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# A34 D109 Hurst Plantation Quarry

## Site information

Site details

**Site name::** Hurst Plantation Quarry

**Site key:** D109

**Grid reference:** [SK 640 990] (centred on)

**Site type:** disused quarries, pits and cuttings

**Local authority:** Doncaster Metropolitan Borough Council, South Yorkshire

**Site dimensions:** 400 m x 300 m

**Site owner:** Doncaster Minerals

**Conservation status:** Regionally Important Geological Site **Date:** 16/9/97

**Field surveyor:** Scott Engering **Date:** 16/2/07

## Stratigraphy and rock types

**Time unit:** Anglian, Middle Pleistocene **Rock unit:** Glaciofluvial deposits

**Rock type:** Sand and Gravel **Details:** Cross bedded yellow and orange sands with gravel

## Site map

(Figure 160) — D109 Hurst Plantation Quarry

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## Site description

Extensive site with planning permissions still in force, used for extraction of clay and sand and gravel. Planning conditions stated that the land should be landscaped and restored as wetland areas. However, the development of Robin Hood Airport means that the restoration of the land will not proceed in accordance with the existing conditions due to the potential hazard of flocking birds in the flight paths.

At present, two main areas exist. The former clay pits have no exposure and is geologically insignificant. The area worked for sand and gravel consists of flooded pits with a series of islands, comprising banks of excavated material and natural exposures of up to 5 m of yellow and orange Pre-Ipswichian sands with gravel beds. The site is considerably overgrown in relation to its condition in the 1997 RIGS survey.

Many exposures of sand and gravel are at the edge of the flooded pits and there are no well defined points of access, so the education value for anything other than detailed research is limited.

One of the company directors, Keith Lewis, informs me that the company has many other mineral interests and that they do not have any plans to quarry this site further, despite planning permission existed. They want the land to be restored, landscaped and managed as a natural resource for the benefit of the area. As part of any such plans, it was suggested that exposures of sand and gravel on the site could be improved and retained as part of future plans.

The site possesses very good biodiversity interest. Bridleways run alongside the site but apparently there are increasing problems of vandalism, littering etc.

## **RIGS assessment of site value**

Ratings: 1–2 very poor; 3–4 poor; 5–6 acceptable/useful; 7–8 quite good; 9–10 very good/excellent; N/A not applicable; D/K don't know

### **Access and safety**

Aspect/Description/Rating

**Road access & parking** Parking for numerous vehicles on large layby. Rating: 5

**Safety of access** Access along well defined paths and bridleways on edge of site, but no paths within the site itself. Rating: 9

**Safety of exposure** At present, all geological features are seen at the edge of flooded pits and constitute a potential hazard. Rating: 4

**Permission to visit** Privately owned by Doncaster Minerals D/K

**Current condition** Plenty of exposure, but needs improvement of pathways and access to exposures if land is to be properly managed. Rating: 7

**Current conflicting activities** None envisaged

**Restricting conditions** **Safety of access** to exposures

**Nature of exposure** Quarried faces in sand and gravel

**Multiple exposures/prospect for trail** Potential with other sites near Austerfield, subject to access and exposure of these sand and gravel sites

**Notes** Currently unlandscaped but with potential for developing safe, accessible sites with proper management

### **Culture, heritage & economic**

Aspect Description. Rating

**Historic, archaeological & literary association** Local industrial archaeology D/K

**Aesthetic landscape** Site is secluded within a plantation and there has been no attempt at landscaping. Considerable potential as a reserve. Rating: 7

**History of earth sciences** One of limited exposures of Anglian fluvioglacial sand and gravel in the region. Rating: 8

**Economic geology** Local example of sand and gravel extraction. Rating: 5

**Notes** Limited interest except on a very local scale one

## **Education and science**

**Surface processes** Fluvioglacial deposition and modern sedimentary processes

**Geomorphology** Not applicable. Rating: 7

**Sedimentary** Range of sedimentary structures and lithologies yellow sands and carbonaceous deposits. Orange/. Rating: 7

**Fossils** Not applicable. Rating: 0

**Igneous** Not applicable . Rating: 0

**Metamorphic** Not applicable . Rating: 0

**Tectonic: structural** Not applicable . Rating: 0

**Minerals** Not applicable . Rating: 0

**Stratigraphy** Useful for correlating Anglian fluvioglacial sand and gravel. Rating: 7

**Notes** Useful site for studying sediments with a suitably experienced group leader

## **Geodiversity value**

Limited lithologies and interest, other than sedimentology but a good exposure of Anglian sand and gravel. Rating: 7

## **Site photographs D109 Hurst Plantation Quarry**

(Figure 161) General view of dormant sand and gravel quarry. [SK 63883 98977].

(Figure 162) General view of dormant sand and gravel quarry. [SK 63883 98977].

(Figure 163) General view of old clay workings. [SK 63639 99078].

Doncaster GeodiversityAssessment



(Figure 160) D109 Hurst Plantation Quarry. This map is based upon Ordnance Survey topographic material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Licence Number: 100017897 [2007].



(Figure 161) General view of dormant sand and gravel quarry. [SK 63883 98977].





*(Figure 162) General view of dormant sand and gravel quarry. [SK 63883 98977].*



*(Figure 163) General view of old clay workings. [SK 63639 99078].*