Appendix 9.2 Watching Brief Report

HAMPSTEAD HEATH PONDS SCHEME
Hampstead Heath
London

London Borough of Camden

Pre-determination watching brief

April 2014

Museum of London Archaeology
Mortimer Wheeler House
46 Eagle Wharf Road, London N1 7ED
tel 020 7410 2200 | fax 020 410 2201
www.museumoflondonarchaeology.org.uk
general enquiries: enquiries@mola.org.uk

HAMPSTEAD HEATH PONDS
Hampstead Heath
London

Pre-determination Watching Brief

NGR 527385 186515

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Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED
tel 0207 410 2200 fax 0207 410 2201 email:generalenquiries@mola.org.uk

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Executive summary

This report presents the results of an archaeological watching brief carried by Museum of London Archaeology (MOLA) on the site of Hampstead Heath Ponds, Hampstead Heath, London. The report was requested by the local planning authority to help inform an appropriate mitigation strategy to be formulated in light of the proposed development. The watching brief was commissioned from by the Corporation of London.

The watching brief comprised 34 trial pits, 14 boreholes and 45 window samples concentrated in the vicinity of eleven of the thirty ponds on the Heath, those forming the Highgate and Hampstead chains.

No archaeological remains were found during the watching brief.

Evidence of landscaping was found on the centrally located Sports Ground and at the Fairground site, close to Spaniards Road, where, in both cases, modern dumping had taken place to level the area. Modern made ground deposits were also evident in the Catchpit area.

The proposals are described in detail within the Historic Environment Assessment (MOLA 2014) but in summary would comprise improvements to bathing and lifeguard facilities at the Ladies Bathing Pond in the Highgate chain, alteration to some of the banking, dams and conduits and borrow pits in order to provide material for the raising of the dams.

It is likely that further archaeological investigation would comprise a watching brief during all ground reduction.

1 Introduction

1.1 Site background

1.1.1 The watching brief comprised monitoring 34 trial pits, 14 cable percussion boreholes and 45 terrier rig window samples in the vicinity of eleven of the ponds of Hampstead Heath ('the site'). These ponds form two north-west to south-east aligned chains in the western (the Hampstead chain) and eastern (the Highgate chain) part of the Heath. The OS National Grid Ref. for centre of site is 527385 186515. The site code is HAH14.

1.1.2 A desk-top Archaeological Assessment was prepared by MOLA in 2014 and provides detail on the natural geology, archaeological and historical background of the site, and the initial interpretation of its archaeological potential.

1.1.3 The results of the watching brief have provided further information of the archaeological potential within the site. The watching brief has taken place at the pre-planning stage, and the report will be submitted as part of the planning application, to enable the local planning authority to formulate an appropriate mitigation strategy in light of the proposed development.

1.2 Designated heritage assets

1.2.1 Hampstead Heath contains a large number of designated (protected) heritage assets.

1.2.2 A barrow known locally as Boadicea's Grave to the north-west of Parliament Hill is a scheduled monument.

1.2.3 There are a number of listed buildings on the Heath, including five within the area of investigation.

1.2.4 Kenwood in the northern part of the Heath is a Grade II* registered parks and garden.

1.2.5 There is one area of ancient woodland and a site of special scientific interest; the Hampstead Heath Woods. There are a number of historic hedgerows, protected under the Hedgerow Regulations.

1.2.6 The southern part of Hampstead Heath is bordered by Hampstead Conservation Area and then northern part by Highgate Conservation Area (Camden).

1.3 Aims and objectives

1.3.1 The following research aims and objectives were established in the Written Scheme of Investigation for the watching brief (Section 3):

1.3.2 The aim of the predetermination archaeological watching brief is to:

Identify the presence/absence of archaeological remains within the site. Archaeological remains could comprise;

- Prehistoric remains, including features or finds relating to the exploitation of marsh resources (close to ponds), Bronze Age remains related to the Scheduled Ancient Monument (near Parliament Hill) and Mesolithic remains (on the higher ground).
- Palaeoenvironmental remains, preserving evidence of past environments and human interaction with them may survive in the area of the springs.
- Medieval remains, including quarry pits, field and parish boundaries.

Identify the extent of any modern disturbance.

Identify the depth of the natural deposits, where encountered.

Inform the design process in regards to borrow pit and soak away locations.

2 Archaeological and historical background

2.1 Topography and geology

2.1.1 Hampstead Heath lies across the Hampstead-Highgate ridge of permeable Bagshot Sands which forms a high ridge running approximately north-east to south-west through the centre of the Heath. The highest point on the ridge within the Heath is *c* 134.0m above Ordnance Datum (OD), on Spaniard's Road. To the east and west of the ridge the ground falls away fairly steeply. A full description of the topography and geology of the Heath is detailed in the Historic Environment Assessment (MOLA 2013).

2.1.2 The British Geological Survey 1:50,000 scale map of North London (sheet 256) shows that the geology of the Heath comprises London Clay capped in the centre and west of the Heath by the Claygate Member (part of the London Clay Formation) and the sands and clays of the Bagshot Beds. In places there are small areas of a pre-Anglian Quaternary gravel, the Stanmore Gravel Formation.

2.1.3 The British Geological Survey holds the logs of several boreholes drilled within Hampstead Heath. Two boreholes drilled in the eastern part of the Heath, one close to the south of the Highgate ponds while the other was close to the southern end of the Hampstead ponds, both recorded London Clay directly below the ground surface. Further to the west however, boreholes drilled in East Heath and Sandy Heath encountered sand of the Bagshot beds overlying the London Clay.

2.2 Archaeological potential

2.2.1 The potential for archaeology to survive within Hampstead Heath is high given the undeveloped nature of most of the area.

Prehistoric period (800,000 BC–AD43)

2.2.2 Isolated prehistoric finds dating from the Palaeolithic through to the Bronze Age have been recovered from within the Heath. A Mesolithic settlement was recorded on the Western Heath, while a Bronze Age Bell Barrow (scheduled monument) is located on the high ground of the Eastern Heath.

2.2.3 Prehistoric remains could include features or finds relating to the exploitation of marsh or stream resources (close to ponds) and Bronze Age remains related to the scheduled monument and Mesolithic remains (on the sandy ridge). There is also the potential for palaeoenvironmental remains close to the springs.

Roman period (AD 43–410)

2.2.4 Roman activity within the surrounding area is limited although some isolated finds have been recorded within the Heath. Throughout this period the Heath most likely comprised woodland.

Early medieval/Saxon period (AD 410–1066)

2.2.5 During this period a small settlement was located at Hampstead. Within the Heath only isolated finds have been recorded and like the Roman period, and the Site probably consisted of woodland.

Late medieval period (AD1066–1485)

2.2.6 Like the earlier periods the Heath is most likely to have comprised woodland during the late medieval periods. Any features which might lie within the Heath could comprise quarry pits, field and parish boundaries.

Post-medieval period (AD1485–present)

2.2.7 It was during the post medieval period that the Heath gradually grew into its current recognisable form. Kenwood House was built and the ponds established and during the Napoleonic Wars the heath was used for military training.

2.2.8 Post-medieval remains could include quarry pits, Napoleonic military finds, and field boundaries, water management features such as historic pond walls/dams (behind existing) and sheet piles and culverts.

3 The watching brief

3.1 Methodology

3.1.1 The methodology of the watching brief was carried out in accordance with the preceding Written Scheme of Investigation (MOLA, 2014).

3.1.2 The watching brief involved the excavation and recording of an initial 32 trial pits and the monitoring of geotechnical window samples and boreholes. Window samples were generally drilled to 3m below ground level (bgl) and boreholes to 15m. Two of the trial pits were not excavated and four extra ones were added.

3.1.3 Trial pits were excavated by machine by the contractors, the window samples were drilled using a terrier rig and boreholes drilled by cable percussion (shell and auger). All were monitored by a member of staff from MOLA.

3.1.4 Interventions were located by the contractors then plotted onto the OS grid.

3.1.5 The site has produced: 1 trial pit location plan and 60 photographs. The window samples and boreholes locations are also mapped and, in combination with other height data, have produced a surface contour plot of the area.

3.1.6 The site records can be found under the site code HAH14 in the MoL archive.

3.2 Results

3.2.1 For the location of interventions see Fig 2 and Fig 6. Fig 6 also shows the surface topography of the Heath relative to OD, giving a clear sense of the natural depressions that the pond chains occupy, and how the mapped geology follows the relief. Window sample and borehole logs are presented in the Appendix at the back of this report.

Trial Pits

Trial pit 1

Location	Close to the Fairground site, in the western part of East Heath
NGR	526549.74E 186659.08N
Dimensions	2.0m by 0.6m by 1.75m deep
Modern ground level	124.82m OD
Base of modern fill	124.67m OD
Level of base of trench	123.07m OD
Natural observed	N/A

3.2.2 Below 0.15m of turf and topsoil was a dump of loose brick demolition debris. The trial pit was stopped at 1.75m deep as the edges were unstable. No archaeological features or finds were recorded.

Trial pit 2

Location	Close to the Fairground site, in the western part of East Heath
NGR	526596.03E 186663.63N
Dimensions	2.0m by 0.6m by 1.5m deep
Modern ground level	123.94m OD
Base of modern fill	123.80m OD
Level of base of trench	122.45m OD
Natural observed	N/A

3.2.3 Below 0.15m of turf and topsoil was a dump of loose brick demolition debris. The trial pit was stopped at 1.5m deep as the edges were unstable. No archaeological features or finds were recorded.

Trial pits 3 and 4

3.2.4 These trial pits were not excavated.

Trial pit 5

Location	On the central Sports Ground
NGR	527086.60E 186487.24N
Dimensions	2.2m by 0.6m by 2.1m deep
Modern ground level	93.46m OD
Base of modern fill	91.45m OD
Level of base of trench	91.35m OD
Natural observed	91.45m OD

3.2.5 Below 0.1m of turf and topsoil was a dump of modern brick, slag, tile and tarmac down to 0.4m bgl, below which was a dirty redeposited clay with CBM, glass and late 19th/20th century pot. Clean clay appeared to be present at 2.0m deep.

Trial pit 6

Location	On the central Sports Ground
NGR	527112.99E 186523.87N
Dimensions	2.0m by 0.6m by 2.25m deep
Modern ground level	95.60m OD
Base of modern fill	95.45m OD
Level of base of trench	93.35m OD
Natural observed	95.45m OD

3.2.6 Below 0.15m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 7

Location	On the central Sports Ground
NGR	527198.01E 186490.22N
Dimensions	2.25m by 0.6m by 2.2m deep
Modern ground level	96.10m OD
Base of modern fill	95.75m OD
Level of base of trench	93.90m OD
Natural observed	95.75m OD

3.2.7 Below 0.35m of turf and topsoil was clean clay. A thin lens of modern dumped material was found at the interface. No archaeological features or finds were recorded.

Trial pit 8

Location	On the central Sports Ground
NGR	527198.24E 186490.19N
Dimensions	2.0m by 0.6m by 2.0m deep
Modern ground level	96.09m OD
Base of modern fill	95.69m OD
Level of base of trench	94.09m OD

Natural observed	95.69m OD

3.2.8 Below 0.25m of turf and topsoil was 0.15m of modern dumped levelling material, below which was clean clay. No archaeological features or finds were recorded.

Trial pit 8b

Location	On the central Sports Ground, additional pit half way between TP5 and TP8
NGR	527141.84E 186459.94N
Dimensions	2.0m by 0.6m by 2.0m deep
Modern ground level	93.39m OD
Base of modern fill	92.00m OD
Level of base of trench	91.40m OD
Natural observed	92.00m OD

3.2.9 Below 0.25m of turf and topsoil was 1.15m of modern dumped levelling material, below which was clean clay. No archaeological features or finds were recorded.

Trial pit 8c

Location	On the central Sports Ground, additional pit half way between TP6 and TP7
NGR	527155.28E 186511.29N
Dimensions	2.1m by 0.6m by 1.0m deep
Modern ground level	95.79m OD
Base of modern fill	N/A
Level of base of trench	94.8m OD
Natural observed	N/A

3.2.10 Below 0.15m of turf and topsoil was modern industrial waste material. This trial pit was abandoned due to water ingress. No archaeological features or finds were recorded.

Trial pit 8d

Location	On the central Sports Ground, additional pit half way between TP5 and TP6
NGR	527097.74E 186505.68N
Dimensions	2.0m by 0.6m by 2.0m deep
Modern ground level	94.37m OD
Base of modern fill	93.27m OD
Level of base of trench	92.37m OD
Natural observed	93.27m OD

3.2.11 Below 0.3m of turf and topsoil was 0.8m of modern dumped levelling material, below which was clean clay. No archaeological features or finds were recorded.

Trial pit 8e

Location	On the central Sports Ground, additional pit half way between TP7 and TP8
NGR	527197.38E 186468.07N
Dimensions	2.0m by 0.6m by 2.05m deep
Modern ground level	95.02m OD
Base of modern fill	94.60m OD
Level of base of trench	92.97m OD

Natural observed	94.60m OD

3.2.12 Below 0.25m of turf and topsoil was 0.15m of modern dumped levelling material, below which was clean clay. No archaeological features or finds were recorded.

Trial pit 9

Location	Pryors Field
NGR	527085.54E 186076.86N
Dimensions	2.0m by 0.6m by 2.0m deep
Modern ground level	88.38m OD
Base of modern fill	88.18m OD
Level of base of trench	86.38m OD
Natural observed	88.18m OD

3.2.13 Below 0.2m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 10

Location	Pryors Field
NGR	527104.47E 186039.94N
Dimensions	2.0m by 0.6m by 1.35m deep
Modern ground level	85.80m OD
Base of modern fill	85.60m OD
Level of base of trench	84.40m OD
Natural observed	85.60m OD

3.2.14 Below 0.2m of turf and topsoil was clean clay down to 1.35m bgl, where a hard claystone deposit prevented further excavation. No archaeological features or finds were recorded.

Trial pit 11

Location	Pryors Field
NGR	527129.00E 186079.87N
Dimensions	2.05m by 0.6m by 2.05m deep
Modern ground level	85.93m OD
Base of modern fill	85.78m OD
Level of base of trench	83.88m OD
Natural observed	85.78m OD

3.2.15 Below 0.15m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 12

Location	Pryors Field
NGR	527142.72E 186158.67N
Dimensions	2.2m by 0.6m by 2.25m deep
Modern ground level	82.62m OD
Base of modern fill	81.60m OD
Level of base of trench	80.37m OD
Natural observed	81.60m OD

3.2.16 Below 0.3m of turf and topsoil was 0.5m of modern dumped material, including CBM, glass, metal, etc, below which was clean clay. No archaeological features or finds were recorded.

Trial pit 13

Location	Pryors Field
NGR	527169.25E 186091.39N
Dimensions	3.4m by 0.6m by 1.8m deep
Modern ground level	83.42m OD
Base of modern fill	83.27m OD
Level of base of trench	81.52m OD
Natural observed	83.27m OD

3.2.17 Below 0.15m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 14

Location	Dukes Field
NGR	528137.60E 186242.92N
Dimensions	12.0mby 0.6m by 2.0m deep
Modern ground level	62.82m OD
Base of modern fill	62.42m OD
Level of base of trench	60.82m OD
Natural observed	62.42m OD

3.2.18 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 15

Location	Dukes Field
NGR	528141.26E 186294.35N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	61.09m OD
Base of modern fill	60.70m OD
Level of base of trench	59.09m OD
Natural observed	60.70m OD

3.2.19 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 16

Location	Dukes Field
NGR	528234.31E 186301.69N
Dimensions	1.8m by 0.6m by 2.2m deep
Modern ground level	57.94m OD
Base of modern fill	57.64m OD
Level of base of trench	55.94m OD
Natural observed	57.64m OD

3.2.20 Below 0.3m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 17

Location	West side of the Model Boating Pond
NGR	
Dimensions	1.8m by 0.6m by 1.6m deep

Modern ground level	c75.5m OD
Base of modern fill	c75.1m OD
Level of base of trench	c73.9m OD
Natural observed	c75.1m OD

3.2.21 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 18

Location	West side of the Model Boating Pond
NGR	527674.46E 186640.33N
Dimensions	1.8m by 0.6m by 2.15m deep
Modern ground level	80.84m OD
Base of modern fill	80.44m OD
Level of base of trench	78.84m OD
Natural observed	80.44m OD

3.2.22 Below 0.4m of turf and topsoil was clean clay, cutting into which was a 20th century land drain. No archaeological features or finds were recorded.

Trial pit 19

Location	West side of the Model Boating Pond
NGR	527717.22E 186667.42N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	75.85m OD
Base of modern fill	75.45m OD
Level of base of trench	73.85m OD
Natural observed	75.45m OD

3.2.23 Below 0.4m of turf and topsoil was clean clay. An occasional lens of gravel was found at the interface. No archaeological features or finds were recorded.

Trial pit 20

Location	West side of the Model Boating Pond
NGR	527653.24E 186701.18N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	78.62m OD
Base of modern fill	78.47m OD
Level of base of trench	76.96m OD
Natural observed	78.47m OD

3.2.24 Below 0.15m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 21

Location	West side of the Model Boating Pond
NGR	527696.30E 186727.44N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	74.90m OD
Base of modern fill	74.60m OD
Level of base of trench	72.90m OD
Natural observed	74.60m OD

3.2.25 Below 0.3m of turf and topsoil was clean clay. No archaeological features or finds

were recorded.

Trial pit 22

Location	Dukes Field
NGR	528115.41E 186227.70N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	64.83m OD
Base of modern fill	64.43m OD
Level of base of trench	62.83m OD
Natural observed	64.43m OD

3.2.26 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 23

Location	Parliament Hill Fields, to west of Mens Bathing Pond
NGR	527766.87E 186399.88N
Dimensions	2.45m by 0.6m by 2.0m deep
Modern ground level	75.02m OD
Base of modern fill	74.57m OD
Level of base of trench	72.97m OD
Natural observed	xxm OD

3.2.27 Below 0.3m of turf and topsoil was 0.15m of modern dumped material, with occasional flecks of CBM below which was clean clay, with a 20th century land drain cut into it. No archaeological features or finds were recorded.

Trial pit 24

Location	Parliament Hill Fields, to west of Mens Bathing Pond
NGR	527724.38E 186486.13N
Dimensions	2.05m by 0.6m by 2.15m deep
Modern ground level	75.63m OD
Base of modern fill	75.43m OD
Level of base of trench	73.48m OD
Natural observed	75.43m OD

3.2.28 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 25

Location	Parliament Hill Fields, to west of Model Boating Pond
NGR	527613.47E 186611.90N
Dimensions	1.6m by 0.6m by 1.55m deep
Modern ground level	85.90m OD
Base of modern fill	85.50m OD
Level of base of trench	84.28m OD
Natural observed	85.50m OD

3.2.29 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 26

Location	Parliament Hill Fields, to west of Model Boating Pond
NGR	527611.55E 186651.34N
Dimensions	2.1m by 0.6m by 2.0m deep
Modern ground level	85.14m OD
Base of modern fill	84.74m OD
Level of base of trench	83.14m OD
Natural observed	84.74m OD

3.2.30 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 27

Location	Parliament Hill Fields, to west of Model Boating Pond
NGR	527580.42E 186690.30N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	83.71m OD
Base of modern fill	83.45m OD
Level of base of trench	81.71m OD
Natural observed	83.45m OD

3.2.31 Below 0.25m of turf and topsoil was clean clay. A lens of gravel was found at 83.25m OD. No archaeological features or finds were recorded.

Trial pit 28

Location	South Meadow, to the west of Ladies Bathing Pond
NGR	527468.19E 186842.23N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	83.54m OD
Base of modern fill	83.15m OD
Level of base of trench	81.54m OD
Natural observed	83.15m OD

3.2.32 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 29

Location	South Meadow, to the west of Ladies Bathing Pond
NGR	527445.18E 186873.89N
Dimensions	1.8m by 0.6m by 2.05m deep
Modern ground level	86.94m OD
Base of modern fill	86.64m OD
Level of base of trench	84.89m OD
Natural observed	86.64m OD

3.2.33 Below 0.3m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 30

Location	South Meadow, to the west of Ladies Bathing Pond
NGR	527453.26E 186910.59N
Dimensions	1.8m by 0.6m by 2.05m deep
Modern ground level	87.08m OD
Base of modern fill	86.73m OD
Level of base of trench	85.03m OD
Natural observed	86.73m OD

3.2.34 Below 0.35m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Trial pit 31

Location	Between south east of the Kenwood estate and the Stock Pond
NGR	527422.11E 187044.59N
Dimensions	1.8m by 0.6m by 2.1m deep
Modern ground level	91.84m OD
Base of modern fill	91.50m OD
Level of base of trench	89.74m OD
Natural observed	91.50m OD

3.2.35 Below 0.35m of turf, topsoil and tree roots was clean clay. No archaeological features or finds were recorded.

Trial pit 32

Location	Between south east of the Kenwood estate and the Stock Pond
NGR	527402.22E 187098.42N
Dimensions	1.8m by 0.6m by 2.0m deep
Modern ground level	93.09m OD
Base of modern fill	92.70m OD
Level of base of trench	90.94m OD
Natural observed	92.70m OD

3.2.36 Below 0.4m of turf and topsoil was clean clay. No archaeological features or finds were recorded.

Boreholes and window samples

3.2.37 The full results of the monitoring of the boreholes and window samples are set out in the appendix at the end of this document, however, below is a summary of the results for each pond.

Stock Pond

3.2.38 Approximately 0.2m of top soil above weathered and probably redeposited London Clay which formed the construction of the dam at the foot of Stock Pond.

Mixed Bathing Pond

3.2.39 Results suggest that the dam of the Mixed Bathing Pond was constructed with a mixture of gravel, redeposited alluvium and redeposited London Clay. In some of the boreholes the upper deposits also contained a mixture of flint, brick, tile and slag.

Mens Bathing Pond

3.2.40 The Mens Bathing Pond Dam appears to have been constructed with redeposited London Clay, with in places the upper deposites included gravel, brick, tile, metal, pottery, slate and concrete.

Model Boating Pond

3.2.41 The dam appears to have been constructed out of London Clay below a thin layer of top soil.

3.2.42 A number of boreholes were carried out within the pond recorded pond muds which ranged between *c* 3m and 5m thick above the London Clay.

Catch Pit

3.2.43 In the area of the Catch Pit 3–4m of disturbed London Clay was recorded.

3.2.44 At the eastern side of the Catch Pit area, between 0.6m and 1.5m of made ground which included cobbles, gravel, sand, brick, tile, glass and a thin less of soft black silt was recorded above the London Clay which itself showed signs of disturbance and weathering.

Ladies Bathing Pond

3.2.45 The dam of the Ladies Bathing Pond was found to be constructed of redeposited London Clay, with a thin deposit of top soil overlying the London Clay.

Hampstead No.1 Pond

3.2.46 The results show weathered London Clay directly below the top soil. Only one of the boreholes (H1WS01) which was the furthers south, showed up to 2.85m of made ground which included clay, gravel, brick fragments and sand.

Hampstead No.2 Pond

3.2.47 The boreholes suggest that the dam was constructed from redeposited London Clay, with in places up to 1m of sand and gravel made ground with inclusions of brick and flint.

Highgate Pond No.1

3.2.48 The dam of Highgate Pond No.1 has been constructed of weathered London Clay with in places between 1–1.4m of modern made ground containing brick, flint, gravel and tarmac.

Viaduct Pond

3.2.49 The Viaduct Pond dam has been constructed of London Clay, although two of the Window Samples show 0.75–1.55m of made ground above the London Clay which contains pebbles, gravel, flint and brick.

Vale of Heath

3.2.50 The results in the Vale of Heath show *c* 0.4m of made ground containing gravel, brick, flint, tarmac and sand above weathered clay.

3.3 Significance of the results

3.3.1 No archaeological deposits, features or finds were found during the test pit watching brief. In two areas, the central Sports Ground and the Fairground site, in the western part of East Heath, evidence was found of 19th/20th century dumping having occurred to level both areas. At the Sports Ground the western edge of the area had been raised, while the eastern edge had probably been terraced into the slope.

3.3.2 All the other trial pits examined had naturally deposited clay directly below the turf and topsoil.

3.3.3 No archaeological features were indicated or finds uncovered during window sample and borehole monitoring. The sub-surface sediments appeared almost entirely derived from bedrock, and the majority comprised weathered soils of London Clay over London Clay. Soils derived from the Claygate Member or Bagshot Beds were noted in areas fringing mapped London Clay: near the Viaduct Pond, Catch Pit and Vale of Health.

3.3.4 Window samples and borehole locations largely clustered along pond dams and in these areas it is likely that most of the upper horizons comprise re-deposited sediment, upcast in dam construction. However, in several of the dammed areas any upcast is indistinguishable from *in situ* bedrock-derived soil. In other words, there were no obvious signs that the deposits were made ground. This applies to the Model Boating Pond, the Highgate No.1 Pond, the Mixed Bathing Pond and the Ladies Bathing Pond, with brick noted only occasionally.

3.3.5 Modern made ground deposits (including cement, metal, slate, tile and pottery) were observed to a depth of *c.* 2m bgl in one of the Mens Bathing Pond boreholes, and appear to relate to more recent ground raising or disturbance.

3.3.6 Other made ground deposits were noted near the Catch Pit and Viaduct Ponds. Ground containing brick was recorded beneath topsoil in two of Viaduct Pond window samples (between 0.75m and 1.6m bgl) and at the Catch Pit, modern made ground (post World War 2) deposits were seen in at least three interventions with others recording brick (to a depth of *c.* 2.5m bgl).

3.4 Assessment of the results

3.4.1 GLAAS guidelines (English Heritage, 1998) require an assessment of the success of the fieldwork ‘in order to illustrate what level of confidence can be placed on the information which will provide the basis of the mitigation strategy’. In the case of the area of proposed impacts, the watching brief has provided sufficient information regarding the archaeological potential and the archaeological impact from the proposed development.

4 Planning framework

4.1.1 Current planning legislation and policies are detailed in the Historic Environment Assessment/Written Scheme of Investigation (MOLA 2013)

5 Bibliography

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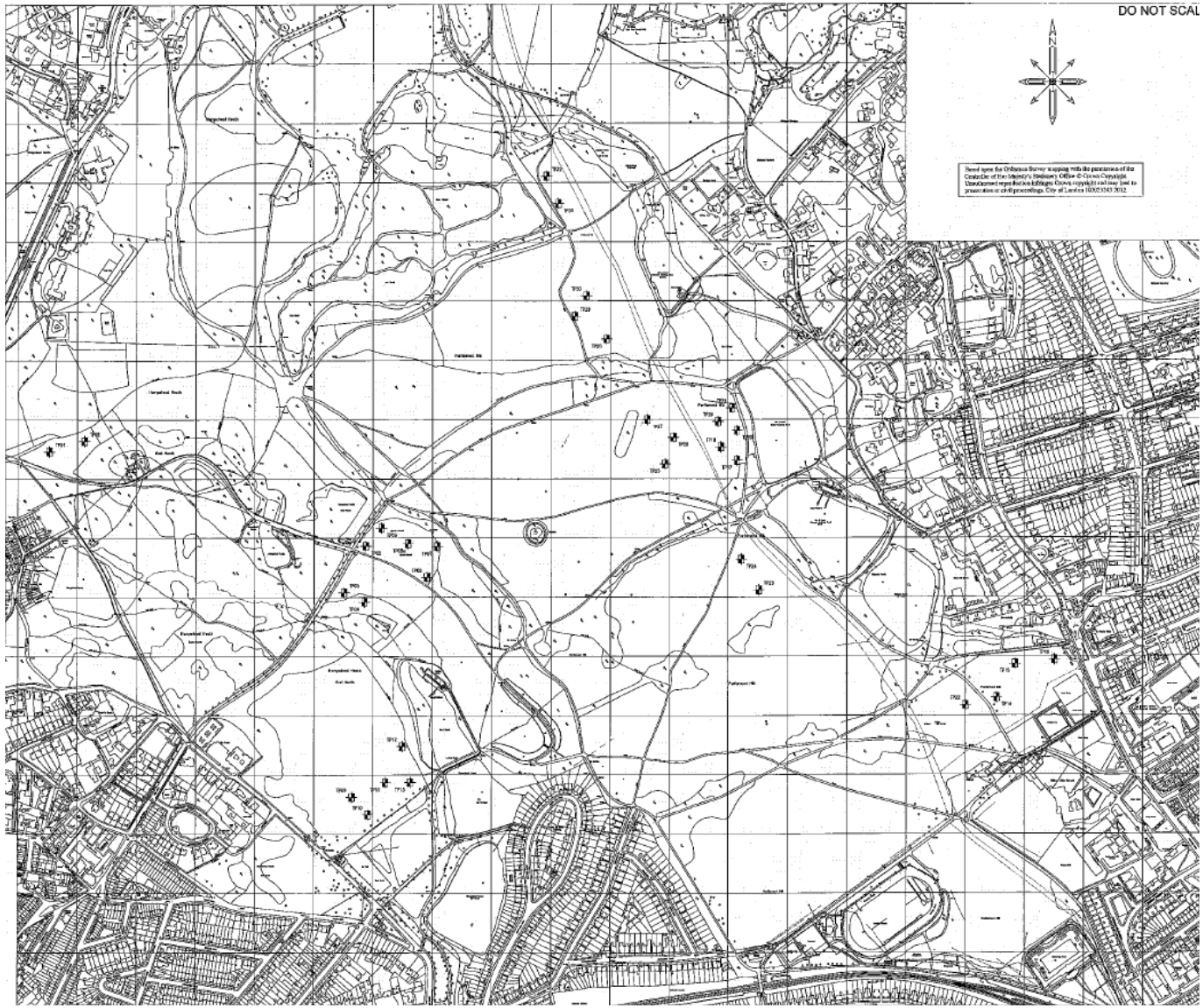

Fig 1 Trial pit locations

Fig 2 Trial pit 7

Fig 3 Trial pit 18

Fig 4 Trial pit 20

Fig 5 Trial pit 25

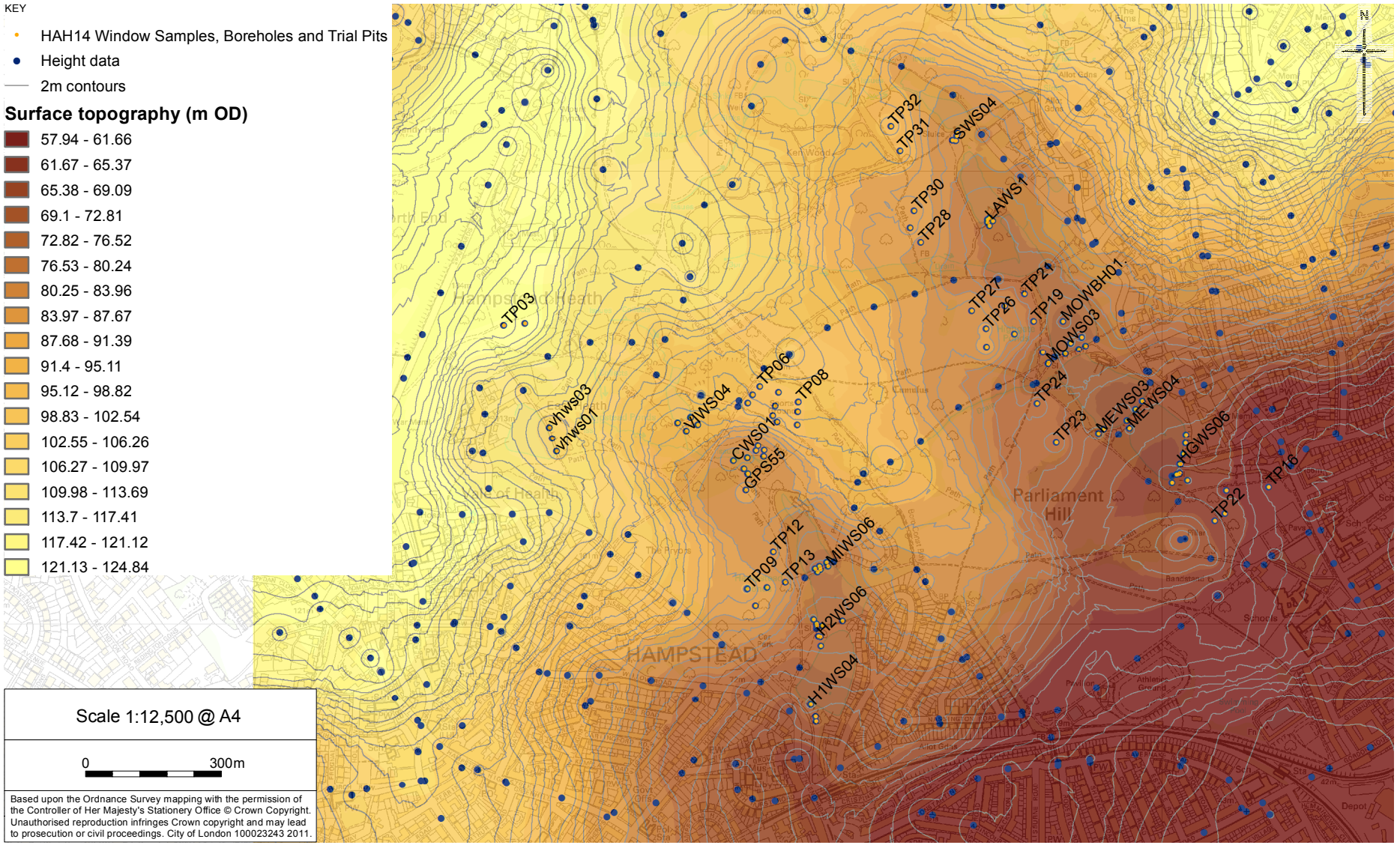

Fig 6 surface topography of Hampstead Heath. Heights are displayed in m OD with 2m contours. The Interpolation was made using the ArcMap 10.1 Spatial Analyst IDW tool. not all labels are displayed due to the close spacing of interventions.

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6 NMR OASIS archaeological report form

OASIS ID: molas1-178876

Project details

Project name	Hampstead Heath Ponds
Short description of the project	A watching brief comprised 34 trial pits, concentrated in the vicinity of eleven of the thirty ponds on the Heath, those forming the Highgate and Hampstead chains. No archaeological remains were found during the watching brief, but it was on a very small scale.
Project dates	Start: 10-04-2014 End: 25-04-2014
Previous/future work	No / Not known
Any associated project reference codes	HAH14 - Sitecode
Type of project	Recording project
Monument type	NONE None
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Direction from Local Planning Authority - PPS

Project location

Country	England
Site location	GREATER LONDON CAMDEN HAMPSTEAD Hampstead Heath Ponds
Study area	150.00 Hectares
Site coordinates	TQ 527385 186515 50.9464650719 0.174521417953 50 56 47 N 000 10 28 E Point

Project creators

Name of Organisation	MOLA
Project brief originator	Corporation of London
Project design originator	MOLA
Project director/manager	Laura O'Gorman
Project supervisor	Adrian Miles

Project archives

Physical Archive Exists?	No
Physical Archive recipient	LAARC
Physical Archive ID	HAH14

Digital Archive recipient	LAARC
Digital Archive ID	HAH14
Paper Archive recipient	LAARC
Paper Archive ID	HAH14

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Hampstead Heath Ponds
Author(s)/Editor(s)	Miles, A
Date	2014
Issuer or publisher	MOLA
Place of issue or publication	London

Entered by	A Miles (amiles@mola.org.uk)
Entered on	13 May 2014

7 Appendix: Results of the Window Samples and Boreholes

Stock pond

SWS02			
	x	**y**	**z**
	527547	**187076.97**	**80.249**
Depth bgl		**Description**	**Interpretation**
0.00	2.75	Very soft to soft orange mottled light grey and light brown sandy CLAY. Sand is fine with roots becoming moderate-firm plastic dark orange brown with blakc Mn-rich patches	Subsoil of weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.75	3.00	Firm plastic orange brown sandy clay with roots and sr gravel	Weathered / bioturbated London Clay

Stock Pond			
SWS03			
	x	**y**	**z**
	81.447	**527537.98**	**187067.7**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	clayey loam	topsoil
0.20	2.90	Soft orange brown sandy clay with roots mottled light grey	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.90	3.00	Firm dark orange brown sandy silt clay with roots	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

Stock Pond			
SWS04			
	x	**y**	**z**
	527544	**187066.31**	**80.325**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.20	2.70	moderate soft orange sandy silt clay mottled blue grey becoming more firm with depth	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.70	3.00	Firm dark orange silt clay	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

Mixed Bathing Pond

Mixed bathing Pond			
MIBH01			
	x	**y**	**z**
	527246.12	**186124.16**	**75.74**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Tarmac	Made Ground
0.20	0.30	Light brown very gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse of brick and flint	Made Ground
0.30	5.70	Very soft to soft dark brown mottled grey slightly sandy CLAY. Sand is fine to coarse.	redeposited alluvim. Likely dam construction
5.70	7.90	Firm to stiff dark brown mottled grey slightly sandy CLAY. Sand is fine to coarse.	weathered London Clay
7.90	15.00	Stiff dark grey silty CLAY.	London Clay

Mixed bathing Pond			
MIWS01			
	x	y	z
	-	-	-
Depth bgl		**Description**	**Interpretation**
0.00	0.10	tamac	Made Ground
0.10	0.40	Soft dark brown slightly gravelly SILT. Gravel is dark cream subangular to subrounded fine to coarse of flint. With frequent roots/rootlets.	Made Ground
0.40	1.20	Soft dark orangish brown with localised light grey mottling sandy CLAY. With occasional roots/rootlets.	weathered upper boundaries London Clay. Likely redeposited (dam construction)
1.20	1.40	Soft to firm orangish brown with light grey and localised reddish brown mottling slightly gravelly sandy CLAY. Gravel is dark cream and grey subangular to subrounded fine to medium of flint.	weathered upper boundaries London Clay. Likely redeposited (dam construction)
1.40	2.50	Soft to firm orangish brown with light grey and localised reddish brown mottling sandy CLAY.	weathered upper boundaries London Clay. Likely redeposited (dam construction)
2.50	3.00	Soft brownish grey with localised dark grey mottling gravelly CLAY. Gravel is dark grey (with rare rinded dark cream cortex) angular to subangular fine to coarse of flint. With slight organic	weathered upper boundaries London Clay. Likely redeposited (dam construction)

		odour.	

Mixed bathing Pond			
MIWS02			
	x	**y**	**z**
	527234.96	**186121.14**	**75.413**
Depth bgl		**Description**	**Interpretation**
0.00	0.15	Tarmac	Made Ground
0.15	0.20	Pink sandy medium subangular granite GRAVEL. Sand is fine to coarse	Made Ground
0.20	0.25	Yellowish brown slightly gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint	Made Ground
0.25	0.50	Brown slightly sandy angular to rounded fine to coarse flint GRAVEL. Sand is fine to coarse.	Made Ground. Likely associated with dam construction

Mixed bathing Pond			
MIWS03			
	x	**y**	**z**
	527247.18	**186119.42**	**77.44**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	tarmac	made ground
0.10	0.40	Dark brown gravelly clayey fine to coarse SAND. Gravel is angular to rounded fine to coarse flint, brick, tiles and slag.	made ground
0.40	1.50	Soft orangish brown mottled orange and grey slightly gravelly silty CLAY. Gravel is angular to rounded fine to coarse flint and brick	made ground
1.50	2.00	Soft orangish brown and grey mottled orange and grey sandy SILT. Sand is fine	weathered upper boundaries London Clay / redeposited alluvium. Likely associated with dam construction
2.00	3.00	soft dark grey silt / clay	weathered upper boundaries London Clay

Mixed bathing Pond			
MIWS04			

	x	y	z
	527245.17	186126.95	75.44
Depth bgl		**Description**	**Interpretation**
0.00	0.10	tarmac	made ground
0.10	0.40	Dark brown gravelly clayey fine to coarse SAND. Gravel is angular to rounded fine to coarse flint, brick, tiles and slag.	made ground
0.40	1.50	Soft orangish brown mottled orange and grey slightly gravelly silty CLAY. Gravel is angular to rounded fine to coarse flint and brick	made ground
1.50	2.00	Soft orangish brown and grey mottled orange and grey sandy SILT. Sand is fine	weathered upper boundaries London Clay / redeposited alluvium. Likely associated with dam construction
2.00	3.00	soft dark grey silt / clay	weathered upper boundaries London Clay

Mixed bathing Pond			
MIWS06			
	x	y	z
	527234.96	186121.14	75.4
Depth bgl		**Description**	**Interpretation**
0.00	0.20	tarmac	made ground
0.20	0.30	Pink sandy medium subangular granite GRAVEL. Sand is fine to coarse.	made ground
0.30	0.35	tarmac	made ground
0.35	0.40	Yellowish brown slightly gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint	made ground
0.40	0.50	Brown slightly sandy angular to rounded fine to coarse flint GRAVEL with occasional cobbles. Cobbles are subrounded	made ground

Mixed bathing Pond			
MIWS05			
	x	y	z
	527261.1	186134.88	75.45
Depth bgl		**Description**	**Interpretation**
0.00	0.15	tarmac	made ground

0.15	0.30	Pink sandy medium subangular granite GRAVEL. Sand is fine to coarse.	made ground
0.30	0.35	tarmac	made ground
0.35	0.40	concrete	made ground
0.40	0.50	Grey sandy angular to rounded fine to coarse flint gravel	made ground

Mixed bathing Pond			
MIWS06			
	x	y	z
	527264.07	186127.05	77.62
Depth bgl		**Description**	**Interpretation**
0.00	0.10	tarmac	made ground
0.10	0.40	Dark brown gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint, brick and occasional slag.	made ground
0.40	1.20	Soft to firm orange mottled dark orange and brown slightly gravelly silty CLAY. Gravel is angular to rounded fine to coarse brick and slag	made ground
1.20	1.40	moderate plastic mid orange grey brown mottled orange (fe-staining) silt clay with blocky structure, common rooting and flint pebbles	Heavy clay subsoil derived from weathered London Clay. Likely redeposited (dam construction)
1.40	2.40	moderate plastic mid orange grey brown mottled orange (fe-staining) silt clay. Common rooting and flint pebbles	Heavy clay subsoil derived from weathered London Clay. Likely redeposited (dam construction)
2.40	3.00	Firm-stiff mid grey brown very silty clay with black Mn-stained soft organic material	?alluvial o/b silt deps or as above

Mens Bathing Pond

MEWS02			
Depth bgl		**Description**	**Interpretation**
	x	**y**	**z**
	527871.35	**186430.48**	**70.2**
0.00	0.05		topsoil
0.05	0.25	Soft dark brown slightly sandy gravelly SILT. Gravel is black, brown and dark cream angular to subangular fine to coarse oftarmac and flint. With occasional roots/rootlets.	made ground
0.25	1.10	Soft to firm brown with black mottling slightly gravelly silty CLAY. Gravel is black subangular fine to medium of tarmac.	made ground
1.10	2.00	Firm orangish brown with light grey mottling slightly sandy CLAY. ...from 1.10mbgl to 2.00mbgl with brown fibrouos cyrstals (<1-1mm) possibly relict roots....from 1.50mbgl with rare white staining.	Weathered soil of London Clay-derived material. Likely redeposited (dam construction)
2.00	3.00	Firm brown with localised light grey mottling slightly sandy CLAY....from 2.00mbgl to 2.15mbgl with localised lenses of sand....from 2.40mbgl with localised roots/rootlets....from 2.90mbgl with localised whitestaining.	Weathered soil of London Clay-derived material. Likely redeposited (dam construction)

Men's bathing Pond			
MEWS03			
	x	**y**	**z**
	527859.62	**186420.55**	**70.689**
Depth bgl		**Description**	**Interpretation**
0.00	0.20		Topsoil
0.20	0.80	Soft brown with orangish brown mottling slightly sandy clayey SILT with blocky structure & occasional roots/rootlets.	Weathered soil of London Clay-derived material. Likely redeposited (dam construction)
0.80	1.20	Soft to firm orangish brown with light brown mottling sandy CLAY.	Weathered soil of London Clay-derived material. Likely redeposited (dam construction)
1.20	2.00	Firm orangish brown with localised light grey mottling slightly sandy CLAY. ..from 1.30m 1no dark brown root (50mm) with dark grey mottling....from 1.50mbgl to 1.95mbgl with rare white staining.	Weathered soil of London Clay-derived material. Likely redeposited (dam construction)

2.00	2.50	Firm greyish brown sandy CLAY.	Weathered soil of London Clay-derived material. Likely redeposited (dam construction)
2.50	3.00	Firm brown with orangish brown with localised grey mottling sandy CLAY. ..from 2.20mbgl to 3.00mbgl with localised lenses of sand.	Weathered London Clay

Men's bathing Pond			
MEWS04			
	x	**y**	**z**
	527926.98	**186432.13**	**65.129**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Dark brown slightly clayey gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint and rare brick.	Topsoil
0.20	2.50	Soft to firm dark brown mottled orange gravelly CLAY. Gravel is angular to rounded fine to coarse flint and occasionally brick.	madeground / soil. Likely associated with dam construction
2.50	3.00	Firm-stiff orange brown and grey silt clay	Weathered London Clay

Men's bathing Pond			
MEBH01			
	x	y	z
	527921.9	186449.82	68.128
Depth bgl		**Description**	**Interpretation**
0.00	0.10	Crumbly black humus-rich becoming dark greyish brown clayey loam	Turf and topsoil
0.10	1.10	Dark brown sandy angular to rounded fine to coarse brick, flint and occasional concrete, slate, tile, pottery and metal GRAVEL. Sand is fine to coarse	Made Ground / dam construction
1.10	2.20	Soft-medium orangish brown sandy silty clay	weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.20	3.50	Very soft brown sandy SILT. Sand is fine.	weathered / bioturbated London Clay. Likely redeposited (dam construction)
3.50	6.30	Soft to firm dark greyish brown mottled grey and occasionally speckled black slightly sandy silty CLAY. Sand is fine and medium	Weathered London Clay
6.30	10.80	Firm to stiff orangish brown mottled grey and orange thinly laminated CLAY	
6.30	15.00	stiff grey silt	London Clay

Men's bathing Pond			
MEBH02			
	x	y	z
	527941.4	186474.11	68.103
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly black humus-rich becoming dark greyish brown clayey loam	Turf and topsoil
0.20	2.00	Very loose dark grey black clayey very gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse of brick, flint and concrete.	Made Ground / dam construction
2.00	2.20	Soft-medium orangish brown sandy silty clay	weathered, soil-like London Clay. Likely redeposited (dam construction)
2.20	2.70	Firm light brown and orange slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint.	weathered, soil-like London Clay. Likely redeposited (dam construction)
2.70	4.40	Soft to firm light orange brown and grey silty CLAY.	weathered, soil-like London Clay
4.40	10.80	Firm to stiff orangish brown mottled grey and orange thinly laminated CLAY	weathered, soil-like London Clay
4.40	8.00	Firm to stiff dark grey brown CLAY.	weathered London Clay
8.00	8.40	Stiff dark brown slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint.	weathered London Clay
8.40	15.00	stiff dark grey clay	London Clay

Men's bathing Pond			
MEBH03			
	x	y	z
	527955.6	186492.22	68.165
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly black humus-rich becoming dark greyish brown clayey loam	Turf and topsoil
0.20	2.00	soft brown slightly sandy gravelly SILT. Gravel is dark brown orangish brown and dark cream subangular to roundedfine to coarse of concrete tarmac and flint. Sand is fine to coarse.	Made Ground / dam construction
2.00	4.00	Moderate – firm orange brown silt clay with rare flint pebble inclusions. Becomes darker with depth	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

4.00	5.50	Firm brown with dark grey and localised orangish brown mottling slightly sandy CLAY. With slight organic odour. Sand is fine to medium.	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
5.50	10.00	Firm light brown with orangish brown and grey mottling slightly sandy CLAY. Sand is fine to medium.	Weathered / bioturbated London Clay
10.00	13.00	Firm to stiff brown with localised orangish brown mottling slightly sandy CLAY. Sand is fine to medium.	London Clay
13.00	15.00	Stiff dark greyish brown thinly laminated CLAY. With rare cream shell fragments (<1-2mm).	London Clay

Model Boat Pond

Model Boating Area			
	x	**y**	**z**
MOWS1			
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly dark brown to black humus-rich clayey loam	Topsoil
0.20	0.70	firm-stiff plastic mid orange brown silt clay with blocky structure	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
0.70	3.00	firm-stiff plastic mid orange brown silt clay with blue/black partings	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

Model Boating Area			
MOWS2			
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly dark brown to black humus-rich clayey loam	Topsoil
0.20	0.70	firm-stiff plastic mid orange brown silt clay with blocky structure	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
0.70	3.00	firm-stiff plastic mid orange brown silt clay with blue/black partings	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

Model Boating Area			
MOWS3A			
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly dark brown to black humus-rich clayey loam	Topsoil
0.20	1.35	stiff (indurated) 'dirty' grey brown silt clay with MG/modern inclusions of red brick, chalk, flint pebbles	Modern made ground
1.35	3.00	Firm-stiff orange brown silt clay with blocky structure and rooting	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

Model Boating Area			
MOWS7			
Depth bgl		**Description**	**Interpretation**
0.00	0.10	Crumbly dark brown to black humus-rich clayey loam	Topsoil
0.10	3.00	moderate plastic – friable mid orange brown silt clay with sand and light grey partings	Weathered soil of London Clay-derived material. Likely redeposited (dam construction)

Model Boating Area (overwater boreholes)			
MOWBH01			
	x	**y**	**z**
	527781.67	**186668.03**	**71.579**
Depth bgl		**Description**	**Interpretation**

0.00	2.50	Water	
2.50	3.50	Soft brown with localised grey mottling slightly clayey SILT.	Pond muds
3.50	5.20	Very soft dark grey with localised brown mottling SILT.	
5.20	6.10	Very soft to soft brown with localised grey mottling slightly clayey SILT.	Pond muds
6.10	8.70	Stiff brown with grey mottling silty CLAY....from 8.50mbgl becoming very stiff and thinly laminated. With transparent crystals (<1mm).	weathered London Clay
8.70	9.00	Medium dark brown MUDSTONE.	weathered London Clay
9.00	18.00	Stiff to very stiff brown with localised dark grey slightly silty thinly laminated CLAY. ...from 11.00mbgl with 1no dark brown medium gravel sized fragment of mudstone.	London Clay

Model Boating Area (overwater boreholes)			
MOWBH02			
	x	**y**	**z**
	527797.74	**186619.84**	**71.654**
Depth bgl		**Description**	**Interpretation**
0.00	3.10	Water	
3.10	6.10	Very soft to soft brown with grey mottling clayey SILT....from 6.00mbgl with rare grey fine gravel sized fragment of mudstone.	Pond muds
6.10	8.00	Soft to firm brown with grey mottling silty CLAY. ...from 7.00mbgl with localiased dark grey and black mottling. With rare grey fine to medium gravel sized fragments of mudstone.	Pond muds
8.00	10.40	Firm to stiff brown with grey and orangish brown mottling slightly sandy CLAY. Sand is fine to medium. With occasional transparent crystals (<1mm) possibly gypsum? ....from 8.50mbgl to 8.95mbgl with lenses of sand. Sand is fine to medium. ...from 9.00mbgl with rare brown fibrous crystals (<1mm) possibly relict roots.	weathered London Clay
10.40	18.00	Stiff brown thinly laminated CLAY....from 12.00mbgl to 13.00mbgl with occasional transparent crystals (<1mm)	London Clay

Model Boating Area (overwater boreholes)			
MOWBH03			

	x	y	z
	527822.16	**186632.2**	**71.448**
Depth bgl		**Description**	**Interpretation**
0.00	3.30	Water	
3.30	6.70	Very soft black and dark grey SILT. With slight organic odour.	Pond muds
6.70	10.00	Firm (plastic) orange grey brown 'dirty' slightly sand silty clay. Sand is fine to medium.	weathered London Clay
10.00	15.00	Firm to stiff dark brown thinly laminated CLAY. With rare golden crystals (<1mm) possibly pyrite.	London Clay
15.00	18.00	Very stiff brown thinly laminated CLAY. With occasional golden crystals (<1mm) possibly pyrite.	London Clay

Model Boating Area			
MOWBH04			
	x	**y**	**z**
	527786.62	**186595.09**	**73.948**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	tarmac	made ground
0.20	2.00	Soft brown with orangish brown sandy CLAY.Sand is fine to medium.	weathered upper horizons London Clay
0.20	7.00	Firm plastic orange brown with blue grey colour gravelly silt clay with blocky structure. Gravel is dark grey (with rinded cream cortex)subangular to rounded fine to coarse of flint. Orange concretions & gravelly calcareous nodules in places	weathered upper horizons London Clay
7.00	10.00	Firm to stiff brown with light grey and localised orangish brown mottling slightly sandy CLAY.	London Clay
10.00	15.00	Stiif to very stiff brownish grey thinly laminated CLAY.	London Clay

Model Boating Area			
MOWBH05			
	x	**y**	**z**
	527816.10	**186606.37**	**74.001**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	tarmac	made ground
0.10	0.20	road stone	made ground
0.20	5.00	Soft brown and orangish brown slightly sandy CLAY with blocky structure. Sand is fine to medium.	subsoil derived from weathered London Clay
5.00	7.00	Soft grey with dark grey mottled CLAY. With slight organic odour.	weathered upper horizons London Clay

7.00	11.00	Firm brown with orangish brown and localised grey mottling slightly sandy CLAY. Sand is fine to medium.	weathered upper horizons London Clay
11.00	15.00	Stiff to very stiff greyish brown thinly laminated CLAY.	London Clay

Model Boating Area			
MOWBH06			
	x	**y**	**z**
	527831.14	**186613.67**	**74.073**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	Tarmac	Made ground
0.10	4.00	Soft to firm orangish brown with grey mottling sandy CLAY. Sand is fine to meduim.	subsoil derived from weathered London Clay
4.00	5.00	Soft to firm brownish grey slightly sandy CLAY. Sand is fine to medium.	Weathered / bioturbated London Clay
5.00	11.00	Firm brown with grey and localised orangish brown mottling slightly sandy CLAY. Sand is fine to medium.	weathered London Clay
11.00	15.00	Firm to stiff dark grey thinly laminated CLAY. With rare cream shell fragments (<1mm).	London Clay

Catch Pit

Catchpit			
CBH01			
	x	**y**	**z**
	527078.74	**186341.31**	**81.099**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.20	1.50	Dark greyish brown fine sandy sitly clay	Disturbed / redeposited ground
1.50	4.00	Stiff dark brown occasionally mottled light grey and orange slightly sandy CLAY.	Disturbed / redeposited ground. Claygate / London Clay-derived soil
4.00	5.00	Stiff to very stiff dark brownish grey occasionally mottled light grey and grey thinly laminatd CLAY	weathered Claygate / London Clay
5.00	15.00	Stiff and very stiff dark grey occasionally mottled light grey and grey thinly lamminatd CLAY	London Clay

Catchpit			
CBH02			
	x	**y**	**z**
	527086.18	**186365.38**	**78.74**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.20	2.40	Soft to firm dark brown mottled orange and greyish brown silty CLAY.	Disturbed / redeposited ground. Claygate / London Clay-derived soil
2.40	3.00	Soft to firm grey slightly gravelly sandy silty CLAY. Sand is fine. Gravel is subangular to subrounded fine to coarse flint.	Disturbed / redeposited ground. Claygate / London Clay-derived soil
3.00	8.00	Firm dark grey silty thinly lamminatd CLAY....from 4.0mbgl becoming firm stiff and very stiff ...from 7.0mbgl mottled black and dark brown	Weathered Claygate / London Clay
8.00	15.00	Very stiff dark brownish grey thinly laminated clay	Claygate Member / London Clay

Catchpit			
CBH03			
	x	**y**	**z**
	527104.94	**186381.52**	**81.792**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil

0.20	1.50	Soft to firm orange mottled brown and dark orange gravelly sandy silty CLAY. Gravel is angular to rounded fine to coarse flint, brick and occasional glass. Sandy fine to coarse.	Made ground. Likely modern (post WW2) dumping
1.50	2.50	Soft dark brown very gravelly SILT/CLAY. Gravel is angular to subrounded fine to coarse brick.	Redeposited weathered / bioturbated Claygate / London Clay-soil mixed with post medieval waste
2.50	7.80	Firm to stiff dark brown mottled orange and bluish grey CLAY.	weathered Claygate Member / London Clay
7.80	15.00	Stiff dark brownish grey thinly laminatd CLAY with occasional light grey silty clay bands.	Claygate Member / London Clay

Catchpit			
CBH04			
	x	**y**	**z**
	527109.71	**186392.46**	**82.882**
Depth bgl		**Description**	**Interpretation**
0.00	2.35	Soft to firm dark brown black very gravelly sandy CLAY. Gravel is anular to subrounded fine to coarse of brick flint and concrete and ceramic.	Modern made ground
2.35	3.00	Firm light orange brown CLAY.	weathered Claygate Member / London Clay

Catchpit			
CWS01			
	x	**y**	**z**
	527055.68	**186359.14**	**79.786**
Depth bgl		**Description**	**Interpretation**
0.00	0.60	Soft dark brown and black mottled bluish grey slightly sandy very gravelly CLAY with occasional cobbles. Cobbles are subangular brick. Gravel is angular to rounded fine to coarse flint, brick and ceramic. Sand is fine.	Redeposited weathered / bioturbated London Clay mixed with late post medieval waste
0.60	1.20	Soft to firm light grey mottled orange sandy SILT. Sand is fine.	Weathered / bioturbated London Clay / Bagshot Beds
1.20	1.50	Soft to firm light grey and orange sandy SILT/CLAY. Sand is fine.	Weathered Claygate Member / London Clay / possibly Bagshot Beds
1.50	2.00	Firm brown mottled orange and bluish grey slightly sandy CLAY. Sand is fine.	Weathered Claygate Member / London Clay / possibly Bagshot Beds

2.00	3.00	Firm brown mottled orange and bluish grey CLAY.	Weathered Claygate Member / London Clay

Catchpit			
CWS02			
	x	**y**	**z**
	527087.21	**186330.33**	**82.121**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Dark brown clayey gravelly fine and medium SAND. Gravel is fine and medium angular to rounded flint.	Topsoil
0.05	0.40	Brownish orange clayey gravelly silty fine SAND. Gravel is subrounded to rounded fine to coarse flint and occ brick.	Redeposited weathered / bioturbated Claygate / London Clay mixed with post medieval waste (disturbed ground)
0.40	0.60	firm plastic dark grey silt clay with sand, Mn-stained roots, organic root matter and occ pebble inclusions	Redeposited topsoil deposits (disturbed ground)
0.60	1.80	Soft light grey mottled orange and brown sandy and occasionally speckled black SILT/CLAY. Sand is fine....from 1.4mbgl becoming orange and grey and more silty and sandy with depth ...from 1.6mbgl becoming slightly gravelly.Gravel is angular to rounded fine and mediumflint.	Redeposited weathered / bioturbated Claygate / London Clay-soil mixed with post medieval waste
1.80	3.00	moderate plastic/crumbly dark orange brown sandy silt clay heavily mottled greenish grey. Abundant root channels and common small pebble inclusions and occ charcoal	Redeposited weathered / bioturbated Claygate / London Clay-soil mixed with post medieval waste

Catchpit			
CWS03			
	x	**y**	**z**
	527122.34	**186368.77**	**80.983**
Depth bgl		**Description**	**Interpretation**
0.00	0.70	Dark brown sandy fine angular to rounded fine to coarse flint, brick, tile and glass GRAVEL. Sand is fine to coarse.	made ground
0.70	1.30	Firm brown mottled orange and black CLAY with rare brick fragments.	Redeposited weathered / bioturbated Claygate London Clay-soil mixed with post medieval waste
1.30	1.35	Orangish brown sandy angular to rounded fine to coarse flint GRAVEL	Redeposited topsoil deposits (disturbed ground)

1.35	1.45	Soft to firm orangish brown mottled orange and brown gravelly sandy CLAY. Sand is fine and medium. Gravel is angular to subrounded flint and brick.	Redeposited weathered / bioturbated Claygate / London Clay-soil
1.45	1.88	Soft to firm mottled orange and bluish grey slightly gravelly SILT/CLAY. Gravel is angular to subrounded flint and brick	Redeposited weathered / bioturbated Claygate / London Clay-soil mixed with late post medieval waste
1.88	2.20	moderate wet very dark grey very sandy silt clay with abundant crushed red brick	Redeposited weathered / bioturbated Claygate / London Clay-soil mixed with late post medieval waste
2.20	2.25	Soft light greyish brown very gravelly SILT/CLAY. Gravel is angular to rounded fine flint.	Redeposited weathered / bioturbated Claygate / London Clay-soil
2.25	3.00	moderate plastic/crumbly dark orange brown sandy silt clay heavily mottled greenish grey. Abundant root channels and common small pebble inclusions and occ charcoal	Redeposited weathered / bioturbated Claygate / London Clay-soil

Catchpit			
CWS04A			
	x	**y**	**z**
	527119.45	**186383.68**	**81.868**
Depth bgl		**Description**	**Interpretation**
0.00	0.65	Soft grey and red very gravelly silty CLAY. Gravel is angular to rounded fine o coarse brick and occasional flint.	Topsoil
0.65	1.40	Dark brown and purple very sandy angular to roundec fine and medium brick and occasional flint, plastic and steal GRAVEL.Sand is fine to coarse.	Redeposited weathered / bioturbated Claygate / London Clay mixed with post medieval / modern waste
1.40	1.52	soft black silt	as above
1.52	1.80	Moderate-loose dark red brown and grey black gritty fine sandy loam with abundant crushed brick and pebbles with soft black silt sand	Redeposited weathered / bioturbated Claygate London Clay mixed with post medieval / modern waste
1.80	2.40	Moderate plastic (wet) orange mottled grey and black sandy silty clay	Subsoil of weathered / bioturbated Claygate / London Clay
2.40	3.00	firm mottled dark orange brown silt clay with grey brown partings	Weathered / bioturbated Claygate Member / London Clay

Ladies Bathing Pond

Ladies Bathing Pond			
LABH01			
	x	**y**	**z**
	527619.44	**186894.84**	**77.848**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	Roadstone	Made Ground
0.10	0.30	sandy gravelly clay	Made Ground
0.30	3.00	Soft orange brown clay mottled grey	Weathered / bioturbated London Clay . Likely redeposited (dam construction)
3.00	4.00	firm dark blue grey mottled brown clay	Weathered / bioturbated London Clay . Likely redeposited (dam construction)
4.00	4.90	soft to firm dark brown very sandy clay with occ dr gravel	Weathered / bioturbated London Clay . Likely redeposited (dam construction)
4.90	5.00	moderate clayey sandy sr - sa flint gravel.	Weathered / bioturbated London Clay . Likely redeposited (dam construction)
5.00	7.00	Stiff dark blue grey clay	weathered London Clay (oxidised)
7.00	15.00	firm - stiff dark blue grey silt / clay silt	London Clay (unoxidised)

Ladies Bathing Pond			
LAWS01			
	x	**y**	**z**
	527615.13	**186891.78**	**78.256**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Crumbly black humus-rich clayey loam	Topsoil
0.20	1.70	soft-moderate mottled light-mid grey and orange silty clay/clay silt with rootlets and small-large flint / stone inclusions and small reddish iron-stained patches	Suboil of weathered / bioturbated London Clay. Likely redeposited (dam construction)
1.70	2.10	light blue grey mottled very clayey gravelly sand	Suboil of weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.10	3.00	moderate mixed/mottled mid greenish grey and orange silt clay / clay with abundant black Mn-stained root channels	Suboil of weathered / bioturbated London Clay. Likely redeposited (dam construction)

Ladies Bathing Pond			
LAWS02			
	x	**y**	**z**
	527626.65	**186888.92**	**74.277**
Depth bgl		**Description**	**Interpretation**
0.00	0.25	Crumbly black humus-rich clayey loam	Topsoil

0.25	1.20	firm dark brown sandy gravelly clay	Suboil of weathered / bioturbated London Clay. Likely redeposited (dam construction)
1.20	2.10	Moderate orange brown grey silt clay with abundant black roots and flint / stone pebble inclusions	Suboil of weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.10	2.40	moderate light brown and light grey fine to coarse sand	Suboil of weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.40	3.00	firm dark orange grey very sandy clay	Weathered / bioturbated London Clay soliflucted or redeposited

Ladies Bathing Pond			
LAWS03			
	x	**y**	**z**
	527615.61	**186885.21**	**75.695**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	Crumbly black humus-rich becoming clayey loam with 10mm fine gravel	Topsoil
0.10	2.60	moderate-firm dark mottled/mixed orange brown mid greenish grey silt clay with roots and brown rounded flint gravel mid unit in sandy clay matrix (2.4-2.6m bgl)	Weathered / bioturbated likely redeposited soil derived from London Clay (dam construction)
2.60	3.00	Firm plastic dark orange brown clay with light grey partings	Weathered / bioturbated London Clay

Ladies Bathing Pond			
LAWS04			
	x	**y**	**z**
	527619.67	**186878.2**	**74.199**
Depth bgl		**Description**	**Interpretation**
0.00	0.30	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.30	1.00	soft dark brown very gravelly clay. Gravel is sr-sa medium flint	Weathered / bioturbated likely redeposited soil derived from London Clay (dam construction)
1.00	1.80	firm plastic dark orange grey mottled grey silt clay with occ-rare small pebble inclusions	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
1.80	3.00	Stiff dark brown mottled light grey clay with light grey silt clay partings	weathered London Clay

Hampstead No.1 Pond

Hampstead No.1 Pond			
H1WS01			
	x	**y**	**z**
	527236.8	**185784.159**	**69.442**
Depth bgl		**Description**	**Interpretation**
0.00	0.15	Topsoil	Topsoil
0.15	0.45	Soft to firm orangish brown sandy silty CLAY. With occasional red fine gravel sized fragments of brick. With occasional roots/rootlets. Sand is fine to coarse.	Made ground
0.45	1.20	soft to firm dark brown gravelly silty CLAY. Gravel is red angular to subangular fine to coarse of brick.	Made ground
1.20	2.85	soft to firm brown with orangish brown and black mottling slightly gravelly sandy CLAY. Gravel is red and brown subangular fine to coarse of brick. Sand is fine to coarse. With rare roots/rootlets. ...from 2.00mbgl becoming firm. ...from 2.75mbgl to 2.85mbgl soft black silt with medium gravel sized fragments of brick. With slight organic odour.	Made ground
2.85	3.00	Firm brown slightly sandy CLAY. Sand is fine to coarse. With rare brown fiborous crystals (<1-2mm) possibly relict roots	weathered bioturbated London Clay-derived soil

Hampstead No.2 Pond			
H1WS02			
	x	**y**	**z**
	527235.8	**185794.902**	**68.632**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Topsoil	Topsoil
0.20	1.20	Soft to firm orangish brown slightly silty CLAY. Sand is fine to coarse. With occasional roots/rootlets.	weathered bioturbated London Clay-derived soil
1.20	2.00	Firm brown with orangish brown and grey mottling sandy CLAY. Sand is fine to medium. ...from 1.70mbgl to 1.80mbgl with localised greenish grey mottling. ...from 1.70mbgl to 2.00mbgl with localised sand lenses.	weathered bioturbated London Clay-derived soil

2.00	3.00	Firm to stiff brown with greenish grey and orangish brown mottling slightly gravelly sandy CLAY. Gravel is dark grey (with occasional rinded cream cortex) subangular to subrounded fine to coarse of flint. Sand is fine to medium. ...from 2.20mbgl to 2.30mbgl with rare reddish brown mottling.	weathered bioturbated London Clay

Hampstead No.2 Pond			
H1WS04			
	x	**y**	**z**
	527225.28	**185820.875**	**72.998**
Depth bgl		**Description**	**Interpretation**
0.00	0.15	Topsoil	Topsoil
0.15	1.20	Firm dark orange brown gravelly CLAY. Gravel B 0.00-1.20 is subangular to subrounded fine to coarse of flint. Frequent roots and rootlets.	weathered bioturbated London Clay-derived soil

Hampstead No.2 Pond

Hampstead No.2 Pond			
H2WS01			
	x	**y**	**z**
	527234.38	**185947.41**	**73.702**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Crumbly black humus-rich becoming dark greyish brown clayey loam	Turf and topsoil
0.05	0.25	Dark brown gravelly fine and medium SAND. Gravel is angular to rounded fine to coarse flint and occasional brick	Turf and topsoil
0.25	1.30	Soft to firm orangish brown mottled orange and grey sandy silty CLAY.	Weathered / bioturbated London Clay
1.30	1.70	Very soft and soft orangish brown mottled orange sandy SILT. Sand is fine	Weathered / bioturbated London Clay
1.70	2.10	Stiff dark brown mottled bluish grey and light orange silty CLAY.	Weathered / bioturbated London Clay
2.10	2.21	Dark brown clayey subangular to rounded fine to coarse flint GRAVEL.	Weathered / bioturbated London Clay
2.21	5.00	Stiff dark brown mottled orange and occasionally speckled white slightly sandy silty CLAY...from 3.0mbgl becoming less sandy and no white mottling	Weathered / bioturbated London Clay

Hampstead No.2 Pond			
H2WS03			
	x	**y**	**z**
	527238.36	**185999.94**	**74.593**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Dark brown gravelly clayey fine to coarse SAND. Gravel is angular to rounded fine to coarse flint.	Topsoil
0.05	0.70	Dark brown silty very gravelly fine and medium SAND. Gravel is angular to rounded fine to coarse flint	Mixed topsoil and London Clay
0.70	3.00	Firm orangish brown mottled orange and grey silty CLAY with roots.	Bioturbated London Clay

Hampstead No.2 Pond			
H2WS04			
	x	**y**	**z**
	-	**-**	**-**
Depth bgl		**Description**	**Interpretation**

0.00	0.20	Dark brown grey very gravelly slightly clayey fine to coarse SAND. Gravel is angular to subrounded fine to coarse of brick, flint and concrete.	Topsoil
0.20	0.50	Dark brown silty very gravelly fine and medium SAND. Gravel is angular to rounded fine to coarse flint	made ground
0.50	0.80	Firm dark grey brown and orange slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of flint and brick. Frequent roots and rottlets.	made ground
0.80	1.60	Firm light brown and orange mottled light grey CLAY. Frequent roots and rootlets.	weathered bioturbated London Clay-derived soil

Hampstead No.2 Pond			
H2WS05			
	x	**y**	**z**
	-	**-**	**-**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	Dark brown grey very gravelly slightly clayey fine to coarse SAND. Gravel is angular to subrounded fine to coarse of brick, flint and concrete.	Topsoil
0.10	0.40	Dark brown silty very gravelly fine and medium SAND. Gravel is angular to rounded fine to coarse flint	Made ground. Likely associated with dam construction
0.40	1.60	Firm light brown and orange mottled light grey CLAY. Frequent roots and rootlets.	weathered bioturbated London Clay-derived soil. Likely associated with dam construction

Hampstead No.2 Pond			
H2WS06			
	x	**y**	**z**
	527243.05	**185971.85**	**74.133**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.05	1.00	Grey silty sandy angular to rounded fine to coarse flint and brick GRAVEL with occasional cobbles. Cobbles are subangular brick	made ground
1.00	1.85	Soft to orange mottled grey and brown silty CLAY	Disturbed or Bioturbated London Clay
1.85	2.00	Soft to firm dark brown mottled orange gravelly silty CLAY. Gravel is subangular to rounded fine to coarse flint.	Weathered / bioturbated London Clay
2.00	3.00	Firm dark brown mottled orange and grey silty CLAY	Weathered / bioturbated London Clay

Highgate Pond No.1

Highgate No.1 Pond			
HGBH01			
	x	**y**	**z**
	528046.84	**186374.4**	**65.9**
Depth bgl		**Description**	**Interpretation**
0.00	1.00	Soft brown slight sandy gravelly SILT. Gravel is red brown subangular to subrounded fine to coarse of brick and flint. With occasional roots/rootlets. Sand is fine to medium.	made ground
1.00	5.00	Soft to firm brown with orangish brown mottling sandy CLAY. Sand is fine to medium.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
5.00	5.70	Soft dark grey black CLAY.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
5.70	8.90	Soft to firm brown with orangish brown and grey mottling slightly gravelly sandy CLAY. Gravel is dark grey and brown (with frequent rinded dark cream cortex) subangular to rounded fine to coarse of flint. Sand is fine to coarse.	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
8.90	9.40	Stiff to very stiff brown CLAY. With rare cream shell fragments (<1-1mm).	weathered London Clay
9.40	15.00	Firm to stiff brown with localised grey mottling slightly sandy CLAY. Sand is fine to medium	weathered London Clay

Highgate No.1 Pond			
HGWS01			
	x	**y**	**z**
	528021.76	**186311.37**	**63.689**
Depth bgl		**Description**	**Interpretation**
0.00	0.15	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.15	1.40	Soft dark brown slightly sandy gravelly SILT. Gravel is reddish brown dark cream and brown angular to subangular fine to coarse of brick flint and tarmac. With frequent roots/rootlets	Made ground (modern)
1.40	1.70	Soft orangish grey with localised black mottling sandy CLAY. With localised brown fibourous crystals (<1-1mm) possibly relict roots.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)

1.70	2.00	Soft to firm light brownish orange with localise grey mottling slightly gravelly sandy CLAY. Gravel is light brown grey subangular to rounded fine to coarse of flint. Sand is fine to medium. With localised brown fiborous crystals (<1-1mm) possibly relict roots	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
2.00	3.00	Firm brown with light grey mottling slightly sandy CLAY. Sand is fine to medium.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)

Highgate No.1 Pond			
HGWS02			
	x	**y**	**z**
	528038.02	**186332.32**	**64.167**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Dark brown gravelly clayey fine to coarse SAND. Gravel is angular to rounded fine to coarse flint	Topsoil
0.05	1.80	Soft to firm brownish orange mottled light grey and orange sandy silty CLAY. Sand is fine and medium ...from 1.0mbgl light brown mottled orange and grey	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
1.80	3.00	Firm brown mottled grey and occasionally mottled light grey and orange silty CLAY....at 2.7mbgl brick fragments	Weathered / bioturbated London Clay-soil. Brick frags poss brought down by drilling or mixed ground associated with dam construction

Highgate No.1 Pond			
HGWS03			
	x	**y**	**z**
	528055.9	**186316.23**	**61.327**
Depth bgl		**Description**	**Interpretation**
0.00	1.20	Soft orangish brown with occasional dark brown mottling slightly sandy slightly gravelly CLAY. Gravel is brown (with occasional rinded cream cortex) angular to subangular fine to medium of flint.	Topsoil & subsoil of weathered London Clay-derived material
1.20	2.10	Firm orangish brown with light grey mottling sandy clay	Weathered / bioturbated London Clay. Likely redeposited (dam construction)
2.10	3.00	Stiff brown with localised grey and black mottled clay	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

Highgate No.1 Pond			
HGWS04			
	x	**y**	**z**
	528050.8	**186399.18**	**65.8**
Depth bgl		**Description**	**Interpretation**

0.00	0.20	topsoil	Topsoil
0.20	1.20	Soft orangish brown with dark brown mottled slightly gravelly sandy CLAY. Gravel is brown and dark grey subangular to subrounded fine to coarse of flint. With frequent roots/rootlets. Sand is fine to medium.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
1.20	1.50	Firm brown with oragnish brown and localised grey mottling slightly sandy slightly gravelly CLAY. Gravel dark grey is subrounded to rounded medium to coarse of flint. With frequent roots/rootlets. Sand is fine to medium	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
1.50	2.00	Firm to stiff brown with grey and localised orangish brown mottling slight sandy CLAY. Sand is fine to medium. With occasional brown roots/rootlets (<1-3mm)....from 1.90mbgl with localised white staining.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
2.00	3.00	Stiff brown with localised grey and orangish brown mottling slightly sandy CLAY. Sand is fine to medium....from 2.00mbgl to 3.00mbgl with localised white staining.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)

Highgate No.1 Pond			
HGWS05			
	x	**y**	**z**
	528051.82	**186417.95**	**65.954**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Topsoil	Topsoil
0.20	1.20	Soft to firm orangish brown with brown mottling slightly gravelly sandy CLAY. Gravel is dark grey and dark cream subangular to subrounded fine to medium of flint. With frequent roots/rootlets. Sand is fine to coarse.	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)
1.20	3.00	Firm brown with orangish brown mottling and localised black mottling slightly sandy CLAY. With cream and dark brown roots. Sand is fine to medium. ...from 1.70mbgl with localised orangish yellow sand lens. ...from 2.00mbgl with localised orangish brown sand lens....from 2.30mbgl with localised white staining.	Weathered / bioturbated London Clay. Likely redeposited (dam construction)

Highgate No.1 Pond			

HGWS06			
	x	**y**	**z**
	528040.46	**186351.97**	**63.937**
Depth bgl		**Description**	**Interpretation**
0.00	0.20	Light grey very sandy angular to rounded fine to coarse granite GRAVEL. Sand is fine to coarse	Made ground (modern)
0.20	3.00	Firm brown mottled orange and grey silty CLAY with frequent roots....from 1.6mbgl to 1.7mbgl becoming gravelly.Gravel is angular to rounded fine to coarse flint	Weathered / bioturbated London Clay-soil. Likely redeposited (dam construction)

Viaduct Pond

Viaduct Pond			
VIWS01			
	x	**y**	**z**
	526932.06	**186444.37**	**91.779**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.05	1.20	Moderate-soft dark grey mottled dark orange sandy clay. Sand is fine to coarse. With occasional roots/rootlets.	Weathered / bioturbated upper horizons of Claygate Member / London Clay. Likely redeposited (dam construction)
1.20	1.70	Soft orangish brown with reddish brown and grey mottling sandy CLAY. Sand is fine to coarse.	Weathered / bioturbated upper horizons of Claygate Member / London Clay. Likely redeposited (dam construction)
1.70	2.95	Soft grey with orangish brown and reddish brown mottled sandy CLAY. Sand is fine to coarse....from 1.70mbgl localised sand lenses.	Weathered / bioturbated upper horizons of Claygate Member / London Clay. Likely redeposited (dam construction)
2.95	3.00	Soft grey and dark grey CLAY.	Weathered / bioturbated upper horizons of London Clay

Viaduct Pond			
VIWS02			
	x	**y**	**z**
	526961.1	**186456.11**	**92.299**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.05	1.55	Moderate-plastic dark orange/ brown grey clay silt with sand. Some roots and small pebble inclusions and occ brick	made ground
1.55	1.60	brick	made ground
1.60	1.90	Soft brown with grey and orangish brown mottling sandy CLAY. Sand is fine to coarse.	Weathered / bioturbated upper horizons of Claygate Member / London Clay. Likely redeposited (dam construction)
1.90	2.30	Soft grey slighty sandy CLAY. Sand is fine to medium.	Weathered / bioturbated upper horizons of Claygate Member / London Clay. Likely redeposited (dam construction)
2.30	3.00	Soft to firm grey with light grey and localised brownish orange mottling sandy CLAY. Sand is fine to medium.	Weathered / bioturbated upper horizons of Claygate Member / London Clay. Likely redeposited (dam construction)

Viaduct Pond			
VIWS03			
	x	**y**	**z**
	526976.99	**186439.86**	**89.449**
Depth bgl		**Description**	**Interpretation**

0.00	0.10	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.10	0.50	soft brown sandy gravelly SILT. Gravel is brown light brown subangular to subrounded fine to coarse of flint. With rare roots/rootlets. Sand is fine to coarse.	made ground
0.50	0.75	dark brown sligtly clayey gravelly SILT. Gravel is red light brown and brown (with occasional rinded white cortex) angular to subrounded fine to coarse of brick and flint. With rare roots/rootlets.	made ground
0.75	1.20	Soft-moderate mid orange brown with orange concretions silty sandy gravelly clay and light grey mottling. Abundant orange iron-stained root channels. Gravel is dark grey (with occasional cream cortex) subangular to subrounded fine to coarse of flint.	Weathered clayey London Clay / Claygate-derived soil. Likely redeposited (dam construction)
1.20	3.00	Soft to firm brown with greenish grey and orangish brown with localised dark brown mottling sandy CLAY. Sand is fine to coarse. With rare roots. ...from 2.00mbgl becoming firm. ...from 2.60mbgl becoming brown with localised greenish grey and orangish brown mottling	Weathered clayey London Clay / Claygate derived soil. Likely redeposited (dam construction)

Viaduct Pond			
VIWS04			
	x	**y**	**z**
	526952.05	**186425.94**	**87.885**
Depth bgl		**Description**	**Interpretation**
0.00	0.05	Crumbly black humus-rich becoming dark greyish brown clayey loam	Topsoil
0.05	0.65	Very soft dark brown and black slightly sandy gravelly SILT. Gravel is brown and dark brown subangular to subrounded fine to coarse of flint. With rare wood fragments (10-15mm). Sand is fine to coarse.	Weathered clayey London Clay / Claygate derived soil. Likely redeposited (dam construction)
0.65	1.20	soft plastic mid orange brown clay loam with orange (Fe) concretions and organic root material Sand is fine to medium.	Weathered clayey London Clay / Claygate derived soil. Likely redeposited (dam construction)

1.20	1.60	Soft orangish brown with greenish grey and localised reddish brown mottling sandy CLAY. With rare reddish brown fiborous crystals (<1-1mm) possibly relict roots. Sand is fine to medium.	Weathered clayey London Clay / Claygate derived soil. Likely redeposited (dam construction)
1.60	2.65	soft mid orange grey sandy silt clay with organic root material	Weathered clayey London Clay / Claygate derived soil. Likely redeposited (dam construction)
2.65	3.00	Firm brown with light grey and orangish brown mottling sandy CLAY. Sand is fine to coarse.	Weathered clayey London Clay / Claygate derived soil. Likely redeposited (dam construction)

Vale of Health

Vale of Health			
VHWS01			
	x	**y**	**z**
	526666	**186380.253**	**105.433**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	tarmac	made ground
0.10	0.30	loose reddish brown sandy GRAVEL. Gravel is dark grey reddish brown brown (with rare cream cortex) angular to subrounded fine to coarse of flint and tarmac. Sand is fine to coarse.	Made ground
0.30	1.20	Soft brown with dark grey greenish grey and orangish brown mottling sandy CLAY. Sand is fine to coarse.	Soil-derived from weathered upper horizons Claygate Member / Bagshot Beds
1.20	1.80	Very soft to soft grey with dark grey and localised orangish brown mottling slightly sandy slightly gravelly CLAY. Gravel is dark grey brown (with occasional rinded cream cortex) subangular to round fine to coarse of flint. Sand is fine to medium. With slight organic odour.	Soil-derived from weathered upper horizons Claygate Member / Bagshot Beds
1.80	3.00	Soft to firm orangish brown with light grey mottling sandy CLAY. Sand is fine to medium. ....from 2.30mbgl becoming firm. ....from 2.85mbgl to 3.00mbgl with localised greenish grey mottling.	Soil-derived from weathered upper horizons Claygate Member / Bagshot Beds

Vale of Health			
VHWS02			
	x	**y**	**z**
	526657	**186409.323**	**105.514**
Depth bgl		**Description**	**Interpretation**
0.00	0.10	tarmac	made ground
0.10	0.40	loose reddish brown silty sandy GRAVEL. Gravel is black brown reddish brown angular to subangular fine to coarse of flint brick tarmac. Sand is fine to coarse.	Made ground
0.40	1.20	Soft yellowish brown sandy gravelly CLAY. Gravel is dark grey brown (with frequent rinded dark cream cortex) subangular to subrounded fine to coarse of flint.	Soil-derived from weathered upper horizons Claygate Member / Bagshot Beds

1.20	2.70	Soft to firm brown with reddish brown and orangish brown wih localised grey mottling sandy CLAY. With occasional wooden fragments (10-30mm). Sand is fine to coarse....from 1.20mbgl to 2.00mbgl With rare brown fiborous crystals (<1-2mm) possibly relict roots.	Soil-derived from weathered upper horizons Bagshot Beds
2.70	3.00	Soft grey with dark grey mottling slightly sandy CLAY. Sand is fine to medium.	Claygate Member / Bagshot Beds mixed with sandy units

Vale of Health			
VHWS03			
	x	**y**	**z**
	526650	**186434.017**	**104.406**
Depth bgl		**Description**	**Interpretation**
0.00	0.15	Dark brown clayey fine and medium SAND	topsoil
0.15	0.65	Dark brown gravelly fine and medium SAND. Gravel is angular to rounded fine to coarse flint and occasional brick	Made ground
0.65	1.90	Firm brown and brownish orange mottled orange and grey sandy SILT. Sand is fine and medium	Weathered / bioturbated upper horizons of Claygate Member / Bagshot Beds
1.90	2.30	Soft to firm orangish brown mottled orange and grey sandy SILT.	Weathered / bioturbated upper horizons of Claygate Member / Bagshot Beds
2.30	2.40	Soft to firm orangish brown mottled orange and grey gravelly sandy SILT. Sand is fine and medium. Gravel is subrounded medium flint	Weathered / bioturbated upper horizons of Claygate Member / Bagshot Beds