

Site Name**Scout Hut Quarry, Potton****BEDFORDSHIRE LOCAL GEOLOGICAL SITE DESIGNATION FORM****SITE LOCATION, ACCESS, OWNERSHIP, STATUS & SUITABILITY**(1) **Name of site:** Scout Hut Quarry, Potton, Bedfordshire.(2) **National grid reference:** TL 229 494(3) **Unitary authority:** Central Bedfordshire(4) **Site access and local amenities**

The site is located 150m SSE of Potton parish church, at the east end of the town. Parking is available in a small car park in front of the Scout Hut, access to which is via a locked gate. There are no toilets at the site unless the Scout Hut is open. There are amenities in Potton, less than 1km to the west.

(5) **Site ownership:** 1st Potton Scout Group. The Scout Hut is situated at the eastern end of the site.(6) **Mineral rights ownership:** N/A(7) **Is permission needed to access the site?**

a. No

b. Yes ✓

If yes, from whom?

Beverley Fowlston
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Leighton Buzzard
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Beverley Fowlston is the initial point of contact and she can arrange for visitors to be met by a local keyholder.

(8) **Site status:** Active Disused Historical ✓ Managed Restored ✓ New Other(9) **Suitable for visits by:** a. General public

b. Small parties ✓

c. Large parties

d. Primary school ✓

e. National Curriculum ✓

f. AS/A-Level ✓

g. Adult ✓

h. Undergraduate teaching ✓

i. Research

(10) **Site suitable for frequent visits by parties?**

a. No

b. Yes ✓

(11) **Should collecting and hammering be encouraged at the site?**

a. No ✓

b. Yes

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SITE DESCRIPTION		
(12) Exposure type:	a. Inland natural outcrop	b. Road cutting
	c. Railway cutting	d. Active quarry/pit
	e. Disused quarry/pit ✓	
	f. Old mine workings	g. Mine dump
	h. Active mine	
(13) Dimensions of exposure of interest: A single face about 18m long and 3-4m high.		
(14) Main interest(s):	a. Structural	b. Geomorphological
	c. Mineralogical ✓	
	d. Palaeontological ✓	e. Petrological ✓
	f. Stratigraphical ✓	
<p>(15) Summary description and reason for designation This exposure of the Lower Cretaceous Woburn Sands Formation (historically called the Lower Greensand) was cleared in 2007-8. Formerly a quarry worked for sand and gravel, it was infilled during the early nineteenth century, but now a safe and accessible low face of sandstone has been revealed, making it an ideal site for educational visits. It contributes to an understanding of the regional geology of the Woburn Sands Formation and provides historical links with the local aggregate and phosphate fertilizer industries.</p>		
<p>(16) What threats exist for the site? Key features of the site are well preserved and in good condition having been recently maintained. However, they will require regular attention in order to stop the regeneration of ivy and invasion of tree roots from the overlying hedge. The low face is accessible and it can be cleared in about 15 man-hours. Key features are subject to erosion but the cemented horizons are sufficiently consolidated to maintain the face in near-vertical attitude, and fresh sediment can be exposed as required. However, degradation should not be accelerated by using geological hammers.</p>		
<p>(17) What additional work is required to enhance the site? Ongoing maintenance of the face will be required (see 16 above), along with refurbishing the path at the foot of the exposure and clearing the area of litter. This is scheduled to be achieved by voluntary labour from BGG on an annual basis. An interpretation board has been installed near the entrance to the site and downloadable briefing materials and teaching packs are available on the BGG website. Site visits by a wide range of interest and educational groups will be encouraged, as will collaboration with organizations such as the Bedfordshire Wildlife Trust and Potton History Society. Recent additions to the site are a ramp and rail to enable people in wheelchairs to access the sand face and two new information boards, one appropriate for the visually-impaired.</p>		
<p>(18) Published/unpublished references to the site and wider area Eyers, J. 1995. Correlation of the Lower Greensand Group (Woburn Sands and Carstone) of the Bedfordshire Province, England. <i>Cretaceous Research</i>, 16, 385-413. Moorlock, B. S. P. et al. 2003. <i>Geology of the Biggleswade district – a brief explanation of the geological map Sheet 204 Biggleswade (England and Wales)</i>. B&B Press Ltd, Rotherham. Yoshida, S. et al. 2004. Transgressive changes from tidal estuarine to marine embayment depositional systems: The Lower Cretaceous Woburn Sands of southern England and comparison with Holocene analogs. <i>AAPG Bulletin</i>, 88, 1433-60. <i>Geodiversity Site Management Plan for the New Exposure of Lower Cretaceous Woburn Sands (Lower Greensand) near Potton Church, Bedfordshire</i>. www.bedfordshiregeologygroup.org.uk <i>The Lower Greensand – the basics</i>. www.bedfordshiregeologygroup.org.uk <i>The Lower Greensand – for geologists</i>. www.bedfordshiregeologygroup.org.uk</p>		

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SCIENTIFIC SIGNIFICANCE		
(19) Does the site exhibit features of local/regional importance?	a. No	b. Yes ✓
(20) Is the site already a designated SSSI?	a. No ✓	b. Yes
(21) Collector interest:	a. Rare species	b. Common species
	d. Regional significance ✓	c. Local significance ✓
	e. National significance	
(22) List of confirmed fossils, minerals, etc: Iron-encrusted trace fossils, features which were the burrows of bottom-dwelling worms, crustaceans or bivalves. Although the marine environment would have been teeming with life, body fossils are absent. The formation is dominated by quartz-rich sand, variably cemented by ferruginous haematite and limonite minerals.		

HISTORICAL/AESTHETIC VALUE		
(23) Does the site have important historical associations?	a. No	b. Yes ✓
(24) Does the site form a key part of an attractive or evocative landscape?	a. No ✓	b. Yes
(25) Full description of site and its significance: This site provides one of the best exposures of the upper part of the Woburn Sands Formation in east Bedfordshire. The beds are of late Aptian to early Albian (Lower Cretaceous) age according to regional correlations. The basal sandstone dips south-eastwards (120°) at about 25° and is overlain unconformably by fine to coarse-grained quartz sandstones with occasional pebble beds and friable silty horizons. The erosion surfaces and low-angle cross-bedding are characteristic of the Woburn Sands Formation and indicate an energetic, near-shore environment with strong tidal currents in a shallow marine embayment. Quiescent times are indicated by burrowed horizons and deposition of clays. Iron-encrusted burrows (trace fossils) and lenticular ironstone concretions are common throughout the section. The differences in grain size and variations in the degree of cementation create a strongly differentiated weathered profile which provides an excellent introduction to field stratigraphy for students. This site is also important because Potton has an historical association with the exploitation of phosphatic nodules within the Woburn Sands as a source of fertilizer. The Potton Nodule (or Coprolite) Bed lies stratigraphically beneath this site and evidence of former workings are seen around the town. The exposure also has biodiversity interest, provided by the colonization by lichens, various excavations made by burrowing bees, wasps and birds, and a varied flora in the hedgerow above the rock face.		

RECORDER'S DETAILS	
(26) Name: Dr Martin Whiteley	(27) Organisation: BGG Local Geological Site Manager
(28) Date of designation: November 2010	

CURRENT SITE CONDITION
(29) Site condition at November 2010 is GOOD; assessed by Martin Whiteley

NOTES
(30) For further details contact Anne Williams: annew36@hotmail.com