

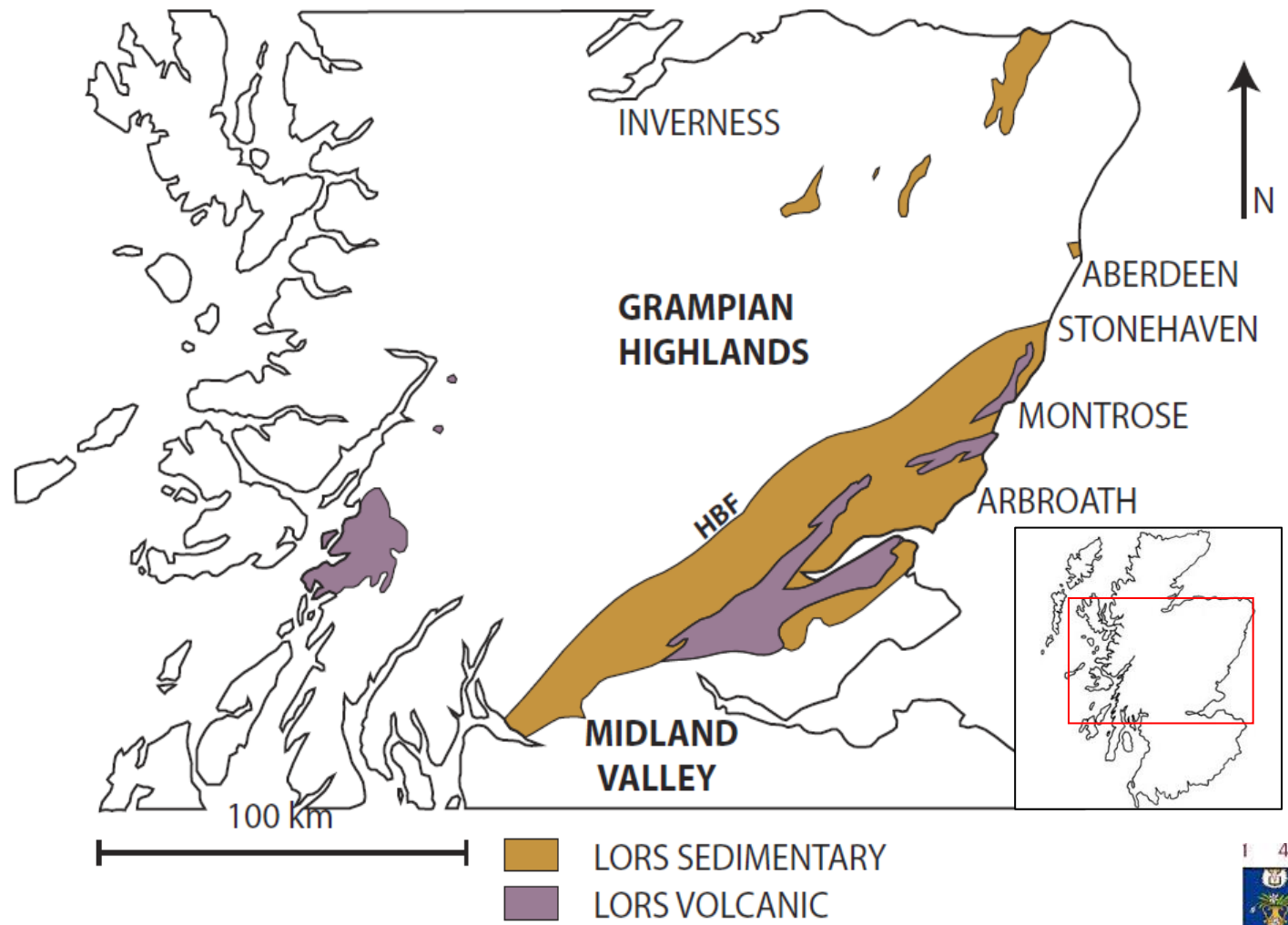
Stratigraphy and Provenance of the Lower Old Red Sandstone of the Northern Midland Valley Basin



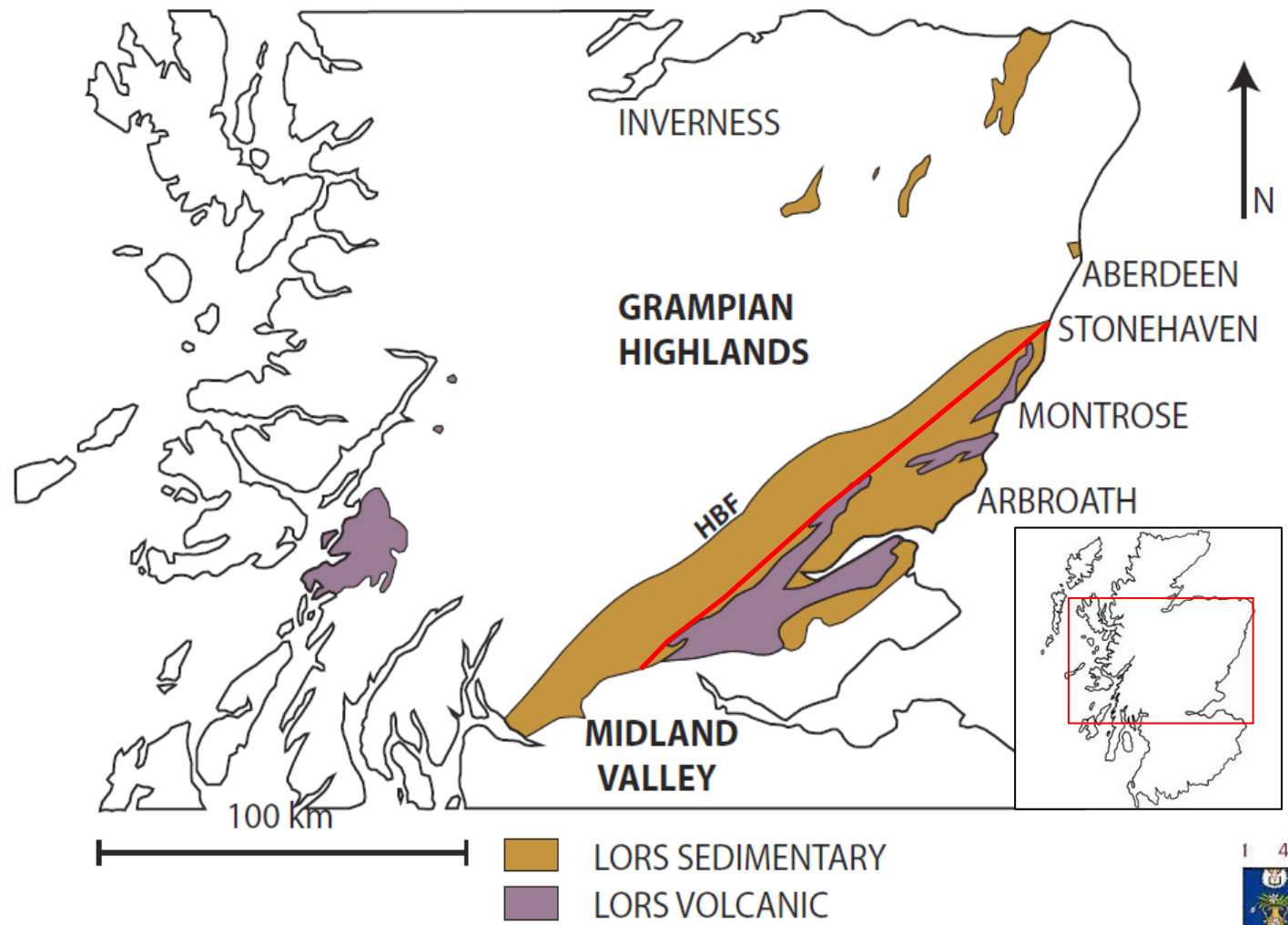
Z. McKellar, AJ. Hartley & DIM. Macdonald

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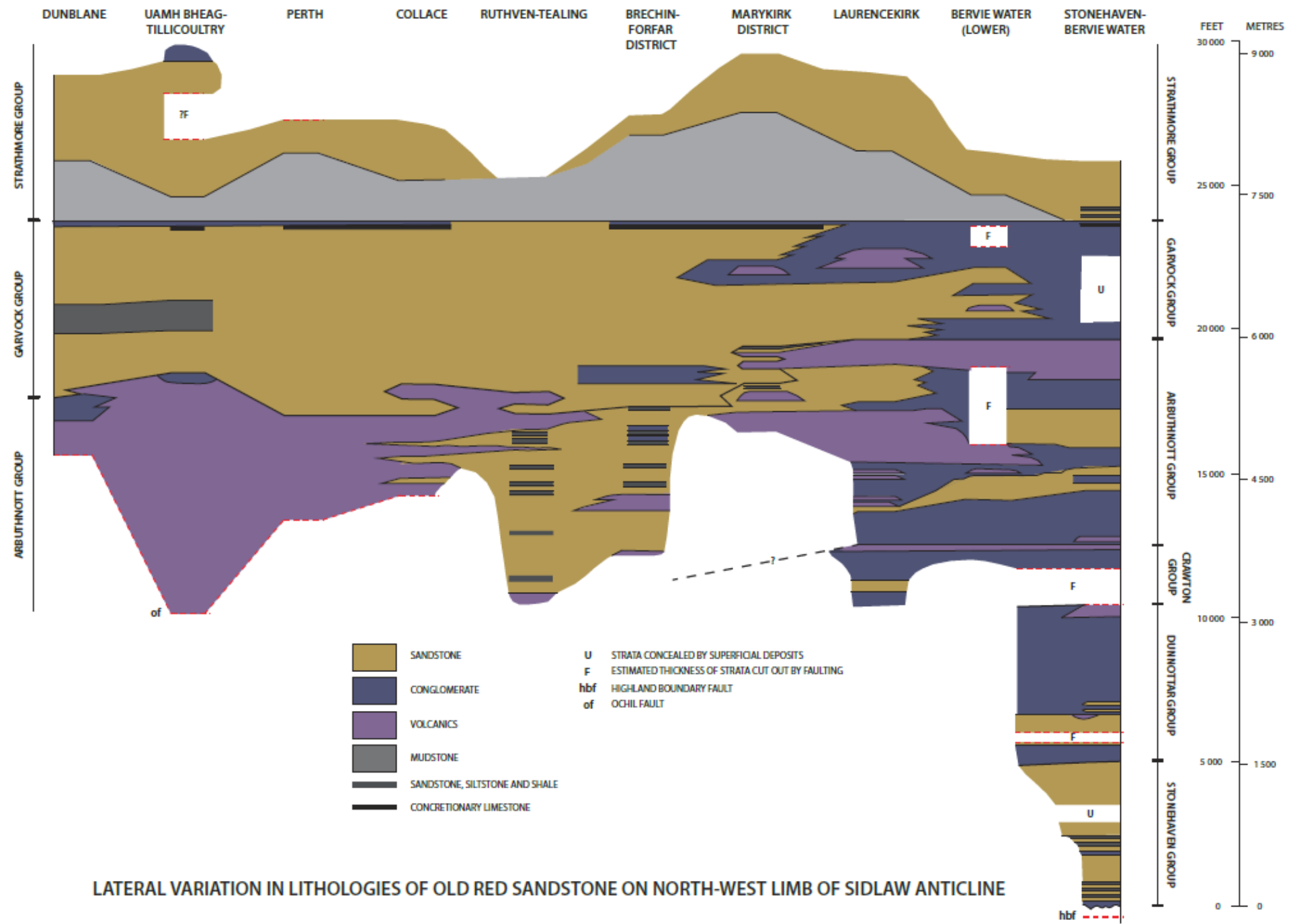
- Introduction to the Lower Old Red Sandstone and scope of study
- Description of lithostratigraphy
- Discussion of the variation in detrital components of the sandstone
- Summary of results and implications for provenance



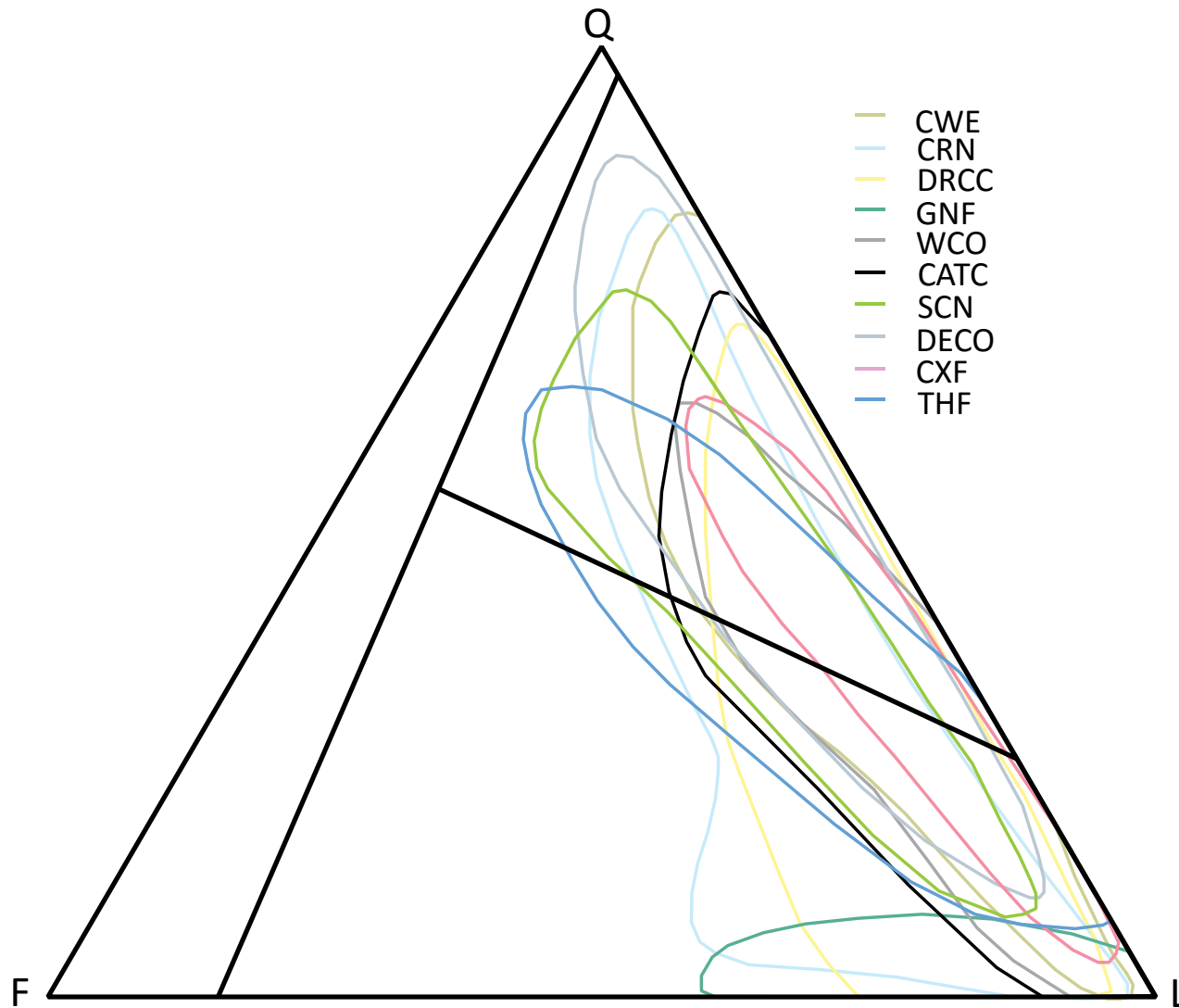
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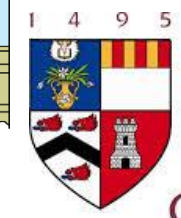
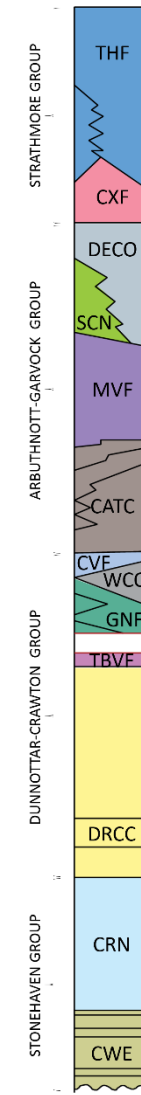
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LATERAL VARIATION IN LITHOLOGIES OF OLD RED SANDSTONE ON NORTH-WEST LIMB OF SIDLAW ANTICLINE



- CWE
- CRN
- DRCC
- GNF
- WCO
- CATC
- SCN
- DECO
- CXF
- THF



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Implications for Provenance

- No overall change in provenance evident from point count data
- Occasional spikes in volcanic lithic component may be attributed to localised volcanic activity
- Suggestion of a common provenance throughout the stratigraphy of the northern Midland Valley Basin
- Implies that the Lower Old Red Sandstone of the northern Midland Valley Basin is sourced from one main area

Conclusions

- No provenance change, despite 9km of sediment with high proportion of conglomerate filling the basin
- Implies source area rejuvenation and tectonic activity throughout deposition
- Likely source to east or north east