Office: 713.372.7571
mmalik@chevron.com

April 2011 Luncheon Meetings

Westside BP Plaza Terrace Room Wednesday, April 13, 2011	Using Wireline Geochemical Data for Shale Gas Reservoir Formation Evaluation *by John Quirein, Halliburton*
Northside The Greenspoint Club **Wednesday**, April 13, 2011	Regulating Water Breakthrough and Mitigating Sand Production by Integrating LWD with Completion Technologies *by Jeffrey Kok, Pathfinder*
Downtown Hess Office Wednesday, April 20, 2011	Analyzing Critical Effect of Time on Station *by Ken Kemp, Hess Corporation and Ed Tollefsen, Schlumberger*

SPWLA Houston Chapter News and Upcoming Events

Resistivity SIG Meeting
April 21, 2011 at Shell Woodcreek Facility
200 North Dairy Ashford St, Houston, TX 77079

2011 Spring Topical Conference

Anisotropy: Electric, Acoustic, Hydraulic and its Applications

Wednesday, April 27

Chevron Auditorium
1500 Louisiana, Houston, TX 77002

Images Source:
http://www.google.com/images?um=1&hl=en&biw=1445&bih=908&tbs=isch%3A1&sa=1&q=electric%2C+acoustic%2C+hydraulic+anisotropy&aq=f&aqi=&aql=f&oq=

For more information visit: http://www.spwla-houston.org/pages/events.htm

2011 SPWLA Houston Chapter Spring Topical Conference (continued)

Dear SPWLA Houston Members,

We are pleased to announce 2011 SPWLA Houston Chapter Spring Topical Symposium, organized by the Houston SPWLA Chapter, which will take place in the Chevron Auditorium in downtown on April 27th. This year's topic is "**Anisotropy: Electric, Acoustic, Hydraulic and its Applications**".

Simply reply to this e-mail to RSVP, or send an email to secretary@spwla-houston.org. Space is limited! Feel free to forward this email to your colleagues. You can prepay at the following link: **PREPAY HERE**

Location: Chevron Auditorium, 1500 Louisiana St, Houston, Texas, 77002

Time: Wednesday, April 27th, 8:00 to 4:00 PM

Cost: $40, students - free. Snacks and refreshments provided

Confirmed Speakers

Teruhiko Hagiwara (Aramco)
"Electric anisotropy and formation characterization"

Matt Honarpour (Hess)
"Measurement Scale, Permeability and Relative Permeability Anisotropy in Heterogeneous Formation"

Hani Elshahawi (Shell)
"Integration of Conventional and Wireline Formation Testing for Characterizing Permeability Anisotropy"

Colin Sayers (Schlumberger)
"Geomechanical applications of modern sonic logging"

Shihong Chi (Marathon)
"Impact of borehole sonic anisotropy on seismic applications"

Michael Rabinovich (Baker Hughes)
"12 years of multi-component induction logging in anisotropic formations: lessons learned"

Jean-Baptiste Clavaud (Chevron)
"Intrinsic Electrical Anisotropy of Shale: The Effect of Compaction"

Want to contribute to the SPWLA Houston Chapter Newsletter?
Contact: Thaimar Ramirez
ramirtr@conocophillips.com

President's Corner

April 2011

Dear Chapter Members,

In March, the board held its first meeting in 2011. Amongst various items on our agenda, I would like to mention the following:

1) Northside meetings for 2011/2012 will continue to be held at Greenspoint Club. Thanks to great efforts of Rob Hengel and Mayank Malik, it is now possible to pay meeting fees via PayPal, which greatly speeds up the registration process.

2) Board elections have been announced and by the time this president's corner is published the ballots will be electronically sent to our members for the vote. We strongly encourage everybody to cast their electronic ballots!

3) Preparations for the 2011 Spring Topical Conference are under way. We already have the majority of the speakers confirmed and are currently working on titles and abstracts. Make sure you mark April 27 on your calendar and plan to attend "Anisotropy: Electric, Acoustic, and Hydraulic and its applications".

On March 2nd, the Houston Chapter members organized first in history Formation Testing SIG meeting, which attracted more than 60 people. This is certainly a great beginning and I wish the new SIG many more meetings to come!

For more information about the luncheon seminars and any other Chapter's activities check our website http://www.spwla-houston.org/index.shtm

Best Regards,

Alexander Kostin
Interim Houston Chapter President

Westside Luncheon Meeting

Date: Wednesday, April 13, 2011 **Lunch:** 11:30 **Talk:** 12:00 **Place:** BP Plaza Terrace Room, 1st floor next to the cafeteria *501 Westlake Park Boulevard, Houston, TX 77079* **Map** **Parking:** BP Plaza Garage	Using Wireline Geochemical Data for Shale Gas Reservoir Formation Evaluation ***by John Quirein, Halliburton*** **RSVP Alexander Kostin before 3:00 p.m. Tuesday, April 12** westvp@spwla-houston.org

Abstract

When core data, such as mineralogy, porosity, total organic carbon, and elastic properties, are available from a large multiwell database, it is possible to extract meaningful statistical relationships between the data. These relationships can then be applied in other wells with limited or no core measurements. X-ray diffraction (XRD) mineralogical data is unique in that it can readily be transformed to synthetic wireline geochemical elemental data, such as the weight fractions, aluminum, silicon, and calcium. This transformation establishes a relationship between the mineralogical data and the synthetic wireline geochemical logs, which can be applied to "real wireline" geochemical data to select an appropriate set of minerals for prediction from the wireline geochemical measurements. Statistical optimization based approaches are generally used to perform this prediction of mineralogy from wireline data. In addition, this approach facilitates sensitivity studies to parameter and model selection and measurement uncertainty.

The workflow proposed provides an effective approach for establishing and predicting mineralogy, grain density, and porosity from wireline geochemical logs. This paper presents results for a Haynesville shale example. The proposed approach helps to maximize the value of the core and log data integration for shale plays.

Biography

John A. Quirein is the Petrophysics Team Leader for Formation Evaluation Technology at Halliburton Energy Services, focusing in interpretation and software development with a recent emphasis on Gas Shale Petrophysics, geochemical log interpretation, and multi-mineral solvers. He obtained a Ph.D. from the University of Houston, and then worked for Schlumberger for 10 years and Mobil Oil Company for 12 years, and the last 11 years for Halliburton. He is a past SPWLA President and is currently a member of the SPWLA Foundation.

Northside Luncheon Meeting

Date: Wednesday, April 13, 2011
Lunch: 11:30 **Talk:** 12:00
Place: The Greenspoint Club
16925 Northcase Drive,
Houston, TX 77060

Regulating Water Breakthrough and Mitigating Sand Production by Integrating LWD with Completion Technologies

by Jeffrey Kok, Pathfinder

RSVP Rob Hengel before 9:00 a.m. Monday, April 11
northvp@spwla-houston.org

Cost: Pre-payment is required. Please, use PayPal
$30 (lunch provided with reservations)*
$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:
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.
From Beltway 8 (going West), 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.
From Beltway 8 (going East), 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

Common early clastic reservoir field development practice involves drilling of vertical wells for a comingled production across several stacked reservoir units. These units are usually clean sandstone hydrocarbon reservoirs with strong bottom-water drives. Although vertical well production is often an economically viable approach, in most cases, high water production is observed prior to the depletion of hydrocarbons across these fields, leaving behind valuable reserves. In some cases, the original oil-water contact (OWC), remains unmoved, even after a prolonged production period. Today, horizontal wells are a well-recognized strategy for more efficient hydrocarbon recovery because they provide greater exposure to hydrocarbon drainage areas. In the same manner, horizontal wells can be applied to exploit remaining thin attic oil columns.

With brown field development, operators are challenged to steer their production wells laterally within thin oil rims, preferably as high as possible to minimize attic traps. But early water breakthrough is still problematic for these horizontal wells due to water coning from an imbalanced drawdown along the horizontal and the unavoidable proximity to the OWC. Usually, to increase hydrocarbon recovery on these wells, flow rates are cranked up, drawing higher localized water production that often cause hot spots in the completion string. These hot spots commonly result in mechanical failure of the sand control media that will lead to plugging of the well due to sanding. Naturally, high water production and low hydrocarbon recovery discourage operators from pursuing such ventures.

To effectively exploit such reservoirs, horizontal wells must be placed as far away as possible from the OWC, while balancing fluid in-flux along the horizontal. Developments in logging while drilling (LWD) technology have enabled structure or bed boundary mapping in real-time to provide the means for accurate placement of wells below the reservoir trap or within thin sand columns. Completion technology incorporating stand-alone screens combined with customized downhole inflow control devices (ICDs) can be introduced to delay or to regulate water breakthrough. While these technologies individually add value to horizontal well production, in combination they provide a means for optimized recovery and prolonged life of the well.

Using case examples, this presentation highlights technical assessments, lessons learned, and collaborative workflows used by multi-disciplinary teams to evaluate, to plan, and to successfully exploit remaining attic reserves.

Biography

Jeffrey Kok is the PathFinder North America Land well placement domain champion and is based in Houston, Texas. He has currently more than 16 years in the oil and gas industry. Jeffrey embarked his career as a Schlumberger Wireline Field Engineer based in France, Trinidad & Tobago, and Argentina. He then worked with Baker Hughes INTEQ followed by Schlumberger Drilling & Measurements in the geosteering discipline, providing field and technical support to the Asia Pacific region. Jeffrey has a BEng (Hons) in Mechanical Engineering from the University of Salford, England. His current role focuses on market development, providing technical support, and solutions to address well placement challenges and the integration of multiple disciplines to address client needs. He has authored several publications on well placement with completion technologies and shale evaluation. He is a member of SPE and SPWLA.

Downtown Luncheon Meeting

Date: Wednesday, April 20, 2011 **Lunch:** 11:30 **Talk:** 12:00 **Place:** Hess Conference Center Room 1B/1C. First level of Allen Center 1, near the entrance below the walkway between Allen Center 1 and Allen Center 2. *500 Dallas Street* *Houston, TX 77002* **Parking:** Regency Parking, Allen Center Visitor Garage, various outdoor lots **Cost:** $15 (with reservations)	Analyzing Critical Effect of Time on Station ***by Ken Kemp, Hess Corporation and*** ***Ed Tollefsen, Schlumberger*** **RSVP Randy Mitchell before 3:00 p.m. Tuesday, April 19** ramitchell@hess.com

Abstract

When preparing for formation pressure testing and sampling programs, one gets much pressure from drillers and managers to limit the time on station, as there is a perception that the time the tool is set strongly correlates to the probability of tool and/or cable sticking. While time is a factor in the estimation of sticking, it is not the only factor. Other wellbore conditions sometimes have a stronger influence upon tool and cable sticking. This case study examines formation tester programs for several wells and wellbore conditions, which influenced tool and cable sticking.

Biography

Ken Kemp is a petrophysicist with almost 32 years of industry experience. Ken has a BS degree from the University of Mississippi with majors in physics and mathematics. He started his career as a well logging engineer in the Illinois Basin, then moved on to Sun Exploration and Production Company in Dallas, TX, where he interpreted well logs from almost the entire US, mostly onshore, with considerable experience in carbonates. For the past 16 years he has been with Hess Corporation, where he specializes in GOM deepwater well logging operations and well log evaluations.