



South Wales RIGS Group Site Record

RIGS Description

SECTION A

General	South Wales
Site Name: Tremynfa Quarry	File Number: Site_DH_4
RIGS Number: 690	Surveyed by: Rhian Kendall
Grid Reference: SO 1590 2230	Date of Visit: 5 th August 2010
RIGS Category: Scientific	Date Registered: Owner: Duke of Beaufort
Earth Science Category: Stratigraphic, sedimentological	Planning Authority: Powys County Council
Site Nature: Disused Quarry	Documentation prepared by: Rhian Kendall
Unitary Authority: Powys County Council	Documentation last revised: 8 th February 2012
OS 1:50,000 Sheet: 161	Photographic Record: Attached
OS 1:25,000 Explorer Sheet: OL13	
BGS 1:50,000 Sheet: E214	
<p>RIGS Statement of Interest:</p> <p>Tremynfa Quarry near Bwlch provides an excellent opportunity to examine the Lower Devonian Senni Formation. It exposes stacked, channelled sands in tabular sheets, typical for this formation. The site would make an excellent educational resource for teaching geology at many levels from schools to university research.</p> <p>This site is also interesting as a research site for the study of early land plants as fossil roots have been discovered here. It is also a building stones resource as it is thought that stone from this quarry has been utilised in the local buildings, including the church in the village.</p>	

Geological setting/context:

This site has been proposed as a RIGS as a good, easily accessible and relatively safe place to examine the Lower Devonian Senni Formation.

The marker bed, the Ffynnon Limestones were exposed nearby on Buckland Hill and so, it is possible to estimate that the quarry is stratigraphically approximately 100m meters above it.

The Senni Formation consists of channelized sandstones which are variably green , grey green, purple and purpleish green. The green grey beds are most often seen higher in the sequence. The sandstones are very fine to medium grained with courser lithologies higher in the sequence. The sandstones form tabular sheets of “lenticular, cross bedded, channelized packages with inter-erosional surfaces”. There are also red-brown silt and mudstones between the sandstones. Barclay and Wilby 2003.

The sandstones are arranged in fining upwards cycles with conglomeratic bases which are can contain calcretes and intraformational muds and silts. The top surfaces which often have scoured erosional surfaces. The finer grained interbeds contain calcretes and display desiccation cracks in places. The Senni Formation is interpreted as being deposited by low sinuosity seasonal streams. Finer grained lithologies are attributed to floodplain lakes and crevasse splays. Barclay and Wilby 2003

Many of the featured described which are typical of the Senni Formation are well illustrated in the quarry. The faces are up to about 8m high and are made up of stack channelized sandstones with mudstone and siltstone interbeds.

The site is documented by Hiller et al 2008 as containing trace fossils which are thought to be plant root systems.

The quarry has been a local source of building stone. In Bwch for example, the church is of bright maroon sandstone with green dressing which is thought to be from the quarry. Davies J and Horak J. 2009







References:

BARCLAY, W J and WILBY, P R. 2003. Geology of the Talgarth district - a brief explanation of the geological map. Sheet Explanation of the British Geological Survey. 1:50,000 Sheet 214 Talgarth (England and Wales)

DAVIES, J and HORAK, J. 2009. Building Stone Use in the Brecon Beacons National Park. National Museum of Wales.

HILLIER, R D, EDWARDS, D and MORRISSEY, L B. 2008. Sedimentological evidence for rooting structures in the Early Devonian Anglo-Welsh Basin (UK), with speculation on their producers. *Palaeogeography, Palaeoclimatology, Palaeoecology*. 270 (2008) 366-380.

SECTION B

PRACTICAL CONSIDERATIONS: Please score Accessibility and Safety Red Amber or Green			
Accessibility:			X 
Comment: Easily accessible via footpath although parking is very limited			
Safety:		X 	
Comment: Generally safe but care should be taken near high faces.			
Conservation status: There are no known conservation designations of this RIGS			

OWNERSHIP/PLANNING CONTROL: Owner/tenant: Duke of Beaufort Planning Authority: Powys County Council Planning status/constraints/opportunities: There are no known planning constraints or opportunities
--

CONDITION, USE & MANAGEMENT: Present use: None – disused quarry Site condition: Good but becoming encroached by vegetation Potential threats: Could become too overgrown or in filled by landfill Site Management: Recommend that the faces are periodically cleared of vegetation

SITE DEVELOPMENT: Potential use (general): Potential use (educational): This site would make a good educational resource with many features of sedimentology associated with fluvial environments easily accessible. It is also a good place to study a typical section in the Senni Formation.
--

Other comments:

Photographic Record



General view of face at south end of quarry



General view of face a north end of quarry



Stacked, channelled Sandstones of the Senni Formation



Details of foresets associated with a channel