

Pre-meeting field trip (September 17, 2019)

Stratigraphy, structure and petroleum exploration play types of the Achara-Trialet folded belt, western Georgia

The southern onshore Rioni basin in western Georgia is both stratigraphically and structurally akin to the offshore Gurian folded belt in the Eastern Black Sea. Along the onshore north-vergent Achara-Trialet thrust-fold belt, Eocene volcanics and volcanoclastics predominate at outcrop. However, the fill of the Rioni foreland basin is Late Miocene to Quaternary in age, all units thickening southwards toward the Achara-Trialet folds. The Middle/Late Miocene to Quaternary strata is a molasse basin sequence, with an overall coarsening upward trend in an overfilled foredeep basin. In the Upper Miocene sequence, some of the shallow-marine sandstones are proven reservoirs, such as the sandstones in the Maeotian and Sarmatian of the Supsa and Shromisubani Fields.

This field trip will highlight the main stratigraphic units of the Achara-Trialet thrust-fold belt. The proven reservoir units in the nearby oil fields will be shown in outcrops and the trip will also have a stop at one of the producing wells offering a chance to take crude oil samples.



Outcropping upper Sarmatian sandstone, close to Shromishubani. This outcrop is located on the backlimb of the Supsa anticline.

Post-meeting field trip (September 20, 2019)

Stratigraphy, structure and petroleum exploration play types of the Rioni Basin, western Georgia

The Rioni Basin is an underexplored petroliferous basin located at the Georgian margin of the Black Sea flanked by two folded belts (the Greater Caucasus and the Achara-Trialet belt). The overall stratigraphy of the northern onshore Rioni basin has elements which are common with that of the large offshore Shatsky Ridge in Eastern Black Sea. In the northern Rioni basin segment, the existing oil fields (East and West Chaladidi) and an undeveloped oil discovery (Okumi) are related to either post-salt or presalt antiformal traps in detachment folds or in poorly understood stratigraphic pinchouts beneath a regional Upper Jurassic evaporite sequence.

This field trip will highlight the most important stratigraphic units of the northern Rioni Basin, including the Maykop sequence and the Upper Cretaceous chalks. Moreover, detached anticlinal trend near Tsaishi, some 50 km SW of the main Greater Caucasus deformation front, will be visited. This highly arcuate salient of anticlinal structures, detached on Upper Jurassic evaporites, offers trap analogues for the nearby Chaladidi Field and possibly some other structures in the Georgian Black Sea.



Outcropping upper Eocene marls and limestones on the backlimb of the Tsaishi anticline.