

Abstract

The protected landscape area of Blanský forest is located in the region of South Bohemia, 12 kilometres south-west from the town of České Budějovice. Its geological environment consists of the granulite massif Blanský forest including a lot of bodies of ultramafic rocks – serpentinised peridotites, then we find gneisses of varied unit of Český Krumlov with many different types of rocks – crystalline limestones (marbles), amphibolites, quartzites and graphitic parts. This bachelor thesis aims to sum up as much hydrogeological data and knowledge about the area as possible.

It presents characteristics of the hydrogeological environment like disposition of rocks to transport groundwater due to the influence of weathering, fissured zones and tectonic deformation. In its next part this thesis quantifies the hydraulic properties of present rocks by the number of the order of transmissivity magnitude Y and compares these results from pumping tests with theoretical opinions mentioned above. It also considers chemical and physical properties of groundwater, the influence of mining and the water resources treatment. There are presented field data from hydrogeological mapping too. As the last part of this thesis, hydraulic and other data from hydrogeological boreholes which have been drilled until this time were collected and sorted for future-following analysis.

Based on measured data of Y , springs and mines and due to practical experience, the varied unit and the area of ultramafic rocks around Křemže are considered to be the most conductive for groundwater. From Quaternary sediments, deluvial debris and fluvial sand and gravel sediments are high conductive too.

The amount of water rising in spring vary from some hundredth to some tenth of liter per second, even amount higher than one liter per second is not unusual.

The chemical composition of groundwater is described by Ca-Mg-HCO₃ class, overprinted by Ca-HCO₃ class in marbles area and Mg-HCO₃ class in ultramafic rocks area.