

## **Oil – oil correlation in the oil fields from the Czech Republic**

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Reservoir rocks with economically relevant oil and gas accumulations in the SE part of the Bohemian Massif occur in the autochthonous clastic and carbonate formations as well as in fractured crystalline basement. The main aim of our research was to define oil families and influence of secondary processes on oils occurring in the study area. To reach that goal, the results of oil analyses of sulfur content, vanadium and nickel concentrations, GC-FID and GC-MS analyses and stable carbon isotope composition of oil were determined.

There are two groups of oil families present within the studied group. Age-related biomarkers and geological considerations are showing that the first group of oils was sourced by Jurassic rocks, the second one appears to be a mixture of two sources, namely the Jurassic and Tertiary rocks (Paleogene and Oligocene). All of the oils in the study have a value of the C<sub>29</sub>/C<sub>30</sub> hopane ratio near 0.5 so the source rocks are most probably shales or marls. The thermal maturity of the oils varies within Early Oil to Middle Oil Window.

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