

Carbonate Plays

Forensic analysis of carbonates - geosteering and reservoir quality



As with clastic plays Wellsite Chemostratigraphy is routinely used as an alternative to biostratigraphy in carbonate sequences. The service is based on the characterisation and correlation of elemental data determined by XRF analysis. The technique provides data to monitor drill bit penetration through poorly constrained sequences to identify key formation tops, unconformities, relative fault displacements and to determine the stratigraphy of TD. Not only has this service been widely used to geosteer in carbonates and to accurately place coring and casing points, but also to differentiate sedimentological facies in clean carbonates in order to steer wells in zones with optimum reservoir quality.

Wellsite Chemostratigraphic data and / or FTIR mineralogical data acquired from cuttings can be used to calculate mineralogy and TOC and integrated with petrophysical data to provide a comprehensive summary of rock properties throughout the entire wellbore.

-  Chemostratigraphic correlation to offset wells
-  Monitoring drilling progress through monotonous carbonate sequences with poor biostratigraphic control
-  Geosteering in reservoir zones
-  Mineralogical and TOC prediction from elemental / FTIR data including the determination of calcite, dolomite and anhydrite
-  Direct & comprehensive analysis of cuttings samples as an alternative to core analysis
-  Cost effective replacement for LWD tools