

# LITHOLOGICAL INDICATORS FOR THE OLIGOCENE UNCONFORMITY, NE IRAQ

**Bakhtiar M. Ameen\***

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## **ABSTRACT**

The Oligocene gap is considered as one of the major and widespread unconformities and interruption in the sedimentary record in the north and northeast Iraq. In the High Folded and Foothills Zones, the gap extends from Oligocene to the Middle Miocene; in the former zone, it separates Pila Spi Formation from Fat'ha Formation; whereas in the latter it separates Anah and Fat'ha formations. The Anah Formation is of Late Oligocene age and is marked by a conglomerate at the base of Fat'ha Formation. The unconformity is studied lithologically and stratigraphically in six different sections, in these sections the conglomerate has different compositions and textures. Texturally, it is grouped into ortho and polymictic conglomerates, while according to the composition they include conglomeratic limestone, sedimentary breccia and both well and badly developed paleosol. These lithologies indicate different depositional systems and source areas; possibly deposited in different times. From sequence stratigraphic point of view; the studied unconformity indicates a type of one-sequence boundary (SBI) during the sea level fall.

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\*Assistant Professor, Department of Geology, College of Science, University of Sulaimaniyah