



Eastern Black Sea Gas Hydrate Related Structures In Eastern Black Sea

S. Ozel (1), G. Cifci (1), S. Okay (1), O. Atgin (1), O. Ozel (1), B. Barın (1), M. Er (1), D. Dondurur (1), K. Dae Choul (2), and B. Sung-Ho ()

(1) Institute of Marine Sciences and Technology, Baku Bulvarı No:100 İzmir,Turkey. sevinc_ozel@windowslive.com, (2) Pukyong National University, Busan, South Korea. dckim@pknu.ko

In recent years shallow gas and gas hydrate researches are increased and important reserves have been found especially in the Black Sea, Mediterranean, Marmara and the Aegean Seas. High resolution seismic and acoustic researches were performed on the shelf regions and in the open sea and also in the international waters of Turkey. As the result of these surveys gas and gas hydrate related structures like BSR reflections, mud volcanoes, mud diapirs, gas chimneys, and gas seeps were observed. And also at some locations core samples have proven the existence of gas hydrates. Especially the mud volcano and oil seeps on the sea surface which observed at Rize offshore aroused interest in the area.

In this regard a bilateral co-operation TUBITAK project was carried out with Dokuz Eylul University and Pukyong National University, South Korea. In September 2010 approximately 1700 km high resolution multi-channel seismic reflection data were collected in eastern Black Sea. In addition, Chirp system is used to obtain information from shallow (30-40 m) gas containing sediments and Sparker system to obtain detailed information of deeper structures like BSR.

At Trabzon-Rize area gas accumulations and gas hydrate related BSR's are observed. Two mud volcanoes are discovered.