

ABSTRACT

An analysis system for multimodal analysis of drilling mud is disclosed. analyzing means, preferably and NMR or MRI device, are disposed about a drilling mud recirculation system and configured to communicate with the recirculation system's control system. The analyzing means are used to determine the value of a predetermined quality parameter Q . If fails to meet a predetermined quality criterion, the analysis system instructs the recirculation system to perform an action to alter the properties of the drilling mud such that the drilling mud returning to the drill rig will meet the quality criterion.

FIGURE 1