

Characteristics of vertical profile of Oxygen and hydrogen isotopic ratios, tritium and radon concentrations of groundwater

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Natural isotopes such as oxygen and hydrogen, tritium and radon of groundwaters collected by deep wells having from 100 to 150m depth in the Echi river alluvial fan have been measured to examine the characteristics of their vertical distributions. Water samples were collected from 11 bored wells at the positions of screen setting. The goal of this study is to clarify the groundwater flow in the Echi river alluvial fan using natural isotopes and by hydrological method. The oxygen and hydrogen isotopic ratios show different values at each site, however, the vertical change of their values are found to be small at each site. Tritium concentrations also show small vertical change, except for several wells. However, radon concentrations show remarkable vertical changes. These results indicate that the values of natural isotopes of groundwaters collected by pumped up show nearly equal to those of groundwaters collected from different aquifers for oxygen and hydrogen and tritium concentrations, except for the new bored wells. However, those values have no representation for radon concentrations.