

Site Name: Graig-wen Quarries Grid Reference: SJ 102093 – SJ 104095

RIGS Category: Educational & Scientific

Earth Science Category: Ordovician (Ashgill) Stratigraphy

Geology 1:50,000: BGS Sheet 151, Welshpool

RIGS Statement of Interest:

The Graig-wen roadside quarries cut into the boundary between the Graig-wen Sandstone Formation and older Dolhir Formation mudstones, both of late Ordovician (Ashgill) age. The boundary is a highly irregular erosional surface incised by the sea advancing across the margin of the Welsh Basin during the global sea level rise that accompanied the melting of the Hirnantian ice sheets on the Gondwanan continent to the south. The boundary and the sediments resting on it therefore provide a remarkable record of the effects of sea level change associated with glaciation. The boundary is also important because it was once taken as the junction between the Ordovician and Silurian, although that junction is now placed at a higher stratigraphic level. The older mudstones contain nodules in which brachiopods and trilobites are 'beautifully preserved' (King, 1928, p. 683). The location is included in a geological field guide to Powys (Brenchley, 1993), whilst the origin of small limestone masses between the sandstone and mudstone formations are the subject of on-going research (Brenchley et al., 2006).

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