Cenozoic volcanism occurred over a vast area in the eastern Asia, which comprise one of the presently active tectono-magmatic regions of the world. Among the volcanic fields in this area, the Quaternary volcanoes in Halaha River and Chaoer River area in Northeast China provides new information about the intra-continental monogenetic volcanism in eastern Asia. The Halaha River and Chaoer River volcanic field (HCF) are emplaced in the middle of Daxing'an Mountain range on the background of range uplifting. 35 Quaternary volcanoes, which scattered along a Quaternary NE strike fault, are discovered in the HCF. Quaternary volcanic rocks in HCF, mainly alkaline basalt, cover an area of ca. 400 km2. These volcanoes erupted in two main stages: Holocene and Pliocene. Both magmatic and phreatomagmatic eruptions are identified which formed a series of products, including scoria cones, tephra fallout deposits, fresh lava flows, typical fumarolic cones and lava hillocks. Studies on 33 scoria cones in HCF indicate that their crater diameters range from 150 m to 2300m with an median of 950m. The parameter of cone height range from 20m to 362m with an median of 150m. The crater diameters of two tuff rings reach 1950m and 2900m separately. The alignment of volcanoes orients toward 61 degree strictly.

Overall the HCF belongs to a monogenetic volcanism system. It is speculated that rift zone in this area control not only the alignment of volcanoes but also the construction process of scoria cones.

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