

## Magnetotelluric observation across the dyke intrusion of Asama volcano

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Wideband magnetotelluric(MT) profiling was carried out to reveal the resistivity structure of Asama volcano, which erupted on September 1st, 2004. The MT profile of 14 stations runs in N-S directions at the western flank. It crosses the dyke locations inferred from GPS deformation modeling. The dyke location is also consistent with the distributions of the volcano-tectonic earthquakes before the eruption. The two-dimensional modeling revealed basically the three-layered structure; the surface pyroclastic layer of ~1km, conductive layer of tertiary sediments and the basement. Two anomalous structures were found beneath the Kurumazaka Pass, west of the active peak of the Asama volcano. One is the anomalous conductor at 0-2km ASL and the other is a vertical anomaly located beneath the Kurumazaka Pass below ~7km.