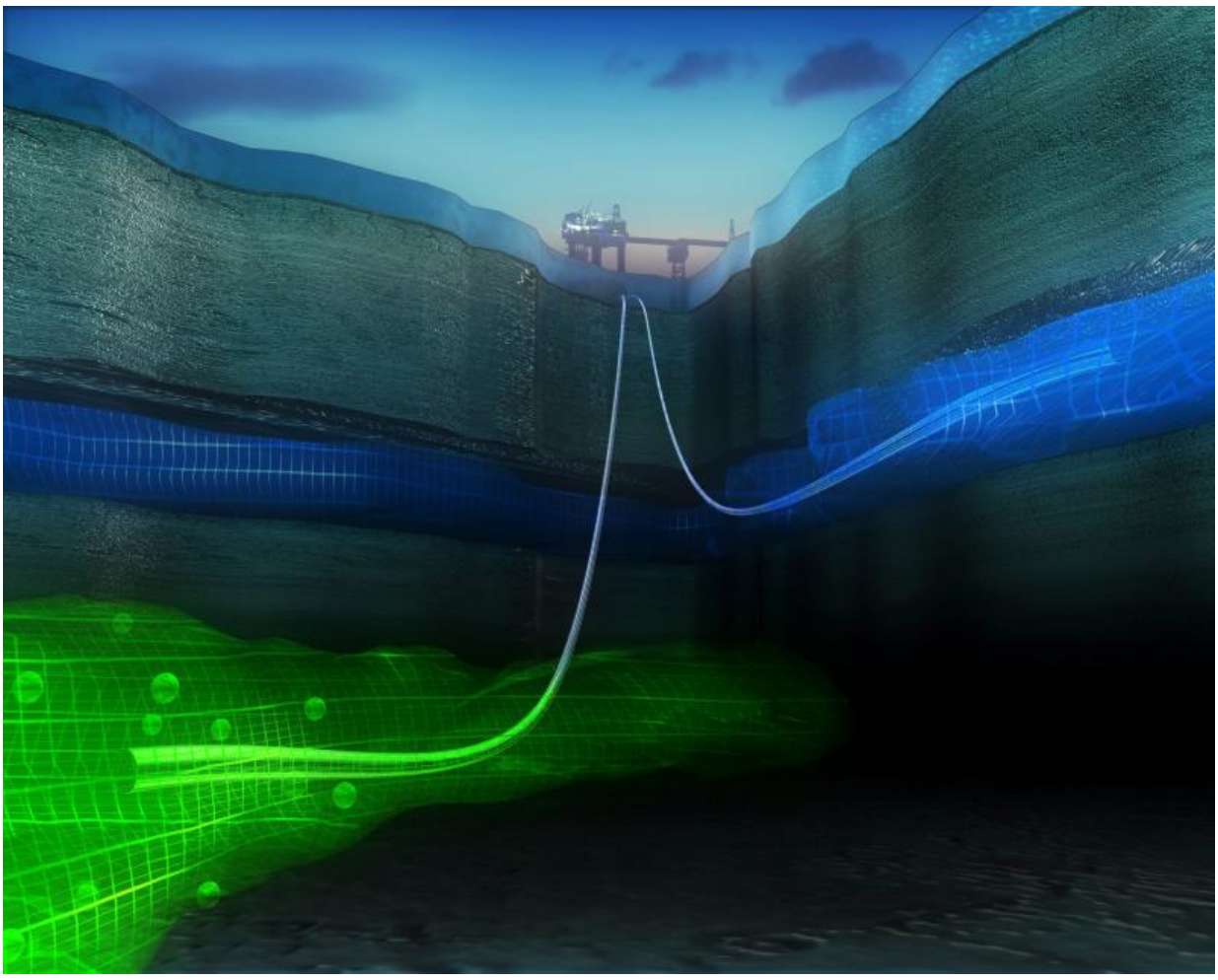
Using recovery methods, oil production in Mexico would increase by nearly 800 thousand barrels per day

May 26 2015

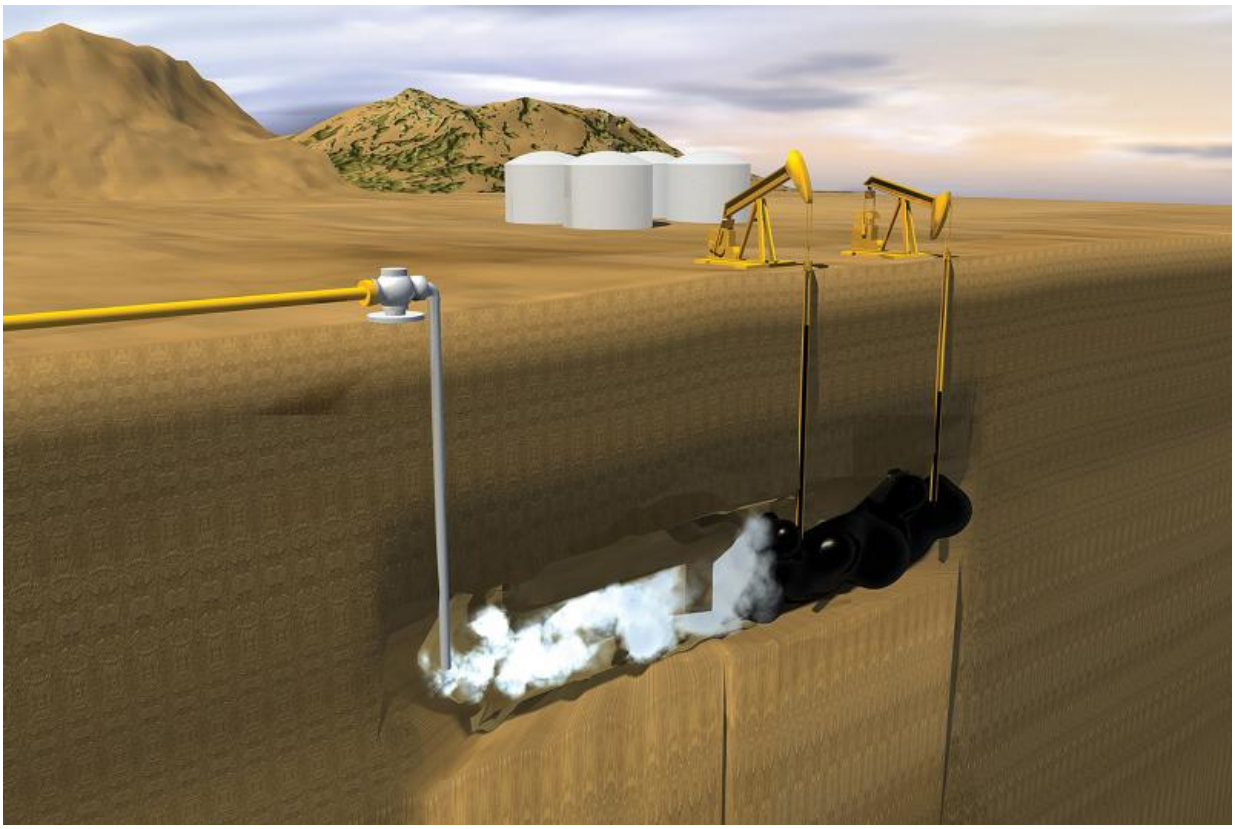


Mexico has a wide range of oil fields; however, most of them are mature, which makes it difficult to maintain oil production. Therefore, advanced and improved recovery methods should be implemented to increase reserves and production of supplies in the country, says Edgar René Rangel Germán commissioner in the National Hydrocarbons Commission (CNH) of Mexico.

Enhanced oil recovery (EOR) is a set of methods that uses external fluids such as gas and soluble agents like water to recover the oil can not be extracted by conventional means and is divided into four main groups: thermal, chemical, miscible gas injection and microbial.

"There has been oil in the country for many decades. The problem is how to bring it to the surface. If methods of advanced recovery (IOR) and enhanced recovery (EOR) are applied, it could increase oil production from 500 thousand to 800 thousand additional barrels per day. Currently, 2.33 million barrels per day are generated; however, Mexico still lacks sufficient projects of this type," says Rangel Germán.

He adds that only few projects have been implemented and highlights the ones based on nitrogen injection to maintain pressure in the Cantarell and Ku-Maloob-Zaap complexes and the use of steam at Samaria Neogene to lower the viscosity of extra-heavy oil which allows it to flow with more ease, plus some pilot tests with chemicals and gas fields.



Germán Rangel states that the IOR-EOR method represents an excellent alternative for oil remaining at many of our carbonate, fractured or extra-heavy oil reservoirs.

One example is the Chicontepec fields, where implementing EOR and IOR-injection of hydrocarbon gas or carbon dioxide (CO2) recovery could increase due to the adverse conditions of the porous medium that makes these wells lose productivity.

"The new oiling companies in Mexico, a result of the energy law reform, certainly include the IOR-EOR in their development plans in the fields

that will operate through contracts signed with the CNH. For example, mature fields to be tendered soon offer a great approach for Mexican companies, which also use these techniques, since the maximizing of the oil recovery factor is priority."

He points out that globally, companies are also seeking geological structures with good seals that can store CO2, helping to mitigate climate change and produce more oil by EOR, conferring a double benefit. Such projects could also be done in Mexico.

On the other hand, the commissioner warns that aggressive strategies should be triggered to train experts in each of the major categories of IOR-EOR. "We have to train national professionals to take charge of our camps in the near future."

Germán Rangel points out that this is the main challenge facing the country. The second is the development, assimilation and deployment of

these technologies; and the third is the promotion of infrastructure for IOR-EOR projects.

Provided by Investigación y Desarrollo

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