

agricultural usage. The sediments of the Philippi Sub-Basin covers an area of about 55 km² and reaches a thickness of about 400 m, thus it is the thickest known peatland in the world. The sediments can be divided in two Beds. Bed I is a peat free of intercalations with a thickness of about 190 m. Bed II are limnic sediments with a lot of intercalations and a thickness up to 400 m.

The location for the measurements was placed at the largest extension of the basin between the villages Krinides and Eleftheroupolis. This poster presents the first results of the TEM-Fast measurements along two profiles. One profile was conducted from the north (Krinides) to the south (Eleftheroupolis), to verify the overall basin's structure. The second profile was arranged rectangular to the first one and stretches from the west (Stathmos) to the east (Dato). The results of the pseudo 2D inversion show a general conductivity distribution of a basin structure: A max. 100 m thick 7 Ωm layer (Bed I) over a more resistive (> 100 Ωm) half space which can be assumed to be Bed II. This finding correlates with cores that were drilled and analysed by Melidonis. The thickness of Bed II could not be verified from the data, due to the fact that the depth of penetration is not sufficient to detect the top of the bedrock. Plotting the data shows a general basin structure from the north to the south with its declining towards the centre and a possible thickness of the peat of Bed I.

How many “black flysches” can be distinguished in the Grajcarek thrust-sheets of the Pieniny Klippen Belt in Poland

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The age of the “black flysch” deposits occurring in the contact zone of the Magura Nappe and the Grajcarek thrust-sheets of the Pieniny Klippen Belt (PKB) in Poland has been a matter of a long lasting discussion. In the PKB, black shales (“Black Cretaceous”) of a Barremian to Albian age with intercalations of thin- to thick-bedded muscovite sandstones and spotty marls, overlain by the Upper Cretaceous red shales were distinguished in the 30-ties of the last century. Later on, basing on some macrofauna evidence, these beds were assigned to the Middle Jurassic. In stratigraphical scheme of the PKB these beds were called the “Aalenian Flysch” and described as the Szlachtowa (Toarcian-Aalenian) and Opaleniec (Bajocian) formations. Another black flysch deposits were distinguished as the Wronine (Lower Albian) and Hulina (Albian-Middle Cenomanian) formations at the base of the Upper Cenomanian-Campanian red shales. Such a division has been established by Birkenmajer in a standard scheme for PKB. The presence of two black flysches was already questioned by Sikora in 1962, who documented that the beds assigned to the Aalenian Flysch, represented Albian-Lower Cenomanian deposits, passing upwards into the Upper Cretaceous red shales. For the last few years, the authors have studied and sampled several sections which record the relation between the “black flysch” and Cretaceous red shales in the Grajcarek thrust-sheets. In all the studied sections “the black flysch” appears in the core of imbricated folds or thrust-sheets, whereas the limbs are composed of the Upper Cretaceous deposits. The transitional beds between the “black flysch” and the Upper Cretaceous red shales are composed of green and black, bituminous shales with manganese oxide coatings, green radiolarites with pyrite framboides, cherty limestones, and finally very thin layers of dark, non-calcareous shales. In the cherty limestone the Albian-Cenomanian calcareous nannoplankton was found. Biostratigraphical investigations have revealed similar type and sequence of microfauna assemblages in all the studied sections. It should be stressed that significant redeposition of Jurassic? calcareous benthic foraminifera, molluscs, sponge spicules and elements of crinoids has been observed in the microfaunal assemblages recovered from the black flysch turbiditic sequences. The Cretaceous age (Albian-Cenomanian) of the black flysch is confirmed by the presence of agglutinated foraminifera such as *Hippocreppina depressa*, *Trochammina abrupta*, *Bulbobaculites cf. problematicus*. The green shales with manganese coating contain abundant radiolaria in various state of preservation and finely, the Cretaceous red shales the assemblages with characteristic agglutinated taxa *Tritaxia gaultina* and

Uvigerinammina jankoi. Taking into account both the lithostratigraphical and foraminiferal data, the authors conclude that only one Albian-Cenomanian black flysch complex should be distinguished in the Grajcarek thrust-sheet of the Pieniny Klippen Belt in Poland. Such a sequence of deposits is typical of the Outer Carpathian basins and records the global Mid-Cretaceous phenomena in the world ocean followed by the Cretaceous Oceanic Red Beds (CORB) deposition.

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The analysis of reservoir heterogeneity from Well Log DATA

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All reservoirs are characterized by a sum of matrix and fluids properties. They are evaluated by a complex investigation consisting of core sampling analysis, geological, geophysical and hydrodynamic investigation and production data. These properties can be constant for the whole field when the reservoir is a homogenous one, or these properties can be variable and the reservoir is a heterogeneous one. But, what is the reservoir heterogeneity and how we can find its magnitude? According to Jensen et al (1997), "Heterogeneity is the property of the medium that causes the flood front, the boundary between the displacing and displaced fluids, to distort and spread as the displacement proceeds". There are more statistics methods (static and dynamic) for determination of reservoir heterogeneity. The static methods are: The Coefficient of Variation, Dykstra-Parsons Coefficient, Lorenz Coefficient and Gelhar-Axness Coefficient. This work is focused on the static methods, more specifically on Lorenz coefficient, while the dynamic methods are not discussed. For calculation the Coefficient Lorenz is necessary to know porosity, permeability and thickness of the reservoir. The number of values has to be enough and have a uniform distribution on the field for a statistical calculus. The following aspects of this application are emphasizing: wide domain of values for permeability data, the number of permeability values is not always enough for statistical analysing methods; the parameters from well logs are more representative and easy to obtain for the whole reservoir. This paper presents a new mathematical model and a novel practical method to evaluate the reservoir heterogeneity with Lorenz Coefficient using properties of rocks determined from well logs. The mathematical model uses field parameters, such as reservoir porosity, porosity of shale, shale volume and thickness to evaluate the reservoir heterogeneity. The technical contribution of this paper consists not only in a novel practical method to evaluate reservoir heterogeneity, but new challenges are expected from a technological point of view. The application data are provided by the wells from the oil structure named Barbuncesti (Beca, C., Prodan, D., 1983). Barbuncesti structure is situated in the southern part of the inner (folded) flank of the Eastern Carpathians foredeep, known as the Mio-Pliocene or Diapiric Folds Zone.

Biometrical study of post-cranial deer material from the Late Pleistocene of Crete and Karpathos

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A characteristic endemic fauna, restricted to the island of Crete occurred during the Middle and Late Pleistocene, consisting of cervids, small sized elephants, dwarf hippos and