

Porosity Synthetic Logs To Evaluate New Production Zones

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ABSTRACT

In Polvo field were drilled 50 wells and actually just 10 are in production to develop two set of reservoirs: Albian calcarenites of Quissamã formation on East portion of the block and Cretacic sandstones turbidites of Carapebus formation on the west. All wells were completed with 9 5/8" casing and a production section with horizontal open hole gravel pack.

Polvo produce 9500 bopd currently and differents studies are going on to increase the production and extend the life cycle of the field. This led to 3 workovers to open new reservoirs behind the 9 5/8" casing.

The lack of information was the major problem to define the best prospects to perforate, increasing uncertainty to the technic and economic evaluation.

To solve this problem, mathematic models and empiric formulas, validated with the sedimentologic/estratigraphic model, were used to rank the best prospects.

Cased hole logging during the workovers confirm all porosity logs pedicted and helped to define the final intervals to be perforated.

The main result of this studies were:

- Avoid drill new wells to test and produce this reservoirs; and
- Help to define the intervals to be perforated.