

EECcm

Extraction efficiency calibration (EEC) with calibration mud (CM) test

APPLICATIONS

- Offshore, deepwater, or other complex well types
- Real-time fluid typing and gas/oil contact measurement
- Fluid sampling-while-drilling optimization
- Geosteering and landing

BENEFITS

- Saves rig time and cost by delivering real-time hydrocarbon quantification at surface
- Calibrates mud-gas extractor efficiency at the rig site
- Enables better decision making for subsequent drilling activities

FEATURES

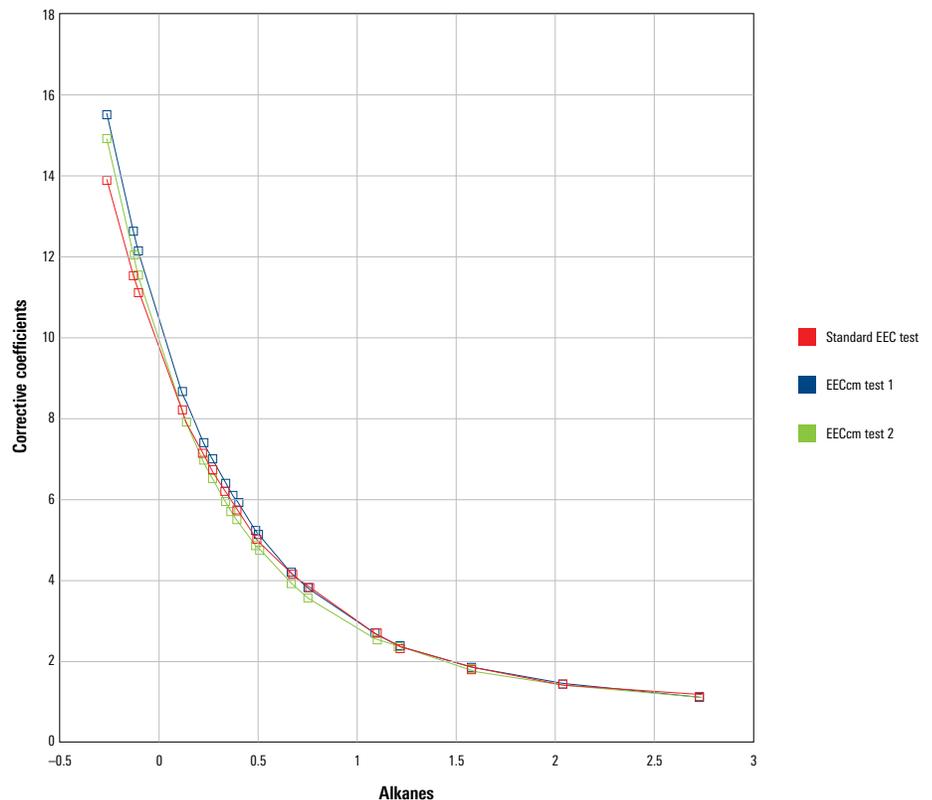
- Available for oil-base and water-base mud systems
- Proprietary EEC model and analysis software
- Liquid alkanes mixed into mud to build a calibration mud sample

The EECcm test enables the real-time quantification of C₁–C₆ hydrocarbons in formation fluid by effectively calibrating mud-gas extraction efficiency at the rig site. The test is an integral feature of the FLAIR* real-time fluid logging and analysis service.

Traditional EEC testing involves collecting mud samples at the flowline, storing the samples in sealed buckets, and waiting until testing equipment is available. This process faces several limitations, including sample deterioration and hydrocarbon loss during storage, insufficient hydrocarbon content in the sample, and dry hydrocarbon composition. Each of these factors can prevent successful EEC testing, resulting in NPT and additional costs while the process is restarted.

With the EECcm test, a synthetic sample composed of drilling mud and a known mixture of liquid hydrocarbons is manufactured at the rig site to ensure that a high-quality sample is available for EEC testing. Because the sample is readily available, testing can begin before or during drilling, and raw data can be corrected in real time. Our proprietary EEC model and analysis software then can be used to determine the corrective coefficients to be applied to each hydrocarbon in the C₁–C₆ range to achieve a PVT-like composition.

As samples are analyzed, hydrocarbon logs are transmitted directly to the customer office to enable rapid and informed decision making when selecting fluid sampling intervals while drilling, mobilizing tools for subsequent logging, changing the well trajectory, landing the well, and determining well TD.



Before drilling commences, the EECcm test provides corrective coefficients comparable with traditional EEC test results, which are often not available until after drilling is already underway.

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