

Experimental study on activity evaluation of Matsudai mud volcano using subsurface temperature

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There are two active mud volcanoes in Matsudai area, Niigata prefecture. Although many studies have been made on the microtopography, geological structure, and geochemical characteristics of groundwater and dissolved gases in these mud volcanoes, little has been written on the long-term change of flux of groundwater and dissolved gases. We have attempted to estimate long-term change of groundwater behavior by analyzing subsurface temperature fluctuation to evaluate activity of mud volcano. Subsurface temperature has been observed for every hour at intervals of 4m within a borehole that had been dug directly under the Muro no mud volcano. We will make a quick report on the result of measurements.