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Figure 1

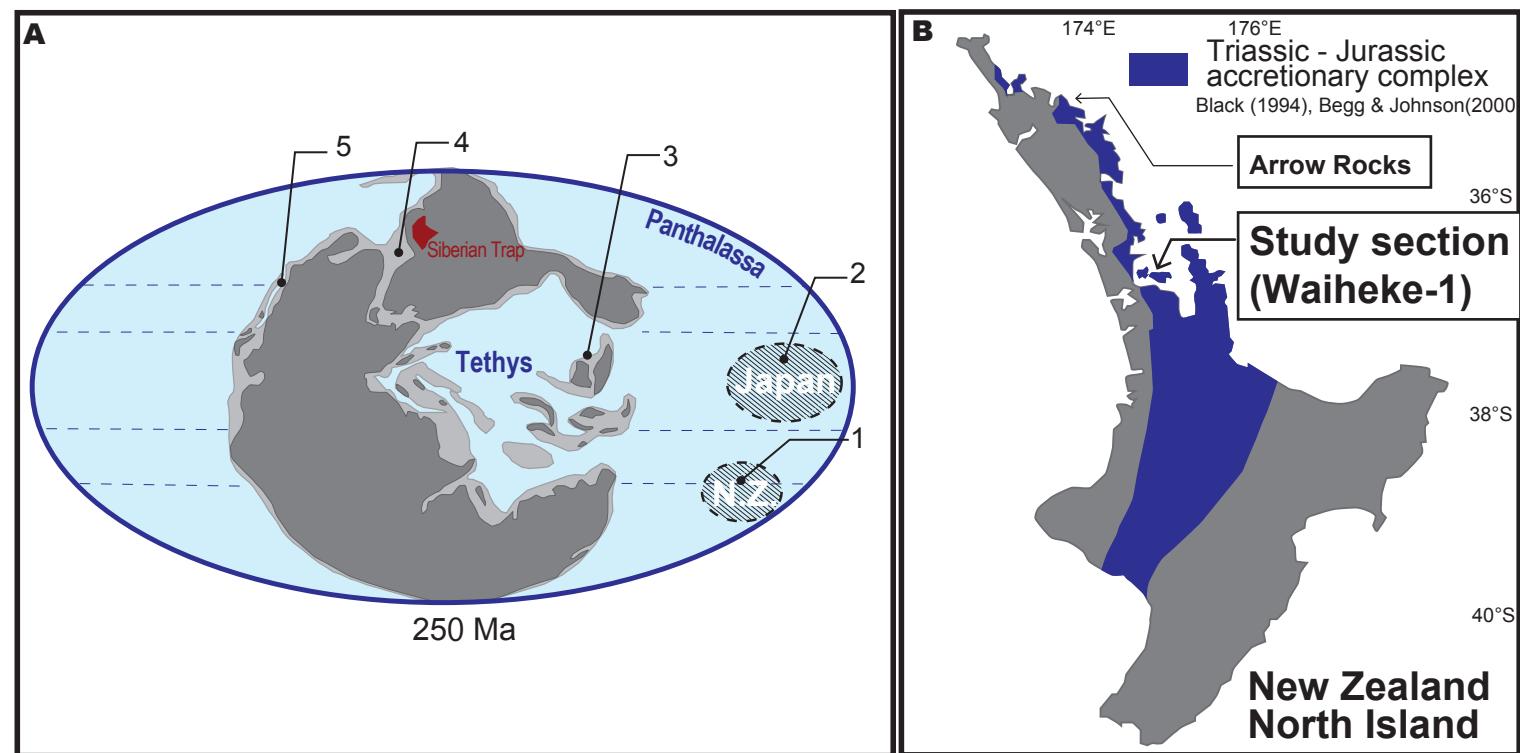


Figure 2

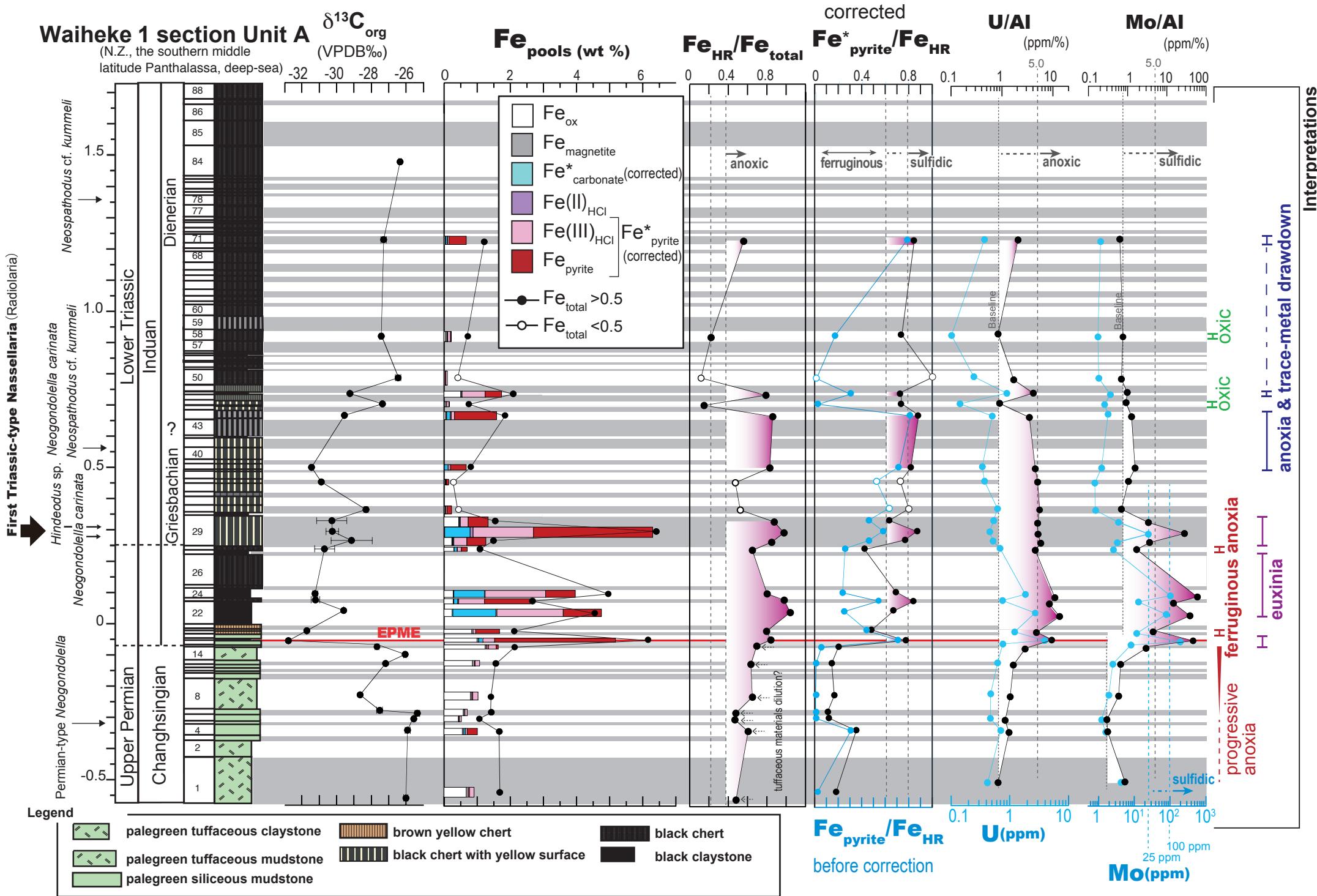


Figure 3

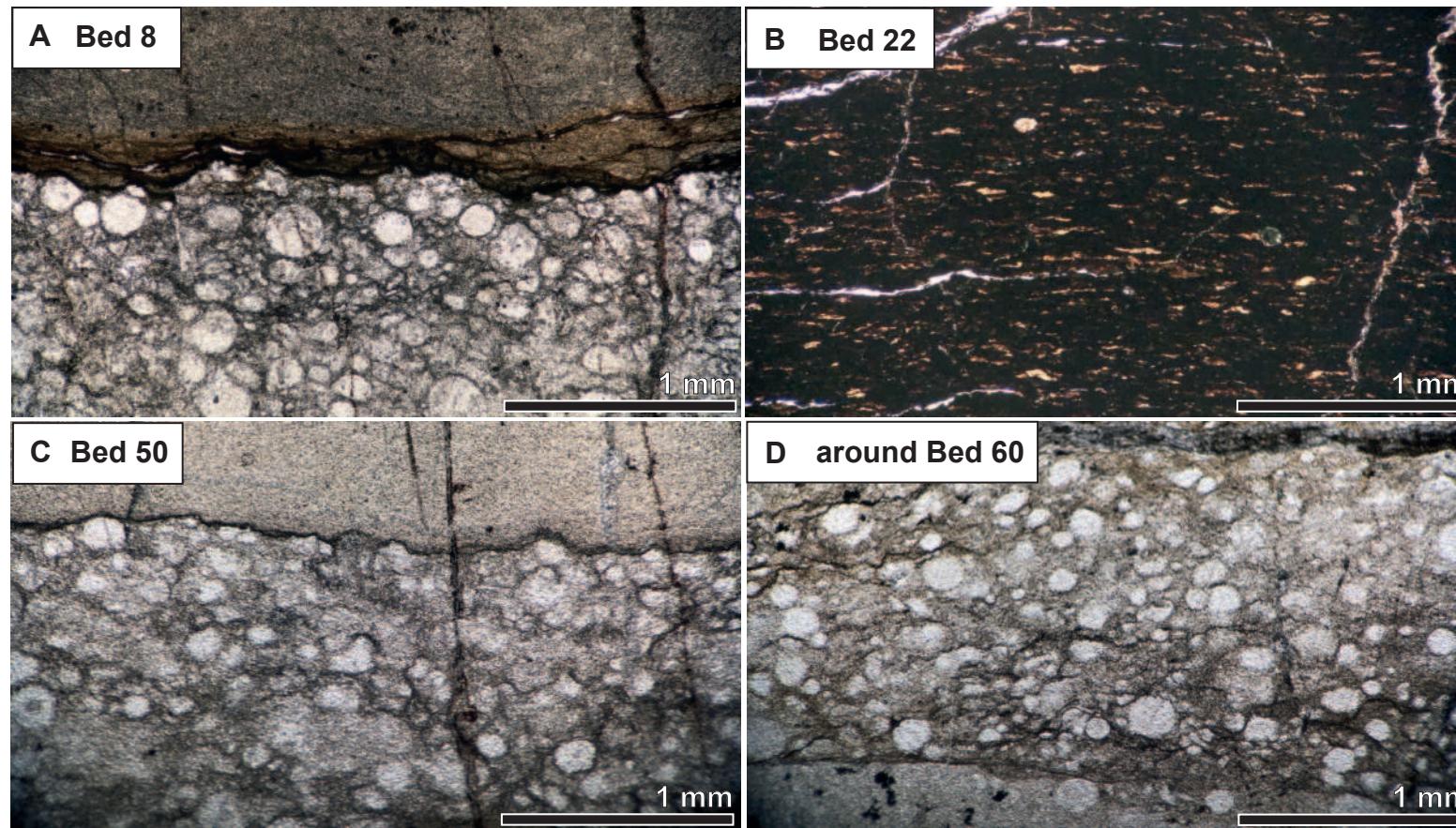


Figure 4

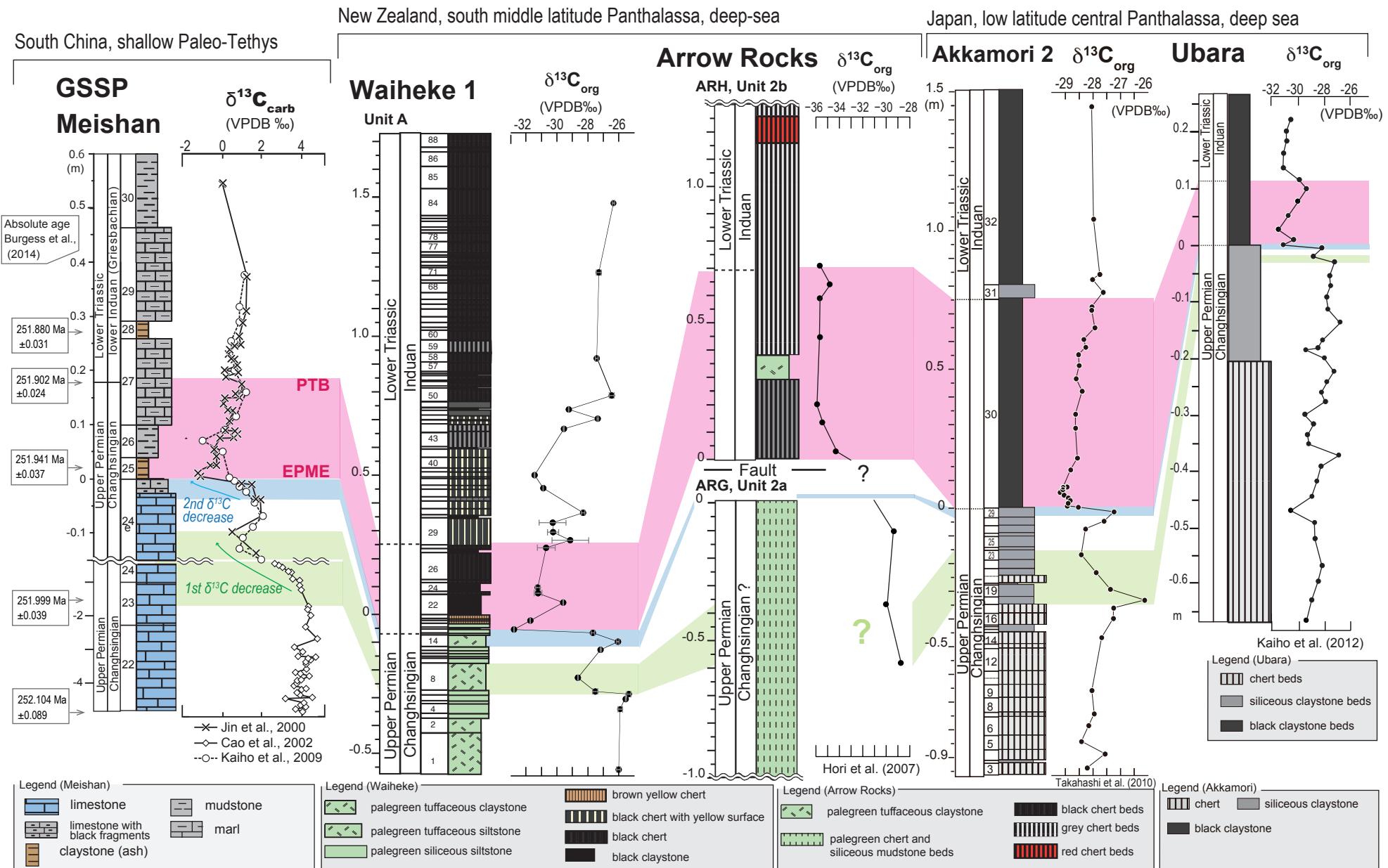


Figure 5

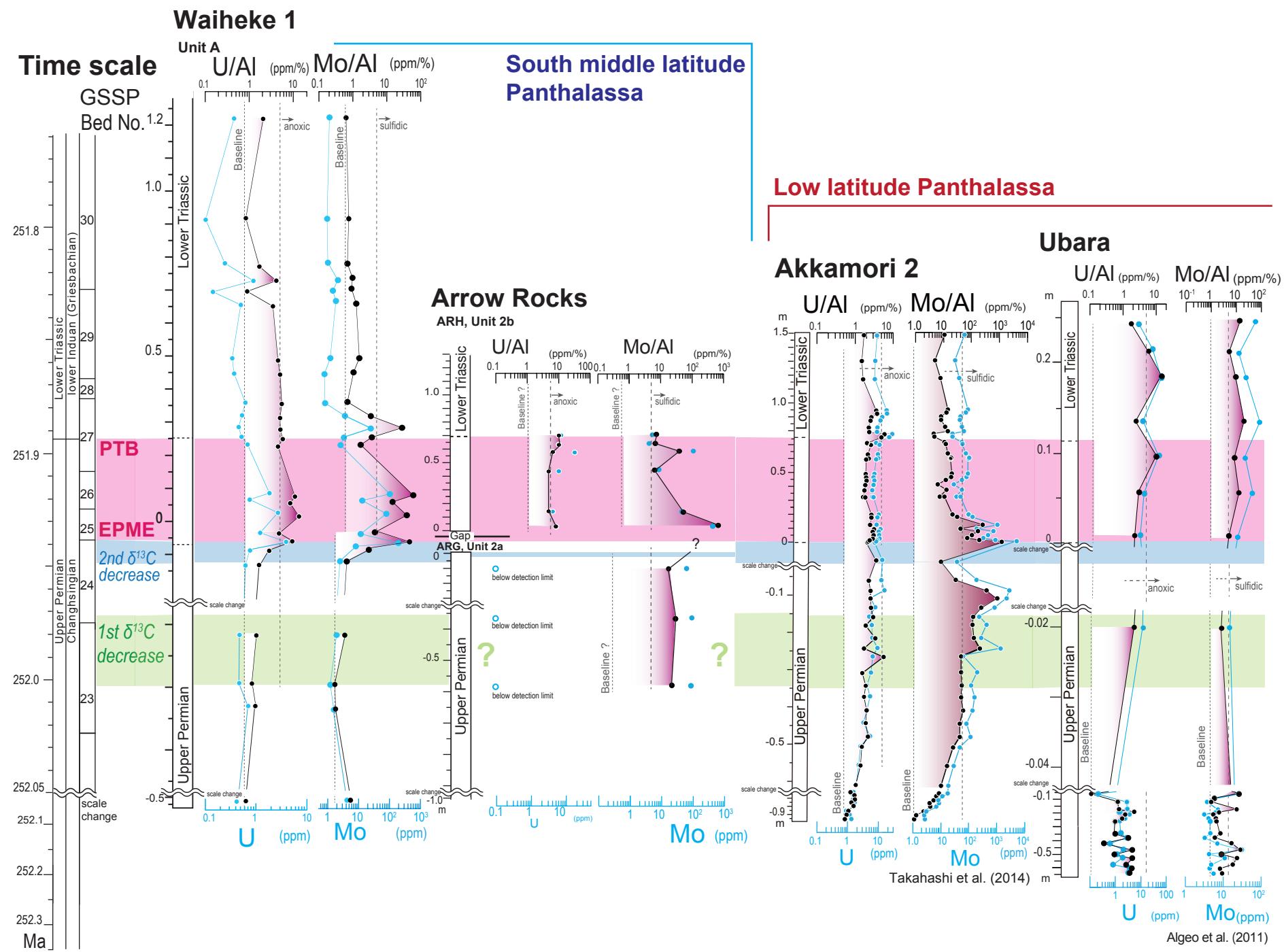
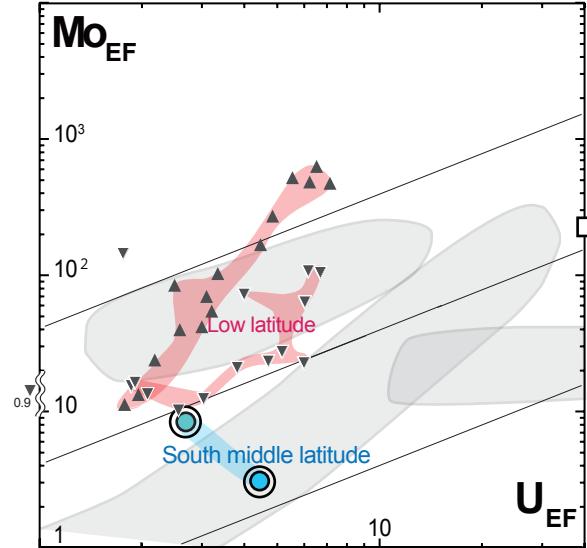
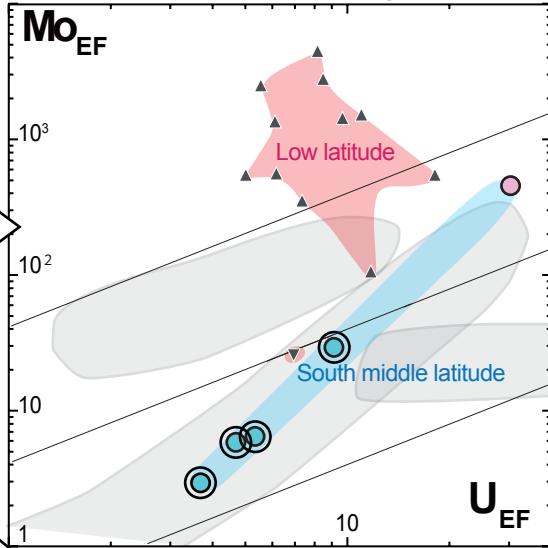


Figure 6

1. Late Permian before the $\delta^{13}\text{C}$ decreases



2. Between the 1st and 2nd step decreases of $\delta^{13}\text{C}$ in the latest Permian



South middle latitude

Waiheke 1

- $\text{Fe}^*_{\text{pyrite}} / \text{Fe}_{\text{HR}}$
- >0.8
- >0.6-0.8
- >0.0-0.6
- $\text{Fe}_{\text{HR}} / \text{Fe}_{\text{total}} < 0.4$
- tuffaceous sediments

Arrow rocks

(Hori et al., 2007)

Low latitude

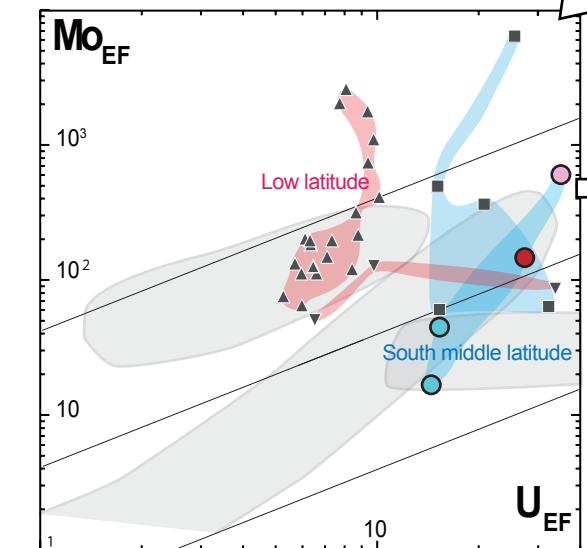
Akkamori-2

(Takahashi et al., 2014)

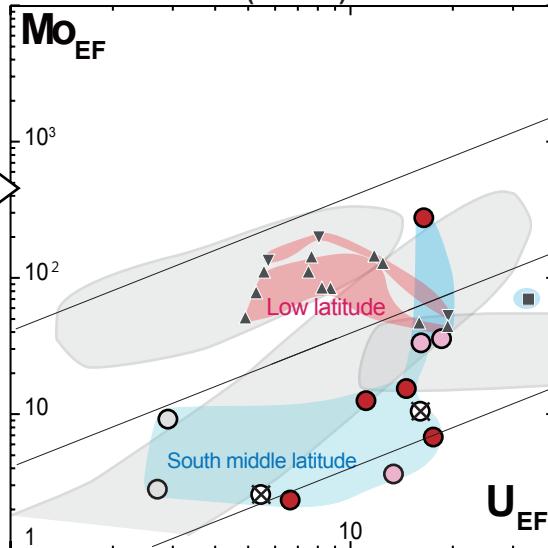
Ubara

(Algeo et al., 2011)

3. The interval from EPME to PTB



4. Earliest Triassic (Induan)



Model of enrichment pattern

(Algeo and Tribouillard, 2009; Tribouillard et al., 2012)

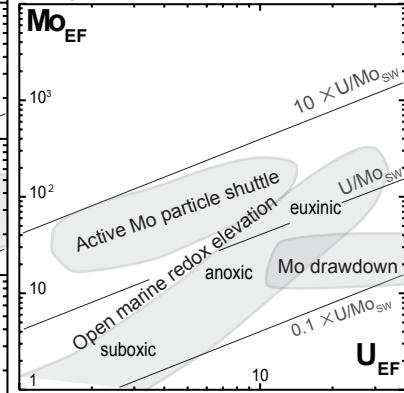


Figure 7

