

Confined Groundwater Flow System in the Aizu Basin

Tamami Watanabe[1]; Akihiko Inamura[2]; Masahiko Makino[3]; Masaya Yasuhara[4]; Yoshinori Sato[5]; Nobuaki Naito[6]; Yuichi Suzuki[7]

[1] Graduate School of Geo-Environmental Sci., Risho University; [2] Geol. Surv. J.; [3] GSJ, AIST; [4] Geol. Surv. J.; [5] Soc. Sci., Joetsu Univ. of Ed.; [6] Risho Univ; [7] Geo-Environmental Sci., Risho Univ.

The Aizu Basin is located on the western part of Fukushima Prefecture, and there are many flowing wells at its central part of the basin.

The purpose of this study is to make clear the confined groundwater flow system in the basin and classification of confined aquifers at the central part of the basin. In this paper, the authors present the basic water qualities and the stable isotope ratios of confined groundwater in the basin.

Cl⁻ concentration is 20mg/l in the south of Kitakata city and Yukawa town, SO₄²⁻ concentration is 30mg/l in the southern part of Kitakata city, and HCO₃⁻ concentration is 200mg/l in Yukawa town. The stable hydrogen isotope ratios is -72~-57 per mil in the basin. The δ-values are between 13 and 20. The stable carbon isotope ratios are about -20 per mil in the central part of the basin, and -6~-4 per mil in Yukawa town, in the eastern part of the basin.