The Norra Kärr alkaline complex is an intrusion of agpaitic nepheline syenite, located approximately 10 km north of Gränna in southern Sweden (Fig. 1). The small complex is currently being explored for (heavy) rare-earth elements and zircons by Tasman Metals Ltd. The complex is elongated (1200 m N 5, 400 m E-W) with predominant S striking fabric that dips to the W.

Methods
Zircons were separated from the hanging wall granite where it visibly had been most affected by fissionation and where it had been least affected. Rare zircon xenocrysts were obtained from one sample of nepheline syenite. They were analysed by LA-MC-ICP-MS at the University of Oslo.

Results and Discussion
The unfossilised country granite was dated (Fig. 2) at 1791 ± 8 Ma (MSWD = 0.59). It thus belongs to the TIB1 suite (1.81–1.76 Ga) of rocks.

Norra Kärr alkaline complex
The main lithologic unit is a fine-grained green agpaitic nepheline syenite (lujavrite), which goes by the local name grennaité (Adamson, 1944). It is chiefly composed of nepheline, albite, microcline, aegirine, and eudialyte with common catapleiite.

The country rocks are mainly granitoids that belong to the Transscandinavian Igneous Belt. In the vicinity of Norra Kärr these have variably been altered by alkaline metasomatic fluids related to the intrusion event (fissionation).

Norra Kärr is located within a corridor of shear zones, which is a part of the Sveconorwegian Frontal Deformation Zone.