



FOUR CORNERS GEOLOGICAL SOCIETY NEWSLETTER

December 2007

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Four Corners Geological Society

December Meeting and Presentation

DATE: Friday, December 7, 2007

SPEAKER: Dr. Bruce A. Black, President and CEO, Black Oil Company, Farmington, New Mexico

TOPIC: Frontier Oil Exploration in the Rio Grande Rift, New Mexico

PLACE: Marriott Courtyard, 560 Scott Ave, Farmington, NM, 87401 (505) 325-5111 ext. 2204

AGENDA:

5:30 PM- Social Hour, **“Pine Room”**, lower level of Marriott Courtyard

6:30 PM- Dinner – Choice of: **Ricotta Chicken or Beef Tips Bourguignon & Please indicate choice when dinner reservation is made.**

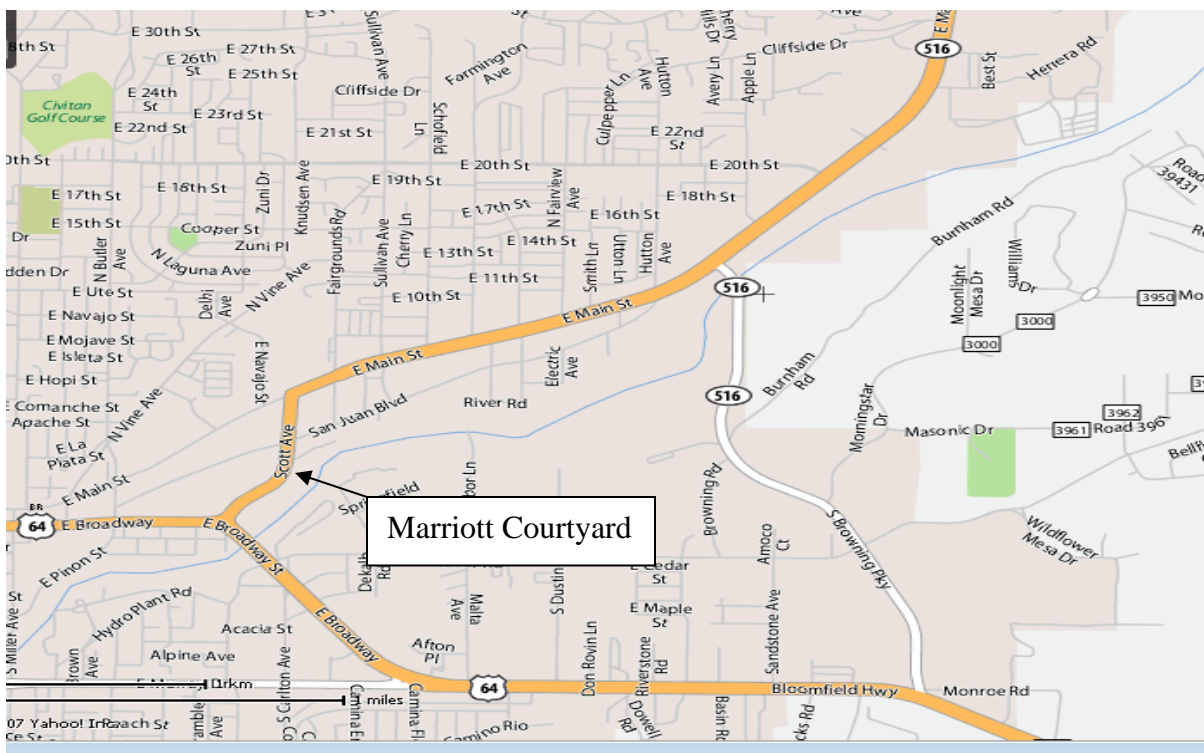
7:30 PM- Presentation

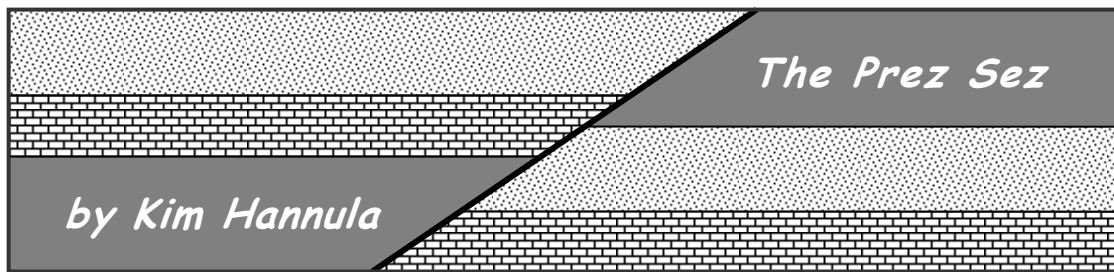
COSTS: \$20.00 per person (dinner and talk), \$2.00 per person (talk only), student’s free (talk only)

Reservations for this months meeting and presentation should be made by Wednesday, Dec. 5.

Farmington Contact: Chip Head – email: chip.f.head@conocophillips.com phone: (505) 326.9772

Durango Contact: Kim Hannula – email: hannula_k@fortlewis.edu phone: (970) 247-7463





Hello, FCGS members!

I hope everyone had a great Thanksgiving, and is enjoying having more winter-like weather. I hope you all take a look at the speaker schedule for the rest of the year - Chip has put together an interesting and diverse group of speakers, and it looks like it will be a great spring.

This month, we have an oil-related talk, on exploration in the Santa Fe embayment of the Rio Grande Rift. Our speaker, Dr. Bruce Black, has a long history of working on oil and gas exploration, and is responsible for the first production discovery in the Rio Grande Rift. Tom-Ann Casey heard him speak at AAPG, and recommended his talk. I hope to see you in Farmington!

Kim



Frontier Oil Exploration in the Rio Grande Rift, New Mexico

ABSTRACT

In 1985, the first oil production from the Rio Grande Rift was marketed from the Santa Fe Embayment of the Rio Grande Rift in north central New Mexico. It would be 26 years before this non - economic discovery (at \$8.00 a barrel) would eventually prove to be an economic success. The story of this first producing well, and its eventual re-completion and payoff is a story more than three and a half decades in the making.

USGS Bulletin 2184, published in 2001, supports the theory that the Albuquerque Basin contains a large basin-centered gas deposit. In 2005-06 Tecton Energy, LLC, working with Black Oil invested \$7MM to prove this concept and extend the potential limits of the deposit northward into the Santa Fe Embayment. The commercially successful Tecton Black - Ferrill #1, and subsequent activities, has opened a new oil and gas province in the Rio Grande Rift. The recent activities suggest a multi-TCF and multi-hundred million-barrel oil accumulation potential within the downthrown areas of the rift.

Several sub-basins in the rift have abundant source rock, a favorable history of maturity and extensive reservoir systems. Structural and stratigraphic complexities will account for a portion of the trapped oil and gas. Post-Oligocene subsidence has been the most important factor allowing coeval maturation of the Cretaceous source and a dramatic reduction in permeability of Tertiary and Cretaceous sandstones. This has effectively created a barrier for rapidly expelling hydrocarbons.

This discovery is an excellent example of frontier exploration. It is a lesson on cooperation between different disciplines, and the foresight and courage of investors who can look beyond the obstacles we increasingly face today in frontier exploration. Most of all, it is a lesson in both mental and monetary persistence.

SPEAKER BIO

Dr. Bruce A. Black has been a Frontier Basin explorationist for 37 years. He is generally recognized as the leading authority on oil and gas exploration in the Rio Grande Rift and is responsible for the first production discovery in the greater rift area.

Dr. Black began his geologic career with Shell Oil Company where he served as Ventura Basin district geologist, administrative assistant to the Vice President of Exploration - Pacific Coast Area, and as a Senior Staff Geologist. With Shell he specialized in frontier

exploration with primary emphasis on source rocks and maturation and migration of hydrocarbons as applied to new “frontier” basin exploration. After leaving Shell he has had extensive experience (1970 to present) in the ownership and management of Black Oil, an oil and gas exploration and consulting company. This has given him more than 30 years of extensive consulting experience with both major and independent oil and gas companies (foreign and domestic).

In addition to, and concurrent with his civilian career, he has had top management experience from over forty-one years of active and reserve affiliation with the United States Navy. From August 1991 until July 1996, Rear Admiral Black was the Commander of the Naval Reserve Intelligence Command for the United States. As such, he was responsible for the oversight and management of approximately 4,700 individual Naval intelligence specialists in over 100 reserve intelligence units located in 15 areas across the United States and in other areas of the world. This program had a budget of over \$50 million a year. His hobbies include building experimental aircraft and unique homes.



General Announcements/News from other Geo-Societies

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List of upcoming speakers and dates:

January 18 @ FLC: Tanya Atwater (UCSB) Plate Tectonics

February 22 in Farmington: Bill Ambrose (BEG-UT) Stratigraphy-sedimentology

March 19 @ FLC: Lukas Baumgartner (MGS) Mineralogy

March 21 in Farmington: TBD

April 25 @ FLC: Senior dissertations

May 16 @ TBD: Ron Blakey (UNA) Global Paleogeology

Advertising rates for the Four Corners Geological Society newsletter:

Full Page Ad (7½" x 9½") \$100/mo. or \$1000/yr. Half Page Ad (7½" x 4½") \$50/mo. or \$500/yr.
¼ Page Ad (3½" x 4½") \$25/mo. or \$250/yr. Business Card (3½" x 2") \$10/mo. or 100/yr.

Odd sizes are \$3.50 per column inch per month, minimum \$10.00

For more information, please contact the FCGS Treasurer. Proceeds will go toward the further development of the Society (i.e., offset meeting costs, publications, etc.).

Four Corners Geological Society

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www.fourcornersgeologicalsociety.org

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