

Site Name: Dolderwen Cutting

Grid Reference: SN 9490 5134

RIGS Category: Educational & Scientific

Earth Science Category: Ordovician (Ashgill) Stratigraphy

Geology 1:50,000: BGS Sheet 196, Builth Wells

RIGS Statement of Interest:

This RIGS is a short, low road section in the country about halfway between Builth Wells and Llanwrtyd Wells. The rocks are late Ordovician marine deposits, mostly dark mudstones that accumulated in an offshore setting which are overlain by light coloured sandstones that were deposited in a beach environment. Particularly important here is the gap in the succession; several hundred metres of sediment were removed by erosion before the deposition of the sandstones. This unconformity, representing a time gap of a few million years, was caused in part by global sea-level changes during the late Ordovician Hirnatian climate change and glaciation. Sea-level first dropped by c.100 m, leading to erosion of shallow marine areas such as eastern Wales. Then, as the ice melted, sea-level rose again to drown the recently eroded areas. Another reason for the unconformity is that this region was uplifted and eroded by crustal movement during the latest Ordovician Period. Elsewhere in the region, the unconformity is covered by superficial deposits, largely hidden in abandoned quarries or exposed in parts of working quarries that are difficult to study. In contrast, this RIGS is easily accessed, safe, and the rocks are clearly visible.

Surveyed by: W.R. Fitches