

GLA 60 Bournemouth

Grid Reference: TQ 503 683 (access)

Site Type: Working Thanet Sand pit

Site Area (hectares): 10.46

Current use: aggregates

Site ownership: Bournemouth Sand & Gravel

Borough: London Borough of Bromley

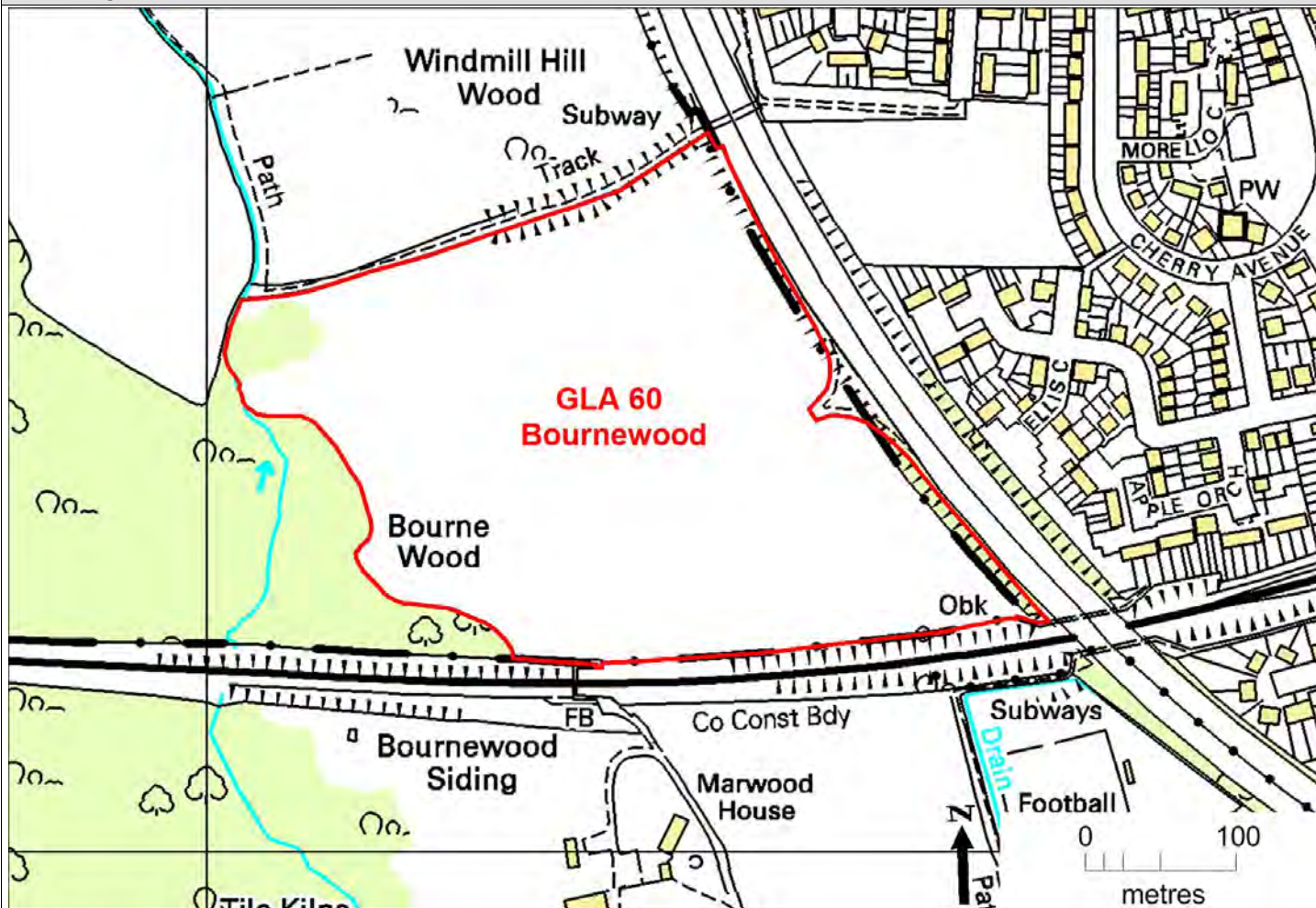
Field surveyor: Diana Clements

Date: May 2013

Current geological designations:

Other scientific:

Site Map OS Topography © Crown Copyright



Stratigraphy and Rock Types

Time Unit: Paleocene

Rock Unit: Thanet Sand Formation

Rock Type: Sand

Details: well-bedded fine yellow sand

Site Description

The Thanet Sand within the pit is fine-grained and it is not easy to see any stratigraphy within it. One sample showed evidence of burrowing and probably the c.9m face had been thoroughly bioturbated. No glauconite was evident in samples studied with the hand lens and for the most part it was a pale yellow.

BGS had formerly extracted Thanet Sand to the south of the present excavation, adjacent to the railway. That pit went deeper than the present one and although Thanet Sand has been proven at depth here they are worried about the water table as one area of the quarry was prone to flooding.

Trials have taken place in an adjacent field to the north where a greater depth of sand has been proven and the 'grade' is more suitable for construction. It is possible that this includes Upnor Formation. The maximum depth of Thanet Sand in this area is between 20 and 25m (BGS Memoir, Fig. 9). Planning permission has not yet been sought for extraction from the adjacent site.

The current pit is 14 acres and began excavations in 1997 with permission for extraction until 2018 but the rate of extraction will probably mean that in reality it has only two more years to run after which it will be used as landfill with an

obligation to return for use as agricultural land. There seems little likelihood of being able to conserve a face in the current pit but Bromley Council should be alerted to the fact that a Potential RIGS exists in their borough and aim to include an element of conservation on future planning permissions.

Assessment of Site Value

Geodiversity topic: Lithostratigraphy; sedimentology;

Access and Safety

Aspect	Description
Safety of access	Small slip road off the northbound A20. Hard hats, visi vest and boots essential.
Safety of exposure	Minimal danger of falling sand.
Permission to visit	Access by permission and escorted. Open 7 – 5 Mon-Fri. Bournemouth Sand & Gravel, Quarry Drive, A20 Swanley Bypass, Swanley, Kent, BR8 7QH. Tel: 01322 660257 jason@bournemouthltd.com
Current condition	Temporary exposure scheduled for landfill and then returned to agricultural use. Permission to excavate until 2018 but may be quarried out by 2015 and so an extension will be sought.
Current conflicting activities	Need to be aware of moving machinery; piles of landfill already on floor of pit. Obligation to backfill so RIGS should be sought in next round of planning permission with a requirement to leave a viewable face.
Restricting conditions	Anxiety of water table impeding deeper quarrying
Nature of exposure	Working quarry with full 9 m face visible and accessible. Entirely Thanet Sand Formation although BGS map implies it is overlain by Harwich Formation.

Culture, Heritage & Economic

Aspect	Description	Rating
Historic, archaeological & literary associations	None known about	0
Aesthetic landscape	Small rural area remaining close to urban conurbations	2
History of Earth Sciences	None known	0
Economic geology	Sand quarrying	8

GeoScientific Merit

Geomorphology	None	0
Sedimentology	There is an ambiguity about the top meters in this quarry that warrant research, otherwise it is fine-grained Thanet Sand	6
Palaeontology	None seen	0
Igneous/mineral/ Metamorphic Geology	None	0
Structural Geology	At southern edge of the London Basin Syncline	2
Lithostratigraphy	Only working Thanet Sand Formation quarry in GLA	6
Potential use	Research; working quarries are difficult for school-age education	
Fragility	Landfill.	

Current Site Value

Community	Future planning permission should include an element of conservation for future generations	6
Education	Quarry owners would give permission for researchers and probably students	6

Geodiversity value

Potential RIGS: The only Thanet Sand quarry in GLA	6
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GLA 60 Bournewood

Photo: Diana Clements



Main face of Bournewood, May 2013