

Sedimentology and sedimentary environments of terrigenous deposits of Aghajari Formation in southeast of Sarvestan, Fars Province (Folded Zagros, Iran)

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The Upper Miocene-Pliocene Aghajari Formation, also known as Upper Fars, extends throughout the Folded Zagros and is 2996 m thick at type section. For detailed lithofacies analysis, a 2266 m thick section was measured in SW of Sarvestan in the Fars Province. In this section, 17 lithofacies and 6 architectural elements were identified. The lithofacies were divided into a major group and a minor group. The major group consists of coarse-grained (Gh, Gp, Gt, Gcm and Gmg), medium-grained (Sh, Sp, St, Sl, Sm, Sr and Ss) and fine-grained (Fm, Fl and Fsm) lithofacies. The minor group contains evaporite and mixed clastic-carbonate lithofacies. The architectural elements identified are CH, GB, SB, LA, SG and FF). Based on these analyses, the Aghajari Formation in the studied section is interpreted to represent fluvial deposition marked by meandering ephemeral sandy river to sandy-gravelly meandering and gravelly meandering river. The evaporites and clastic-carbonate lithofacies contain fossils and are interpreted as playa and shoreface deposits respectively. The sedimentary structures include horizontal bedding, planar and trough cross beddings, load-casts, imbrications, fining-upward, burrows, scour, and fill and mud balls. The paleocurrent data in the studied area indicate NW-SE flow direction.