Case study: Wheeler County, Texas

LATIDRILL water-based fluid system reduced total mud costs by $75K USD per day in Texas Panhandle well

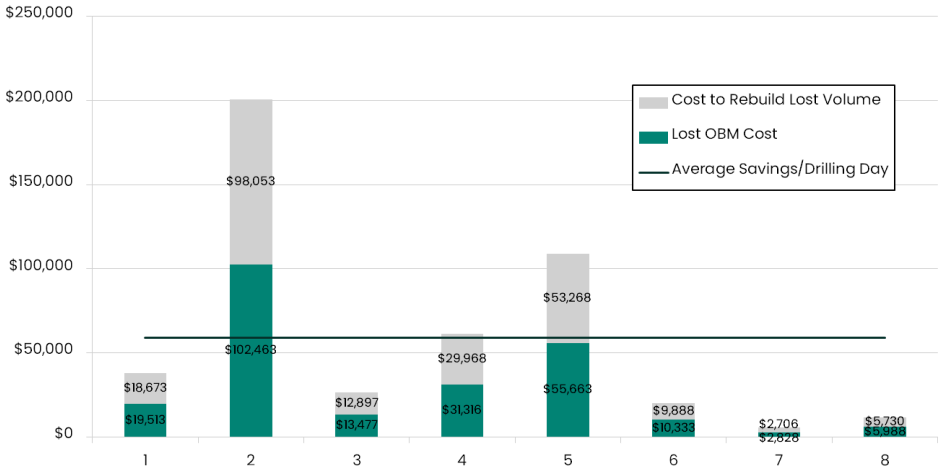
The Baker Hughes **LATIDRILL™ high-performance, water-based drilling fluid system** was used on a development well in Wheeler County, Texas. Because of high lost circulation potential in the Granite Wash play, Baker Hughes recommended the LATIDRILL system as an alternative to the oil-based mud (OBM) traditionally used in these wells.

Because of its lubricious nature, the LATIDRILL system provides comparable fluid characteristics to OBM without the need for a diesel or mineral base oil. Fluid losses in this formation typically occur through lost circulation or seepage. The LATIDRILL system helped the operator avoid this problem, providing a more cost-effective alternative.

During drilling, the rig generator shut down unexpectedly, and crews were unable to restart it for 9 hours. All pipe movement was stopped due to lack of power. Amid concerns about stuck pipe, the operator anticipated a potential for the complete loss of the directional assembly and was resigned to calling out fishing tools and accruing additional nonproductive time.

When the generator resumed operation, the LATIDRILL system had maintained the integrity of the wellbore, and the bit was pulled off bottom without issue. No additional measures were required, and no additional time was lost.

Compared to OBM, the water-based LATIDRILL system saved the customer $75,000 USD per day in total mud costs from downhole losses. The system also helped the operator avoid additional expenses had the drilling assembly become stuck.



Losses Per Drilling Day with Use of OBM

Challenges

- Lost circulation and seepage losses
- Differential sticking
- Rig generator failure prevented pipe movement for 9 hours
- Wellbore stability

Results

- Reduced total mud costs by $75K USD per day compared to OBM
- Delivered comparable drill times to OBM
- Maintained stable wellbore despite 9-hour shutdown