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New Paleoshorelines of the Prolific Oligocene / Aquitanian Sequence from Zagros fold Thrust Belt.Kurdistan Region/N.Iraq.

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SUMMARY

New paleo-shorelines of the prolific Oligocene and Aquitanian)sequences across Zagros Fold Thrust Belt. Kurdistan Region (N/Iraq)

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ABSTRACT
The Oligocene and Early Miocene sequences are mainly comprised of a thick carbonate successions within the Zagros Mountains (Kurdistan Region .NE-Iraq) . Conjugates lines of evidences based on microfacies, paleontology , depositional environments, are used to re-establish the depositional system , paleogeoreaphy and paleo shore lines. Generally, in the High Zagros Fold, the Late Eocene (Pribonian) facies representing by lagoon carbonates of the Pila Spi Formation overlain by the evaporates or siliciclastic facies of the Fatha Formation (Burdigalian-Langhian) manifested by sequence boundary of type one, as major unconformity and sedimentary hiatus for about 13.4 Ma. Kirkuk Group (Oligocene) representing three fourth order Oligocene sequences, within one third order cycle, mostly retrograded over the Late Eocene sequences showing lateral variation in their facies from inner ramp ,middle ramp to outer ramp carbonates and to deep basinal facies. They are deposited during the Tectonic Megasequence Ap.11 and extends from Early Oligocene to Early Miocene (Aquitanian) in the remnant foreland basin depocenter, while in the basin periphery Kirkuk Group are less developed and appear as patchy reef bodies and their sequences may separated by hiatuses of different durations. On other hand, the Early Miocene (Aquitanian) sequence stratigraphic architecture representing by Euphrates and Jeribe Formations with sub-conglomerates between them show a sequence boundary of type one with the overlying Fatha Formation. The Aquitanian -Burdigalian boundary placed almost at the Jeribe –Fatha Formations boundary in the basin periphery, expressing patch appearance within the High zagros belt . The remarkable northern and northeastern wards extensions of the Oligocene (Kirkuk Group) and Miocene carbonates (Euphrates and /or Jeribe Formations) mostly controlled by basin geometry, basin configuration, and sea level changes before closing of Kurdistan foreland basin and switching from under fill to over fill conditions. As a result new Plaeoshore line for the Oligocene and Early Miocene basins was detected from Kurdistan region NE- Iraq pointing to a new prospective area and shallow carbonates oil and gas fields.

Key words: Kirkuk Group, Early Miocene (Aquitanian) , Sequence boundary, Kurdistan Foreland to Sag basin, plaeoshore line, Zagros Low and High Fold Thrust Belts. New perspective area.