SEDIMENTOLOGY OF AN EOCENE/OLIGOCENE BOUNDARY PROFILE: KISCELL-1 BOREHOLE /BUDAPEST,HUNGARY/

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CaO, MgO and total iron-oxide content and grain size distribution of HCl-insoluble residue of samples collected in 2 m intervals between 14,0 m and 110,0 m of the Kiscell-1 borehole have been determined. The Buda Marl consists of clay and silty clay. The Tard Clay consists of clayey silt and a small part of silty clay /see the SHEPARD diagram on Fig. 1/. The schematicprofile of Fig. 2 displays an uninterrupted transition between the Buda Marl and Tard Clay: there was no change in sedimentation. /The conspicuously great CaO content of the uppermost of the Buda Marl indicates submarine redeposition of neritic carbonates, also proven by increased sand content./ A significant change can be observed at the boundary of the lower, slightly laminated and the upper, well laminated members of Tard Clay /at about 52 m/, where the CaO content suddenly decreases by two-thirds, from 20--30 % below 10 %. This indicates decrease of carbonate production due to the formation of a permanent anoxic environment. Benthonic life has been exterminated and the less diverse nannoflora consisting one or two species only /NAGYMAROSY, 1983/ has remained as sole carbonate producer.