

Site Name: Tynygraig Railway Cutting

Grid Ref: SN 686700 – SN 684704

RIGS Category: Scientific

Earth Science Category: Silurian (Llandovery) Stratigraphy

1:50,000 Geological: BGS Sheet 178, Llanilar

RIGS Statement of Interest:

This c. 600 m long cutting along part of a former railway, now a council-designated cycle track, is of regional importance because it provides an almost continuous section through early Silurian marine sedimentary rocks that differ markedly from those of the same age exposed nearby. The rocks in the cutting are mudstone and siltstone, fine-grained sedimentary rocks, which contrast with the coarse-grained sandstone exposed (and exploited for aggregate and other purposes) in the Hendre and Ceredigion Council quarries. The contrast is attributed to different environments on the seafloor: the sandstones were deposited on a fan-like lobe by water flowing swiftly westwards down a submarine channel from a shallow marine region in the Welsh borderland; the mud and silt seen in the cutting were deposited beyond the sand lobe, further from the submarine channel, by relatively gentle water currents. The section also shows contrasts in local submarine environments, light coloured sediments recording well-oxygenated seafloor conditions alternating with dark sediments deposited in oxygen-starved settings. The dark sediments contain graptolite fossils that are essential for dating the rocks..

Surveyed by: W.R.Fitches