ABSTRACT

COMPARISON TIME-DEPTH CONVERSION METHODS OF SANDSTONE RESERVOIR AT MD FIELD, TARAKAN BASIN

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Time-depth conversion is important in seismic interpretation. Predictions depth is very critical. Interpretation depth errors can be fatal, especially as a result will occur in the drilling program conducted and economic decisions to be taken. This study has been carried out to time-depth conversion using three methods, that is stacking velocity and two methods of statistical analysis, namely linear regression and single equation. From the research results have been obtained advantages and disadvantages of each of these three methods using both qualitative and quantitative. Stacking velocity is the best method in terms of the depth error at MD field, error value is 8.70 ft, linear regression error are 15.04 ft (well logs tops) and 56.07 ft (checkshot). The single equation method error is 34.71 ft (well logs tops) and 168.58 ft (checkshot). In the MD field, Stacking velocity method is the best method and suitable for converting time to depth. Statistical analysis of linear regression method is superior to the single equation methods.

Key words: Conversion, Linear regression, Single equation, Stacking velocity.