

## **(4) New Technique of Decline Curve Analysis Using Excel**

### **ABSTRACT**

A new technique has been developed for estimating Recoverable Reserves with accuracy of 97% or greater, which gives it a very high reliability.

Unlike conventional techniques, it is not based on the daily production curve. It uses cumulative production as target curve.

It exploits the benefits of the Microsoft Excel program for obtaining an automatic adjustment of cumulative production, without the subjectivity derived of the evaluator.

This technique has been used in dozens of reservoirs in Venezuela, with great success, and its application has spread increasingly. In some cases, accuracies 99% were obtained.

For perfecting the technique, it has been complemented with the water cut adjusting.

### **WHO SHOULD ATTEND**

The workshop is aimed at all engineers involved in the oil industry, responsible for reserve calculations and / or field development.

### **COURSE OBJECTIVES**

After the workshop, the participant will be able to apply the new technique of Decline Curves, allowing estimate recoverable reserves in reservoirs which have enough production history, with great precision, regardless of the reservoir matrix composition.

### **CONTENT**

- Review of Permeability Curves.
- Fundamentals of Decline Curves.
- Examples of application of the new technique.
- Application of the technique in cases provided by the participants.

### **INTENDED FOR**

Reservoir Engineers, Geologists and Geophysicists, responsible for reserve calculations, and especially to the engineers in charge of field development.