

PetroFecta automated trapped fluid and elemental composition analysis

Rapid automated analysis of any lithology and its fluid inclusions

 Distribution, abundance, and attributes of encapsulated fluids

 Minimal rock material samples

 Quick, automated analysis of up to 575 cuttings samples in as little as 5 days

Applications

- Any lithology, reservoir, and sample type: cuttings, whole or sidewall cores, and outcrop samples
- Evaluation of abundance, distribution, and composition of hydrocarbon and aqueous fluids trapped in inclusions
- Initial screening of mineral and chemical facies for integration with wireline and LWD logs
- Identification of migration and paleo accumulations in the absence of conventional shows
- Differentiation between migrated and locally generated fluids

How it improves wells

Identification of the most productive intervals guides prospectivity mapping, well placement, and staged fracturing.

How it works

PetroFecta* analysis employs a unique workflow to efficiently evaluate the entire wellbore by sequencing

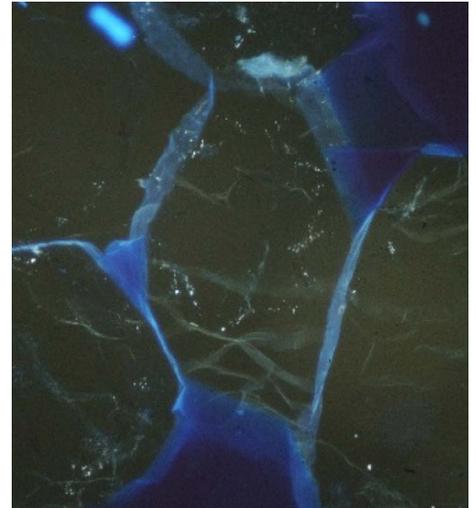
- RockEye* automated high-resolution photography with images in both visible light and UV fluorescence
- FIS* fluid inclusion stratigraphy analysis for rapid and complete analysis of volatiles trapped in rock material

- automated X-ray fluorescence (XRF) elemental analysis
- diffuse reflectance infrared Fourier transform spectroscopy (DRIFTS) for direct mineralogy measurement.

This efficient geochemical screening readily integrates with mud and wireline logs and basin modeling. It also enables identifying the most appropriate samples for more detailed fluid inclusion testing, including petrography microthermometry and the analysis of biomarkers, gas isotopes, and source rock richness.

Perpetual fluid databases

Fluid inclusions in samples do not have a shelf life, and drilling fluids generally have no impact on them. No special sample preservation is required—which means that your archived cuttings or cores can be analyzed even many years after drilling to expand fluid databases by incorporating previous wells, repository materials, and historical rock databases.



Fluid inclusions in UV light on the boundary of various mineral grains provide a unique chemical signal in the FIS analysis conducted in the PetroFecta analysis workflow.



PetroFecta analysis is based on proprietary mass spectrometry equipment and a sample introduction process.



More than 500 samples can be characterized in as little as 5 days to inform well completion and other critical decisions.