

# Pre-biotic organic chemistry in hydrothermal quartz veins from the Archaean Yilgarn province, Australia

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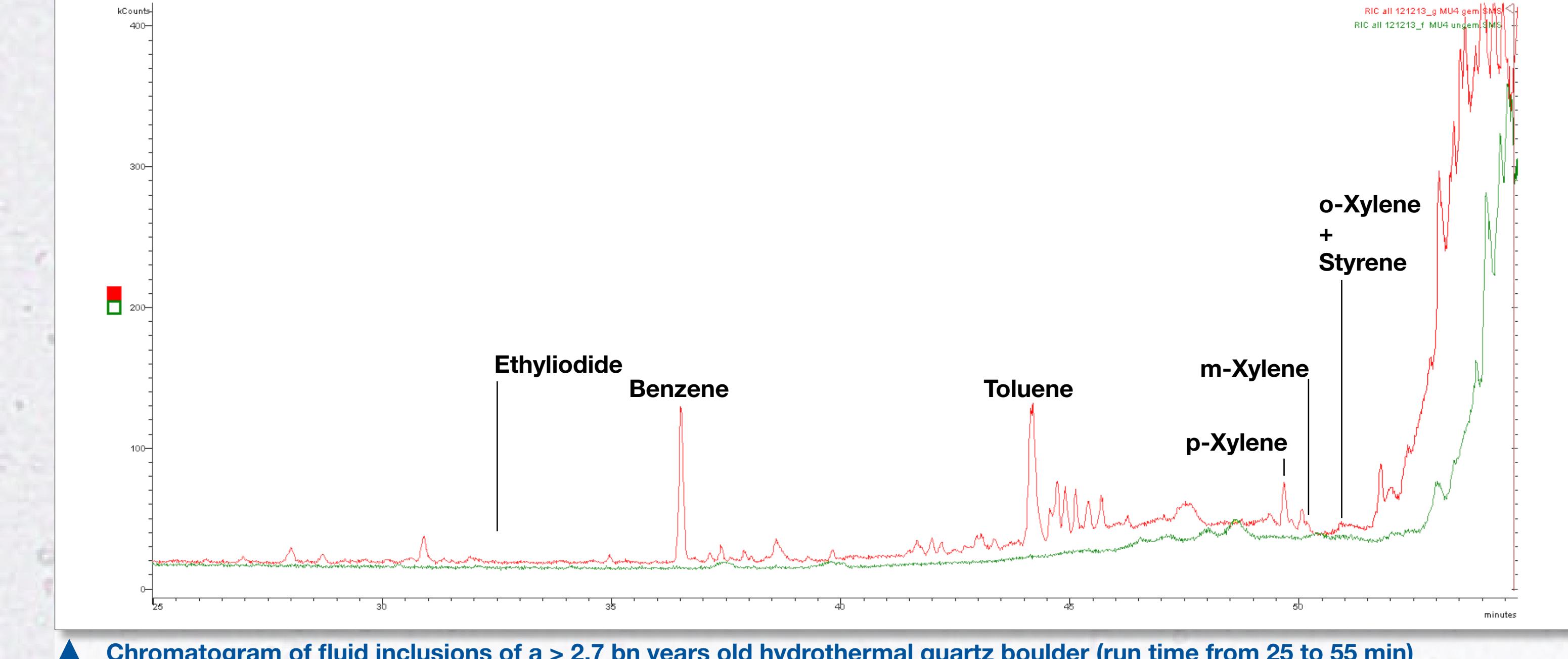
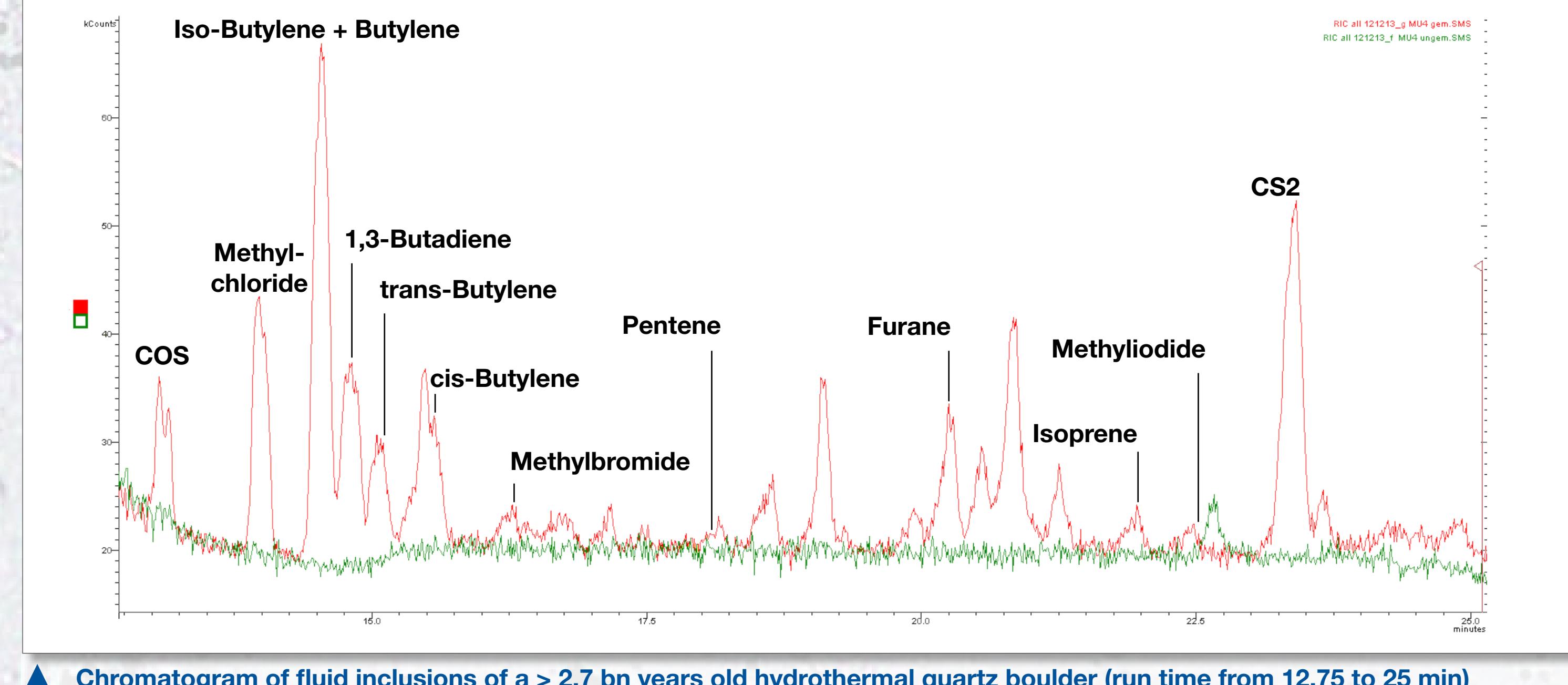
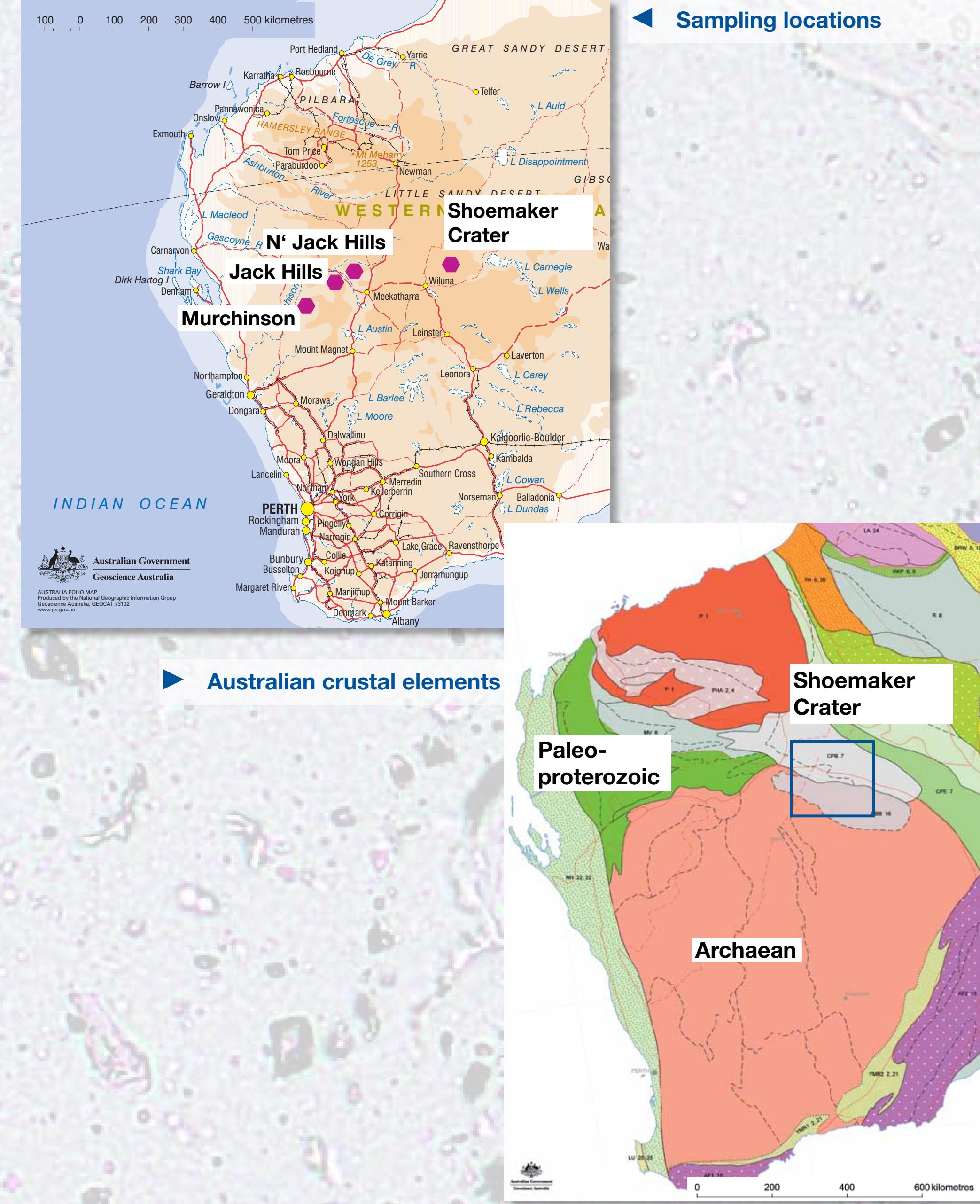
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Analysis of hydrothermal quartz veins from the Archaean Yilgarn craton, impact-generated quartz veins of the Shoemaker-crater and hydrothermal quartz boulders from a 2.7 to 3 billion years old conglomerate near Murchison (West Australia).  
In one of the samples from the conglomerate, a wide spectrum of organic compounds such as bromomethane, butane, benzene and toluene have been detected.  
The time interval between the quartz formation, its erosion and its sedimentation is unknown.  
Possibly, the analyzed quartz sample was formed in a hydrothermal vein long before any living cells have existed on earth. In this case, the given result would be the first indication for pre-biotic organic chemistry.

