

## **Propagtion History of the Deformed Front of the Northwestern Segment of the Zagros Fold Thrust Belt, Kurdistan Region**

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### **Abstract**

**Summary** The Kurdistan segment of the Zagros is bounded by the Zagros suture from NE and laps on to the Arabian plate as the deformation front migrates southwestward. The overall compression of late Cretaceous and its culmination in Tertiary was associated with obduction of Mawat ophiolites, Avroman & Qulqula napps on to the continental margin of the Arabian plate. This study outlines the main regional unconformities within Kurdistan foreland basins, which are: Turonian unconformity (92 Ma), Danian unconformity (65Ma), Paleocene-Eocene unconformity (55 Ma), Oligocene-Early most Miocene (34Ma, Zagros Major Hiatus), Middle Miocene (Burdigalain 17 Ma). These unconformities are divided into two main groups; the obduction-related/induced covering the Turonian and Danian unconformities. The collision-related unconformities are Oligocene (ZMH) and Zagros Main Unconformity (ZMU). The propagation of the Zagros deformational front from the imbricate zone in the northeast towards Mesopotamian foredeep started in the Eocene leading to a major Hiatus in the Zagros that lasted for >14 Ma. The intensity of deformation decreases towards the foreland (southwest)with deformation characterized by thrust imbricates in the High Zagros, detachment folds in the Simply Folded Belt and buried folds in the Zagros Foredeep ,where the Late Cretaceous-Paleocene silicalstics act as with significant decolloments surfaces.