

MIDDLE - UPPER MIOCENE STRATIGRAPHY OF ÇANAKKALE, NW TURKEY

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ABSTRACT.- Middle-Upper Miocene terrigenous and marine sedimentary rock units deposited in Truva basin outcrop throughout the eastern shore of Dardanelles. These deposits overlie unconformably Paleozoic schists, marbles, quartzites, Permian-Triassic ophiolites and Eocene volcanic rocks between Çanakkale and Truva; only Eocene volcanics and volcanoclastic deposits in the vicinity of Lapseki, north of Çanakkale. The sedimentary rock units are composed of Middle Miocene Sarıyar formation and Upper Miocene Çanakkale formation. Sarıyar formation overlying metamorphic and magmatic basement units with an angular unconformity contains red-dark red colored alluvial deposits. Çanakkale formation containing marine deposits overlies Sarıyar formation with an unconformity. Çanakkale formation consists of Güzelyalı, Tekkedere and İtepe members that have distinctive lithological components, sedimentary features and depositional environments. These are transitive laterally and vertically to each other. Güzelyalı member that contains mainly fine to coarse sandstones, and lesser amounts of mudstones, siltstones and conglomerates deposited on beach and shoreface. İtepe member is composed of mudstones and siltstones deposited and sandstones. Sandstones developed with the tidal processes have bidirectional cross-stratifications, planar and trough cross-stratification, flaser and lenticular beds. Tidal channel deposits that have erosional bases in lagoon mudstones are observed. These are made of medium to coarse sandstones, conglomerates and abundant broken shell fragments. Tekkedere member contains algal mat limestones, oolitic limestones being a product of shoals, and conglomerates and coarse sandstones beach. Upper Miocene Çanakkale formation is overlain by Pleistocene marine terraces and Pleistocene-Recent alluvial deposits.

Key words: Middle-Upper Miocene, Stratigraphy, Çanakkale.

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