



Joint Session with SPE
Four Points by Sheraton –
Pittsburgh North
29 May 2008

The Barnett Shale Play: Phoenix of the Ft. Worth Basin, a History

presented by

Dan B. Steward

AAPG - 2007 Explorer of the Year

Republic Energy, Inc.

Abstract

Mitchell Energy performed its first Barnett test in 1982. The well was the C.W. Slay #1 in southeast Wise County, a failed exploratory deepening for the Viola LS. Many things had to come together in a timely manner for this test to have been considered. The limited gas recovered on the initial frac gave enough encouragement to pursue a better understanding of this source rock and the technology that might be required to make this almost slate-like rock a producing reservoir.

The Ft. Worth Basin Bend Conglomerate had been a significant source of income for Mitchell Energy and the leases, employees and infrastructure associated with it made up a large part of the company's assets. In 1982, our evaluation of the Bend Conglomerate, the dominant producer in the basin, suggested our production base could be sustained through the early 1990's, but would be impossible to maintain after that time. We were given a charge by George Mitchell to find something to take the place of the "Bend" and maintain our existing assets. Many different exploration targets in the basin were reviewed, the Barnett being one of them. Over the next 10 years a database was put together and technology was developed that would allow a small area of Barnett in eastern Wise and western Denton Counties to be commercial under the favorable gas prices being received through our Natural Gas Pipeline contract. However, this contract was a two-edged sword, it provided for a production ceiling that could not be exceeded except on demand.

While the contract pricing was necessary in the early years, it was recognized that the production ceiling would prevent growth. In 1995 Mitchell allowed NGPL to buy out of this contract. This provided for more growth if economics could be improved. Many steps were taken to cut costs and improve productivity with the light sand fracture treatment adopted in late 1998 providing the necessary impetus. The resultant success spurred on other

experimentation and science that led to better understanding of the gas-in-place. Since the late 90's we have seen geological, geophysical, and engineering technology grow and drive this play to the boom it is today.

Author Biography

Dan Steward is currently a consulting Geologist with Republic Energy Inc in Dallas, Texas. During the period between 1981-2001, he was at Mitchell Energy and was a member of the team responsible for recognizing, evaluating and evolving the Barnett Shale Play in the Fort Worth Basin.



During that 20 year period he held a number of positions within the company management, but in one capacity or another was always involved in the play.

After the Company's merger with Devon in 2002, Dan joined Republic Energy and continued his involvement with the Barnett Shale through their activities. This partnership has allowed him to apply the understanding of organic shales acquired from the Barnett to other shales across the United States.

In 2005, Dan was asked to write a history of the evolution of the Barnett play by George P. Mitchell. Dan will have copies of his book available for purchase and signing at the meeting. In addition to this honor Dan was also recently selected by the **American Association of Petroleum Geologists for their 2007 Explorer of the Year Award** for his role in establishing the Barnett as one of the largest gas producing fields in the country.

For reservations to this informative and entertaining evening, please complete the attached reservation form.

WHAT IS THE PAPG?

PAPG is a non-profit organization founded in 1984 to provide a forum for Petroleum Geologists in the Pittsburgh Area to meet socially and discuss technical topics relative to the exploration and development of reserves in the Northern and Central Appalachian Basin. PAPG is an affiliated association with AAPG (American Association of Petroleum Geologists) and has representation in the House of Delegates. Educational opportunities are provided via field trips, seminars and AAPG Sectional meetings, sponsored solely by PAPG or in conjunction with the PTTC (Petroleum Technology Transfer Council), PGS (Pittsburgh Geologic Society) and SPE (Society of Petroleum Engineers).

Although PAPG is predominately a geologic organization, numerous industry professionals including geophysicists, engineers, lawyers and landmen are among PAPG's members and find the interaction at meetings and educational opportunities beneficial to their professions. PAPG also encourages student membership and participation.

Meetings are typically held monthly from September through May in locations within 50 miles of downtown Pittsburgh. From time to time, meetings are held in conjunction with SPE and PGS.

NEWS AND EVENTS

PAPG Website: Visit the website at <http://www.PAPGrocks.org>.

Mark your calendar now for these upcoming events:

May 29th 2008, Cambridge OH

PTTC Seminar - Drilling/Completion Shales

Salt Fork Resort

Visit website for details - see calendar.

May 30th - 31st

PAPG Field Trip - Gary Lash - Western NY Devonian Shale

Visit website for details.

June 10th 2008, Morgantown WV

PTTC Seminar - Structural Principles and Trap Geometries in the Northern Appalachians - R.A. Nelson

NRCCE Building

Visit website for details - see calendar.

October 11th - 15th 2008, Pittsburgh PA

2008 AAPG-SPE Eastern Section

<http://www.aapgspe2008.org/>

Co-Hosted by: Pittsburgh Association of Petroleum Geologists & Pittsburgh Petroleum Section SPE

Employment Opportunities:

Survey Geologist II &

Survey Geologist III or IV

WV Geological Survey

Morgantown, WV

For more details on this listing and other listings visit the classified section of [PAPGrocks.org](http://www.PAPGrocks.org)

Have information you want to share with the organization?

Please contact the secretary to add the information to the next newsletter.

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PAPG wishes to thank the companies who have contributed to the PAPG 2007-08 season

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Sponsor Information

If you or your company would like to sponsor the PAPG and help support the continuation of our Meetings, Field Trips, and other events, we ask that you send a donation to the PAPG. Any contribution of \$100.00 or more by any group or individual will be recognized on our website, in the monthly newsletter, and at scheduled monthly meetings.

We ask that you show your support for the PAPG by a contribution and your continuing attendance at the monthly meetings. We appreciate your continued support.

Contributions may be sent to: PAPG, PO BOX 16352, GREENTREE PA 15242-0352

NOTICE OF MAY 29TH 2008 MEETING PITTSBURGH ASSOCIATION OF PETROLEUM GEOLOGISTS

DATE: Thursday 29, May 2008

PLACE: Four Points by Sheraton - Pittsburgh North
910 Sheraton Drive
Mars, PA 15090
724-776-6900

TIME: 5:00 PM – Social Hour (w/ Cash Bar)
6:00 PM – Dinner
7:00 PM – Speaker

TOPIC: “The Barnett Shale Play: Phoenix of the Ft. Worth Basin, a History.”

SPEAKER: Dan B. Steward - Republic Energy, Inc.

COST: \$30.00
\$10.00 Students
(Checks payable to PAPG)

DINNER OPTIONS: Roasted Sirloin of Beef
or
Chicken Gregorius

RESERVATIONS: Call, email, fax, or mail this reservation form by May 23, 2008 to:

Barbara A. Purks
412-787-5403 (phone)
412-787-2906 (fax)
bpurks@pittsburgh.oilfield.slb.com

NAME(S) _____

COMPANY

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CONTACT THE PAPG

PAPG Officers:

- President:** **Greg Wrightstone** -- Texas Keystone, Inc..
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PAPG 2007-2008 DUES

PAPG dues for the 2007-2008 season are now DUE!

*The membership form is attached to this newsletter. Please fill the form out **completely** so that we can ensure that we have your latest contact information. We are planning to publish a membership directory this year and your updated information is crucial.*



P·A·P·G

Pittsburgh Association of
Petroleum Geologists

An AAPG Affiliated Society

www.papgrocks.org

APPLICATION FOR MEMBERSHIP AND MEMBERSHIP RENEWAL

PLEASE INDICATE YOUR MEMBERSHIP STATUS BY CHECKING THE APPROPRIATE BOX:

PROFESSIONAL - RENEWAL

STUDENT - RENEWAL

PROFESSIONAL – NEW MEMBERSHIP

STUDENT - NEW MEMBERSHIP

The **PITTSBURGH ASSOCIATION OF PETROLEUM GEOLOGISTS** membership year runs from JUNE 1 through MAY 31. Monthly meetings are usually held the second Thursday of the month from September through May.

Professional Dues are \$25.00 per year

Student Dues are \$10.00 per year

NEW APPLICATION: If you have never been a member of PAPG, please fill out the remainder of the form, obtain the signatures of two members to sponsor you, and mail check, payable to PAPG, to the address below.

RENEWAL: Please fill out the mailing address/directory information below if your contact information has changed and submit dues, payable to PAPG, to the address below.

Mail completed form and dues payment (checks only - Payable to PAPG) to:

Dave Boyer
Texas Keystone, Inc.
560 Epsilon Drive
Pittsburgh, PA 15238

MAILING ADDRESS / DIRECTORY INFORMATION – PLEASE COMPLETE ALL INFORMATION

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WOULD YOU BE INTERESTED IN PAPG PARTICIPATION?: Officer Speaker

**WOULD YOU LIKE YOUR CONTACT INFORMATION PLACED
IN THE MEMBERSHIP DIRECTORY (available to members only?)** Yes No

TWO SPONSORS REQUIRED for NEW MEMBERS

Name _____ Date _____

Name _____ Date _____