Coal properties of the profile samples from the deltaic deposits of Oligo-Miocene age, Yeniköy-İstanbul, Thrace Basin (Turkey)

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The Yeniköy area in the Thrace Basin includes coal formations in deltaic deposits of Oligo-Miocene age. Coal-bearing deltaic deposits in this field have been evaluated in the Danişmen Formation and the lignite bed has been extensively exploited by open-cast methods. The lignite bed in the sampling point has a thickness of 7.80 m, and 9 profile samples were collected, from bottom to the top. The samples have been subjected to some analyses using standard methods. The coal samples, on an air-dried basis, average 11.02% moisture, 10.43% ash, 43.21% volatile matter, 35.34% fixed carbon, 1.93% total sulphur and 5221 kcal/kg net calorific value. The mineral matter of the selected coal samples that was identified by X-ray powder diffraction and SEM-EDX shows that the samples are mainly made up of clay minerals, quartz, and pyrite. The most abundant maceral group of the samples is huminite in which textinite, ulminite, and especially densinite are rich. Liptinite group macerals in all the samples, which are considerably higher than the inertinite group macerals. Elemental concentrations, which were determined by ICP-AES and ICP-MS, and Hg concentrations by Leco AMA254, have been evaluated in this study. The random reflectance values (%Rr, oil) of ulminite were measured in all the samples for the determinaton of coal rank, and the mean values of % Rr of ulminite indicate that the coal rank is of a lignite stage (soft brown coal).

Ground surface movements in the area of salt exploitation in Tuzla (Bosnia and Herzegovina)

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This paper focuses on surface movements determined by geodetic methods and occurred as consequence of brine extraction from Tuzla salt deposit (Bosnia and Herzegovina). Previous studies were mainly concentrated on vertical movements, but important information about behavior of the deposit is also available from horizontal movement data. In the case of Tuzla salt deposit the geometry and spatial location of leached/empty spaces are unknown and the comparative analysis of vertical and horizontal movement could be really significant. The spatial identification of points with high values of vertical and horizontal movements depends on the geometry of empty spaces. Investigation of horizontal movements has been carried out analyzing data collected by several geodetic measurements. The results obtained by the correlated spatial analysis of vertical and horizontal movements, can identify basic geometric characteristics of the leached/empty spaces. The discussed temporal intervals are two characteristic periods, reffered to the capacity of the deposit exploitation. Movement rates per year and correlation between horizontal and vertical movements are considered as indicator parameters defining the