

THERMOCHRONOLOGY OF THE MARGINS OF 'THE GAP', WESTERN AUSTRALIA

MINEX CRC PROGRAM 3

National Drilling Initiative

PHD PROJECT

University of Adelaide

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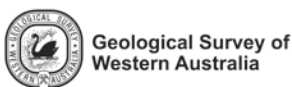
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RESEARCH PROJECT

This project aims to establish a geochronological and geochemically fingerprint for phosphates from mineralised provinces in western SA and eastern WA. Especially (mineralised) mafic rock will be targeted that are difficult to date by other means (e.g. Ni-Cu Fowler Domain), which will help to add time constraints on the geological context for mafic intrusions and their relative mineralisation potential. In addition, the fingerprint will be tested on cover sequences, aiming to aid exploration through cover.

More specifically, the project will take advantage of the recently developed in-situ Lu-Hf dating technique at University of Adelaide, as well as more traditional U-Pb dating methods.

Where relevant, samples will be 'triple dated' with the addition of fission track thermochronology to provide constraints on shallow crustal exhumation, with relevance for the preservation potential of deposits.