



## South Wales RIGS Group Site Record

### RIGS Description

#### SECTION A

| General  | South Wales   |
|--|---|
| <b>Site Name:</b> Cwm Parc   | <b>File Number:</b> AH_63   |
| <b>RIGS Number:</b> 748  | <b>Surveyed by:</b> AJ Humpage                                    |
| <b>Grid Reference:</b> SS 93360 96070  | <b>Date of Visit:</b> 28 September 2011                           |
| <b>RIGS Category:</b> Scientific, Aesthetic  | <b>Date Registered:</b><br>Unknown                                |
| <b>Earth Science Category:</b><br>Geomorphological   |   |
| <b>Site Nature:</b> Exposure   | <b>Documentation prepared by:</b> AJH                             |
| <b>Unitary Authority:</b> Bridgend CBC   | <b>Documentation last revised:</b><br>28 September 2011           |
| <b>OS 1:50,000 Sheet:</b> 170  | <b>Photographic Record:</b><br>See images attached to this report |
| <b>OS 1:25,000 Explorer Sheet:</b> 166   |   |
| <b>BGS 1:50,000 Sheet:</b> 248 (Pontypridd)  |   |
| <p><b>RIGS Statement of Interest:</b> This site forms part of a network of important scientific sites within the South Wales RIGS area that records the influence of cold climates beyond the glacial limit</p> <p>Cwm Parc is a spectacular glacial cirque to the west of Treorci, dominated by the impressive face of Craig fawr. Formerly, a peat filled basin existed at the head of the cwm, although this has now been buried by colliery spoil. However, the morainic ridge feature which defined the basin on its eastern side remains. No work has been undertaken at this site, so it is not known whether this feature is of Late Dimlington Stadial or has a Loch Lomond Stadial influence as well.</p> <p>Although modified by NCB activity, the form of the features remains largely unaltered, and sympathetic restoration means this area is recommended to be designated a RIGS to support the Mynydd Ty Isaf SSSI.</p> <p>The first coal was raised at Park Colliery in August 1864 and was used for coal for rail and nautical usage. During the 1926 General Strike the Ocean Coal Company was integral in promoting the South Wales Miner's Industrial Union, and following successful industrial action had 1,234 men working at the Colliery in 1935. A merger with Dare Colliery in 1955 made Park part of the biggest combine in the South Wales Coalfield. It was closed by the National Coal Board in February 1966.</p> <p>Some interpretation is in place at the car park on the main road at Bwlch y Clawdd at the head of the cwm which affords fine views towards Treorci.</p> |   |
| <b>Geological setting/context:</b>   |   |

The valley floor of Cwm Parc, largely buried beneath superficial and artificial deposits is underlain by interbedded mudstones and sandstones of the South Wales Middle Coal Measures Formation. At the base of the overlying South Wales Upper Coal Measures Formation, the Cambriense marine Band at an elevation of c.330m OD is intermittently exposed in stream sections on the NW flank of Cwm Parc.

The lower valley slopes of Cwm Parc is underlain by the Lynfi Member of the Pennant Sandstone Formation. Comprising interbedded mudstone, siltstone and sandstone, it is probably the erosion of these rocks which have helped define the distinctive shape of the cwm. Forming the steep valley sides and impressive craggy backwall of Craig Fawr at the head of Cwm Parc, are thick bedded sandstones of the Rhondda Member of the Pennant Sandstone Formation. The No2 Rhondda coal seam occurs at the base of the sandstones and the No1 Rhondda is present around the lip of the cwm, but no significant working of the coal has occurred here.

Cwm Parc is considered to be Late Devensian (Dimlington Stadial) in age when a significant glacier probably developed, although earlier Ice Ages may also have contributed to over deepening the valley. Snow blowing eastwards across the paltaeau-top under the prevailing wind could accumulate under the east-facing crag of Graig Fawr and promote the development of small scale cirque glacier which developed into a more substantial glacial feature over time, probably feeding as a tributary into a major trunk glacier in Cwm Rhondda.

The apparent surviving morainic ridge may be an end Dimlington Stadial relict, or it may reflect renewed snow accumulation during the Loch Lomond stadial (Younger Dryas), although altitudinally, such a feature may have been difficult to sustain, as even the higher elevation cirques in the Brecon Beacons struggled to sustain cirque glaciers during the Loch Lomond (Carr 2001). If no glacier ice developed during the Younger Dryas, the area was almost certainly subjected to severe periglacial activity, and tor forming mechanisms as described in Palmer and Radley (1961) probably acted on the sandstone backwall, much as they have done at the adjacent Craig Ogwr tors RIGS to the south.

There is very little information available regarding the glacial evolution of this part of South Wales, references to this area being restricted to limited detail described in Bowen (1970).

#### **References:**

Bowen, D.Q. (1970). South-east and Central South Wales. In: C.A. Lewis (Ed.). *The Glaciations of Wales and Adjoining Regions*. Longman, London. 378pp.

Carr, S.J. (2001). A glaciological approach for the discrimination of Loch Lomond Stadial glacial landforms in the Brecon Beacons, South Wales. *Proceedings of the Geologists Association*. **12**, 253-262.

Palmer, J. and Radley, J. (1961). Gritstone tors of the English Pennines. *Zeitschrift fur Geomorphologie*, **5**, 37-52 (see especially p. 37-41).

## SECTION B

### PRACTICAL CONSIDERATIONS:

Please score Accessibility and Safety Red Amber or Green

**Accessibility:**



**Comment:** Easily accessible from A4061 and A4107. Car parking is available at junction of A4061 and A4107.

**Safety:**



Do not stand too close to edges. Steep grassy slopes may be slippery

**Conservation status:** The upper slopes of the backwall of Cwm Parc (Graig Fawr) is within Mynydd Ty-lsaf SSSI otherwise there is no other known conservation designations in this RIGS.

### OWNERSHIP/PLANNING CONTROL:

**Owner/tenant:** Unknown

**Planning Authority:** Rhondda Cynon Taf Council

**Planning status/constraints/opportunities:** There are no known planning constraints or opportunities

### CONDITION, USE & MANAGEMENT:

**Present use:** Open upland

**Site condition:** Generally good.

**Potential threats:** Modification to slopes to maintain the road. Further landscaping work of Parc Colliery spoil tips damaging original geomorphological features.

**Site Management:** Suggest return to rough grazing

### SITE DEVELOPMENT:

**Potential use (general):** A good site to explain glacial processes.

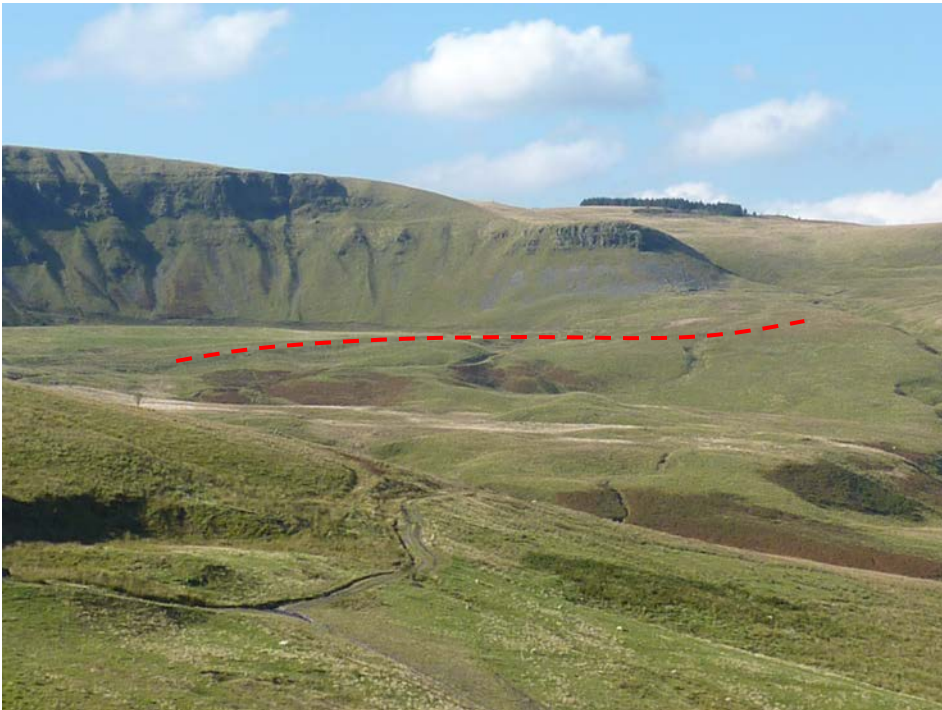
**Potential use (educational):** Good accessible site.

**Other comments:**

## Photographic Record



The head of Cwm Parc below Craig fawr - infilled basin at foot of backwall



Morainic ridge in front of infilled basin





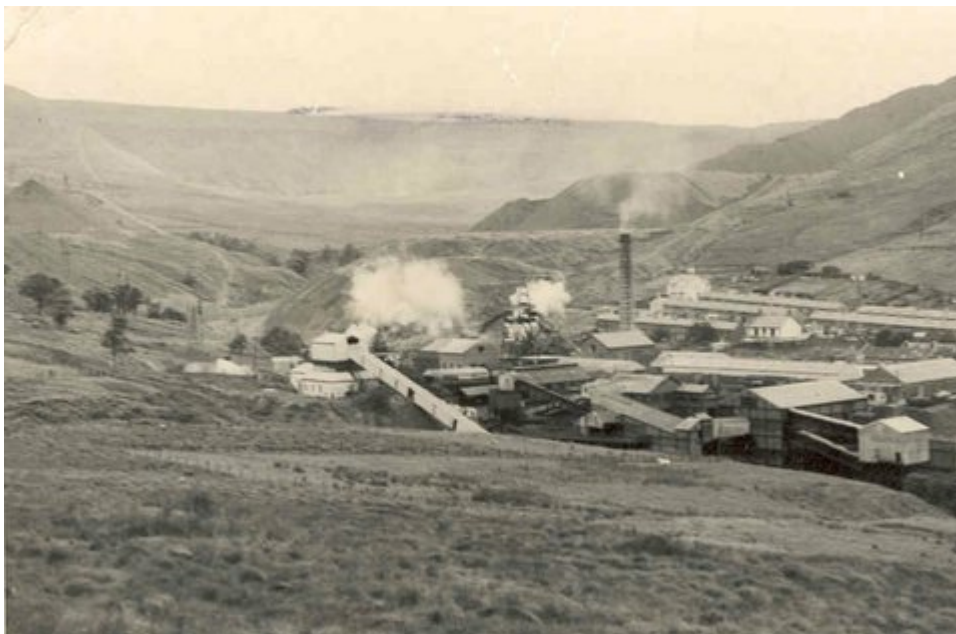
Undisturbed fluvial system in Cwm Parc, although foreground is landscaped colliery waste.



View of Cwm Parc from A4107



View towards Cwm Parc village from Bwlch y Clawdd, with Treorci and the Rhondda Fawr valley beyond



View west over Cwm Parc colliery in 1954 – notes tips on both sides of the valley ([oldukphotos.com](http://oldukphotos.com))



Headframes of Parc Colliery prior to closure