

A MICROCOMPUTER LOG ANALYSIS SYSTEM

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ABSTRACT

A comprehensive friendly log analysis system for use on a microcomputer requires only average log analysis skills. Most systems require both log analysis and computer professionals for operation.

This one has many capabilities: (1) data entry is handled by office personnel after minimal training; (2) entered data is filed and cataloged for future retrieval and analysis; (3) the system can handle more than 9,000,000 ft (2,700 km) of log data in over 60,000 files; (4) all data can be edited; (5) searches and listings can be made using factors such as formation names; (6) facsimile reproductions can be made of any log on file; (7) a screening program turns the system into a sophisticated hand calculator to quickly determine zones of interest; and (8) up to 1,000 ft (335 m) of contiguous data from a well can be analyzed in one run.

Innovative features include: (1) a discriminating factor to separate reservoirs for individual attention concerning rock type, fluid content and potential reserves; and (2) a written report of each reservoir using artificial intelligence. The report discusses, among other things, the rock type and its consistency, comparing the system finding with the geologist's opinion. Differences between the two will elicit alternative analyses.

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Poster session presentation