EFFECT OF TEMPERATURE AND POUR POINT DEPRESSANT ON THE RHEOLOGY OF INDIAN WAXY CRUDE OIL

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ABSTRACT

To reduce the operating cost during production of waxy crude oil and for lowering the energy consumption and ensuring safety and cost effectiveness in pipeline transportation of waxy crude an extensive study of the rheological characteristics of crude oil is indispensible. Keeping this in view, experimental works were carried out to study the variation of rheological properties of Indian waxy crude oil without or with fatty acid ester, a pour point depressant. The dose of pour point depressants in neat waxy crude oil was varied upto 750 ppm and temperature was varied from 60^{o}C to 40^{o}C. The experimental investigations furnishes that there is significant decrease in rheological properties with the decrease in temperature and pour point as well as rheological properties decreases with the addition of pour point depressant.

KEYWORDS: Waxy Crude, Wax Deposition, Pour Point, Wax Appearance Temperature, Rheology