



Another Viscosity of Liquids Experiment

Not all liquids are the same. Some are thin and flow easily. Others are thick and gooey. Honey or corn syrup will pour more slowly than water. A liquid's resistance to flowing is called its viscosity.

Viscosity is an important property of drilling fluids. The more viscous the fluid, the more easily it will suspend cuttings and carry them up to the surface. On the other hand it requires more pressure to pump very viscous fluids and they are harder to wash off the cuttings.

One way to test the viscosity of a liquid is to drop something into it and see how long it takes to sink.

To conduct this experiemnt you will need:

- 1. A tall glass or graduated cylinder
- 2. A stopwatch that is accurate to 0.1 or 0.01 seconds
- 3. 20 or more pebbles, all about the same size and shape
- 4. Water and at least one other liquid. Corn syrup is a good choice.
- 5. The chart below to record your results:



Time it takes, in seconds, for a pebble to sink through a liquid

trial	water	corn syrup			
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
average					

^{© 1999} Schlumberger Limited. All rights reserved. Permission is granted to make copies of this document for educational purposes only, provided that this copyright notice is reproduced in full. Visit the SEED website at www.slb.com/seed

