



Government of Western Australia  
Department of Mines and Petroleum

# Interpretation of the northeastern end of the YOM seismic line: constraints from field observations

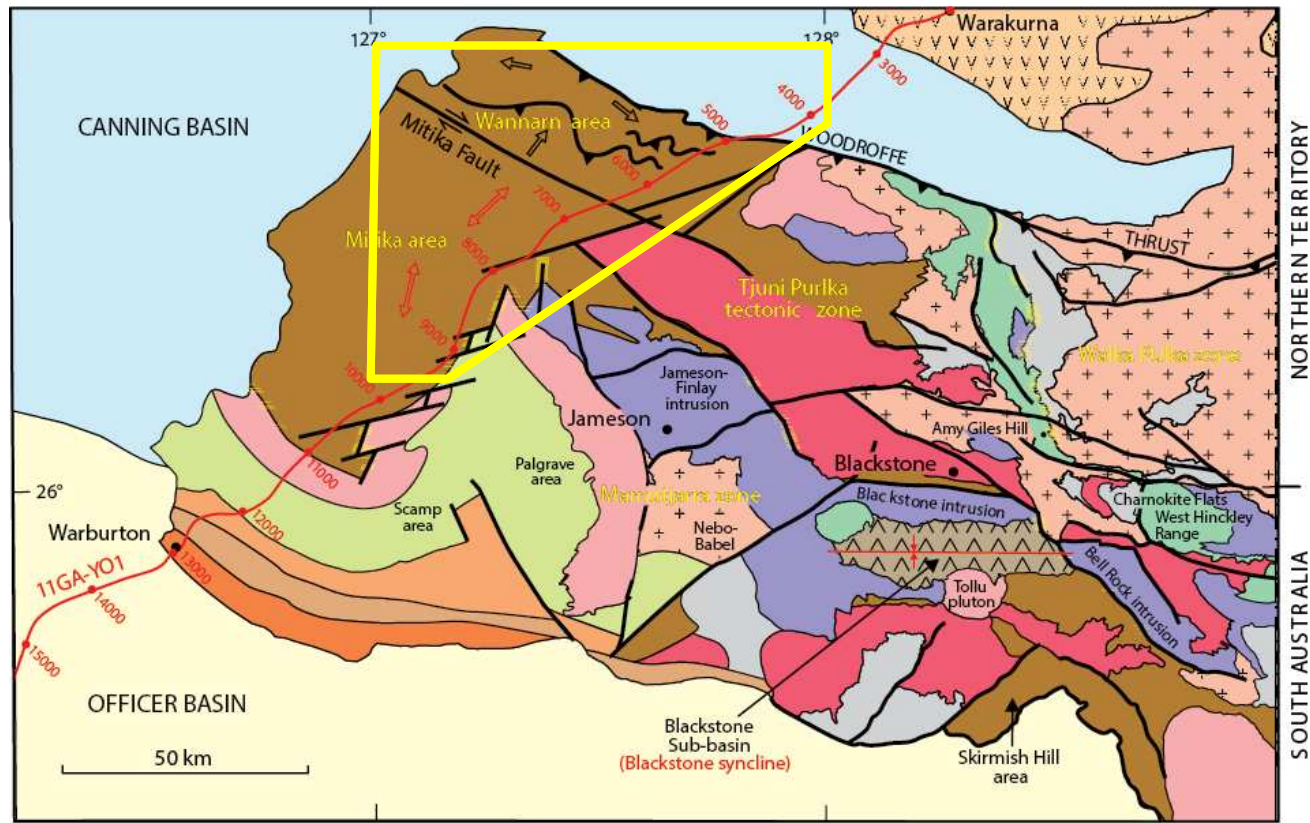
R. Quentin de Gromard, R. H. Smithies, H.  
M. Howard, C. L. Kirkland, M. T. D. Wingate,  
F. Jourdan



John de Laeter Centre  
Isotope Research for the Earth and Environment

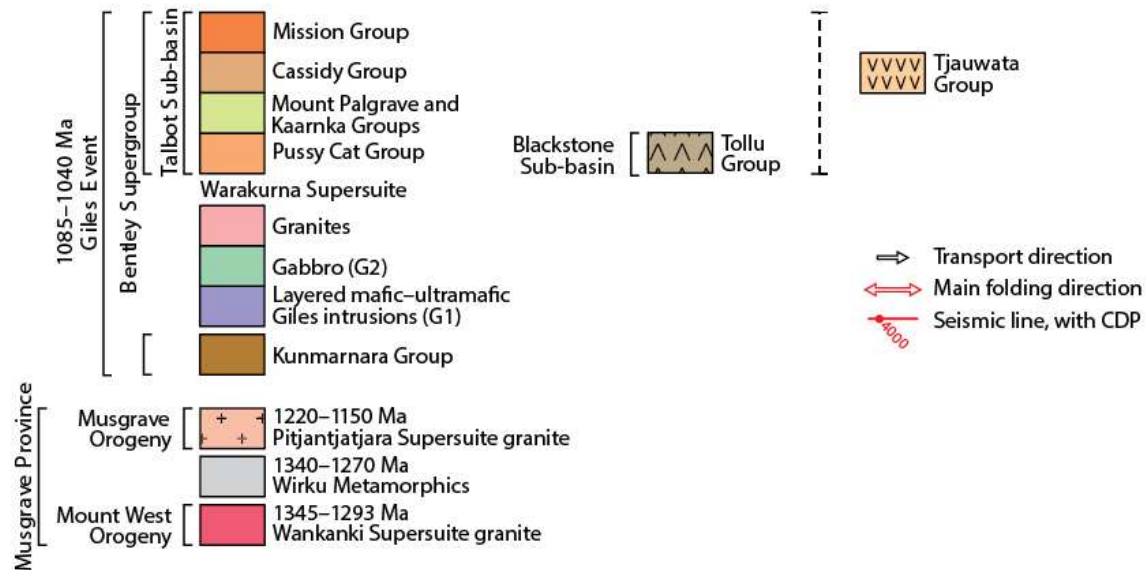


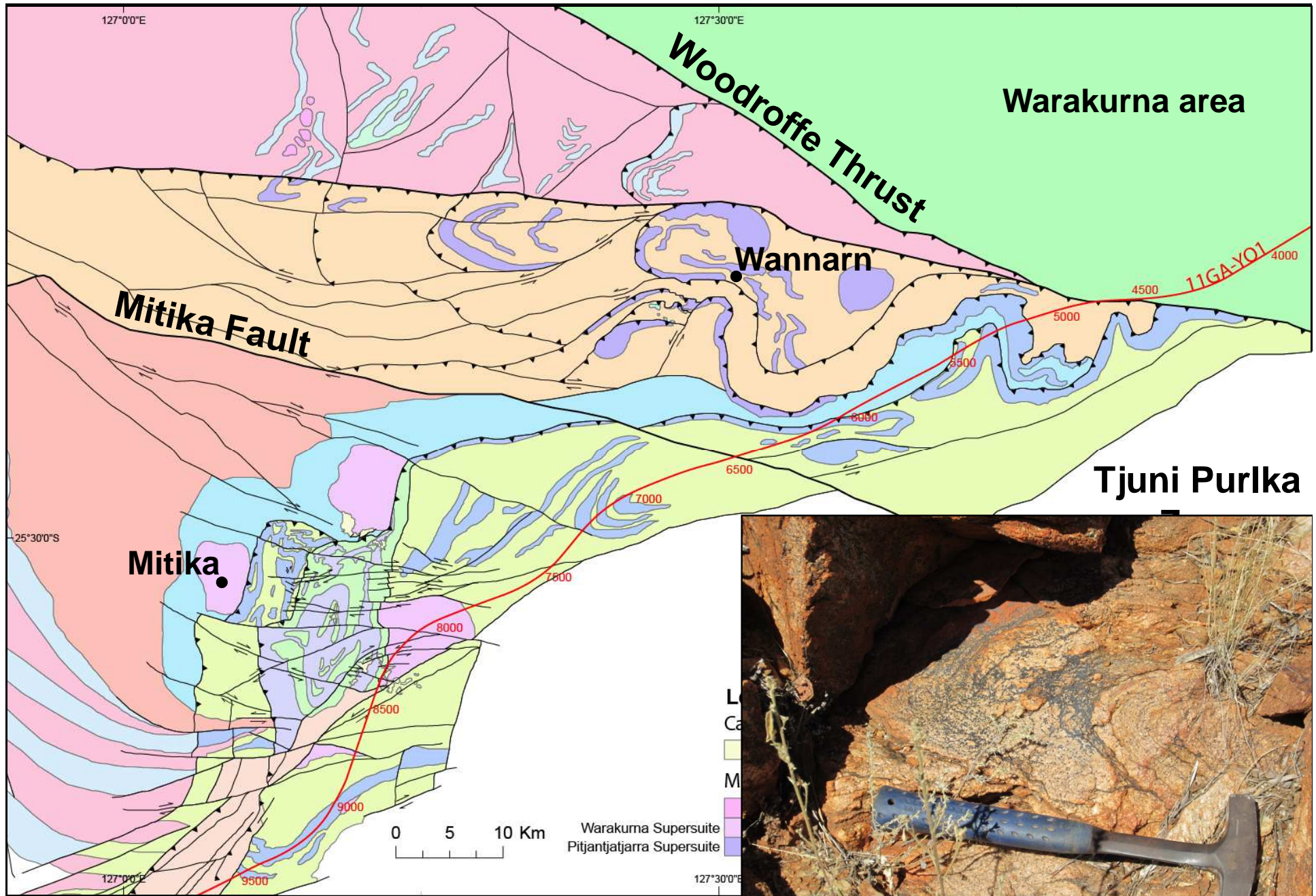
—NGANYATJARRA—  
COUNCIL (Aboriginal Corporation)

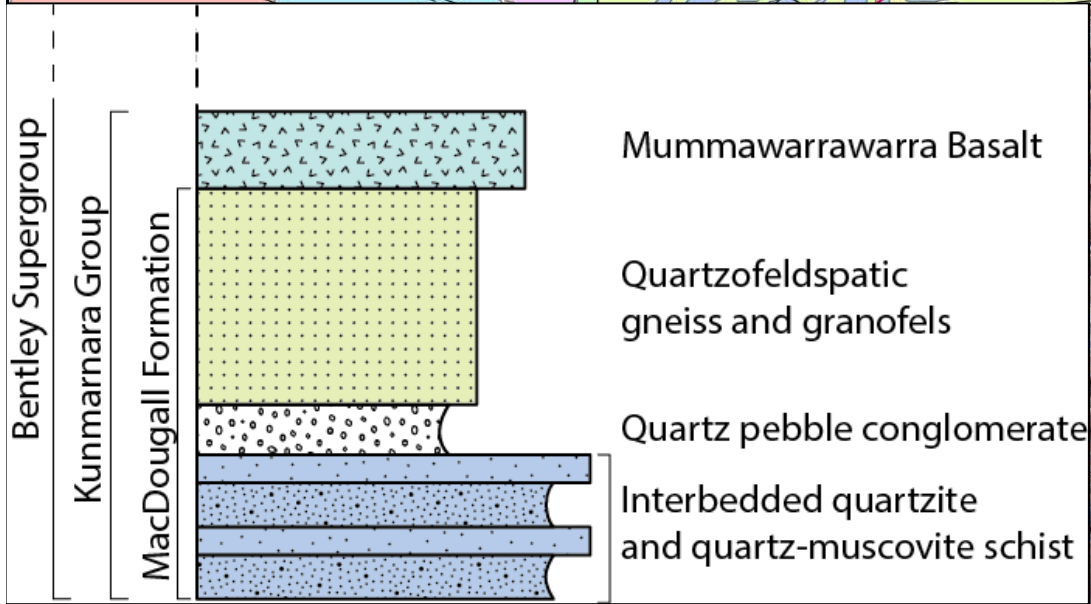
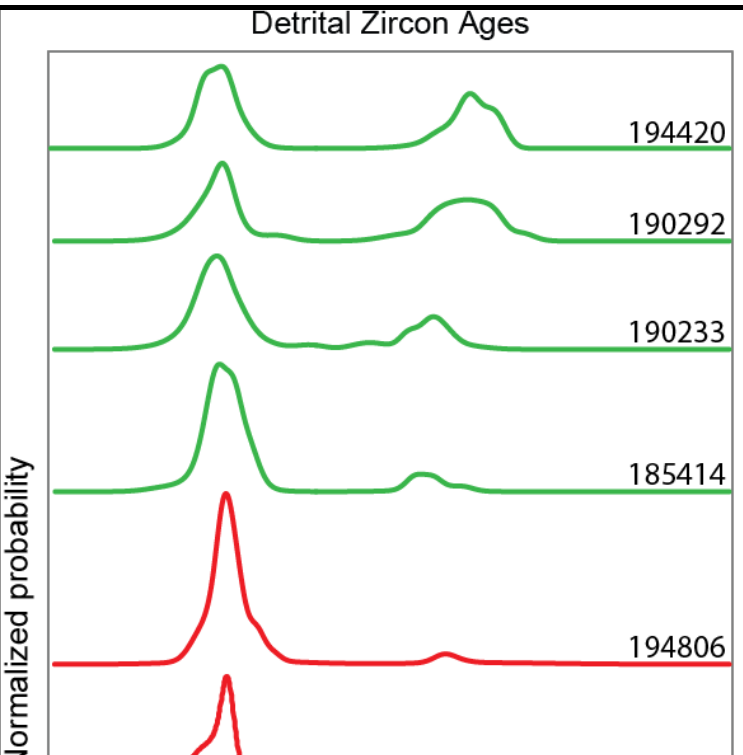
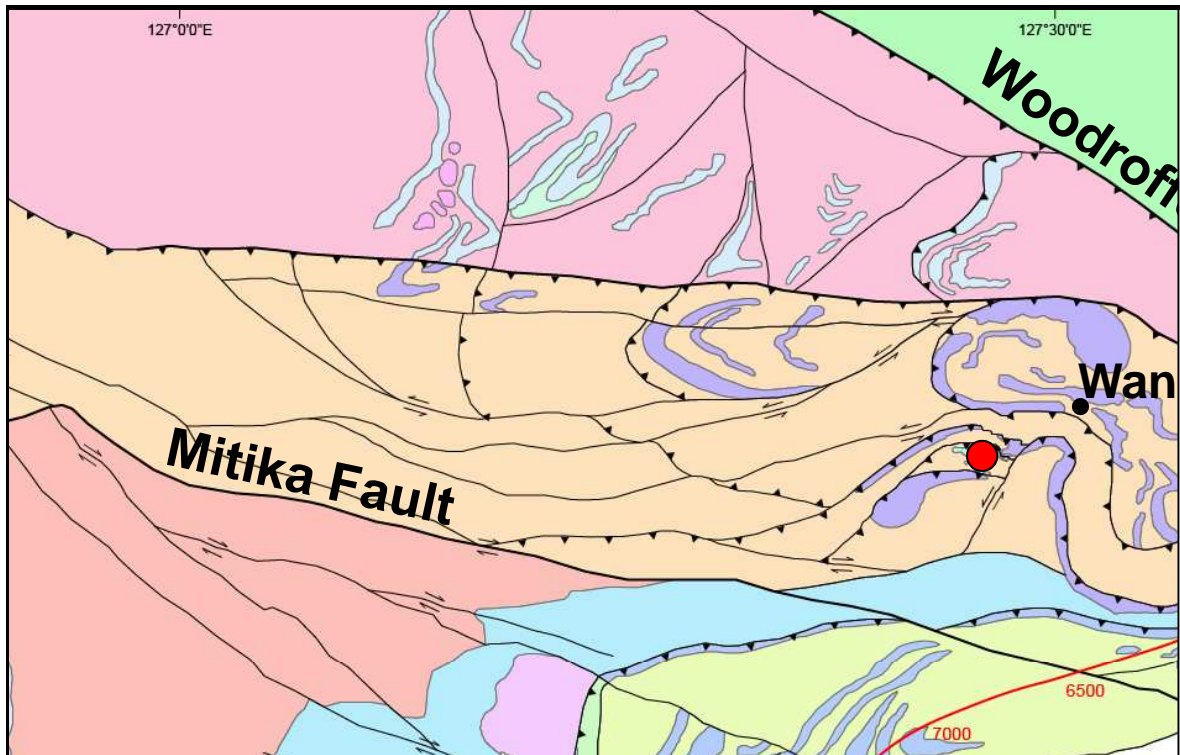


RHS449a4

15.04.13



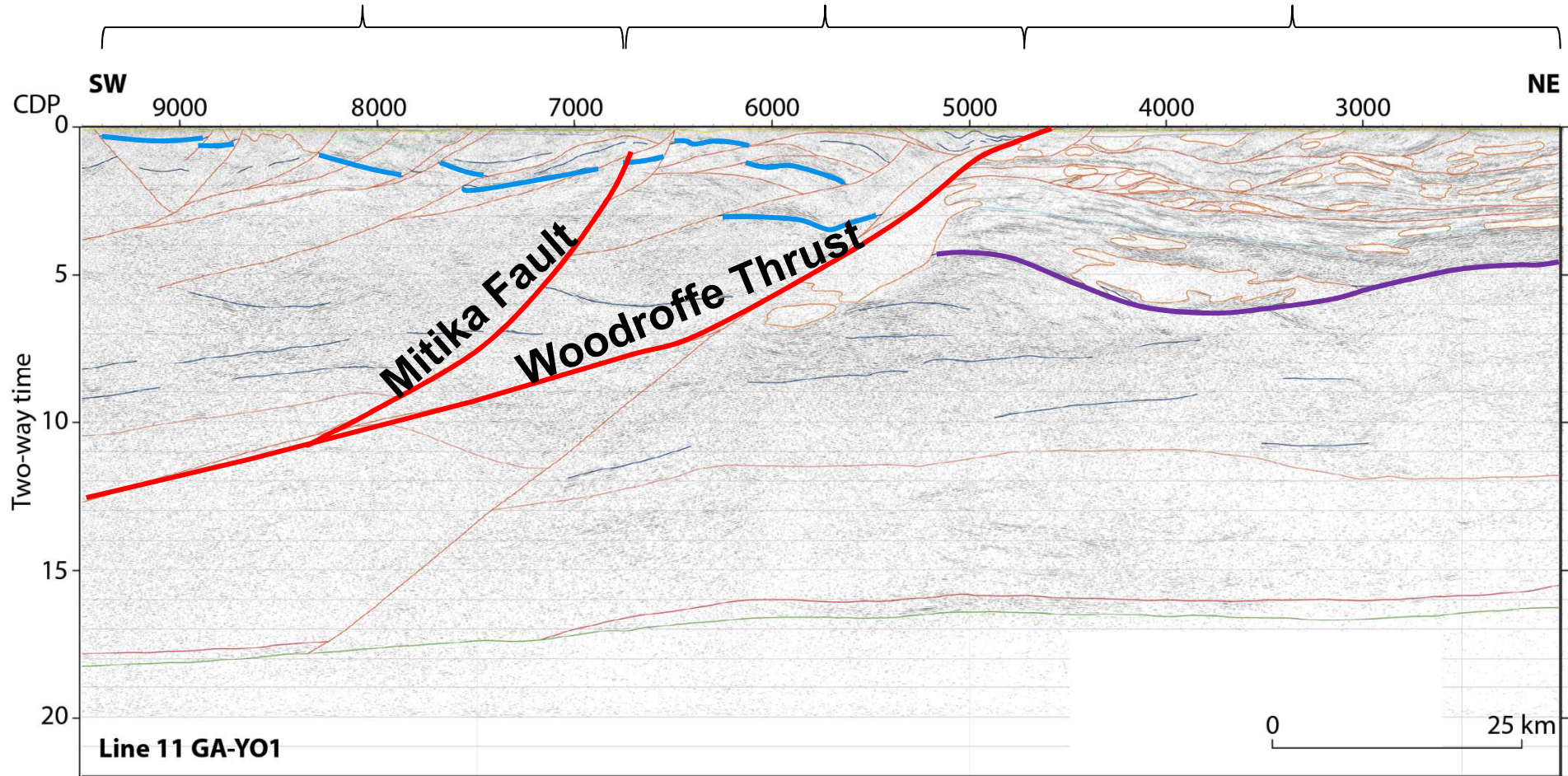




# Mitika

# Wannarn

# Warakurna

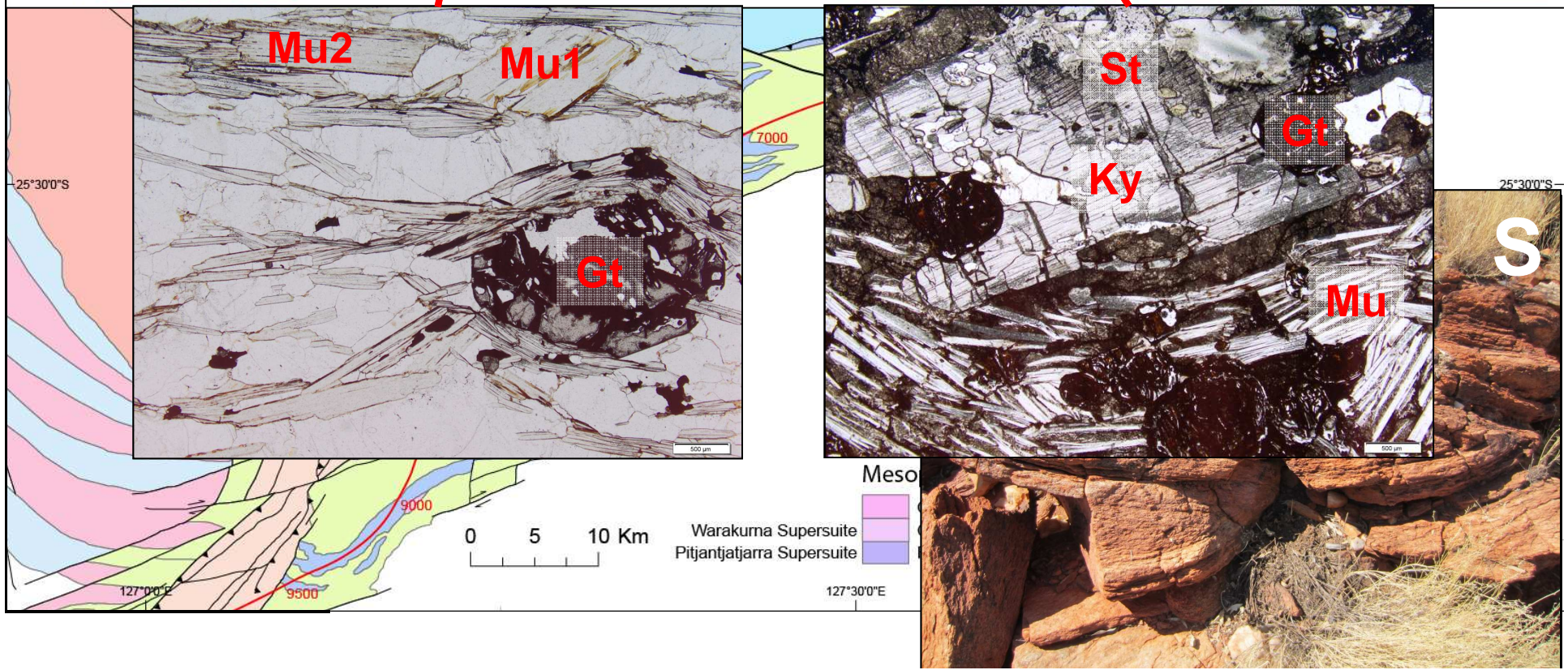
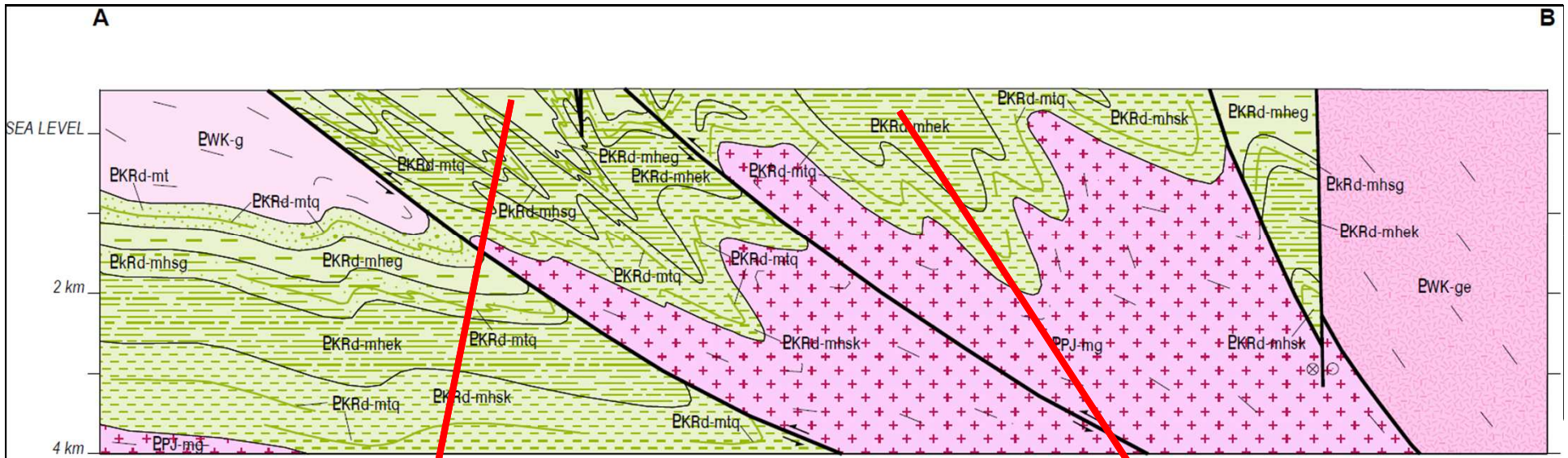


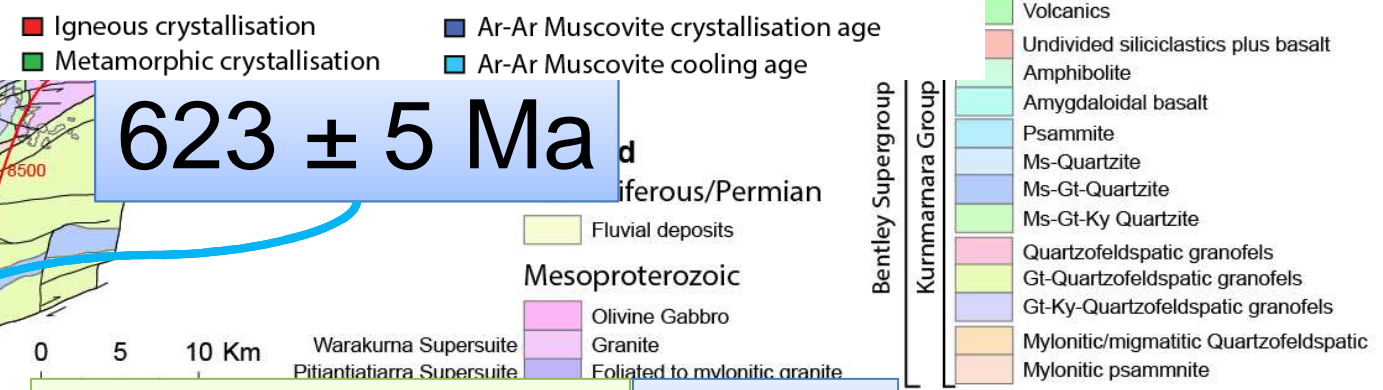
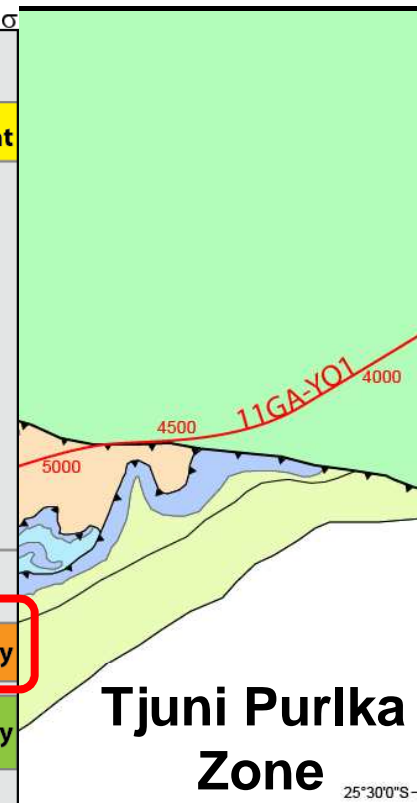
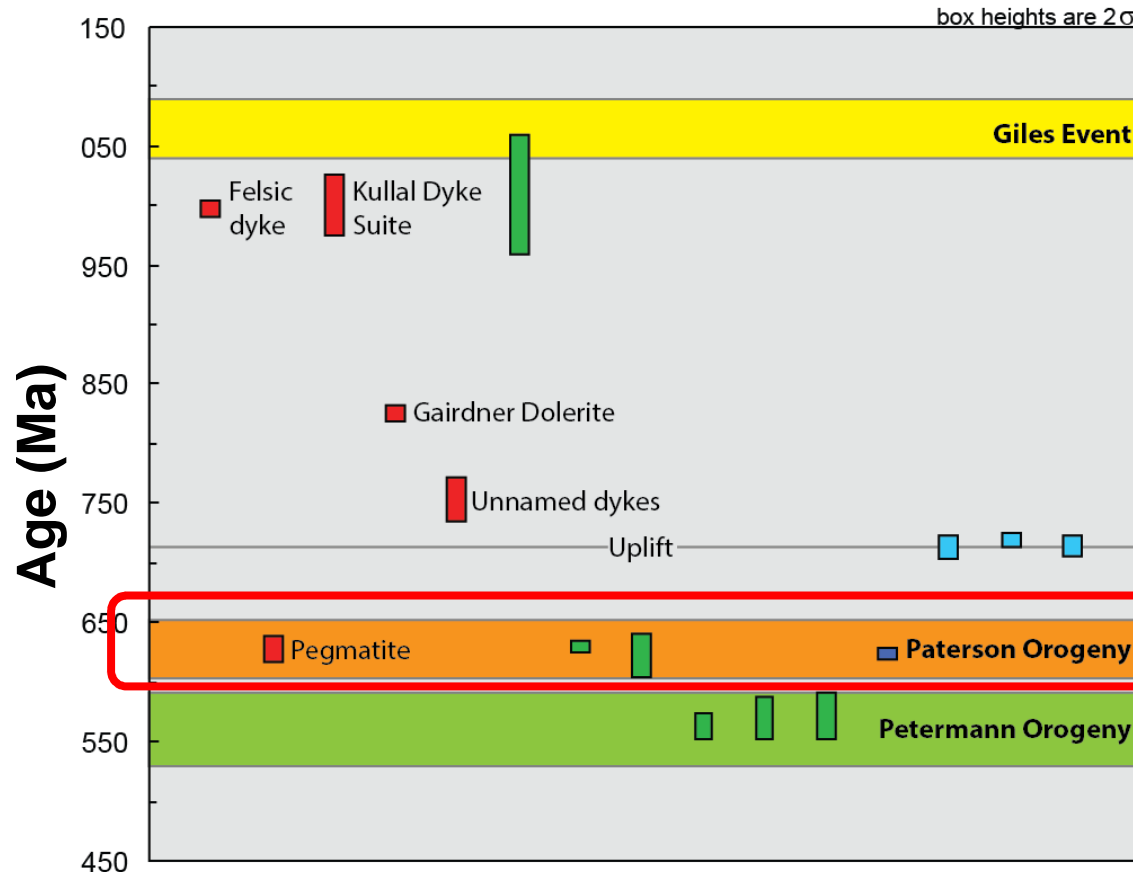
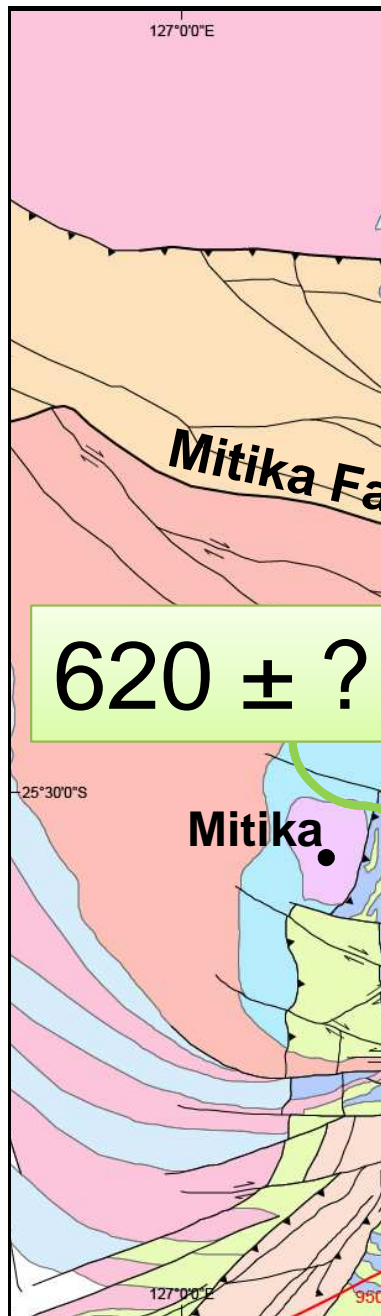
## Musgrave Province

- Base Permian or Cambrian sedimentary rocks
- Base Mission Group
- Base Cassidy group
- Base Pussy Cat Group
- Base Palgrave Group and equivalents
- Base Bentley Supergroup
- layered intrusion

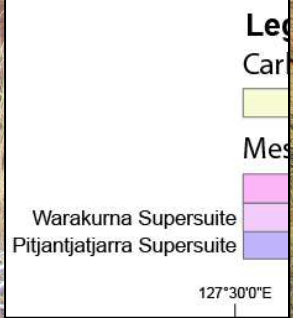
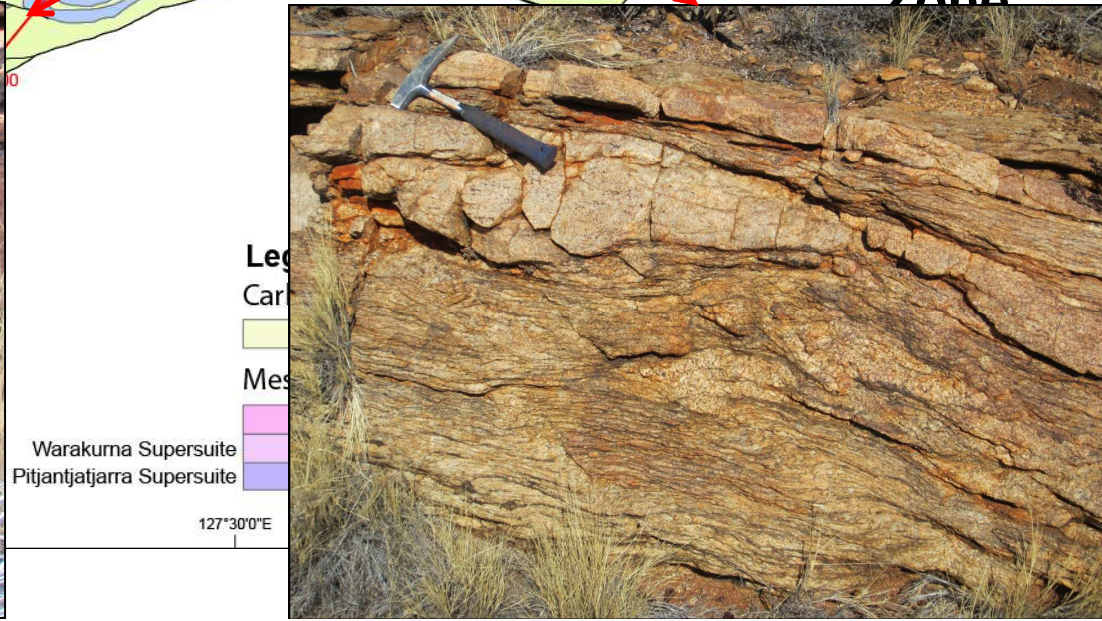
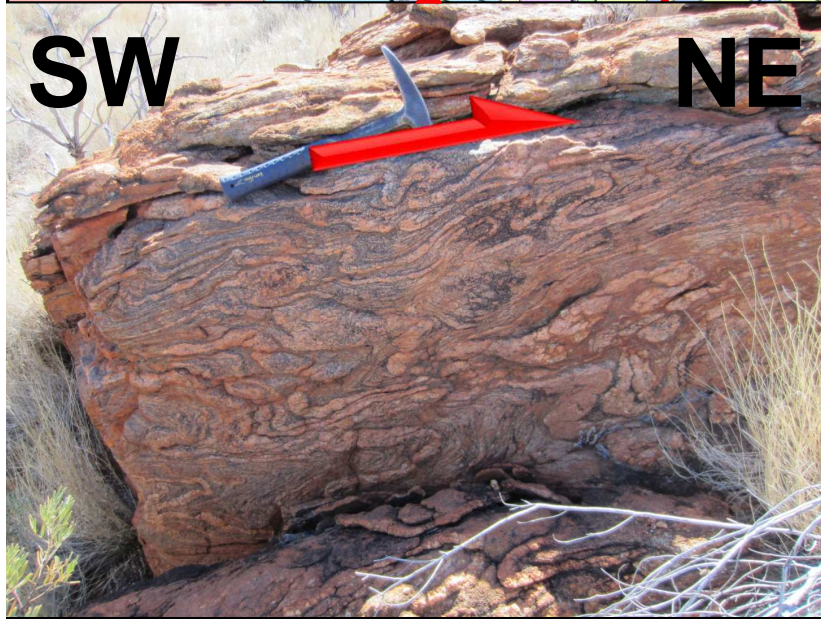
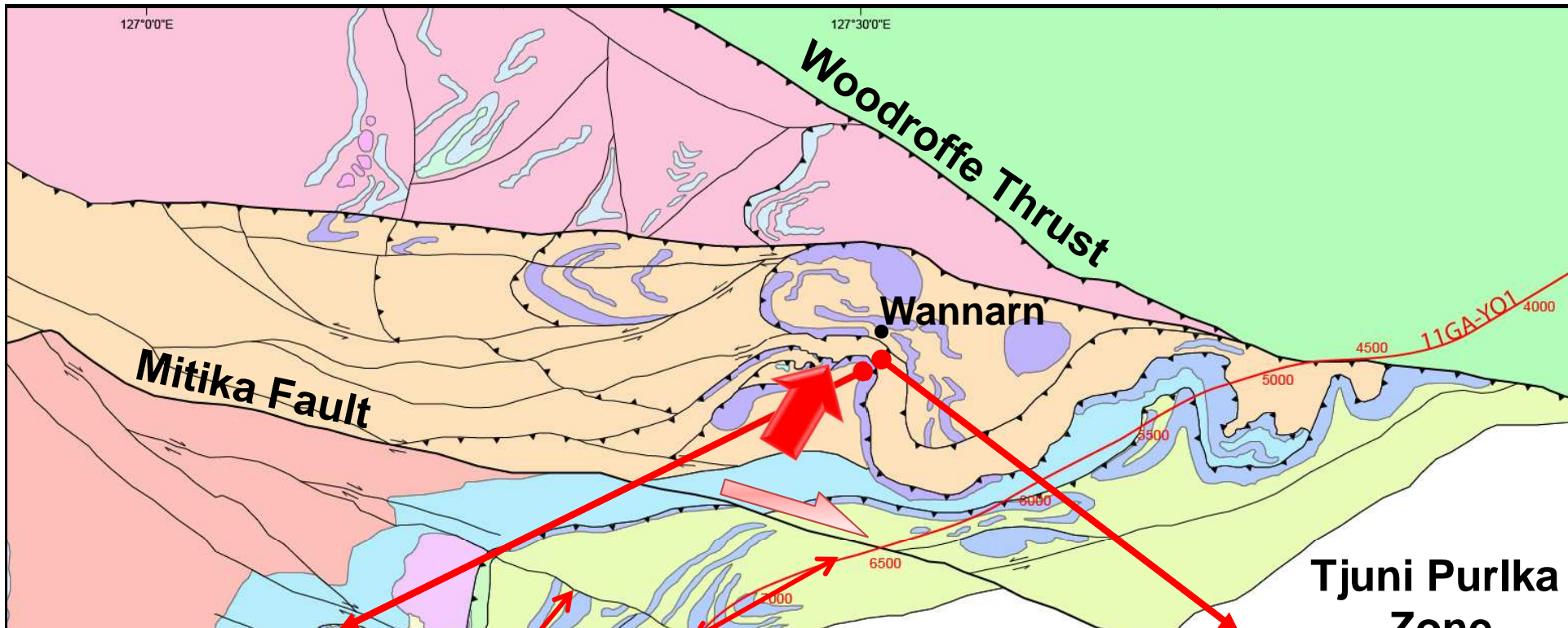
## General

- Base Cenozoic/regolith
- Base middle crust
- Top Moho transition zone
- Moho
- Base upper crust
- Fault
- Granite
- dyke/sill
- Form line





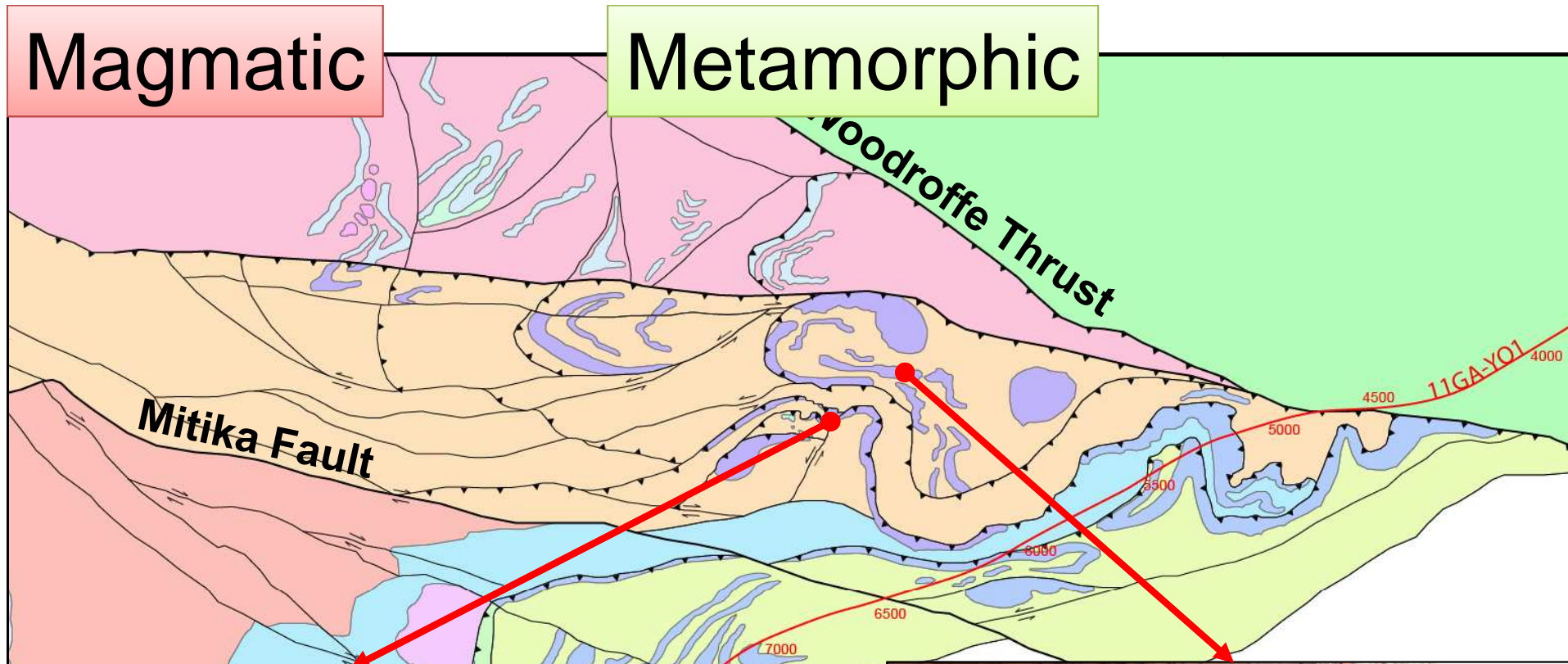
Metamorphic Ar-Ar





Magmatic

Metamorphic



~1575 Ma



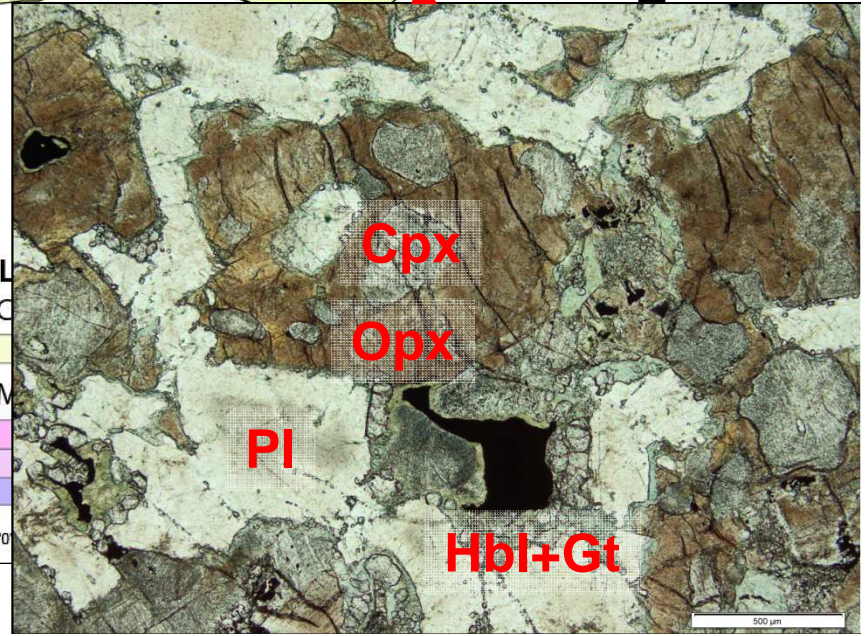
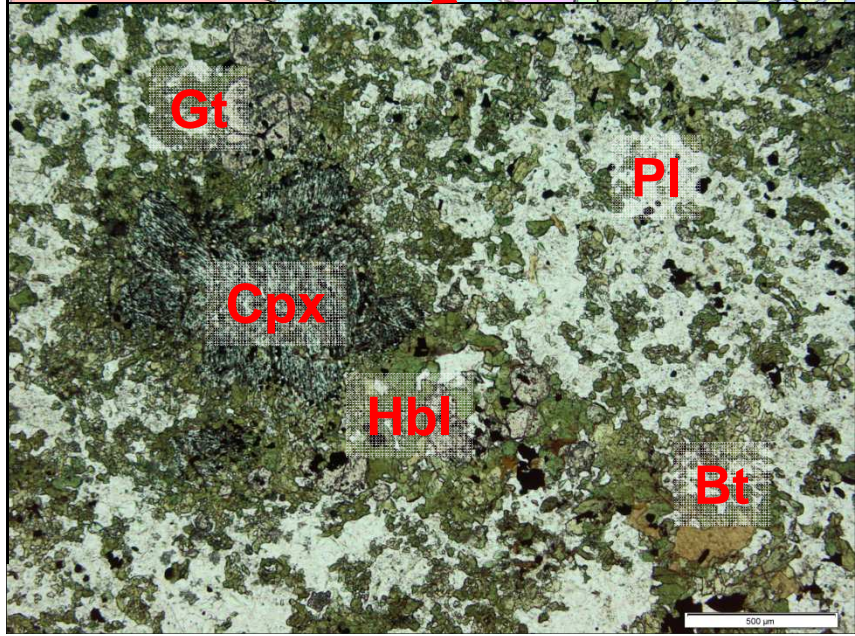
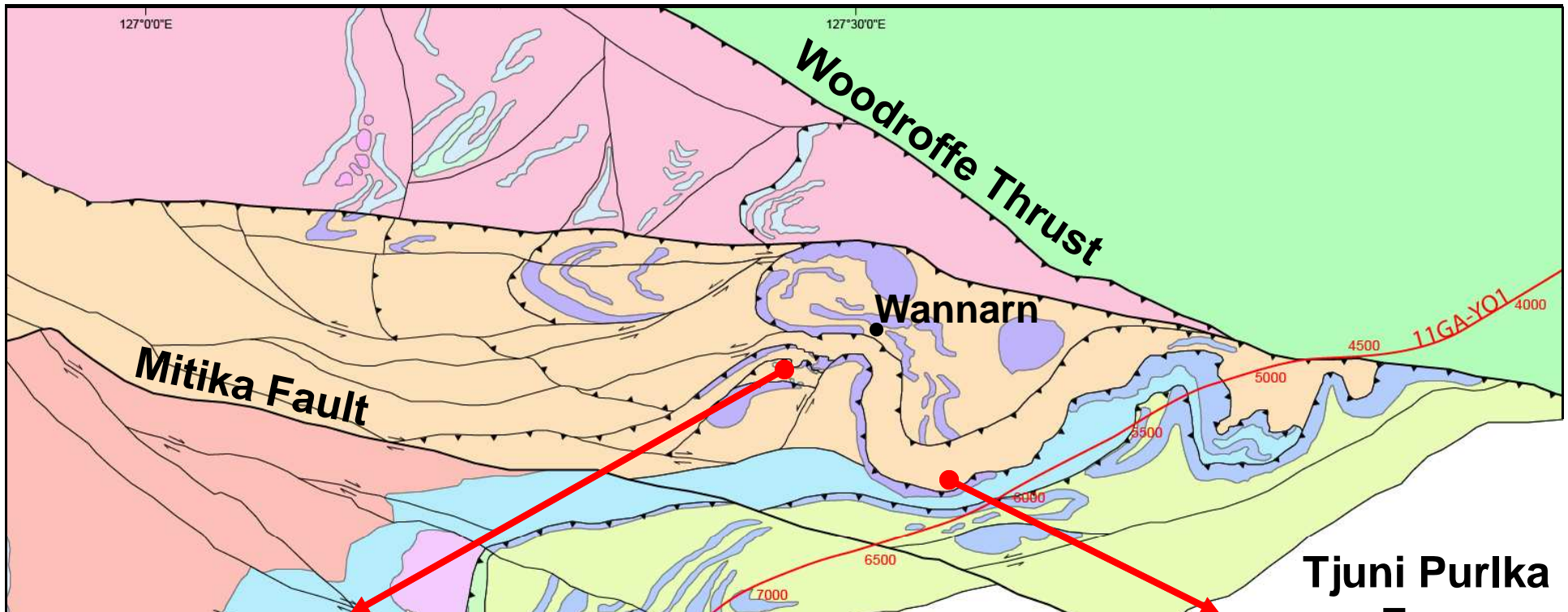
~1179 Ma

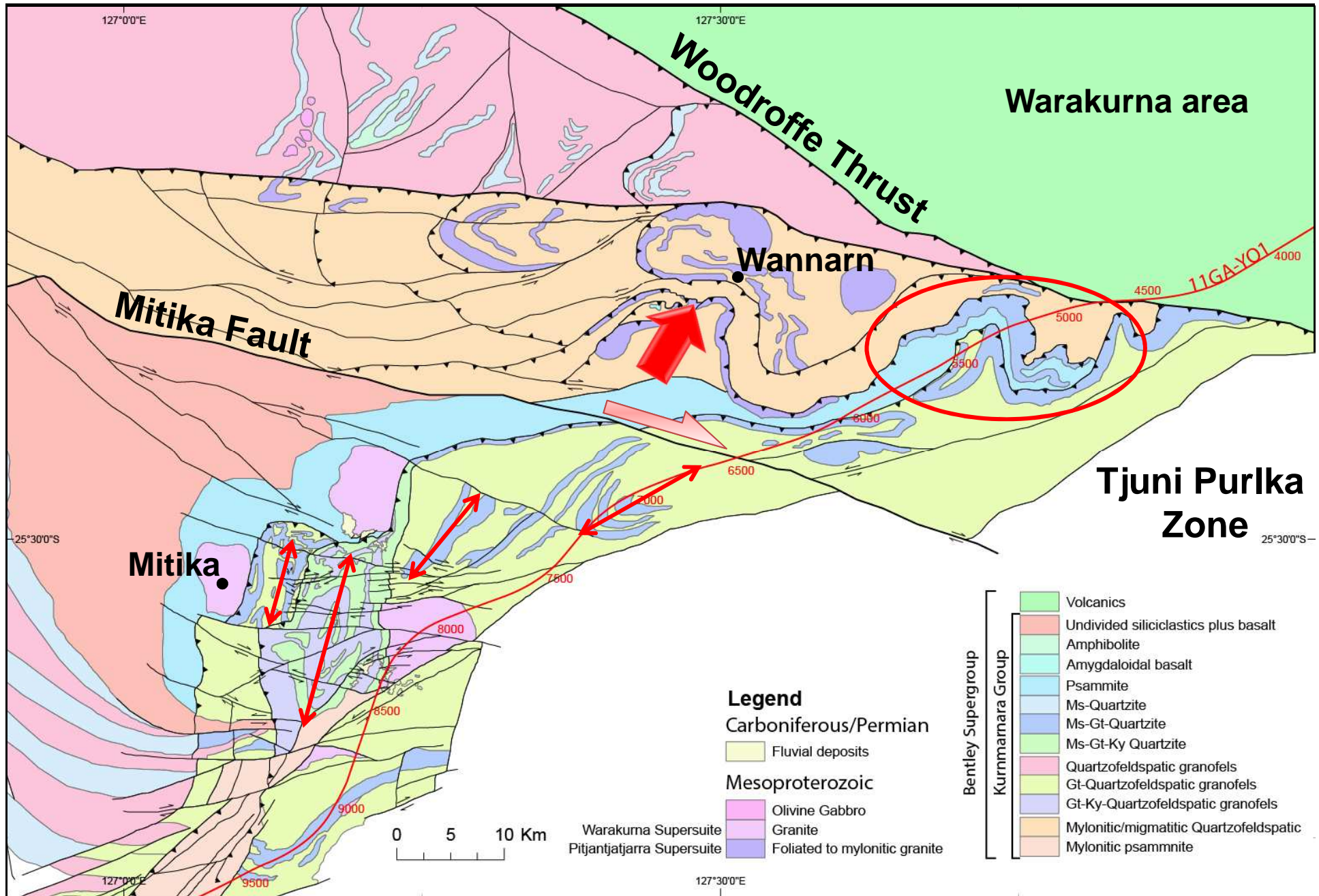


~1170 Ma

Warakuma Supersuite  
Itjantjatjarra Supersuite

127°30'0"





**Legend**

**Carboniferous/Permian**

Fluvial deposits

**Mesoproterozoic**

- Olivine Gabbro
- Granite
- Foliated to mylonitic granite

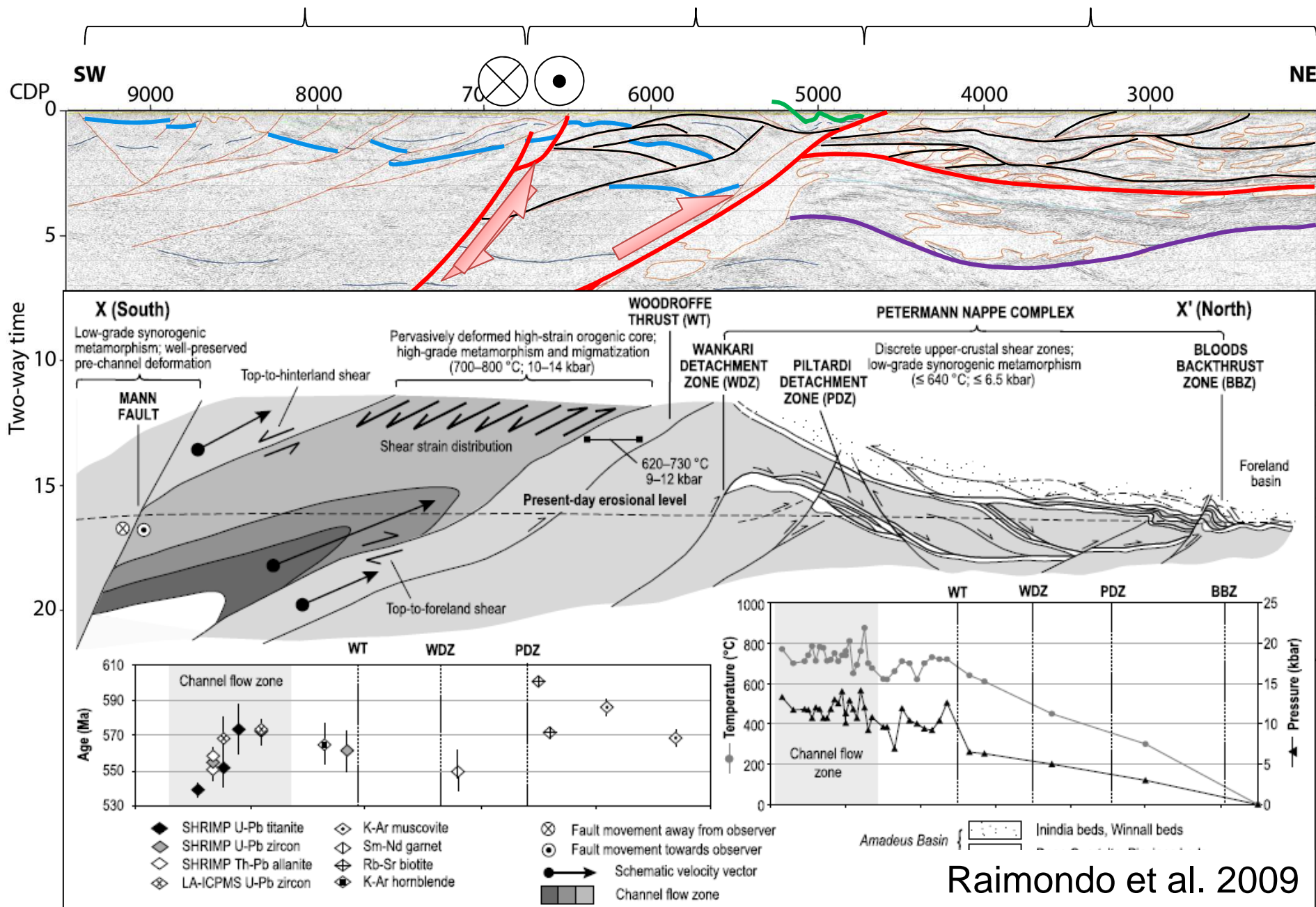
Warakurna Supersuite  
Pitjantjatjara Supersuite

- Volcanics
  - Undivided siliciclastics plus basalt
  - Amphibolite
  - Amygdaloidal basalt
  - Psammite
  - Ms-Quartzite
  - Ms-Gt-Quartzite
  - Ms-Gt-Ky Quartzite
  - Quartzofeldspatic granofels
  - Gt-Quartzofeldspatic granofels
  - Gt-Ky-Quartzofeldspatic granofels
  - Mylonitic/migmatitic Quartzofeldspatic
  - Mylonitic psammite
- Bentley Supergroup  
Kurramara Group

# Mitika

# Wannarn

# Warakurna



Raimondo et al. 2009

# Thank you

