

Warwickshire Geological Conservation Group

Warwickshire Local Geological Site	
Site No: 101	Astley Castle – Dark Lane
Geological Formations	Carboniferous Whitacre Member of the Salop Formation
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Local Geological Sites (LGS), designated by locally developed criteria, are currently the most important places for geology and geomorphology outside statutorily protected land such as Sites of Special Scientific Interest (SSSI). The designation of a LGS is one way of recognising and protecting important Earth science and landscape features for future generations to enjoy.

WGCG is responsible for the identification of LGSs in Warwickshire and the West Midlands.

Please note that designation of a site as a LGS does not confer a legal right of access. Unless the site is on a designated public right-of-way, the landowner's permission is required before visiting.

Warwickshire Local Geological Site Criteria Form

Site Name: Astley Castle Dark Lane	Also known as:
Location: Castle Drive, Astley, Nuneaton CV10 7QD	LGS No: 101
District: North Warwickshire BC	Grid Reference: SP 31239 89346
ESCC Class: ER	

Brief Description:

The site is a sunken lane with exposures of sandstone of the Carboniferous Whitacre Member of the Salop Formation on both sides.

This site qualifies as a Local Geological Site for the following criteria:

Education – the value of the site for educational purposes in life-long learning		✓
Valuable for fieldwork	✓	Easily and safely accessible
Access permitted	✓	Capable of maintenance
Scientific - the value of the site for study by both professional and amateur Earth Scientists		✓
Diversity		Rare or exceptional feature
Size or extent		Typicalness
Fragility		Naturalness
Historic - the value of the site in terms of Earth Science knowledge, events or human exploitation		
Linked with a prominent geologist		Associated with an important scientific concept
Linked with an historic building or monument		Associated with an important industrial process
Aesthetic - the value of the site in the landscape		
Has features that form a prominent part of the landscape and are locally well known		
Has features that contribute to understanding landscape-scale geological or geomorphological processes		
Easily and safely accessible by the public		

This site has been selected by the LGS Selection Panel

10th December 2012

Signed

Brian Ellis

Chairman, Warwickshire Geological Conservation Group

Endorsed by:

Signed

Jon Radley

Keeper of Geology, Warwickshire Museum

Signed

Anton Irving

Area Conservation Adviser, Natural England

In the event of any development or planning consultation relating to this site or its surrounds, please inform the LGS Officer on-line at www.wgcg.co.uk or by post to The LGS Officer, WGCG, c/o Warwickshire Museum, Market Place, Warwick CV34 4SA

WARWICKSHIRE GEOLOGICAL CONSERVATION GROUP

LOCAL GEOLOGICAL SITE (LGS)

Site No:	101	Site Name:	Astley Castle Dark Lane
Parish			
District	North Warwickshire BC		
National Grid Reference	SP 31239 89346		
Ordnance Survey Sheets 1:50000 1:25000	Landranger 140 Explorer 221		

Location

The site is a sunken lane with exposures of sandstone on both sides. In total about 20% of the rock face is exposed mostly on the east side of the lane. There is considerable talus and the faces are disrupted by tree roots and covered in part by vegetation.

Summary of Interest

Because of the difficulties in establishing the true dips on the outcrops in the three recorded areas of interest the structural relationships between them is not easy to establish. However, due to the slope of Dark Lane the three areas of interest occur in an altitudinal sequence as follows, starting with the lowest – SP31252 89331, SP31235 89326, SP31233 89361. The three areas demonstrate different and distinctive sedimentological conditions within the overall flaggy nature of the bedding.

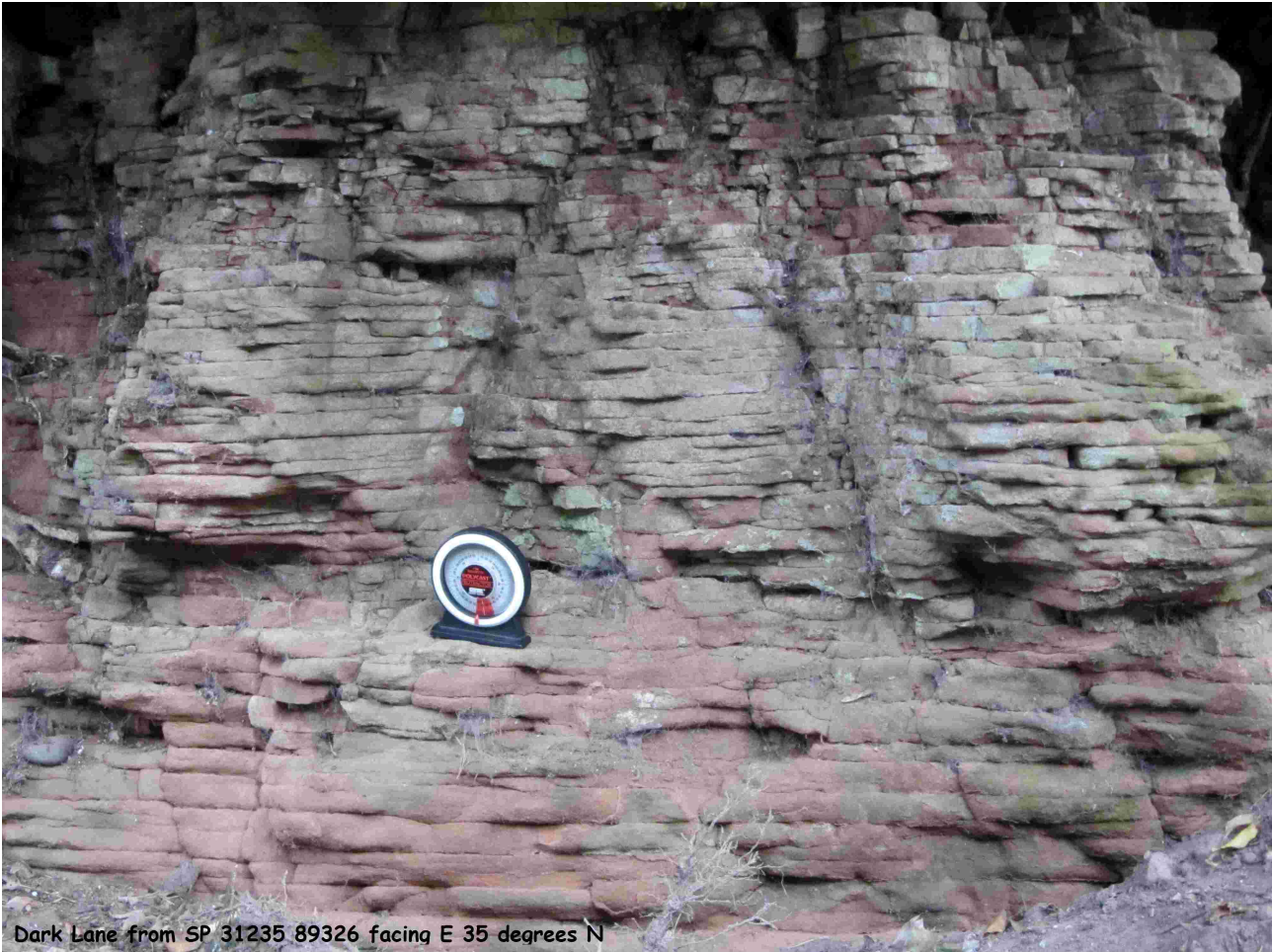
On the west side of the lane at SP 31252 89331 (right) the rock is composed of small, well compacted, angular quartz crystals which are fairly well sorted. There is evidence of current bedding with a dip of about 15°.

On the east side a long length of dull orange-red sandstone is exposed (above). Within this exposure, at SP31235 89326, the thin parallel beds (right) decrease in thickness from about 3 cm at the base up to about 1 cm at the top. Each layer is quite hard but the layers can easily be prised apart. The clasts in this case are again well sorted quartz crystals but they are more rounded and smaller. The sedimentary structure is suggestive of still water conditions.

On the east side of the lane at SP 31233 89361 (left) the lamination is tending to a more massive and less flaggy sandstone at the base.



Dark Lane from SP 31245 89345 facing E 35 degrees N



Dark Lane from SP 31235 89326 facing E 35 degrees N



The red outline defines the extent of the LGS