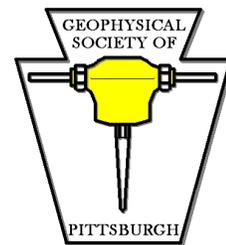


Geophysical Society of Pittsburgh



Tuesday, November 1st, 2011 SEG Honorary Lecture:

Practical Seismic Petrophysics: The Effective Use of Log Data for Seismic Analysis **2011 SEG Honorary Lecturer Dr. Tad Smith**

The conditioning and analysis of log data for quantitative seismic interpretation is often simply categorized as "rock physics." Unfortunately, rock physics workflows often overlook or oversimplify the proper editing and interpretation of log data, the result of which can be unrealistic expectations and interpretations of seismic amplitude responses. The more encompassing phrase "seismic petrophysics" better describes the necessary linkage between petrophysics and rock physics. Seismic petrophysics not only includes rock physics, but also includes the proper conditioning and interpretation of log data that should occur prior to the application of rock physics and seismic models. This is especially true in conditioning log data for shearwave velocity estimation, fluid substitution calculations, and AVO modeling.

This talk will focus on the important role of "seismic petrophysics" in the quest to extract additional information from subtle seismic responses. Topics covered will include various aspects of log editing, petrophysical interpretation (including integration of other data sources—core, fluids, pressures, etc.), and some common pitfalls associated with the "workhorses" of rock physics (invasion corrections, shear velocity estimation, and elements of fluid substitution). It is important to recognize that log data should not simply be recomputed to fit prior expectations as defined by a rock physics model. Instead, rock physics models should be used as templates, which allow the interpreter to better understand the underlying physics of observed log responses and how they are governed by local petrophysical properties. Case studies will be used to reinforce critical concepts.

Presented by:



Tad Smith is senior technical advisor for petrophysics and seismic rock properties at Apache Corporation. Prior to joining Apache, Tad held a variety of positions as a geologist and petrophysicist at various companies, including Amoco, BP, Newfield Exploration, VeritasDGC, CGGVeritas, and ConocoPhillips. In 1995 – 1996, he participated in the Amoco Petrophysics Training program, where he developed a keen interest in petrophysics and seismic rock properties ("seismic petrophysics"). He has been actively engaged in the process of integrating petrophysical data into geophysical workflows ever since. Tad has a PhD in geology from Texas A&M University, and is a member of SEG, AAPG, SPWLA, SPE, GSH, and the HGS. When he's not working on interesting petrophysical problems, he enjoys time with his wife and son, riding bikes, spending time with good friends, and listening to good music.

Please RSVP using the PayPal link on the Geophysical Society of Pittsburgh website at: www.thegsp.org

If you choose to RSVP via email please contact Craig Eckert at CEckert@egt.com by October 28th.

Once you have RSVP'd using PayPal there will be no need to RSVP Craig Eckert.

Cost for this months meeting is \$35.

For this months meeting we will be resuming our venue at the Radisson Greentree.

Radisson Greentree

500 Mansfield Ave
Pittsburgh, PA 15205, United States
(412) 922-8400



Meeting Agenda:

5pm Social Hour

This month's social hour is proudly sponsored by ION.



GX TECHNOLOGY

6pm Dinner

Dinner Choices

Roasted Organic Chicken

Herb Encrusted Chicken with Meyer Lemon and Natural jus.

Or

Wild King Salmon

Marinated with Ginger, Garlic, and Chili's.

Or

Vegetarian Option – Tuscan Grilled Vegetable Stack

Layers of Marinated Grilled Eggplant, Summer Squash, Zucchini, Bell Peppers with an Asiago Cream Sauce.

7pm Dr. Tad Smith's Lecture



Please indicate your Dinner Selection with RSVP!

We would like to thank our 2011-2012 Corporate Sponsors:

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Please contact Jim Wigal
(jwigal@abartaenergy.com) for
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**Next Month's GSP Meeting:** We are proud to present Joel Starr who will be giving his lecture entitled "Closure Stress Gradient Estimation of the Marcellus Shale from Seismic Data." This lecture was very well received at this years SEG conference in San Antonio and we expect the same here in Pittsburgh. *By popular demand our December 6th meeting will be held at the Penn Brewery Restaurant.*

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Currently DGS and RMAG are seeking speakers for RMAG's 3D Seismic Symposium in Denver to be held March 12, 2012. Please consider submitting an abstract for consideration by the 3D Symposium Committee by the December 1, 2011 Deadline. If interested please contact: tele_sam@hotmail.com

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**Other Upcoming Meetings:**

- *PAPG Meeting October 20<sup>th</sup>* Randy Blood of Pure Earth will present 'Chemostratigraphy of the Marcellus Shale: Insights into Depositional Environments and Implications for Play Fairways'. The meeting begins at 5pm at Cefalo's restaurant in Carnegie. See <http://www.papgrocks.org> for more details.
- *AAPG Distinguished Lecture Program: Satinder Chopra will be touring Eastern North America October 31<sup>st</sup> – November 4<sup>th</sup>.* Please check the website for details.

[http://www.aapg.org/education/dist\\_lect/chopra.cfm](http://www.aapg.org/education/dist_lect/chopra.cfm)