



South Wales RIGS Group Site Record RIGS Description

SECTION A

General	South Wales
Site Name: Craig Gwilym	File Number: Site_SWGA_CCC_326
RIGS Number: 605	Surveyed by: South Wales Geologists' Association
Grid Reference: ST 0846 8317	Date of Visit: 7 th September 2009 and 25 th October 2009
RIGS Category: Scientific, educational	Date Registered: Owner: Unknown
Earth Science Category: Educational , Sedimentological	Planning Authority: Cardiff County Council
Site Nature: Disused quarries	Documentation prepared by: Lynda Garfield
Unitary Authority: Cardiff County Council	Documentation last revised: 3 rd March 2011
OS 1:50,000 Sheet: 170	Photographic Record: Attached
OS 1:25,000 Explorer Sheet: 151	
BGS 1:50,000 Sheet: E249	
RIGS Statement of Interest:	
<p>The quarries on the west end of Craig Gwilym have been proposed as a RIGS because they expose a good sequence through the lower part of the Rhondda Beds, which forms the middle part of the Pennant Sandstone Formation within the Warwickshire Group of the Carboniferous. The quarries show a variety of sedimentological features, principally within sandstones, with their base, the No 2 Rhondda coal seam, lying just to the south where it is marked by several small formerly worked coal levels along the line of outcrop.</p> <p>All the quarries are easily accessible, relatively safe, and one part of the north quarry allows particularly easy close up access to examine the succession.</p> <p>This is by far the best exposure of the Rhondda Beds within Cardiff County.</p>	

Geological setting/context:

A series of three/four old quarries around the western end of the well-wooded Craig Gwilym hill. The north quarry exposes about 40m of Warwickshire Group, Pennant Sandstone Formation exhibiting good channel deposits and a steep southern dip slope face. There are more mudstone units at the base and also sandstones with coal clasts. The south quarry exhibits thick-bedded sandstones with channel features and plant fossils on some horizons. Some thinner, cross-bedded sandstones with scattered thin, micaceous siltstones and mudstones. Coal pebbles are present within some of the sandstone beds. There are many intra-formational conglomerates and lenses with clay-ironstone nodules. Beds are moderately inclined toward the northwest.

A small section of quarry off to the south-west of the north quarry offers the best and most accessible exposure of the succession. Stratigraphically, the quarries expose a good sequence through the lower half of the Rhondda Beds. The base of the sequence is defined by the No 2 Rhondda coal seam which lies just to the south of the southern quarry. It is marked by several small formerly worked coal levels along strike to the east. The Rhondda Beds form the middle part of the Lower Pennant Sandstone Formation. It is assumed that they were formerly quarried for Pennant sandstone.

References:

SQUIRRELL, H C and DOWNING, R A. 1969. *Geology of the South Wales Coalfield, Part I, the country around Newport (Mon)*, (Third edition), Memoir of the Institute of Geological Sciences, Sheet 249 (England and Wales). (London: HMSO).

WATERS, C N, BROWNE, M A E, DEAN, M T and POWELL, J H. 2007. *Lithostratigraphical framework for Carboniferous successions of Great Britain (Onshore)*. British Geological Survey Research Report RR/07/01.

SECTION B

PRACTICAL CONSIDERATIONS:

Please score Accessibility and Safety Red Amber or Green

Accessibility:



Comment: Excellent access to the south and north quarries direct from a track along their west side. The rocks of the west quarry are barely accessible on account of water infill.

Safety:



For north and south quarries, other than tripping in scrub and some steep slopes, good. Some of the quarry faces may need examining for stability. West quarry.

Conservation status:

There are no known conservation designations of this RIGS.

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: Unknown

Planning Authority: Cardiff County Council

Planning status/constraints/opportunities:

There are no known planning constraints or opportunities

CONDITION, USE & MANAGEMENT:

Present use: None. Disused Quarries

Site condition: South quarry is a little overgrown. North quarry is surprisingly little overgrown, its south-west extension is in excellent condition perhaps a little mossy and covered in leaves in autumn. The west quarry is mostly infilled with water.

Potential threats: Overgrown areas may need some clearing; mainly moss and leaves; over the last few years the vegetation has not increased at any significant rate.

Site Management: Suggest that selected parts of the site are cleared of vegetation every few years, starting with the north quarry.

SITE DEVELOPMENT:

Potential use (general): There is a potential for a sign board to introduce the public to the sedimentological features exposed, particularly the north quarry.

Potential use (educational): Good site for students to study the sedimentology and stratigraphy of the Rhondda Beds.

Public parking 400m to the south, excellent access and relatively safe.

Other comments:

Photographic Record



Craig Gwilym south quarry, east face, sandstones dipping north



Craig Gwilym north quarry, east face (around 15m across, 10m high), sandstones dipping north (many of the exposed surfaces eg on right are covered by autumn leaves)



Craig Gwilym north quarry, south-west extension, looking south, sandstones dipping north towards camera, around 15m to far end



Craig Gwilym west quarry, looking north-east, mostly infilled with water