

# Mexico opens the door to foreign investment

**After 75 years of monopoly, Mexico is initiating reforms that will allow foreign participation in domestic oil and gas exploration and production.**



By Paul Delaire, ABS; Tom Nolan and Terry Hickey, ABS Group; and Stephen Gordon, Clarkson Research

After discussions and debates that have spanned decades, Mexico is in the process of implementing wide-ranging energy reforms that will end a national monopoly of oil and gas exploration and development that has blocked foreign participation for 75 years.

Mexican President Enrique Peña Nieto presented the constitutional reform to Congress on 12 August 2013. It was approved by the Senate on 11 December and by the Chamber of Representatives the following day. Mexico declared the reform constitutional on 18 December and published it in the official log of the Mexican Federation.

With these reforms, the playing field is about to change. For companies making their first forays into the country, this will pose challenges. For others with an established presence, the recent developments open the door to enormous opportunity.

As a company that has been active in Mexico for 58 years and has had a presence in the country since 1898, ABS falls into the latter category. It has been the preferred class society in the country for decades and has classed more than

**A 6th generation DP semisubmersible, Pemex's *Centenario GR* is capable of drilling in 3000m (10,000 ft) water depth. More than 85% of the rigs working offshore Mexico are classed by ABS.** Photo courtesy of Grupo R

85% of the rigs working in the Mexican offshore sector.

## Domestic Production

Mexico has nearly 10.5 billion bbl of proved oil reserves and approximately 17.3 Tcf of proved natural gas, but its legacy fields, the giant Cantarell and Ku-Maloob-Zaap in the Bay of Campeche, are in decline despite increased investment by state oil company Pemex. In fact, most, if not all, of Mexico's largest fields are now past their production peak in their present form and will require fresh investment to extend production.

Mexico's annual petroleum output has declined gradually in the last decade. Since reaching its peak of approximately 3.8 MMb/d in 2004 (about 74% of which came from offshore fields), production currently stands at about 2.9 MMb/d, with the offshore contribution now making up only 65%.

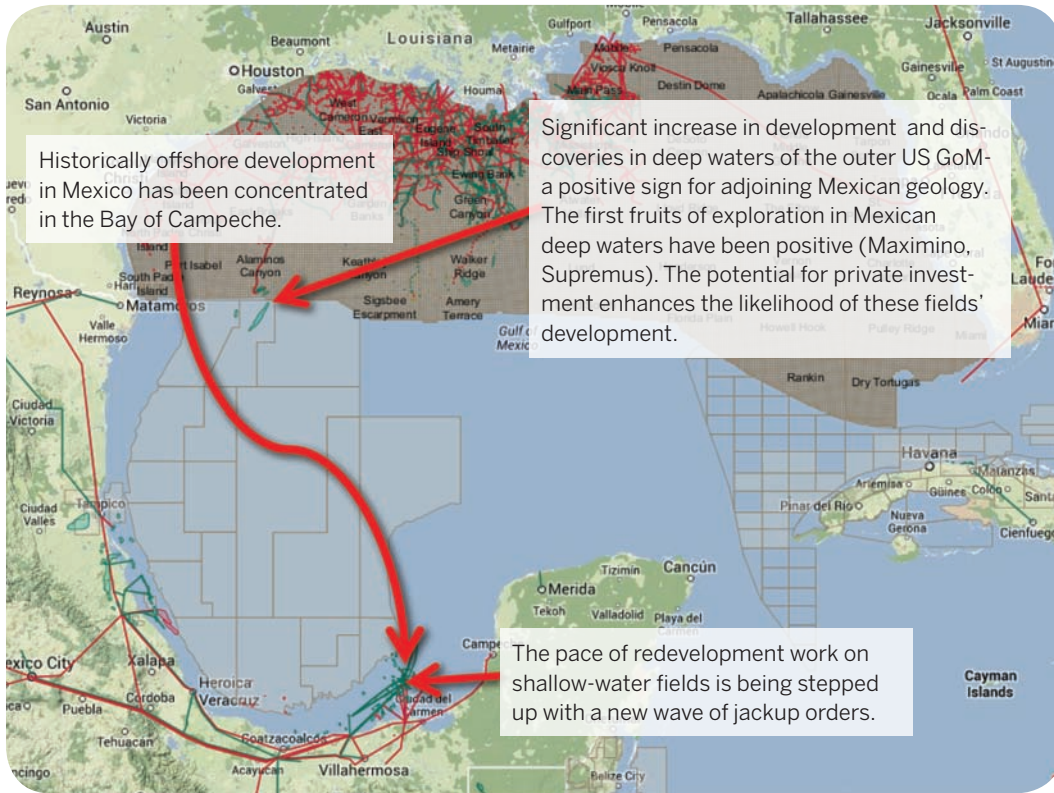
With the less complex fields already in development and many fields in decline, oil exploration and production is moving into new areas that present technical challenges. As Mexico opens its doors to foreign operators, the country will begin to

lay the foundation for the technology transfer it needs to move into these frontiers.

## Investment

The Pemex Business Plan, for the period 2010-2024, indicates a 20% increase in annual capital expenditure (capex) between 2010-2019, rising from \$25 billion to more than \$30 billion. Approximately 75% of that total will go toward exploration and production (E&P). The national oil company (NOC) is continuing a wildcat drilling program in the deepest sector of the Gulf of Mexico (GOM) close to the US/Mexico maritime divide, in the Perdido Foldbelt. Some of the E&P capex also will go toward redeveloping existing shallower fields to maximize recovery.

While much of the activity in Mexico has been onshore, the country has seen one very significant offshore discovery. Pemex's Maximino, the deepest discovery in the GOM in 2013, is the third of Pemex's quartet of recent wildcat discoveries in the Perdido Foldbelt area, preceded by the Trion discovery in August 2012, and the Supremus discovery in October 2012, and followed by the



**While redevelopment of shallow-water fields in the Bay of Campeche moves forward, Mexico also will be investing to develop its recent deepwater discoveries.**

Source: Clarkson Research Services Report, "North America Offshore Activity to 2020"

Exploratus find in January 2014. All of these potential developments are likely to require substantial foreign investment and technical experience to reach fruition.

Pemex's drive to arrest offshore production decline has contributed to rising drilling rig deployment in the Mexican GOM. As of February 2014, there were 43 jackups active in the area, up 26% from the beginning of 2013. Five additional mobile offshore drilling units (MODUs) are active offshore Mexico, and these are capable of drilling in the ultra-deep Perdido Foldbelt area.

While the active MODU fleet owned by Mexican entities consists of 15 jackups and three semisubmersibles, the MODU orderbook for Mexican companies stands at 14 units (equivalent to 78% of the active fleet) all of which are jackups. Three are scheduled for delivery in 2014, and 11 are scheduled for delivery in 2015.

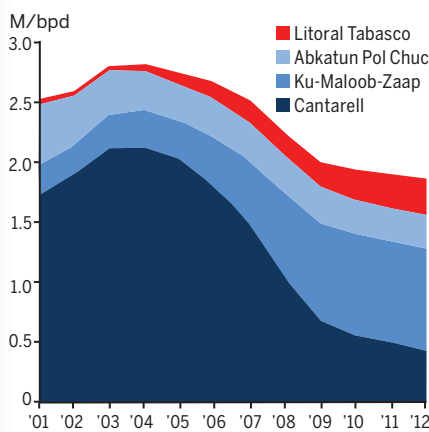
**Development Plans**

In February 2014, there were 61 producing fields in the Mexican GOM, with an average 53m (174ft) water depth. For Pemex to venture into deep water to develop its recent discoveries, it will be calling for support from international operators.

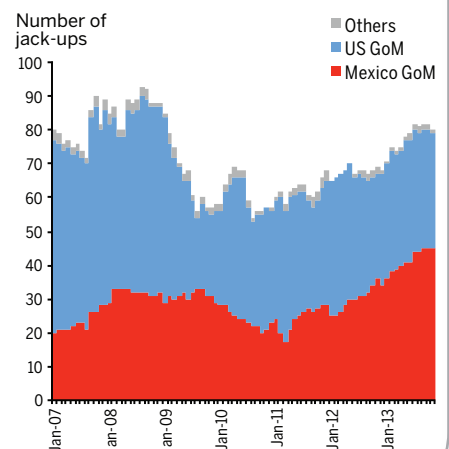
Mexican field development activity comprises a mixture of redevelopment on existing fields and new field developments designed to provide production volumes to compensate for the steady drop in production from the Canterrell and Ku-Maloop-Zaap mega-complexes, where output is now in a process of managed decline. Despite the falloff in production from Mexico's existing large fields, however, the country presents

major opportunities for vessel and structure operators, with major requirements expected for both redevelopment and new projects. The recent round of jackup ordering, for example, has included high-specification units destined for Mexico. And substantial support vessel needs also are expected to be generated by new project activity such as that on the Ayatsil and the Lakach developments in the southern sector of the Mexican GOM.

**Key Mexican Field Production Trends**

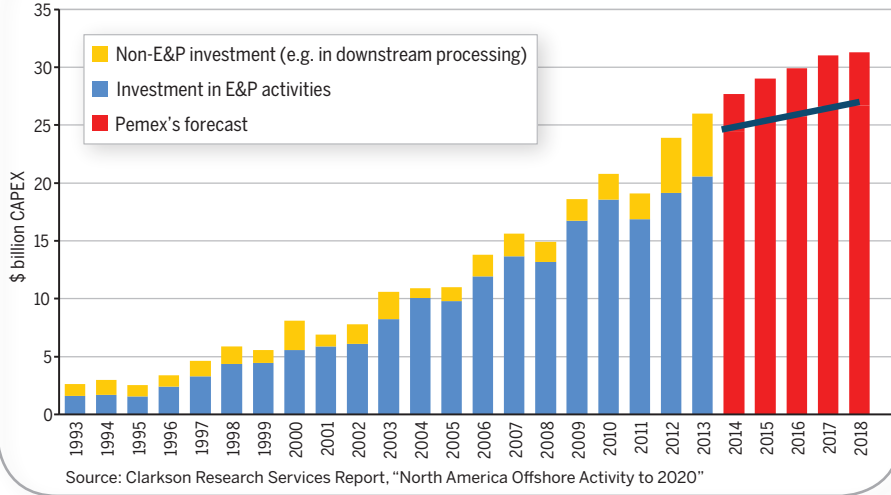


**Jackup Drilling Rig Activity in North America**



Source: Clarkson Research Services Report, "North America Offshore Activity to 2020"

## Growth Areas in Mexico



Pemex's Ayatsil heavy oil field, believed to be one of the most important in the Bay of Campeche in decades, is to be developed via four fixed platforms and a 300,000 b/d floating production, storage, and offloading vessel (FPSO).

The contract for transport and installation of the platforms was awarded to Dutch heavy lift specialist Heerema in July 2013, at an anticipated value of \$114 million. Pemex is currently believed to be considering tenders for the FPSO, with a projected timeline for first oil from the field in 2015 or 2016.

The first deepwater project being undertaken by Pemex is the Lakach project, which is now proceeding, following some delays in authorization in light of conflicting reserves reports and worries over the weakness of North American gas prices. A 2015 startup is being targeted. A subsea development of a group of four fields in the Catemaco Foldbelt is being planned, with a tie-back to onshore gas processing facilities. Drilling on the first wells began at the end of 2013.

Yantai CIMC Raffles Offshore secured an order from Malaysia's Thaumass Marine, to build a Taisun 200B-design gas compression jackup unit, due to be delivered in 2015, and expected to work on the Ku-Malooob-Zaap heavy oil complex, to handle natural gas, for Pemex, on eight-year charter, with options.

These examples illustrate attempts Pemex is making to diversify its production portfolio beyond its aging fields.

Doing so is requiring the adoption of complex subsea and mobile production mechanisms, which requires significant capital investment. At the same time, the NOC also is likely to generate requirements for the chartering of several other mobile structure types, including drilling units and support vessels. In some cases, this is generating sufficiently long-term needs that are likely to lead to newbuild ordering to meet the requirements.

### Opportunity

The Mexican government is aware that energy reform in Colombia (2003-2012) has reduced the unemployment rate from 17% to 11% and increased oil revenue 80%, and that Brazil was able to double its oil revenue from 2000-2012. Mexico is optimistic that its own future will be brighter as a result of national energy reforms.

Like many countries, Mexico would like to move away from its dependence on energy imports and toward energy independence. The hope today is that by inviting other countries to help, Mexico can produce more of its considerable domestic reserves.

Toward that end, Mexico is evaluating energy investment across the board and is weighing the probable return on those investments for all types of energy production, taking into account that technology transfer will be vital to its success. **OE**



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