

## Turkmenistan tests 'encouraging' oil strike

Another former Soviet central Asian republic has reported a highly encouraging oil strike that provides hope for halting or even reversing a long decline in its oil production.

Turkmenistan reported it completed a well flowing more than 1,300 b/d in the central part of the Kara-Kum desert. Saparmurad Niyazov, the republic's president, recently predicted "black gold will become one of our nation's main riches."

The Turkmenistan discovery follows a huge oil strike in neighboring Uzbekistan's sector of the Fergana Valley. A blowout last March near the Uzbek town of Mingbulak reportedly flowed 62,000 b/d to as much as 146,000 b/d from about 17,000 ft with a pressure of 10,300 psi (OGJ, Apr. 27, p. 25).

Uzbekistan is counting on that discovery to improve its oil production prospects immensely.

### Kara-Kum discovery

Moscow's Izvestia newspaper reported Turkmenistan's "central Kara-Kum" oil strike but did not pinpoint its location. The central portion of the Kara-Kum desert has not been a significant hydrocarbon producing area. Only a few small gas fields have been found there.

However, western geologists believe the strike is in the western part of prolific Amu-Darya gas basin, which to the east produces light crude from subsalt Jurassic zones. Turkmenistan also recently drilled an oil discovery in the northern foothills of the Kopetdag Mountains on the southern edge of the Kara-Kum desert.

Probably more important to Turkmenistan's oil fortunes is a meeting

conducted last week between some of the country's top petroleum industry managers, along with government officials, and Wavetech Geophysical Inc. in Denver. The meeting explored participation by western firms in developing and reviving about 30 oil fields in western Turkmenistan.

The fields are believed to hold at least 2.6 billion bbl of remaining recoverable reserves. Turkmenistan lacks equipment to produce the reserves. Many wells are idle.

Besides the big, older fields in western Turkmenistan, newer finds, previously regarded as small or medium size and stretching along the Caspian Sea coast south of the Cheleken Peninsula, are believed to hold reserves several times larger than originally estimated.

### Offshore fields

Offshore, Turkmenistan has defined at least nine oil and gas/condensate fields along its sector of the Apsheron Sill, an underwater structure extending across the Caspian from the Cheleken Peninsula to Azerbaijan's Apsheron Peninsula.

Azerbaijan has found several giant fields on its share of the Apsheron Sill. Offshore fields on the structure provide most of Azerbaijan's oil.

But while Turkmenistan's first offshore discovery was made in 1968, the republic's Caspian crude and condensate production is believed to be less than 10,000 b/d, with gas flow also quite small. Turkmenistan petroleum industry officials and Wavetech believe offshore fields along the Apsheron Sill can increase hydrocarbon production many fold, given adequate drilling and maintenance equipment.

South of the Cheleken Peninsula, offshore exploration has been unsuccessful. But Turkmen explorationists and Wavetech believe the geology in that area is favorable not only for large gas/condensate discoveries but for major oil finds as well.

### Turkmenistan production

Official figures show Turkmenistan's oil flow fell from 111,000 b/d in 1990 to 108,000 b/d in 1991. The republic produced 120,000 b/d in 1985, 160,000 b/d in 1980, and 312,000 b/d in 1975.

Although it is still the second largest gas producing republic in the Commonwealth of Independent States, Turkmenistan's gas flow dropped slightly from 3.1 tcf in 1990 to less than 2.98 tcf in 1991. In contrast to oil production, by far the greatest share of Turkmenistan's gas comes from the republic's eastern sector, mainly the Amu-Darya basin.

Commercial oil production in Turkmenistan began in 1933 following discovery of giant Nebit-Dag field east of the Cheleken Peninsula. Other major onshore oil finds in the same area followed after World War II, including Kum-Dag (1948), Kotur-Tepe (1956), and Barsa-Gelmes (1962).

Turkmenistan has drilled a substantial number of wells below 5,000 m (16,404 ft) in hopes of finding deep hydrocarbons. In the past, much of the republic's crude has come from zones less than 2,000 m (6,562 ft) deep, and a considerable portion has been recovered from shallow zones at less than 1,000 m (3,281 ft).

In declining giant Nebit-Dag field, oil pay zones range from 385 m (1,263 ft) to as deep as 5,200 m (17,060 ft).\*

## Lagoven finishes seismic program in E. Venezuela

Lagoven, a subsidiary of Petroleos de Venezuela (Pdvs), has completed the first stage of an exploration program in a swampy region of eastern Venezuela.

A seismic survey, carried out between the city of Maturin and the Gulf of Paria, took 600 workers 1 year to finish, said Freddy Chiquito, Lagoven geology department manager. The project involved about 2,708 km of seismic lines, averaging 4.6 km/day.

Next on the schedule are interpreta-

tion of data and selection of drillsites. The target is light to medium oil.

The rugged region in eastern Venezuela covers about 10,000 sq km. It is often flooded, depending on the time of year. Water depths range from 20 cm to 1 m.

Helicopters and swamp buggies provided transportation for crews and equipment.

The project marked the first time a seismic survey was carried out in the wake of a gravimetric survey in Vene-

zuela. Gravimetric data showed that oil bearing structures north of Monagas extended east into the swamp.

Other signs that the swamp might hold oil reserves are oil zones identified north of Monagas at El Furrial, El Corozo, Boqueron, and San Vicente. Nearby, Pdvs affiliate Corpoven has developed Musipan and El Tajero fields.

In addition, the Guanoco Asphalt Lake lies northeast of the region. \*