

FACIES ANALYSIS OF THE LATE PALEOZOIC COARSE-GRAINED CLASTIC DEPOSITS IN THE CENTRAL EUROPEAN BASIN SYSTEM: AN EXAMPLE FROM THE BARNIM BASIN (BRANDENBURG, GERMANY)

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Under the aspect of a lithofacies classification of the Late Paleozoic coarse-clastic deposits (conglomerates and conglomeratic sandstones) of the Barnim Basin in Brandenburg (Germany), five wells with more than 1300 m of core material were studied. The coarse-clastic sequences can be grouped into older deposits which formed during the basin initiation under partial volcano-morphological control, and into younger conglomerates the deposition of which was related to the early Late Rotliegend dynamics of the Southern Permian Basin (see also Gaitzsch 1995).

As a result of the investigation, 16 lithofacies types grouped into six lithofacies associations have been differentiated. With special interest to the spatial and temporal evolution of the coarse clastic deposits, we could distinguish two different types of alluvial fans (stream flow dominated "wet-type fans" and mass flow dominated "dry-type fans"), whose development was climatically as well as tectonically controlled. Similar scenarios have been described for the Rotliegend sediments in the southern North Sea area by George & Berry (1993, 1997) and by Howell and Mountney (1997). Based on the recognition of drying upward cycles, for the Rotliegend evolution of the Barnim Basin, especially for its Grüneberg- and Tuchen Sub Basins, we assume a change from a mainly climatic/volcano-morphologic to a tectonic/climatic con-

trol. For most of the cycles, a correlation between the neighbouring sub basins was possible.

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