

country rock fragments.

Fluid inclusion assemblages (FIAs; groups of coevally trapped inclusions) representing late-stage magmatic-hydrothermal fluids were characterized by microthermometry using patches of interstitial quartz in a mineralized pegmatitic gabbro. The FIAs contain three-phase liquid-rich inclusions with halite daughter phases. Final homogenization in all measured inclusions occurred by halite dissolution at temperatures significantly higher than vapour bubble disappearance.

These preliminary measurements illustrate that suitable FIAs (i.e., not influenced by post-entrapment modification) show minimum trapping pressures from 2.1–3.0 kbars, with final homogenization temperatures ranging from 291 to 367° C, corresponding to bulk salinities of 37.5–44 wt% NaCl equivalent. For comparison, Ti-in-quartz thermometry for fluid inclusion-rich domains in the quartz indicate crystallization and inclusion entrapment between 650° C–750° C. The data suggest that if the inclusions are primary then actual trapping pressures are significantly higher than the minimum values estimated above. The study provides first constraints on the nature of late-stage fluids associated with the EBLI.

**A preliminary fluid inclusion study of interstitial quartz
from pegmatitic gabbro in the East Bull Lake Intrusion,
Ontario, Canada**

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The East Bull Lake intrusion (EBLI) is a Paleoproterozoic mafic-ultramafic (low-Ti, high-Al tholeiitic) intrusion located roughly 90 km west of Sudbury, Ontario. The intrusion itself consists primarily of massive and layered gabbro and gabbro-norite and is interpreted to be the product of crystallization of partial melts from sublithospheric depleted mantle, a remnant of a ~2.48 Ga large igneous/metallogenic province. The intrusion hosts disseminated-blebby PGE-Cu-Ni sulfide mineralization (0.5–2.5 ppm Pt + Pd + Au; up to ~10s of ppm locally in massive sulphide pods) primarily in its lower zones that are heavily contaminated by