

**CYNGOR CEFN GWLAD CYMRU  
COUNTRYSIDE COUNCIL FOR WALES**

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

**POWYS**

**HEOL SENNI QUARRY**

**Date of Notification:** 1988

**National Grid Reference:** SN 914222

**O.S. Maps:** 1:50,000 Sheet number: 160  
1:25,000 Sheet number: SN 92

**Site Area:** 3.4 ha

**Description:**

The site is of special geological interest on two scores:

- (i) Non-marine Devonian: the site has cliff exposures of the Brownstones (the upper part of the Welsh Lower Old Red Sandstone). The Brownstones here consist of pebbly, cross-bedded sands, which formed in a large braided river system. The cliffs allow reconstruction of bar morphologies and river size, and show the way channels were stacked vertically to build up the sequence. The well developed stream topography between bars and channels that is seen in the deposits here is typical of the eastern outcrops of the Brownstones, and contrasts with the deposits of the western Brownstones in south Wales. This locality is the best of the eastern Brownstone outcrops, showing a distinct form of river alluvium.
- (ii) Vertebrate palaeontology: the type and only locality for *Althaspis senniensis*. Chordates are extremely rare in the Senni Beds and are known only from two other sites. *Althaspis senniensis* is a typical pteraspid of the 'Dittonian' and is very similar to, and might even be conspecific with *Althaspis leachi*, a form known throughout north-west Europe at the top of the Gedinnian Stage.

Another Senni Beds quarry locally yields *Rhinopteraspis dunensis*, which occurs in the type area of the Siegenian Stage. Taken together these two quarries show that the Gedinnian/Siegenian boundary lies somewhere within the Senni Beds between these two fossil-bearing horizons. At present, work is being concentrated on these two species, and future research potential lies in determining the stratigraphical and facies controls on their distribution in Europe.

**Remarks:**

The site lies within the Brecon Beacons National Park.

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