

ISO 13503-1:2011-11 (E)

Petroleum and natural gas industries - Completion fluids and materials - Part 1: Measurement of viscous properties of completion fluids

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Terms and definitions	1
3	Measurement and precision	2
4	Fluid preparation	2
5	Fluid preparation using shear-history simulation (optional)	3
5.1	General	3
5.2	Requirements for proper shear-history simulation	4
5.3	Conditions for sample delivery	4
5.4	Conditions for standard shear-history simulation	4
5.5	Operational considerations	4
6	Instrument calibration	4
7	Measurement procedures	4
7.1	General	4
7.2	Non-crosslinked fluids (see 2.6)	5
7.3	Crosslinked polymer and surfactant fluids	11
8	Calculation procedures	12
8.1	General concepts	12
8.2	Brief review of geometry-independent rheology versus nominal rheology	13
8.3	Limitations/problems that can produce erroneous results	14
8.4	Calculation method for concentric-cylinder viscometers	14
8.5	Calculations for optional shear-history simulation	16
9	Test report	18
Bibliography		20