Warwickshire Geological Conservation Group

Warwickshire Local Geological Site		
Site No: 13	Midland Quarry	
Geological Formations	Hartshill Sandstone Formation (Cambrian) Minor Midlands Intrusive Suite Formation (Ordovician) Bromsgrove Sandstone Formation (Triassic)	
Criteria Form		p 2
Description		p 3
Photographs		p 4
Location Map		p 5

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 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 LGS 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: Midland Quarry	**Also known as:** Tuttle Hill		
District: Nuneaton	**County:** Warwickshire		
Grid reference: SP350 925	**LGS Number:** 13	**ESCC Class:**	ED

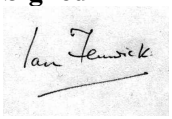
Brief Description: Very large disused roadstone quarry on the south side of the B4111 from Nuneaton to Atherstone. Fine exposure of a Caledonian diorite sill approximately 12m thick intruded into the Lower Cambrian Hartshill Sandstone Formation. This is the largest sill exposed in the county. Additionally, there is a well displayed unconformable contact between the Cambrian strata and the overlying Triassic breccias and sandstones ascribed to the Bromsgrove Sandstone Formation.

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

A Good Example of Only example of an unconformity between the Lower Cambrian quartzites /sandstones and the overlying Bromsgrove Sandstone Formation.

Educational Fieldwork					
1. Educational Potential	✓	2. Physical access	✓	3. Safety	✓
Scientific Study					
1. Diversity of interest	✓	2. Rarity of interest	✓	3. Size of feature	
4. Typicalness of feature	✓	5. Geological/physiographic linkage to: *Boon's Quarry SSSI & Judkins Quarry (12)*			✓
Historical Value					
1. Celebrity link		2. Pioneering research		3. Historical link	
Aesthetic Value In The Landscape					
1. Local importance in the landscape		2. Promotion of Earth science			

Signed



I M Fenwick, Chairman,
Warwickshire Geological Conservation Group

Date first selected February 1992	
Reviewed by LoGS panel Oct. 2009	
Further survey required	
LoGS Confirmed	✓

Endorsed by

Warwickshire Museum

J Radley, Keeper of Geology

Natural England

J A Irving, Conservation Adviser

In the event of any development or planning consultation relating to this site or its surrounds please inform:
The LoGS Officer WGCG, c/o Keeper of Geology, Warwickshire Museum, Market Place, Warwick CV34 4SA (tel: 01926-418182)

WARWICKSHIRE GEOLOGICAL CONSERVATION GROUP
LOCAL GEOLOGICAL SITE (LGS)

Site	13	Midland Quarry
Parish		
District		Nuneaton & Bedworth
County		Warwickshire
National Grid Reference		SP 350 925
Ordnance Survey Sheets 1:50000 **1:10000**		140 SP 39 SW

Location

Very large disused roadstone quarry on the S. side of the B4111 from Nuneaton to Atherstone

Summary of Interest

Fine exposure of a Caledonian diorite sill, of the Midlands Minor Intrusive Suite, c.12m thick intruded into the Lower Cambrian Hartshill Sandstone Formation. This is the largest sill exposed in the County. There is unusual mineralisation which includes haematite, barite and mottramite.

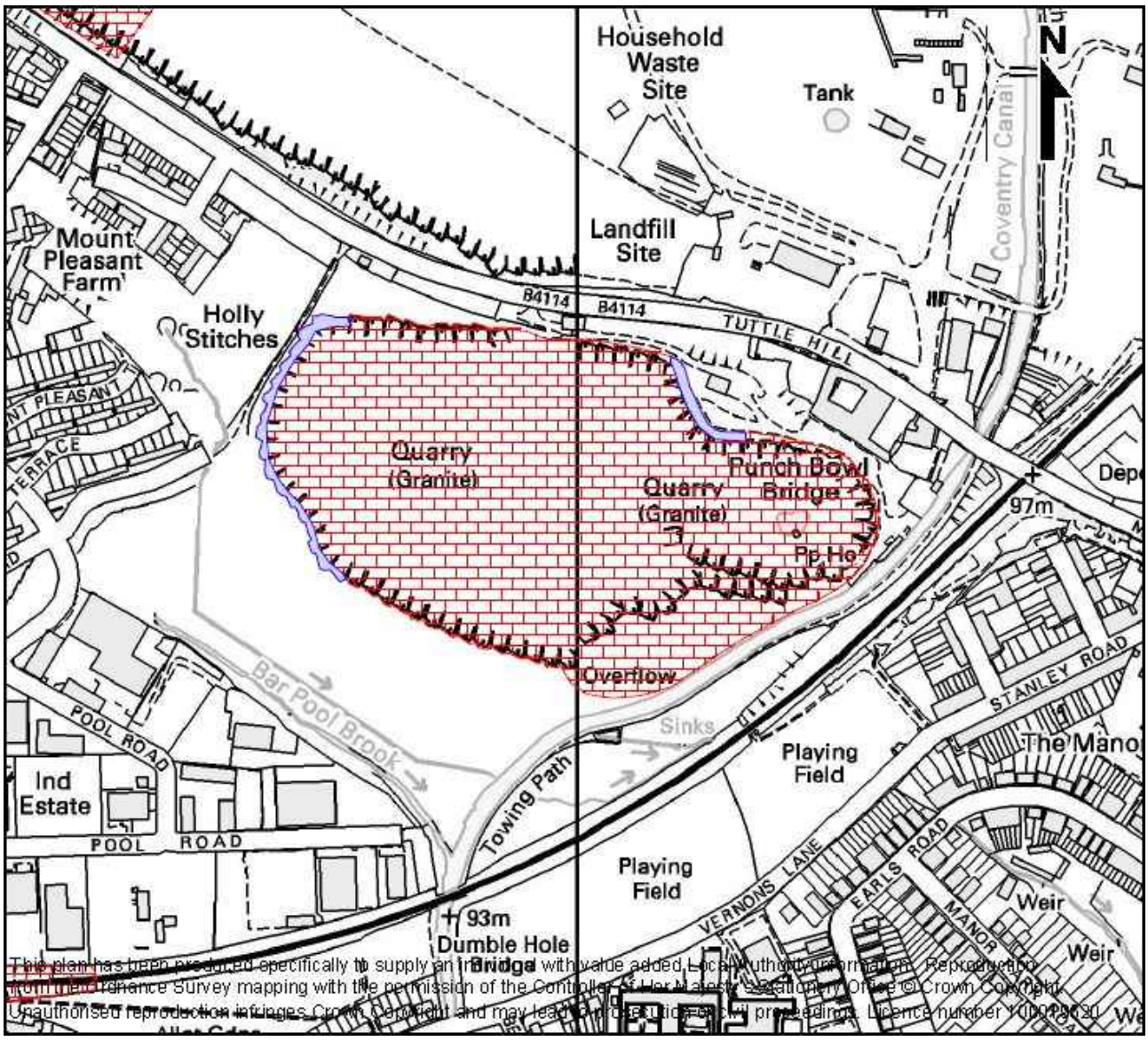
Midlands Minor Intrusive Suite comprises numerous thin sills of grey-green spessarite, lamprophyre and thicker composite sills of hornblende diorite, commonly melanocratic at the base. Formed approximately 443 to 449 million years ago in the Ordovician Period. These rocks were formed from silica-poor magma intruded into the Earth's crust. It cooled to form intrusions ranging from large, coarse-crystalline, often gabbroic, plutons at depth to smaller, fine to medium crystalline, often basaltic dykes and sills.

The Hartshill Sandstone Formation comprises grey to maroon medium-grained sandstone, glauconitic in upper part. Mudstone present only as rare beds 0.10m thick, or as drapes to sandstone beds.

Elsewhere in the quarry, the Triassic Bromsgrove Sandstone Formation can be seen lying unconformably on the Cambrian Hartshill Sandstone Formation. In places, the unconformity reveals small valleys in the Triassic landscape which have probably been formed in semi-arid conditions not unlike those of parts of N. Africa today. These are frequently lined with very coarse, somewhat angular blocks.

The Bromsgrove Sandstone Formation comprises sandstones, red, brown and grey, commonly pebbly or conglomeratic at the bases of beds, interbedded with red and brown siltstones and mudstones. Formed approximately 234 to 248 million years ago, these rocks were formed from rivers depositing mainly sand and gravel detrital material in channels to form river terrace deposits, with fine silt and clay from overbank floods forming floodplain alluvium, and some bogs depositing peat; includes estuarine and coastal plain deposits mapped as alluvium.

It is believed that the quarry was owned by, and provided a considerable amount of ballast to, the Midland Railway and also to the LMS - hence its name.



The areas in blue are considered to be specific 'areas of interest'.