

Clay mineralogy, geochemistry and pollen of the Ričice clay deposit, Croatia, a paleo-environmental reconstruction

Kruk, Boris; Mileusnić, Marta; Bakrač, Koraljka; Tibljaš, Darko; Kastmüller, Željko; Ilijanić, Nikolina; Kruk, Ljiljana

Source / Izvornik: **Abstracts / 4th Mid-European Clay Conference 2008, 2008, 33, 96 - 96**

Conference paper / Rad u zborniku

Publication status / Verzija rada: **Published version / Objavljena verzija rada (izdavačev PDF)**

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:169:377240>

Rights / Prava: [Attribution-NonCommercial-NoDerivatives 4.0 International](#)/[Imenovanje-Nekomercijalno-Bez prerada 4.0 međunarodna](#)

Download date / Datum preuzimanja: **2024-05-04**



Repository / Repozitorij:

[Faculty of Mining, Geology and Petroleum Engineering Repository, University of Zagreb](#)





Clay mineralogy, geochemistry and pollen of the Ričice clay deposit, Croatia, a paleo-environmental reconstruction

Boris KRUK¹, Marta MILEUSNIĆ², Koraljka BAKRAČ¹, Darko TIBLJAŠ¹, Željko KASTMÜLLER¹,
Nikolina ILIJANIĆ¹, Ljiljana KRUK¹

¹Croatian geological survey, Sachsova 2, Zagreb, 10000, Croatia; boris.kruk@hgi-cgs.hr

²Mining, Geology and Petroleum Engineering Faculty, University of Zagreb, Pierottijeva 6, Zagreb, 10000, Croatia

²Geological Department, Faculty of Science, University of Zagreb, , Zagreb, 10000, Croatia

The Ričice deposit, as well as the whole of the Crna Mlaka Basin, is mostly composed of Quaternary clay beds, intercalated with layers and lenses of sands and fine-grained conglomerates, developed in the Pliocene-Pleistocene period.

The Rečica clay deposit is represented by a series of sub-parallel and gently inclined, almost horizontal, layers of silty clay, which are laterally continuous. The major part of the clays is represented by the alternation of brown and grey, sometimes yellow clays that are underlain by greenish-grey and grey-blue clays. The clay deposits are 8-12 m thick.

Clays from the Rečica deposit can be classified as a montmorillonite-illite variety, in accordance with their genetic type. The main mineral constituents are quartz, 10 Å phyllosilicate (illite and/or mica) and smectite group minerals, while goethite, kaolinite, chlorite, feldspars and dolomite are subordinate to accessory minerals. The Rečica deposit can be classified as a montmorillonite-illite variety, in accordance with their genetic type. The main mineral constituents are quartz, 10 Å phyllosilicate (illite and/or mica) and smectite group minerals, while goethite, kaolinite, chlorite, feldspars and dolomite are subordinate to accessory minerals.

The clay deposit is of an allochthonous fluvial-swamp type. The sediments with clay were deposited during the Holocene under fluvial conditions, as well as in areas in which ponds, swamps and small lakes prevailed.