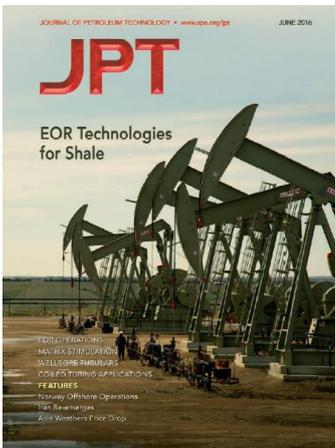


High Pressure Invasion Tester (HPIT)

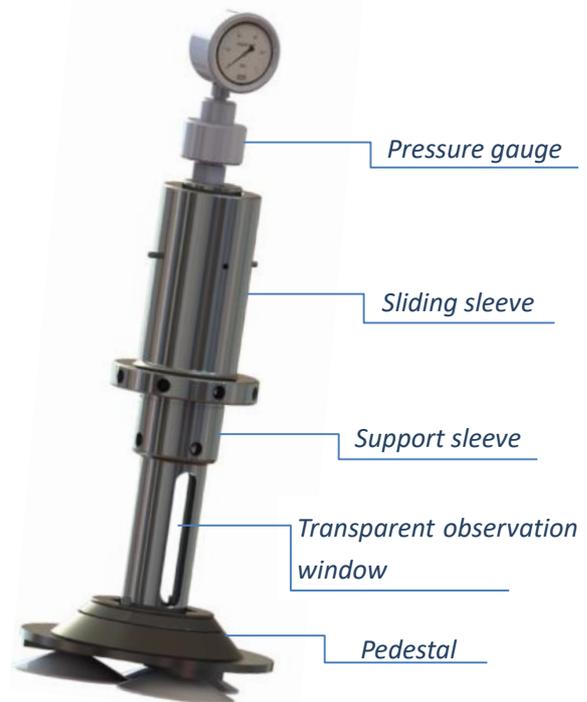


No more guess work, understanding your drilling fluids invasion or viability of LCM anywhere anytime. Vertechs proprietary HPIT instrument is designed to test invasion severity of drilling fluids. HPIT improves a traditional invasion test and creates an innovative LCM test in one convenient test apparatus. NO external energy (gas source or electricity) is needed to pressure up. HPIT can be easily operated by single person and achieve invasion testing for LCM & drilling fluids at any location - anytime. HPIT provides the ability to choose a wide range of testing media, to give a variable testing range for all applications. Typical example test beds include 20~40 mesh frac-sand to 5 mm steel beads. Additionally, the transparent invasion observation window in HPIT allows a visible test result for depth and rate of invasion. Plan your fluid formulation and confirm performance! Optimize with real data in the lab or on the well.



HPIT is listed as "TECHNOLOGY APPLICATIONS" of JPT magazine, the flagship journal of SPE.

June, 2016



A vugular formation prone to loss circulation can be simulated by a pack of 5 mm steel beads.



A formation with an estimated 10 Darcy permeability can be simulated by 20~40 mesh frac-sand bed.

FEATURES

- Versatile LCM & drilling fluids invasion tester.
- The maximum testing pressure is 870 psi (6MPa).
- No external electricity or gas source required.
- Simple manual operation.
- Transparent observation window, visible result.
- Portable tester and can be used at any location anytime.

* Other formation characteristics can be simulated by using various sand sizes or sized CaCO₃ to provide a different permeability / porosity test bed.