BP Advances in Deep-sea Seismic Imaging Technology





BP has announced a breakthrough in seismic imaging that has identified more than 200 million barrels of additional resources at BP's Atlantis field in the deepwater Gulf of Mexico. The innovation has enabled BP to enhance the clarity of images that it collects during seismic surveys, particularly areas below the Earth's surface that complex salt structures previously obscured or

distorted. The sharper seismic images mean that BP can drill new development wells in deepwater reservoirs with higher confidence and accuracy. As a result, BP is deploying this technique to fields elsewhere in the Gulf of Mexico as well as in Azerbaijan, Angola and Trinidad and Tobago.

This technological breakthrough has essentially allowed the team to find a new oil field within the existing Atlantis field, according to Bernard Looney, chief executive of BP's global upstream business.

Efficient Data Analysis

Proprietary algorithms developed by BP's Subsurface Technical Center were applied on seismic data run at BP's Center for High Performance Computing, one of the largest supercomputers in the world dedicated to commercial research. The algorithms allowed data that would normally take a year to be analysed to be processed in only a few weeks, accelerating BP's development decisions for the field.

The algorithms enhance a technique known as Full Waveform Inversion (FWI), which matches seismic simulations with existing seismic data to produce high quality subsurface images.

https://www.hydro-international.com/content/news/bp-advances-in-deepsea-seismic-imaging-technology