High energy, lake shoreline carbonates are surprisingly rare in the geological record, however an example occurs in the Late Triassic Mercia Mudstone Group (MMG) of southern Britain. The MMG is one of a number of thick, unconfined, mudstone deposits with localised evaporites associated with Early Mesozoic rift basins of the North Atlantic. The origin of the MMG mudstones is the subject of current debate with marine, playa-lacustrine and alluvial-aeolian models having been proposed. However, the rarity of shoreline features in the MMG has led most workers to doubt the true lacustrine origin of the mudstones. Wave-dominated, lake shoreline deposits have been recognised in several sections of the Bristol Channel region in south west England.

These deposits provide evidence for the development of a perennial to semi-perennial hypersaline lake in which the MMG mudstones accumulated. Shoreline sediments overly alluvial stream and sheetflow deposits and pass from transgressive bioclastic gravel beach units influenced by shore-normal waves under semi-humid conditions, to lower gradient, highstand oolitic sands affected by more varied wave approach under progressively more arid conditions which culminated in lowstand playa mudflat deposits. Ooids display a variety of size, fracture and dissolution features in addition to beachrock fabrics suggesting that they were originally composed of radial aragonite, similar to modern ooids from the Great Salt Lake, Utah. Shoreline deposits record a simple shallowing-upward transgressive, highstand, lowstand sequence, however the change from reflective (transgressive) to dissipative (highstand) type shoreline is believed to represent a climatically induced change in prevailing wind direction. Shoreline features recognised in the MMG are remarkably similar to those of recent playalacustrine basins of the western United States.