

A Life with Oil Rigs by David Bayly

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After qualifying as a civil engineer David started work doing the structural side of normal buildings. By chance he and his boss were asked to give advice on a jacket for an offshore oil rig. He explained that a jacket is the frame that holds the huge legs in place as they are driven into the sea bed and on which the oil pumps, drills and accommodation unit will sit. As a result David took his civil engineering skills in a new direction for the rest of his professional life.

At this point he talked about the theory of drilling, pumping and separating the oil from sand and water. Once the well is bored and oil is found the well is connected to the production platform. This may mean many of the wells having to flow through curved bores. These were drilled using a wooden wedge lowered down to divert the drill. Today this is achieved with servo motors and electronics.

After the Piper Alpha disaster David's career took another turn as he then spent the next 20 years in Norway working on risk analysis. Before any construction or activity takes place a safety case is written for inspection. Much of our oil and gas comes from the Frig field situated halfway between the UK and Norway. These natural resources come ashore in Norway and then pumped to the UK. David has been involved on the risk analysis for many of the installations in the Frig Field.

When exploration licences are granted, companies have to agree that all traces of oil extraction are removed and the sea bed left clean. David worked on the removal of the vast structures left behind in the North Sea. 98% of the structures have gone, leaving a few concrete structures which are lit and well-marked but which are completely non-toxic and which give no hazard.

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