

## **Bituminous Toarcian of Northern hemisphere**

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Lower Toarcian represents a stratigraphic bench mark owing to argillaceous, frequently bituminous rock composition. In northern Siberia these are clays and condensed layers. In Sakhalin, Trans-Baikal, western part of northern America clays contain admixture of volcanic material. In Eastern Europe marine deposits are known in the Caucasus, Donbas. In Western Europe they are called Posidonia-shales. In Northern Alaska clays are referred to as paper shales. In eastern Greenland and northern-western South America these are clays with sand beds and limestone, respectively. Deep water shale and radiolarite, shelf clay occur from Japan to Indonesia. In the Middle East limestone and clay shale are traced from the Black Sea to the Hindustan Peninsula. Continental deposits (Middle Asia, Kazakhstan, southern Siberia and China) are free of coal and coarse material. Limestone is found in low latitudes. The dividing line between terrigenous and carbonate rocks corresponds to coordinates of the modern Northern tropic provided the north pole to be located in the area of the Bering Straits. Evaporates (Tunisia) rest southward of the carbonate belt. Bituminous rocks are confined to the areas of ancient passive platforms, shelf basins of humid and subtropical zones, giving way to deep water shale and radiolarite on the one hand and shallow water clay with phosphorite on the other and to evaporate towards the equator. Bituminous rocks extend to the ancient pole. Wide concurrent development of clay and bituminous rocks indicate eustatic rise of the World ocean in Early Toarcian.