

## Abstract

The topic of this thesis is a groundwater modelling of the cenomanian sediments in the north area of the Police basin. The text is divided into a part of a characterization of the cretaceous sediments from geological and hydro-geological view based on literature. Another part is about a theory of the mathematical modelling in hydrogeology. The main part is related to the groundwater model of the Police basin. This part contains concept and description of the groundwater modelling in software Feflow, which is based on the finite element method. The results, (of the two variants with slightly different boundary conditions), are compared to the model of the same area from the authors Jakeš et al. (1996), who used another software (Modflow) with a different method of the calculation (the finite difference method).