

A sustained period of high oil and gas prices has led operators into exploration in more of the world's remote, nonproducing, and underexplored areas.

The areas covered in this article are the Niger rift in West Africa, Rovuma basin in coastal and offshore Mozambique and Tanzania, Georgina basin in Australia, Marfa basin in Southwest Texas, Peten basin in Guatemala, and the Port Sandwich basin in Vanuatu in the Southwest Pacific islands.

### *Marfa basin, Southwest Texas*

Several independents are beginning to chase a basin-centered gas play and other conventional objectives in the nonproducing Marfa basin.

Courthouse records show that The Exploration Co., San Antonio, Quicksilver Resources Inc., Fort Worth, and Carrizo Oil & Gas Inc., Houston, have picked up acreage mostly in Presidio County. TXCO's block extends into Brewster County (Fig. 4).

This play, northwest of the Ouachita thrust front, is southwest of the southern Delaware basin, where a larger group of companies is making a nascent play for gas in the Mississippian Barnett shale and Devonian Woodford shale. Only a few wells have been drilled so far.

No 3D seismic survey has been shot in the Marfa basin.

TXCO has determined that the Mississippian and Devonian parts of the basin fill consists of 400 to 1,200 ft of shale with total organic carbon values of 2 to 10 and thermal maturity values of 1.6 to 2.5, putting the acreage in the dry gas window.

The thermally mature area of the basin covers only about 300 sq miles but because of the shale thickness contains a potential 357 bcf/sq mile of gas in place.

TXCO in late March was discuss-

ing participation in its 135,000 net acres with other interested parties. The company plans to reenter an old El Paso well at 10,800 ft in late 2006 and might also drill a new well, said James E. Sigmon, president and chief executive officer.

TXCO plots the top of the Barnett at 10,000 ft and the base of Woodford at 16,000 ft on its acreage.



## Operators extend search to several nonproducing, underexplored basins

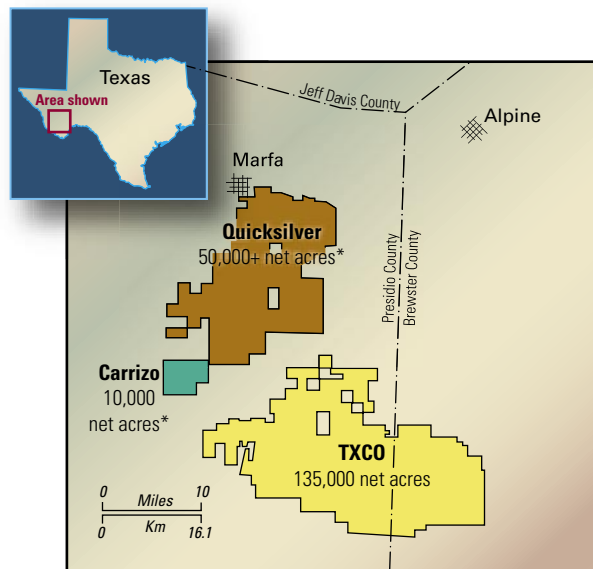
The acreage is 23 miles from the nearest gas transportation, a 6-8 in. line that serves Alpine and Marfa, and 70 miles from the large West Texas gas pipeline hub. The closer system has 6-8 MMcfd of spare capacity.

The Marfa basin had two small oil discoveries in the late 1990s. Steve Knox Oil Co., Edmond, Okla., completed a well 14 miles southeast of

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## EARLY MARFA BASIN PLAYERS



\*Per recent public postings.  
Source: The Exploration Co.

Fig. 4

Marfa that produced 33.5° gravity sweet crude at 3,800 ft in the “Road Canyon” formation to open Riata field.

Montgomery wrote that the names Road Canyon and a deeper, wet “Skinner Ranch” section were “tentatively applied to an interval of interbedded sands and carbonates of Guadalupian (Permian) age, regionally equivalent to the San Andres-Grayburg/Cherry Canyon units of the Delaware basin” (see map and chart, OGJ, Nov. 10, 1997, p. 87).

Another well 40 miles west of Marfa made a 5 b/d oil completion in Cretaceous above 3,000 ft.