

Summary:

This thesis is focused on mapping of contaminants released into the environment probably due to uranium mining. These chemical contaminants are used to reconstruct the sedimentary processes. The aim of the thesis was both the geochemical assessment of the situation in the catchment area of the Ploucnice River in Boreček using the flood sediments from the research points as sedimentary archives pollution for last decades. With depth profiles, gamma wire log, XRF and enrichment factors (LEF), we have tried to perform chemostratigraphic correlation of the sediments. As target elements U, Ba, Zn and Ni were chosen, whose concentrations are related to the grain size of the sediment. Furthermore, the theory of secondary pollution is developed.