



South Wales RIGS Group Site Record

RIGS Description

SECTION A

General	South Wales
Site Name: Llannerch-Coedlan Sulphur Well	File Number: AH_27
RIGS Number: 739	Surveyed by: AJ Humpage / M Mitchell
Grid Reference: SO 309906 240876	Date of Visit: 1 October 2011
RIGS Category: Scientific, historical	Date Registered: Unknown
Earth Science Category: Spring	
Site Nature: Wooded valley	Documentation prepared by: AJH
Unitary Authority: Powys CC	Documentation last revised: 3 October 2011
OS 1:50,000 Sheet: 161	Photographic Record: See images attached to this report
OS 1:25,000 Explorer Sheet: 188	
BGS 1:50,000 : Sheet 197 (Hay-on-Wye)	

RIGS Statement of Interest: This site forms part of a network of significant mineral springs in southern mid Wales in the former county of Brecknockshire. This site is of importance as it is one of the few locations where it is still possible to access the pump and “take the waters”.

The human relationship with minerals springs for has long been known. Springs as religious sites have been known since antiquity, but it was in Malvern that their modern usage began in the 1620's, the waters being bottled for sale. By the start of the 18th century, mineral springs were becoming increasingly important attractions and efforts were made to locate and promote them for their health giving properties. The spring at Llanwrtyd was ‘discovered’ in 1732, followed by that at Builth by 1740. However, it was from the middle of the 19th century that “taking the waters” became truly popular and a significant industry developed.

Llannerch-Coedlan is a Sulphur well which waters smell strongly of Hydrogen sulphide or “rotten eggs”. In Victorian times, the water was taken for drinking and bathing and was a popular Wye valley destination, anecdotally especially for ladies. A small pump house exists at the site, which was formerly approached by a carriageway since overgrown. The adjacent river has platforms cut into the river banks where Victorian tourists could sit or bathe.

The pump house is divided into two rooms – the pump room itself and a small chamber next door with a tiled floor and bathing tank. The roof of the pump room has partially collapsed. On the remains of the pump room window frame are records of visitors over the years.

Geological setting/context:

Llannerch-Coedlan is within an area of outcropping Silurian age mudstone rocks and is located on a mapped east-west trending fault which largely defines the valley of the Sgithwen Brook within which the well is located.

This is one of a number of Sulphur Wells in the Wye valley area, including the Glanne Well at Builth Wells which became popular in the 1830's, and perhaps more famously the "Ffynnon Ddrewllyd" or Stinking Well of Llanwrtyd Wells; so called because of the smell of hydrogen sulphide gas that was given off. The Stinking Well was 'discovered' by the Rev. Theophilus Evans in 1732, and was subsequently advertised as having curative properties.

As an indication of the popularity of this venture - the population of Llanwrtyd Wells in 1801 was about 500 and had risen to 854 by the 1901 census. A dedicated hotel opened in 1843, but after the coming of the railway in 1868, the parish played host to at least 12,000 visitors annually who came to drink the mineral waters.

The source of the sulphur at Llannerch-Coedlan is uncertain, but it is probably associated with chemical reactions with sulphur-containing minerals in the bedrock, naturally creating hydrogen sulphide gas in the groundwater. As groundwater moves slowly through the rock formations containing minerals of sulphate or sulphide, some of these minerals dissolve in the water. The presence of the fault may allow groundwater to migrate more easily along this preferential pathway, as the Silurian rocks are otherwise low in permeability.

Another possible source is a unique group of bacteria, called "sulphur bacteria" or "sulphate-reducing bacteria" which can change sulphate and other sulphur containing compounds, including natural organic materials, to hydrogen sulphide gas. However, this microbial action tends to produce bacterial slime which may be white, grey, black, or reddish brown if associated with iron bacteria. Hydrogen sulphide gas in water can cause black stains on silverware and plumbing fixtures. It can also corrode pipes and other metal components of the water distribution system. As there is no evidence of such bacterial slime at Llannerch-Coedlan, the groundwater source is favoured.

Edmunds *et al* (1998), considered that with the exception of Llandrindod Wells, the saline waters of central Wales probably were of meteoric origin, although acknowledging that deep groundwater circulation giving rise to their mineral properties. Although Edmunds *et al* did not specifically refer to the Sulphur well at Llannerch-Coedlan, it is probably a consequence of a similar system to that at Builth, Llangammarch and Llanwrtyd.

References:

Edmunds, W.M., Robins, N.S. and Shand, P. (1998). The saline waters of Llandrindod and Builth, Central Wales. *Journal of the Geological Society of London*. 155, 627-637.

Jones, J.R. (1859) *Pryse's handbook to the Breconshire and Radnorshire mineral springs: with notes and excerpts illustrating the history, antiquities, and topography of many of the surrounding towns and villages*. Llanidloes: Pryse, 1859.

SECTION B

PRACTICAL CONSIDERATIONS:

Please score Accessibility and Safety Red Amber or Green

Accessibility:



Comment: **Private Property.** Visitors are welcome but must contact the owners of Llannerch-Coedlan Farm for access

Safety:



Comment: Steep valley side slope to access pumphouse. The roof of the pump house is in a dangerous state.

Conservation status:

The channel of Sgithwen Brook is within the River Wye (Tributaries) SSSI which does not include the pumphouse. Otherwise there are no known designations of this location.

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: Llannerch-Coedlan Farm

Planning Authority: Powys County Council

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

CONDITION, USE & MANAGEMENT:

Present use: Derelict

Site condition: Overgrown

Potential threats: Collapse of pumphouse.

Site Management: Urgent restoration work of the pumphouse should be undertaken, which has deteriorated significantly over the last 50 years..

SITE DEVELOPMENT:

Potential use (general): Making site safe and accessible it could be a tourist attraction in the area.

Potential use (educational): Could be used to highlight the circulation and movement of groundwater.

Other comments:

Photographic Record



Steep descent to pumphouse



The pumphouse



The pump room – note collapsed roof



Priming the pump



Pumping the sulphur water



The flowing pump



The tiled bathing room



The bath with the water inlet above from the pump room next door



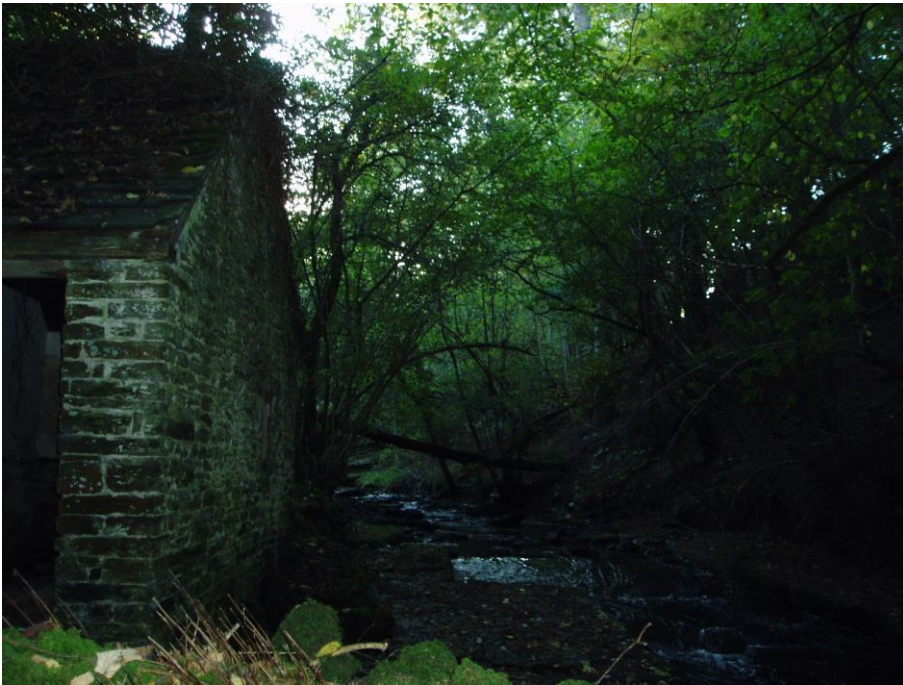
Examining the graffiti on the window frame



20th century graffiti on the window frame



The Sgithwen Brook looking downstream



Looking upstream with platform to right of pumphouse



Remains of possible mounting block alongside pumphouse