

## Calcareous nannofossil biostratigraphy of the Gurpi Formation in the Kangan Anticline

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The Zagros Basin is situated in southwestern Iran, the region known as the 1954 Agreement Area. The northwestern limit of this region coincides with the well-known tectonic zone called the 'Main Zagros Thrust'. The southwestern limit coincides with the southwestern boundary of Iran. Several thousand meters of carbonate, siliciclastics and evaporites were deposited in the Zagros Basin. These sediments are folded into simple anticlines and synclines. The basin is one of the biggest oilfields in the world.

The Gurpi Formation is one of the most complete Early Santonian – Early Danian sequences, and it is widespread over most of the Agreement Area, although it displays lateral changes in lithology. This study focuses on the Gurpi Formation in Kangan Anticline. In this area, the Gurpi Formation consists of 100 m of bluish-gray marls with intercalation of marly limestone. The Gurpi Formation is in contact (disconformity) on the Ilam Formation that is represented by thin-bedded limestone with intercalation of nodular shale, and it is overlain in disconformity by the Pabdeh Formation. Between the Gurpi and Pabdeh Formations, 30 cm of glauconite-rich sediments are present.

Calcareous nannofossils of this formation were studied in different localities by Hadavi *et al.* (2007). This study focuses on the boundary between the Gurpi and Pabdeh Formation. According to the presence of *Micula murus* and *Biantholithus sparsus* in the glauconites, the boundary is placed in the uppermost part of the Gurpi Formation. On the other hand the presence of *Discoaster multiradiatus*, *Discoaster bramlettei* in the lower Pabdeh Formation is discontinuous in this area.

### References

Hadavi, F., Khosrowtehrani, K. & Senmari, S. 2007. Biostratigraphy of calcareous nannofossil biostratigraphy of the Gurpi Formation in north Gachsaran. *Scientific Quarterly Journal. Geo. Surv., Iran.*