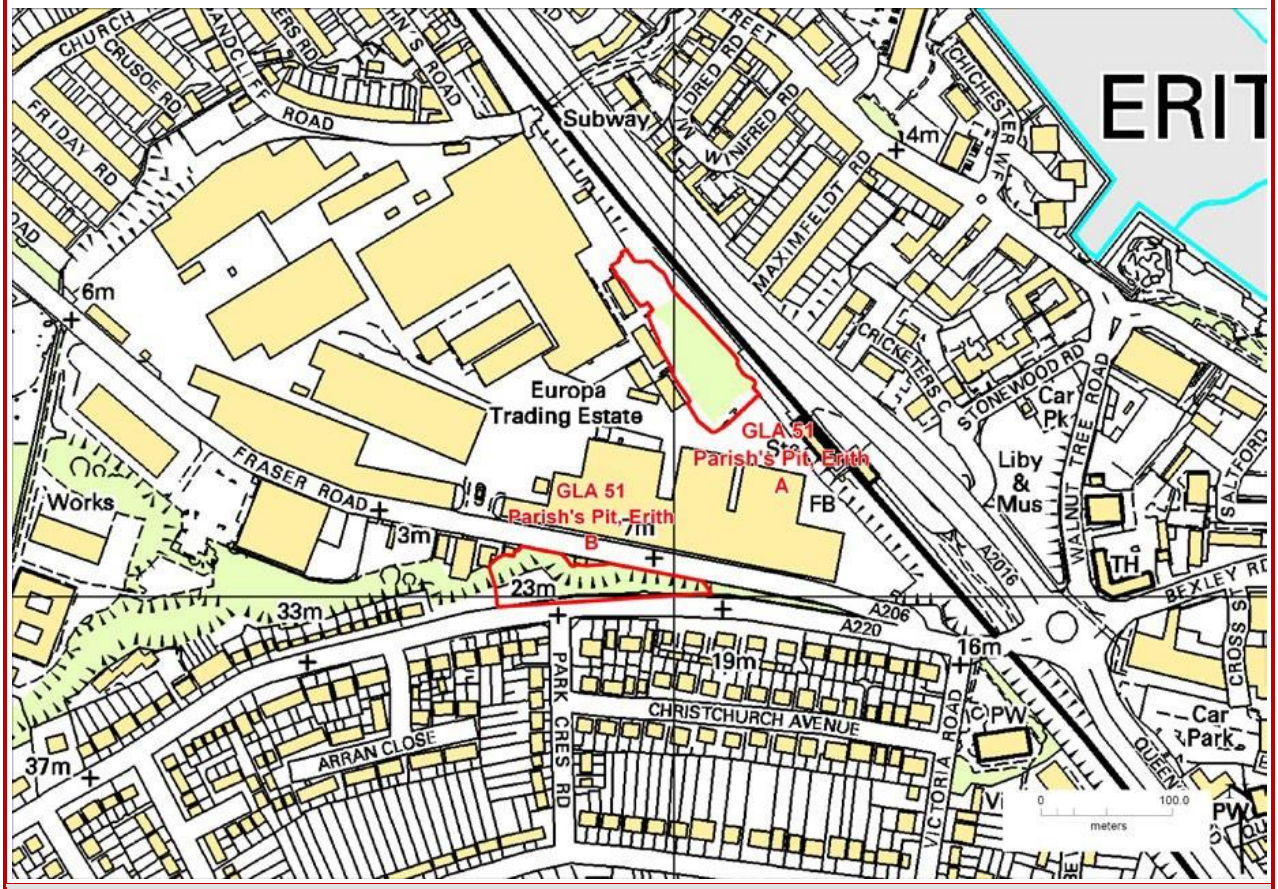
GLA 51 Parish's Pit, Erith

Grid Reference: a) TQ 510 781 b) TQ 509 780	Site Type: Former aggregate site
Site Area (hectares): 0.98 (Site A = 0.6, Site B = 0.3) Original pit c. 40)	Current use: Steep inaccessible cliffs.
Site ownership: Mainly private estates securely guarded by high fences	Borough: London Borough of Bexley
Field surveyor: Paul Rainey Last visited: Viewed from afar at Erith Railway Station. Paul Rainey, Laurie Baker, Diana Clements	Date: November 2011 Date: February 2016
Current geological designation: LIGS	Other designation: Borough Grade I SINC (Erith Quarry and Fraser Road)
Site Map	OS Topography © Crown Copyright



Stratigraphy and Rock Types

Time Unit: Eocene	Rock Unit: Blackheath Member, Harwich Formation, Thames Group
Rock Type: Sand and gravel	Details: Sand and pebbles (mostly round, black), marine fauna, locally brackish. Calcitic conglomerate found at certain horizons.
Time Unit: Paleocene-Eocene	Rock Unit: Upnor and Woolwich Formations, Lambeth Group
Rock Type: Clay, silt, sand	Details: Glauconitic sands overlain by interleaved grey clays and sands with brackish fauna. Marine Upnor sand at the base.
Time Unit: Paleocene	Rock Unit: Thanet Formation
Rock Type: Clay, silt, sand	Details: Pale yellow-brown fine-grained sand that can be clayey and glauconitic.

Site Description

This is a large, half a square kilometre, former pit that mainly worked Thanet Sand between 1805 and about 1970. Strata are horizontal. The natural site was a north east facing slope rising from the top of the Chalk at Thames river level some 30m to the Harwich Formation plateau. The base of the pit was at about the top of the Chalk. The Thanet Sand can stand in near vertical cliffs, some still visible. Other strata do

not stand so steeply and are mainly hidden by impenetrable vegetation, scree and fences. About half the pit floor has been backfilled, the other half has been built over as industrial estates, formerly the Vickers works.

One still spectacular rectangular “Lost World” type of “island” (Site A) is surrounded on three sides by high vertical Thanet Sand cliffs and on its fourth side by a railway cutting This is shown on a painting and a photograph of the 1870s when the former quarry floor was a cricket ground. Another high Thanet cliff (Site b) is marked by “Danger Falling Rocks” signs as Fraser Road climbs across it. Elsewhere the geology is completely hidden.

Assessment of Site Value

Geodiversity topic: Lithostratigraphy; sedimentology; palaeontology.

Access and Safety

Aspect	Description
Safety of access	Within industrial estate
Safety of exposure	The faces are within private estates securely guarded by high fences but they do slip occasionally
Permission to visit	Probably individual unit owners within the industrial estate
Current condition	The southern faces of the site are heavily overgrown but vertical cliffs of Thanet Sand are still visible from the public highway in two areas (a), (b) on map). In area (a) the lower parts of the cliffs are heavily overgrown. In area (b) lower parts of the cliffs are covered by brickwork and concrete. The upper parts of the cliffs form prominent landmarks.
Current conflicting activities	Industrial estate activities
Restricting conditions	Access
Nature of exposure	Only remaining sections of former large quarry

Culture, Heritage & Economic

Aspect	Description	Rating
Historic, archaeological & literary associations	Site of great interest to local history and industrial archaeology.	5
Aesthetic landscape	Best viewed in winter	4
History of Earth Sciences		2
Economic geology	No longer operational	6

GeoScientific Merit

Geomorphology	North east facing slope rising c. 30m from chalk at the base to the Harwich Formation plateau. The base of the pit was at about the top of the Chalk and all that is visible now are remnant Thanet Sand near- vertical cliffs at the perimeters of the old quarry. Other strata do not stand so steeply.	0
Sedimentology	Thanet Formation still visible, mostly stained orange, but in one area quite pale. Glauconite observed in small slipped area at site (b). Strata above are obscured.	4
Palaeontology	None known about	
Igneous/mineral/ Metamorphic Geology	None.	0
Structural Geology	None.	0
Lithostratigraphy	Paleocene Thanet Formation, Paleocene-Eocene Lambeth Group, Eocene Harwich Formation all formerly visible at this site	3
Potential use	Research; education;	
Fragility	Natural overgrowing; weathering/erosion; future development	

Current Site Value

Community	Limited access as industrial site, but visible from roadsides and railway station platforms	2
Education	Site of great interest to local history and industrial archaeology	5

Geodiversity value	
LIGS: worth protecting the remaining faces from developers as currently only exposure of Thanet Formation in Bexley (NB Chalky Dell also, if conserved)	3-4

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Area A within industrial estate from railway station

Area B south side of Fraser Road

Photos: Diana Clements, 2012

Area A from Erith railway station, February 2016. Photo: Laurie Baker