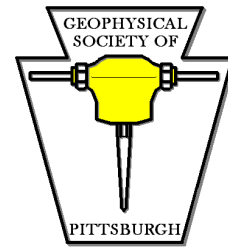


Geophysical Society of Pittsburgh



Tuesday, October 4th, 2011 Lecture:

A Case Study: The Value of Seismic Data in the Marcellus Shale Play

The Devonian age Marcellus is a major shale play in North America that has drawn international attention. It covers approximately 250,000 square kilometers, trending northeastward from West Virginia into New York.

Although advances in drilling and completion technologies have been the primary factors in increasing production from the shale plays, economic viability of these reservoirs are still a concern due to increasing costs and low revenues due to the price of natural gas.

The challenges of these unconventional resource plays include:

- 1.) optimizing well designs and geo-steering through detailed, seismically derived structure maps that also identify subsurface features such as faulting and karsting;
- 2.) optimizing the stimulation program by understanding the variances in rock properties within the shale zone and the areal distribution of Young's Modulus, Poisson's Ratio, and local stress regimes.
- 3.) identifying shale 'sweet spots' which represent areas of higher productivity driven by the in-situ stress state, natural fracturing and several petrophysical properties including porosity, permeability, brittleness and total organic content (TOC)

The primary use of 3D seismic data to date has been to map the structure and thickness of the shale reservoir, as well as, identify possible production hazards allowing drilling engineers to better geo-steer long laterals. However, some companies are also using seismic to predict areas of higher production due to better rock properties for fracability of the reservoir. This lecture will highlight how the use of seismic data can help target more productive areas, keep the proposed well plans in the best reservoir rock, and impact completion strategies that can save significant dollars per well.

Presented by:



Ron Harris received his BSc in Geophysical Engineering from the Colorado School of Mines in 1981. Upon graduation, he accepted a position with Tenneco Oil as an interpreter in Lafayette, Louisiana where he remained until it's sale to Chevron in 1988. He then joined Union Oil of California where he worked in the Gulf of Mexico group as a development geophysicist. In 1997, he joined Cockrell Oil and Gas in Houston Texas where he was responsible for property management, well planning, and providing technical support to the Exploration groups. He is a Senior Geophysical Advisor at Anadarko Petroleum Corporation where he has worked the last 10 years in the Deepwater GOM, East Texas Basin and the Marcellus in Pennsylvania. Currently he is involved in the exploration of unconventional resource plays and mentoring young geoscientists. He is a member of the Society of Exploration Geophysicists, Pittsburgh Geophysical Society, Ohio Geological Society and a licensed Professional Geoscientist in the state of Texas.

and



Mark Wallace (Geophysical Advisor, Unconventional Reservoirs - GXT Imaging Solutions, Denver, CO) Mark has 30 years of combined domestic U.S. and international experience in the oil and gas industry including 22 years with Amoco/BP. His experience includes exploration and development work in clastic and carbonate reservoirs worldwide. He received his B.S. in Geophysics from Penn State University and an M.S. in Geophysics from Stanford University.

Please RSVP to Craig Eckert at CEckert@egt.com by September 30th.

We are pleased to announce that for the first time we will be hosting our monthly lecture at the Penn Brewery Restaurant located on Pittsburgh's North Side at:

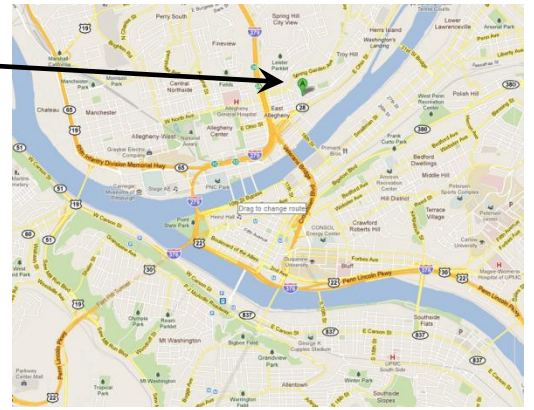
Penn Brewery Restaurant (Eisenhalle Room)

800 Vinial Street

Pittsburgh, PA 15212, United States

(412) 237-9402

Google it!



Oktoberfest Menu

5pm Social Hour

This month's social hour is proudly sponsored by McDonald Land Services



Beers on Tap:

Allegheny Pale Ale, the newest member of the Penn Brewery brand.

Brewed with 2 row caramel and euro-pils malts to create a rich amber color and medium body. Chinook hops from the Pacific Northwest provide fragrant hop aroma and are balanced with Columbus and German Perle hops in the finish to create a flavor that is unique to Allegheny Pale Ale.

Penn Dark Lager Beer, a European-Style Dark / Münchener Dunkel.

Just possibly the best Munich-style dark beer made in the world today. Surprisingly smooth with a slightly burnt flavor from the black malt, well balanced bitterness and hop aroma.

Penn Gold Lager, a Münchener Helles and Export : Münchener Helles.

Nationally acclaimed as the best Munich style beer made in America. Light colored, medium bodied with delicate hop aroma. Winner of four gold medals at the Great American Beer Festival.

Penn Oktoberfest Bier, a Märzen / Oktoberfest style beer.

"OUTSTANDING OKTOBERFEST BIER - East of the Mississippi" Bon Appetit Magazine

Rich, deep golden-colored lager fest beer, exceptionally smooth and mellow. Uses 2-Row malted barley and a combination of roasted malts

Hors D'oeuvres

Warm Soft Pretzels with Mustard

Penn Pilsner Beer Cheese and Crackers

6pm Dinner

Dinner Buffet

Schweinebraten

Smoked Bratwurst Sausages and Sauerkraut

Grilled Vegetable and Penne Pasta Alfredo

Hot German Potato Salad

Potato Pancakes

Fresh Green Beans with Red Peppers

Tossed Green Salad with Ranch, Italian and Balsamic Dressing

Dessert

Black Forest Cake

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



2011-2012 GSP OFFICERS

- | | | | |
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**Your Dues and Sponsorship in Geophysical Society of Pittsburgh go toward:**

- *Outstanding Monthly Lecture Series*
- *SEG Distinguished Lecturers*
- *Annual Scholarship Awards*
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Please contact Jim Wigal  
([jwigal@abartaenergy.com](mailto:jwigal@abartaenergy.com)) for  
Sponsorship opportunities.

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Next Month's GSP Meeting: We are proud to present as our **2011 Honorary Lecturer** Dr. Tad Smith of Apache Corp. who will be speaking on "Practical seismic petrophysics: The effective use of log data for seismic analysis." Our November 1 meeting will be held at Greentree Radisson

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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](mailto:tele_sam@hotmail.com)

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Other Upcoming Meetings:

- *PGS Meeting, A Brief Tour and History of the Appalachians, Robert D. Hatcher, Jr., Ph.D, Wednesday, September 21, 2011 contact jfgoogal@gmail.com*
- *PAPG Meeting, Lithofacies, Organic Facies and Thermal Maturity Relationships in the Upper Cretaceous Niobrara Formation, Rocky Mountain Region, USA, Christopher Laughrey, Thursday, September 22, 2011 Radisson, Greentree PA contact: PAPG.VP@gmail.com*