

Evaluation of the Black Sea Magnetic Anomalies

Mustafa Ergün

Dokuz Eylül Üniversitesi, Faculty of Engineering, Izmir

The Black Sea is today a single depocentre, but in reality it comprises two major extensional basins, probably of different ages, separated by a complex NW-SE trending continental mid-Black Sea Ridge. The Western Black Sea basin is floored by oceanic crust. Short wavelength magnetic anomalies (in the range of 300 nT) occur to the offshore parts of the western Pontides. These are most probably related to the magmatic rocks (granites) and volcanic rocks observed within the western Pontide system on land. The volcanics have been described as andesitic, but it is also includes tuffs, flows, pillows, agglomerates, conglomerates and tuffaceous sandstones, associated with flysch. Along the Turkish Black Sea margin, the basement seen on reflection seismic profiles corresponds most probably to this volcanoclastic horizon. It is pervasive, strong reflector which is in places affected by folding and even overthrusts.

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