ABSTRACT

A multi functional test cell for conducting filter tests and for measuring compressibility and permeability of a filter cake material, said test cell comprising: an upper piston; a complementary lower piston; and housing means for housing said upper and lower pistons. A method for determining the permeability and compressibility of a medium, said method comprising: feeding a slurry of the medium into a test chamber of a test cell at constant filtrate pressure to form a filter cake having a determinable mass of said medium; continuously measuring filtrate volume emitted from an outlet of said test chamber during said feeding; once said filter cake has been formed, adapting said upper piston to a second compressibility test configuration; compressing said formed filter cake at constant pressure; monitoring vertical position of said upper piston during said compression to determine variation in filter cake thickness with time during said compression.

Fig. 2 is to be published.