

## **Oblique Zagros tectonics in SE Turkey and the Kurdistan Region of Iraq, and comparison with Iran**

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### **ABSTRACT**

Extensive field data from Kurdistan and SE Turkey, based on twenty-four field campaigns over seven years, provide new evidence for the interplay between thrust and strike-slip tectonics across the northern Zagros. The aim of this presentation is to present new field data, discuss their relevance to exploration and production in the region, and to provide an integrated geodynamic framework that spans the entire Zagros belt in Turkey, Iraq and Iran.

The oblique closure of the Neo-Tethys ocean during Cenozoic times led to the transpressional collision of Arabia with Eurasia to form the Zagros orogen. Evidence for the partitioning (compartmentalisation) of oblique deformation between domains of ca. orthogonal shortening and right-lateral strike-slip includes geodetic, seismological and structural data, and is well documented in the central and southern Zagros in Iran. In these sectors, strike-slip deformation is localised into relatively narrow domains, such as the orogen-parallel Main Recent Fault, and the orogen-oblique fault arrays that include the Izeh, Kazerun and Sabz Pushan fault zones. Shortening perpendicular to the orogen is accommodated by wide domains of folding and thrusting, characterised by the prolific four-way closing anticlines that typify the Zagros region.

The importance of strain partitioning can be extended to include the northern Zagros, based on the recent recognition of regionally important right-lateral strike-slip faults, and the obliquity of fracture arrays relative to the orientation of regional fold trends.