

A Review on Various Techniques and Recent Advances in Polymeric Additives to Mitigate Wax Problems in Crude Oil

ABSTRACT

Oil and gas industry has long recognized and is continuing to face wax deposition problems, particularly, as more unconventional crudes are being produced. As time goes by, many techniques have been developed to reduce the cost to solve this challenging issue. Polymeric additives, which falls on chemical treatment categories have been extensively used and studied to improve the flow of the crude oil along the pipeline. Nevertheless, the majority of the polymeric additives have dual functions including the use as pour point depressant. This article reviews the various techniques used to improve the flow of crude oil such as mechanical, chemical and thermal treatment, and the recent advances of using polymeric additives to mitigate the wax problems.