

## **ABSTRACT**

### **DETERMINATION OF HYDROCARBON RESERVES, “X” FIELD, SOUTH SUMATERA BASIN, LOWER TALANG AKAR FORMATION BY THE VOLUMETRIC METHOD BASED ON THE LOG DATA AND SEISMIC DATA**

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Hydrocarbon is a natural resource that has an important role in human life. Benefits of hydrocarbons is so many. “X” field is one field that explored has even produced reserves of hydrocarbons there in. which is formed by sandstone as the reservoir in this field. The purpose of this research is to be estimates the reserve volume in the field “X”.

By firstly calculate petrophisic parameters using log data. The next is determine the cut-off of every parameters calculation for determining the netpay and net to gross hydrocarbon as a limitation that can be produced, reserve calculation is determined by the volumetric method in which the volume of research in the area get from seismic data.

Petrophysics parameters which has been distributed such as Volume of shale ,porosity, and water saturation, .reservoir has porosity ranges from 16 %, water saturation ranges from 41 % . Reserve calculation is processed to determine the hydrocarbon reserves that accumulated in this field .Hydrocarbons contained in the reservoir is oil with reserves amounting to 131264.41 MMSCF

Key words : Lower Talangakar Formation, Porosity, Water Saturation, Reserves.