

A tentative study for the prediction of the end-of-eruption of Usu volcano

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The amount of heat energy and H₂O discharged from Usu volcano are estimated from April 2000 by use of the plume rise method. The amount of magmatic water are estimated from the observed heat flux and H₂O discharge rate by using a following model; volcanic plume is generated from the vapor that boiled with conductive heat from magma and latent heat of the magmatic water poured in aquifer. A half of water in the magma intruded during the 2000 eruption of Usu volcano was degassed up to October 2000. If the present activity will be continue, the water in the magma will be consumed until summer of 2001.