

fyi Around the Oil Patch

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Flexbar participates in 'Best Practices' study

Study: Sinkerbars helped reduce tubing failures by 61 percent

Since producers cannot control the market price of oil, they must concentrate on reducing costs by becoming more efficient. During the last few years, the oil industry has adopted the term "Best Practices" to describe the most efficient production methods.

Flexbar, Inc. recently participated with a one of the most active Permian Basin independents in a Best Practices program study to determine how certain types of problems could be reduced by using the most efficient production methods, including the use of sinkerbars. The study is described in detail in a paper written by Scott W. Long, P. E., SPE of Flexbar, in collaboration with other participants. The study is also published in the November issue of *World Oil Magazine*. The paper reveals that the use of sinkerbars contributed to a 61 percent decrease in tubing failures, a 35 percent reduction in rod parts and a six percent cut in pump repairs over the two-year test period.

A total of 150 wells, all in one field, were selected for evaluation of this Best Practices program. The average pump depth is 6,850 feet. The average oil cut is 35 percent and the water cut is 65 percent. Production tubing is 2-3/8" inside 4-1/2" casing. Average stroke length is 86" and average pump speed is 8.0 strokes per minute. Producing intervals are located from 7,000' to 8,700'.

The five-step program began with a complete pumping well diagnostic analysis of existing wells. Second, modifications were made on pump diameters, strokes per minute, stroke length, tubing anchor catchers and downhole gas separation.

The third step involved the re-evaluation of rodstring designs and the installation of sinkerbars to manage downhole rodstring buckling. Fourth, the producer installed pump-off controllers on a portion of the wells to manage production rates, optimize run time and monitor equipment performance.

Finally, follow-up well-site diagnostic analyses were done after several months of operation to evaluate initial analysis, original well work and to implement further modifications.

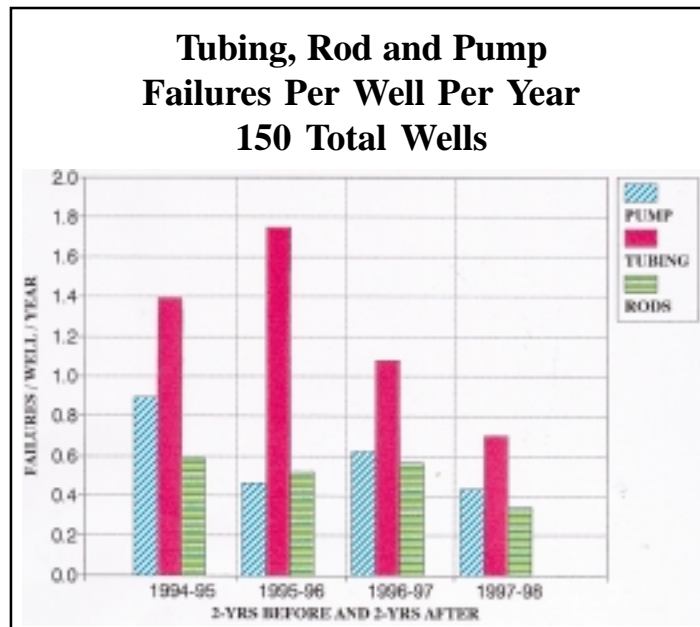
Flexbar sinkerbars were installed on all 150 wells during the two-year test period.

The results were impressive. For tubing leaks, failures per well per year (FPWPY) decreased from 1.75 in 1995-96 to 0.69 in 1997-98, a drop of 61 percent. FPWPY for rod parts dropped from 0.52 in 1995-96 to 0.34 in 1997-98, a 35 percent reduction. Pump repairs had a FPWPY of 0.46 in 1995-96, falling to 0.43 in 1997-98, a 6 percent cut.

Expense reductions such as these can result in a very short term payout when the upfront expenses are capitalized. Lower operating costs also increase the economic life of the well.

For a complete copy of this paper and for information on how sinkerbars can be part of your Best Practices program, call Flexbar.

Flexbar, Inc. designs and manufactures sinkerbars. They offer other products along with custom engineering services and rod string analysis. The phone number is 550-4920.



This graph reveals the reduction in rod parts, tubing failures and pump repairs partially due to the installation of Flexbar sinkerbars to the rod strings of 150 wells in 1996-97.