

increased again in the same percentage spread. Repeated analyses of 33 samples of the Vipava spring 4/2 taken from November, 13, 1995 till November, 21, 1995 was performed. The decrease of the uranine concentration of the samples stored in glass flasks ranges between 1 and 9 %, while the decrease in the uranine concentration of the samples stored in the plastic flask was 3 to 100 %.

Therefore in calculating of the tracer recovery for the 4th tracing experiment we considered only the concentrations measured in the samples stored in the glass flasks.

6.3.5. The Background Concentrations of the Used Fluorescent Dyes (M. ZUPAN)

Most of the spring water in the investigation area is used for water supply and therefore the number of appropriate tracers was very limited. Only the use of two fluorescent dyes, uranine and pyranine, was permitted. Additionally the time intervals between the tracing tests were relatively short. Therefore we measured a great number of samples to estimate the background concentration in the springs. As background samples we took into account all intermediate samples between two consecutive tracing experiments. In Tab. 6.16 the number of measured samples and the concentrations were shown. Beside the dyes used in the tracing test we determined some signals at the characteristic wavelengths for other fluorescent dyes.

During the first tracing experiment emission peaks with maximal wavelength, significant for eosine appeared in the samples of the Hubelj spring. We evaluated these peaks according to the calibration curves of eosine. It would be possible that they belong to compounds of an unknown source. Eosine we determined in 88 samples taken from November 2, 1993, to February 18, 1994. The measured concentrations were 0.010 - 0.115 mg/m³.