

occurred during the rest of the Oligocene, in agreement with the timing and areal distribution of crustal stretching phenomena evident during this length of time over the entire northern Aegean region. This hypothetical two-stage evolutionary trend might represent a predictive tool in the tectonostratigraphic interpretation of similar sedimentary basins.

Seismic sections across the central part of the basin and the tectonostratigraphic interpretation of outcrops in the Gelibolu Peninsula and along the Greek-Turkish border show that between the Middle Eocene and the Early Oligocene important east-west-trending transcurrent faults cut the Thrace Basin, generating a series of depocenters and uplifts which deeply influenced sediment dispersal and the areal distribution of paleoenvironments. In addition to the "flower" structures seen on seismic lines, strike-slip tectonism induced also abrupt temporal and areal variations in subsidence rates, as well as dramatic sedimentological facies changes within coeval stratigraphic horizons. Such strike-slip-dominated tectonic scenario during the late- and post-collisional stages related to the closure of the Vardar-İzmir-Ankara ocean is further corroborated by the presence of an important strike-slip shear zone of crustal relevance in the region just south-east of the Marmara Sea. Such shear zone is at least 225 km long, has an horizontal offset of about 100 km, and has a trend similar to the the present-day North Anatolian Fault. A similar shear zone- although poorly studied- occurs in the Kapıdağı Peninsula south of Marmara Island. In addition, published thermochronological data demonstrate the existence of a praecursor of the North Anatolian Fault in the area of the present-day southern Thrace Basin active at least from the Oligocene.

The celestite mineralization of the Middle Miocene (Badenian) diamictites, Vrancea district, Romania

Cehlarof A.

Geology-Geophysics Department, Petroleum-Gas University of Ploiesti, 100680, Ploiesti, Romania, acehlarov@yahoo.fr

The Middle Miocene (Badenian) celestite (sulphate) diamictites, genetically associated with Salt (Evaporite) Formation, occurs in the external last lineament of the Sub Carpathian Nappe.

The Middle Miocene is the stratigraphic correspondent of the early used term "Tortonian" of Vienna Basin and to present term "Badenian". It has been firstly separated and described in Muntenia Sub Carpathians and comprises four lithobiostratigraphic horizons: the "Tuff and Globigerina Marls" horizon; salt breccias with salt bodies or "Upper Saliferous" horizon; "Radiolarian Schists" and "Spiratella Marls" horizon. These horizons have been recognized under the same name or under different names all over the Carpathians domain and moreover these "horizons" were recognized, with some exceptions, in the whole extra Carpathian area, Transylvania and Maramures.

In Vrancea area the "Salt Formation" or the "Evaporite Formation" is represented by gravelly-sandy, gipsiferous lithotype respectively the sulphate diamictite, by the halitic-anhydritic lithotype and by the secondary carbonate lithotype, together being genetically related.

The components of gravelly-sandy deposits are bound by a brown-black, clayey matrix having with earthy appearance. The matrix is chiefly impregnated with bituminous organic matter and is considered to be an insoluble residue entrained from dissolving evaporite beds. Usually the matrix is dominating (matrix-supported texture) – ubiquitous feature observed especially in mines. In places the matrix could be absent (claste-supported texture), this being explained by removal due to meteoric leaching. Its high-degree of intercrystalline porosity makes it a potential subsurface reservoir for hydrocarbons or metalliferous solutions.

Referring to celestite-bearing ore on the Valea Sării-Andreișu lineament (Vrancea district) the author separated in outcrops and in the mine (along Valea Sării brook) three types of mineralizations – petrologically and mineralogically different, but displaying continuous transitions between them. These are:

Mineralizations having impregnation character (mudstone-celestite using Dunham's, 1962 classification for carbonate rocks), in a matrix-supported fabric according to background/crystals ratio. This type is widespread, was separated in heavy minerals concentrates too. Also, it borders the massive type of celestite mineralizations and is characteristically closely related to gypsum and anhydrite. Also, it has been considered that the celestite appearing in evaporite sediments of an intertidal environment is primary or early diagenetic. It does not form accumulation of economic importance.

The second type is a massive mineralization of replacement character, a wackestone/packestone celestite, in a crystal-supported fabric. Other authors termed it as "blocky celestite" or "replacement-type celestite". Under the microscope some peculiar euhedral to anhedral shape of turbid-like methasoms of celestite, with a lot of inclusions and syntaxial rims showing an "intersertal texture" evidently disturbed by lack of space could be seen. The host-rock within multiangular space between crystals is subordinated. This type has been developed during diagenetic stage as a true irregular and concretionary celestite bearing ore by redistribution of materials within sediment (diagenetic metasomatism).

The third type is a secondary mineralization, known as "celestite infilling cavities and fractures". This type has been developed in a free space, with syntaxial rims and without inclusions and no host rock. It is white colored, in large fan-like or fibrous or long prismatic crystals or in collomorphous aggregates associated with sulphides. During epidiagenesis stage involving uplift and sub aerial exposure of diamictites as is observed on Valea Sării and Reghiu brooks – the evaporite re-enter in active phreatic zone and a secondary mineralization may develop.

Sedimentological characteristics of Oligo-Miocene coal succession at the North of İstanbul, Northwest Turkey

Çelik Y.

Istanbul University, Department of Geological Engineering, Avcılar, TR-34320 İstanbul, Turkey, yakup@istanbul.edu.tr

The sedimentologic characteristics of coal-bearing Oligo-Miocene deposits occurring at the north of İstanbul have been examined in this study. The study area in 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 coal bed has been extensively exploited by open-cast methods.

The Danişmen Formation overlies the Eocene-Oligocene Ceylan Formation unconformably and consists of mudstone, sandstone, conglomerate and coal. It is unconformably overlain by the Pliocene deposits. Coal-bearing succession is composed of fining-upward interbedded facies. Five facies were identified in Coal-bearing sediments. These facies are; bedded conglomerates, thick bedded sandstones, organic rich grey mudstones, red mudstone and coal. These facies characterize delta plain deposits. The coal of the Danişmen Formation was deposited in swamps of delta plain. The coal bed in the Danişmen Formation has a thickness of 7.80 m, and the coal rank is of a lignite stage (soft brown coal).