

ABSTRACTS OF THE PAPERS PUBLISHED ONLY IN THE TURKISH EDITION OF THIS BULLETIN

GEOLOGY OF THE NIKSAR-ERBAA AND DESTEK REGION

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ABSTRACT.- The basement rocks of the investigated area, situated near Niksar, Erbaa and Destek are crossed by the North Anatolian Fault they comprise Turhal group metamorphic rocks of Permo-Triassic age. It is unconformably overlain by consisting of a sedimentary sequence of Liassic-Upper Eocene age deposited in the fore-arc basin of the Eurasian continent. The study area is in the suture zone between Eurasian and Anatolian plates. Thus it is affected by a north-south compression resulting in east-west trending thrusts in relation to formation of the North Anatolian Fault in the neotectonic period. Continental sedimentation took place in basins during Pliocene. Later activity of the North Anatolian Fault caused formation of pull-apart basins of Niksar, Erbaa-Taşova regions.

PETROGRAPHY AND ORIGIN OF THE MIDDLE DEVONIAN DOLOMITES (ŞAFAKTEPE FM.) IN THE GEYİKDAĞI UNIT (EAST TAURUS), TUFANBEYLİ-SAİMBEYLİ

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ABSTRACTS.- The middle Devonian dolomites exposed in the Autochthonous Geyikdağı unit (East Taurus) had resulted in dolomitization of Amphipora-bearing reefal limestones along with ostracod-algal laminated limestones. The dolomitic unit is composed of homogenous, mottled, laminated and banded (zebroid) types of dolomites. Dolomitization took place in the different timing, namely early and late diagenetic. The early diagenetic ones underwent mixing-water diagenesis (marine-fresh water) on a tidal flat environment. Their isotopic signature ($\delta^{18}\text{O} = -2.48$ to 0.039% ; $\delta^{13}\text{C} = 0.079$ to 3.18%) also fits this dolomitization model. The second type, late diagenetic dolomites (epigenetic dolomite) are coarser crystalline than the earlier ones, and their isotopic composition became more negative or greatly diminished ($\delta^{18}\text{O} = -10.75$ to -8.36% ; $\delta^{13}\text{C} = -0.63$ to 1.45%), this suggests increasing temperature during dolomitization. The late diagenetic dolomitization invoked recrystallization and dissolution of the early diagenetic dolomites. Additionally, coarsely crystalline white dolomites (saddle dolomites) precipitated in the dissolution vughs, and subsequently some ore deposits emplaced within the late diagenetic dolomites.

GEOCHEMICAL DATA OF PAYAS (HATAY) KARSTIC MINERALIZATION ON THE ASPECTS OF THEIR SOURCES

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ABSTRACT.- On the bases of geochemical properties and lithostratigraphic location of the Payas mineralization region can be differentiated into three groups: 1- Limestone wall rock represents by Paşanın Eğreği plateau, Sanyokuş Mağarabaşı site and Kozlu dere appearances. 2- Sandstone wall rock represents by Findik plateau-I appearances. 3- Iron enrichment serpentinite wall rock represents by Findik plateau-II appearances. According to the results of chemical analyses of these three groups Fe, Ca, and P elements are behaviour together, Al, Si, Ti and K elements group behave parallel to other group formation. The elements which have parallel behaviour distribute reversibly with each other. This situation indicates two different genesis. The enrichment of iron in the mineralization is derived from ultrabasic rocks. The lateritic iron which is formed due to of ultrabasic rocks lateritization is transported and precipitated in karstic cavity forming the mineralization. The sources of aluminium can also be explained by the same way. However in order to give sufficient explanation more data is required.

DISTRIBUTION AND CHARACTERISTICS OF THE UPPER CRETACEOUS-TERTIARY AGED SMECTITES AROUND BURDUR

Emel BAYHAN*

ABSTRACT.- Clay fraction is extracted and clay minerals are examined in Upper Cretaceous-Tertiary aged sediments around of Burdur Lake. illite, chlorite, smectite and 14s-14_c mixed layer are identified. Major element analyses made and structural formulas are calculated belonging to monomineralic smectites. According to these results the present day minerals are octahedral (beidellite) and trioctahedral (Al-Fe saponite).

PALEOGENE BENTONIC FORAMINIFERS OF NAMRUN (İÇEL) AREA

Niyazi AVŞAR**

ABSTRACT.- Systematic descriptions of the benthonic foraminifers of the Paleogene sediments around Namrun (İçel) area have been investigated and general stratigraphical records of the area have been given. The rock units of Upper Cretaceous, Paleogene and Neogene ages crop out in the study area. Upper Cretaceous sequence comprises ophiolitic materials which includes radiolarite, limestone blocks and flysch. Upper Paleocene (Ilerdian) sequence discordantly overlies the Upper Cretaceous unit, and it is composed of sandstone, marl and sandy-clayey limestones. The sandy-clayey limestones contain species of the foraminifera such as *Alveolina subpyrenaica* Leymerie, *Alveolina moussoulensis* Hottinger and *Alveolina varians* Hottinger. Lower Eocene (Cuisian) sediments conformably overlie the Ilerdian, and it is composed of sandstone, marl and clayey limestones. The clayey limestones of the Cuisian sequence comprise foraminifers such as *Alveolina* cf. *levantina* Hottinger, *Alveolina* cf. *violea* Checchia-Rispoli, *Alveolina multicanalifera* Drobne, *Nummulites globulus* Leymerie, *Nummulites partschi* de la Harpe, *Nummulites burdigalensis* (de la Harpe), *Lockhartia conditi* (Nuttall), and *Lockhartia hunt* Ovey. Middle Eocene (Lutetian) sequence overlies conformably the Cuisian sediments, and it is composed of clayey limestones which are soiled white, yellow and cream colored, and well bedded. In addition, the Lutetian sediments are represented by *Alveolina tenuis* Hottinger, *Alveolina frumentiformis* Schwager, *Alveolina stipes* Hottinger, *Alveolina munieri* Hottinger, *Nummulites uranensis* (de la Harpe), *Nummulites lehneri* Schaub, *Assilina exponens* (Sowerby), and *Sphzerogypsina globulus* (Reuss). The Lutetian sequence is discordantly overlain by the Neogene clayey limestone and conglomerates.

NEW RHINOCEROTIDAE FOSSILS IN BAYRAKTEPE (ÇANAKKALE)

Tanju KAYA***

ABSTRACT.- In the Bayraktepe area (Çanakkale) *Begertherium grimmii* (Heissig) and *Aceratherium* aff. *simorrense* (Lartet) are found in Sarpdere, and *Aceratherium* aff. *simorrense* (Lartet) and *Aceratherium* sp. are found in Dutudere. On the basis of correlations with the Turkish and Eurasian forms, it seems that the Sarpdere forms are late Astaracian (late Middle Miocene) MN 8 (upper) in age, and the Dutudere forms are late Vallesian (early Late Miocene) MN 10 in age. The paleoecological characteristics of the transported fossils indicate an open humid and warm forest with patches of bushes.

GEOLOGY OF THE ULUKIŞLA-ÇAMARDI (NİĞDE) BASIN

Ali ÇEVİKBAŞ* and Önder ÖZTUNALI

ABSTRACT.- The studied area is restricted by the Niğde group at the north, Bolkar group at the south and Ecemiş fault zone at the east. The Niğde group is composed of Aşıgediği and Çamardı formations in the studied area. Üçkapılı granodiorite is intruded into all of these rock units. Yeniköy formation which consists of sedimentary rocks, overlies the Niğde group. The Bolkar group is made of Permian aged marbles and schists. The Alihoca ophiolite complex overlies this group with a tectonic contact. The Horoz granodiorite intrudes into the Bolkardağı marbles and quartz-porphry dykes cut the ophiolitic rocks. The Aladağ group, which is located at the eastern part of Ecemiş fault, is composed of Akdağ and Gökbel formations. The Aladağ ophiolitic melange has a sedimentary contact with the carbonaceous rocks that forms the basement. The Aladağ ophiolitic nappe overlies the former with a tectonic contact. The Ulukışla-Çamardı Tertiary basin overlies many different tectonic units. The volcano-sedimentary and plutonic rocks which crop out at the north are developed on the Niğde massif sedimentary rocks cropping out at the south are developed on the Bolkardağı marbles and the volcano-sedimentary rocks of the central part, are developed on the Alihoca ophiolite complex. All the three sections came in conjunction with the Upper Eocene tectonic movements. The basement of the Tertiary basins starts with Bolkardağı marbles and Kalkankaya formation, which overlie the ophiolite complex with angular unconformity, at the southern section. It ends with Yağbağ and Kırkpınar formations. The Plio-Quaternary actual sediments cover these units. The rock units of Cretaceous to Middle Eocene are observed in the central section. This section is made of Kırkgeçit, Tabaklı, Ardıçlı, Hasangazi formations and their members. The Zeyvegediği anhydrite, which is diagenetic, overlies these units with angular unconformity. The Kurtulmuş, and Kızılöz formations, Ilıcadere basalt and actual sediments cover all the former units. North section also consists of Cretaceous to Middle Eocene rock units. This section is composed of Ömerli, Yeniköy, and Unlukaya formations, Başmakçı limestone, Karlık basalt, Alıçlı andesite, South and Çaykavak formations, Elmalı syenite-Porphyr, diabase dyke and Kaletepe trachyte. Finally, the Kaletepe trachyte cuts all of these units. Oligo-Miocene aged Fındıklı formation covers them with an angular unconformity and proceeds with Miocene Burç formation. It ends up with Çanaktepe formation. Havuzlu tuffite, Gökbez formation, İkiştepe ignimbrite and actual sediments at the top. The basin has experienced three different compression stages, which occurred in Upper Eocene-Lower Oligocene, Upper Miocene and Upper Pliocene.

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Ketin, İ., 1977, Genel Jeoloji: İst. Tek. Üniv., İstanbul, 308p.

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