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Exploration and Production Geology

In the course of exploration. This research work was carried out to evaluate the hydro-carbon initially in-place in the otuo field. The study showe that the lithostratigraphic units of the field consist of alternating sand/shale units with an upward diminishing shale: sand ratio. Five oil-bearing sand units 1st, 2nd, 3rd, 4th and 5th were identified using the logs but no appreciable gas was found. The gamma ray log responses show that, the 1st, 2nd and 5th sand exhibit the characteristic of mainly the barier bar and barier foot sands with intemittent clays. The 3rd sand however, are associated mainly with point bar depositional environment.

All parametres for the volumetric analysis of hydro carbon were deduced from well logs. The 4th sand unit has the lowest mean porosity values. The structural contour maps of the five reserviours revealed that the reserviour surfaces are anticlinal. The main trapping mechanism in the otuo field is a series of normal growth faults. The otuo field was observed to be an oil field with an estimated oil volume in place of 4.0 x 108 barels.

Developing and production involves a highly skill method. The modern day geologist explore, exploit and also preserve, conserve and protect the environment. This is achieved by conversing for success, application of modern technology & proper funding and good inter-personal, inter-communal, inter-regional & international relationship.