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By Carlos Navarro

In late May, the state-run oil company PEMEX announced the discovery of what it considers a "significant" reserve of natural gas in the deep waters of the Gulf of Mexico. While the size of the reserve was impressive, some analysts pointed out that low prices, high extraction costs, and an uncertain global market for natural gas take some of the luster off the discovery.

The natural gas was discovered while PEMEX was exploring for new supplies of crude oil at the Piklis-1 well, which, at a depth of 5.4 km, is the deepest that PEMEX has drilled to date. The reserve appears to contain between 400 and 600 billion cubic feet of gas.

In announcing the discovery, Carlos Morales Gil, director of the PEMEX subsidiary Pemex Exploración y Producción (PEP), said the new find, when added to proven reserves in the nearby Lakach field, would greatly increase the PEMEX reserves. By some estimates, recent discoveries could boost PEMEX deposits by almost 1 trillion cubic feet. "Surely, we can produce 700 to 800 million cubic feet of gas per day from this zone," Morales told reporters.

The Piklis-1 well is in a zone known as Cordilleras Mexicanas, about 144 km northwest of the port of Coatzacoalcos in Veracruz state.

PEMEX used the semi-submersible Bicentenario platform to make the discovery. The huge rig, leased from the Mexican company Gremsa, was constructed by South Korea’s Daewoo Shipbuilding and Marine Engineering company. "This is the first well perforated by PEMEX with the use of positioning equipment," PEMEX said in a communiqué.

**Discovery elicits mixed views**

Opinions varied on the significance of the new gas find, because of the uncertain global market for gas. There was very positive feedback from the Asociación Mexicana de Gas Natural (AMGN), which said the discovery represents another building block for Mexico’s gas industry. "Natural gas is gradually gaining value independent of crude oil. And industry is relying on natural gas more frequently as a substitute for fuel oil, which is three times as expensive," said AMGN president Agustín Humann.

Mexico’s natural-gas production has increased gradually since 2004, with production averaging just over 7 billion cubic feet a day in 2009 and 2010. The average was estimated at 6.8 billion cubic feet a day in the first four months of this year.
But others said the global market for natural gas reduces the significance of the recent find. "Gas is not what you need to be finding; you need to be finding oil," George Baker, head of the Houston-based consulting firm Energia.com, said in an interview with Dow Jones newswires.

Morales Gil confirmed that PEMEX is not likely to spend much on developing natural gas but left the door open to the possibility. He said the company would monitor the behavior of gas prices, particularly futures at the New York Mercantile Exchange (NYMEX), to determine whether to commit any funds to develop natural-gas reserves.

But recently the New York futures market trends dictate otherwise. Natural-gas futures at the NYNEX averaged about US$4.20 per million British thermal units in the first quarter of this year, a 16% decline from January-March 2010. The decline was partly the result of the start of new wells in the US, which have created excess supply in the North American market.

Rather than spending money on developing natural gas, PEMEX is likely to devote more resources to build up its reserves of crude oil, given the sharp decline in reserves in the Cantarell oil field, which has traditionally been Mexico’s primary source of crude oil (SourceMex, March 7, 2007 ID 051487 and Sept. 24, 2008 ID 051014).

Another factor working against developing the new find at Piklis-1 is that the field appears to contain dry or non-associated gas, which means there were no associated reserves of crude oil. Recent studies reveal that PEMEX has found primarily natural gas in the nearly dozen deepwater wells it successfully explored since 2004.

"Despite Piklis-1's sizeable gas discovery, it remains the case that PEMEX has yet to strike light crude oil at a deepwater well," said the industry newsletter Oil and Gas Insight. "That quest will now turn to the Talipau-1 wildcat well, which PEMEX intends to drill with the same semi-submersible rig that it used at Piklis-1."

**PEMEX sees future in deepwater activities**

PEMEX officials remain optimistic about development possibilities in the deep waters of the Gulf of Mexico following the discovery of the natural-gas field at the Piklis-1 well. "This confirms the great hydrocarbon potential of the Cordilleras Mexicanas' geological province," the oil company said in a statement.

In an interview with the Mexico City daily business newspaper El Economista, Morales Gil said PEMEX plans to increase its investments in deepwater activities to about 14 billion pesos (US$1.2 billion) this year, which is 70% above 2010 expenditures. The funds will be used to acquire and put in place the latest technology, including the new generation of platforms that are currently in use along the shores of Veracruz.

Some analysts said PEMEX is benefiting greatly from its venture into deepwater exploration, although no production is yet in place there. PEMEX engineers have entered into cooperative agreements with engineers from Norway’s Statoil and Brazil’s Petrobras, which provided valuable insights on deepwater exploration. "The discovery shows that PEMEX is moving along the learning curve," Alejandra León, an analyst at Cambridge Energy Research Associates in Mexico City, told Market News International.
PEMEX is hoping to use its new flexible-contract model to attract major oil companies, which have needed technology, to participate in exploration projects and extraction of oil reserves deep beneath the ocean floor. The flexible contracts were made possible under reforms passed in 2008, allowing for performance-based bonus payments (SourceMex, Oct. 29, 2008 ID 050987). Opposition parties challenged the legality of the contracts, but the high court validated them in a ruling handed down late last year (SourceMex, Dec. 15, 2010 ID 078087).

But the new contracts still might not be attractive enough, since they forbid the use of crude oil as payment and prohibit the type of shared-risk contracts common on the US side of the Gulf.