

by Jim Emme and Bob Stancil.  
Anadarko Petroleum Corporation  
Houston, Texas

# Anadarko's Bossier Gas Play— A Sleeping Giant in a Mature Basin

The Bossier Sand Play in the "mature" East Texas Basin has emerged as one of the premier basin-center gas plays in the onshore United States. For almost 25 years, the Jurassic Bossier Sands were viewed as "bail out" zones in wells drilled for deeper targets in the Haynesville/Cotton Valley and Smackover Limestones. Prior to 1995, the average Bossier completion at 11,500 feet produced about 0.9 BCFG and was considered uneconomic as a primary objective. In 1996, following a failed Cotton Valley Limestone exploration program, Anadarko recognized the ingredients for significant gas reserves in the Bossier Sands. Favorable geologic conditions included a petroleum system with juxtaposed reservoir, source, and seal over a broad, overpressured region. Economic hurdles included high drilling and completion costs for relatively low-rate gas production in "permeability-challenged" sandstones. Successive operational/cost improvements led to economically attractive results, even in a sub-\$2.00/mcf gas price environment. Average Bossier wells now take 55 days from spud to first sales with initial rates of 3-5 MMCFD and reserves of 3 BCFG. Exceptional wells produce up to 50 MMCFD with 10 BCFG reserves. As of August 2001, Anadarko's East Texas Bossier production was in excess of 300 MMCFD with proven reserves for the Dew/Mimms Creek Field of over 1.1 TCFG ("Giant Field" status). Ultimately, the Bossier Gas Play is expected to yield multi-TCF reserves from developing trends throughout East Texas. Anadarko's Bossier success can be tied to these key factors: 1) Recognition of the resource potential, 2) Improvements in drilling/completion costs and techniques, 3) Control of the play, and 4) Integration of midstream/marketing strategies. North American onshore basins have many more "sleeping giants" yet to be awakened by innovative explorers who recognize their potential!

### Biographical Sketch

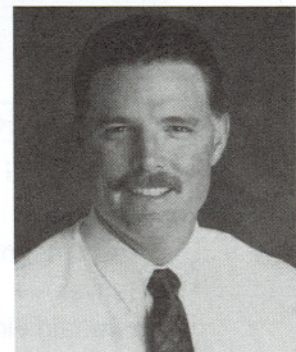
JIM EMME is Vice President, Exploration for Anadarko Petroleum Corporation, one of the world's largest independent exploration and production companies. Mr. Emme manages all of the company's exploration activities throughout North America, the Gulf of Mexico and more than a dozen international areas.

*Average Bossier wells  
now take 55 days from  
spud to first sales  
with initial rates of  
3-5 MMCFD and  
reserves of 3 BCFG.*

Mr. Emme joined Anadarko in 1981 and was named Manager of Geology for Anadarko Algeria Corporation in 1990. In 1998, he was named Manager, Offshore Gulf of Mexico and Alaska Exploitation in Houston and was promoted to Manager, Domestic Exploitation in 1999.

In 2000, he was named Vice President, Canada and was based in Calgary where he oversaw the exploration and development operations throughout the company's holdings in the western provinces of

Canada and in the Beaufort Sea/MacKenzie Delta region. Prior to joining Anadarko, Mr. Emme was employed as a geologist with Arco Oil and Gas Company. He is a graduate of the Colorado School of Mines where he earned an MS in geology in 1981, and the University of California at Davis where he earned a BS degree in geology in 1978. Mr. Emme is a member of the American Association of Petroleum Geologists, Houston Geological Society, and Rocky Mountain Association of Geologists.



Jim Emme

*Handwritten notes in red ink:*  
jim\_emme@anadarko.com  
bob\_stancil@anadarko.com