

Objectively and graphically reviewing correlations with the MBPA (Multiple Bischke Plot Analysis)

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ABSTRACT

The Multiple Bischke Plot Analysis (MBPA) permits a very quick graphical comparison of thickness variations and allows an objective review of the quality of a correlation, from wells, outcrops or seismic. The presentation will examine the power, limitation and precision of the method by reviewing results from several multi-well studies from around the world.

As the MBPA invokes many wells at the same time, the trouble well and the problem zone can be readily identified because the anomaly shows up in all paired well comparisons. One of the interests of the method is that it does not matter how many faults or folds are present between the wells under study as only disturbance within the wells will show up in the analysis. Three variant of Multiple Bischke Plots will be described as they offer different views of the coherency of the stratigraphy/correlation and of the structure.

Correlation anomalies are readily outlined by a Multiple Bischke Plot Analysis and need to be understood using other lines of evidence such as biostratigraphy, petrography, petrophysics, dipmeter or pressure data.

The MBPA allows to quickly identify anomalies and to distinguish between faults of various types, unconformities, sequence boundaries, or wrong correlations. The method may not solve the problem but allows geoscientists to focus their attention on the real problem, be it a particular marker, a stratigraphic unit, a well or a geographic area.