



OIL AND GAS INSTITUTE
National Research Institute



University
of Stavanger



DESIGN, ENVIRONMENTAL IMPACT AND PERFORMANCE OF ENERGIZED FLUIDS FOR FRACTURING OIL AND GAS RESERVOIR ROCKS OF CENTRAL EUROPE

Duration: June 2013 - April 2016
Budget: 4 062 628 PLN/990 064 Euro
Contract No.: Pol-Nor/196923/49/2013



The main goal of the project is development of optimal energized fracturing fluid compositions for use in oil and gas reservoir rocks formations in Central Europe.

This project addresses the following issues of the energized fracturing fluids:

1. How can we use the petrophysical, mineralogical, petrological and geochemical analyses in formulating the criteria screening the energized fluid fracturing and enhanced oil recovery.
2. What are the effects of energized fluids application on the geochemistry of the formation in the short and in the long-term.
3. What should be the composition of energized fracturing fluid for work in different formations of Central Europe.
4. What are the mutual interactions between the fluids and the fractured rock.
5. What is the impact of designed energized fracturing fluids on the formation damage.
6. How the backflow resulting from the designed fluids application could be treated or recycled.

The project considers the reservoir conditions, petrophysical properties of rocks and their evolution due to fracturing, and also the methods of treatment and minimization of the environmental impact of the backflow in the fracturing process. The project will also facilitate the strengthening and sharing knowledge base in the fields of research and technological topics and issues of unconventional shale reservoirs.

