EDC 33: Bishipbriggs No2 Gravel Pit, Torrance

Grid reference: [NS 54616 72089]

Site type: Artificial quarry works

Site ownership: Not known

Current use: Agricultural Land

Field surveyor: Sarah Arkley Mike Browne

Current geological designations: None

Date visited: 6th April 2009

Site map

(Figure 33) Bishopbriggs No2 Gravel Pit Location Map

Summary description

Disused sand and gravel quarry.

No sections were found. Once a reasonably sized quarry, the faces are now degraded and overgrown, so that no exposures remain.

Large-scale trough cross-bedding was formerly recorded at the site, in 12 m sections, indicating the transport direction of the material was in an easterly direction

Note on BGS fieldslip at southwestern edge of worked ground: "Rhino locality, (1925) see Rolfe S.J.G. 2, 253–58." This refers to Rolfe, 1966. Woolly rhinoceros from the Scottish Pleistocene. Scottish Journal of Geology, 3, p253–258. Various woolly rhinoceros bones have been found in the Bishopbriggs area of the Kelvin valley. Collagen from the humerus bone yielded a radiocarbon date of 27 550 years B.P. which has greatly increased our understanding of Quaternary deposits in the Kelvin valley.

EDC 33: Stratigraphy and rock types

Age: Quaternary Ross Sand and Gravel Formation

Rock type: Sand and Gravel

Assessment of site value

Access and safety

Aspect/Description

Road access and parking Small car park at Torrance Bridge.

Safety of access Walking along the roadside footpath past Bogton House to the site

Safety of exposure Not known
Permission to visit Viewed from roadside
Current condition Appears very overgrown
Current conflicting activities None known
Restricting conditions Faces are so degraded that the site has little value in its current condition
Nature of exposure Degraded quarry faces
Culture, heritage & economic
Historic, archaeological & literary associations None known. Rating: 0.
Aesthetic landscape. Rating: 2.
History of earth sciences None known. Rating: 0.
Economic geology Former sand and gravel quarry, stopped in ?late 60's. Rating: 3.
EDC 33: Geoscientific merit

EDC 33: Bishopbriggs No2 Gravel Pit, Torrance. Geoscientific merit.

Total Geoscientific merit score 43

Current site value

Community. Rating: 5.

Education. Rating: 2.

Fragility and potential use of the site

Fragility Natural overgrowing

Potential use Higher/Further Education

Geodiversity value

Former sand and gravel quarry where woolly rhinoceros bone was found. All faces now degraded and overgrown. No exposures remain. Locality mainly of historical importance because of bone find, but current site geodiversity value lessened by the lack of visible quarry faces and overgrown nature of the site. Rating: 5.

Photographs

(Photo 204) View looking SE towards the former faces at the southern edge of Bishopbriggs No 2 sand and gravel pit. Records, from the time when the pit was active, describe a section 40 foot high, consisting of "sand, with fine gravel near the top and silt layers towards the base". These sands are thought to have a deltaic origin and have therefore been assigned to the Ross Formation. The deltas formed during deglaciation; as the ice retreated westwards down the Kelvin Valley meltwater issuing from the remaining glaciers on higher ground transported and deposited large volumes of sediment. Cross-sets previously described in this pit confirm an easterly transport direction for the sands. The meltwater flowed into the ice-dammed 'Lake Kelvin', which no longer exists, and the sands were deposited in deltas located at the edge of the lake.

Bibliography



(Figure 33) Bishopbriggs No2 Gravel Pit location map.

GeoScientific Merit	Rarity	Quality	Literature/ Collections	1st
Litho Stratigraphy	<mark>6</mark> ~	0 ~	8 ~	~
Sedimentology	5 ~	0 ~	2~	
Igneous/Mineral/ Metamorphic Geology	0 ~	0 ~	0 ~	
Structural Geology	0 ~	0 ~	0 ~	
Palaeontology	6 ~	0 ~	8 ~	
Geomorphology	<mark>4</mark> ~	4 ~	0 ~	

EDC 33: Bishopbriggs No2 Gravel Pit, Torrance. Geoscientific merit.



(Photo 204) View looking SE towards the former faces at the southern edge of Bishopbriggs No 2 sand and gravel pit. Records, from the time when the pit was active, describe a section 40 foot high, consisting of "sand, with fine gravel near the top and silt layers towards the base". These sands are thought to have a deltaic origin and have therefore been assigned to the Ross Formation. The deltas formed during deglaciation; as the ice retreated westwards down the Kelvin Valley meltwater issuing from the remaining glaciers on higher ground transported and deposited large volumes of sediment. Cross-sets previously described in this pit confirm an easterly transport direction for the sands. The meltwater flowed into the ice-dammed 'Lake Kelvin', which no longer exists, and the sands were deposited in deltas located at the edge of the lake.