

Advances in the environmental performance of drilling fluids using changes in chemistry of drilling fluid products)

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Abstract

The use of advances chemistry to improve the performance of drilling fluids has long been part of drilling fluid research and development programs. Starting in the 1970's on through today, the importance of using chemistry to improve the environmental performance of drilling fluids has increased. There are environmental benchmarks that are targeted and these targets range from removal of known toxins, to meeting discharge permit limitations and more recently to advanced concerns such as life cycle analysis and beneficial reuse.

This review will evaluate different geographical regions and discuss the relationship between environmental testing requirements and chemistry that is used to meet the discharge limits. The review will look specifically at the issue of onshore and offshore use of synthetic based drilling fluids and demonstrate how chemistry drives environmental performance