

Arculate dike swarm and cauldron found in the Mino Belt, western part of Gifu Prefecture, central Japan

Atsushi Tanase[1]

[1] Engineering Geological Division, Sumiko Consultants Co.,Ltd.

Arculate dike swarm consist of quartz porphyry and granodiorite porphyry is emplaced in the Mino Belt surrounding the Oku-mino Acid Igneous Complex. The ring structure about 10km in diameter is assumed from the distribution of this arcuate dike swarm.

Pyroclastic flow deposits mainly composed of rhyolite welded tuff sheets named Horado and Yanagijima Masses which accompanied with granite mass are distributed inside of the ring structure. The same pyroclastic rocks named Itadori Mass are distributed outside of this ring structure. The ring structure newly found in the Mino Belt is named the Horado Cauldron and this cauldron is similar to Valles-type caldera.

From the structure of the Mino Belt distributed inside the cauldron, it suggested that the collapse altitude is 400 to 700m above with trap-door type subsidence.