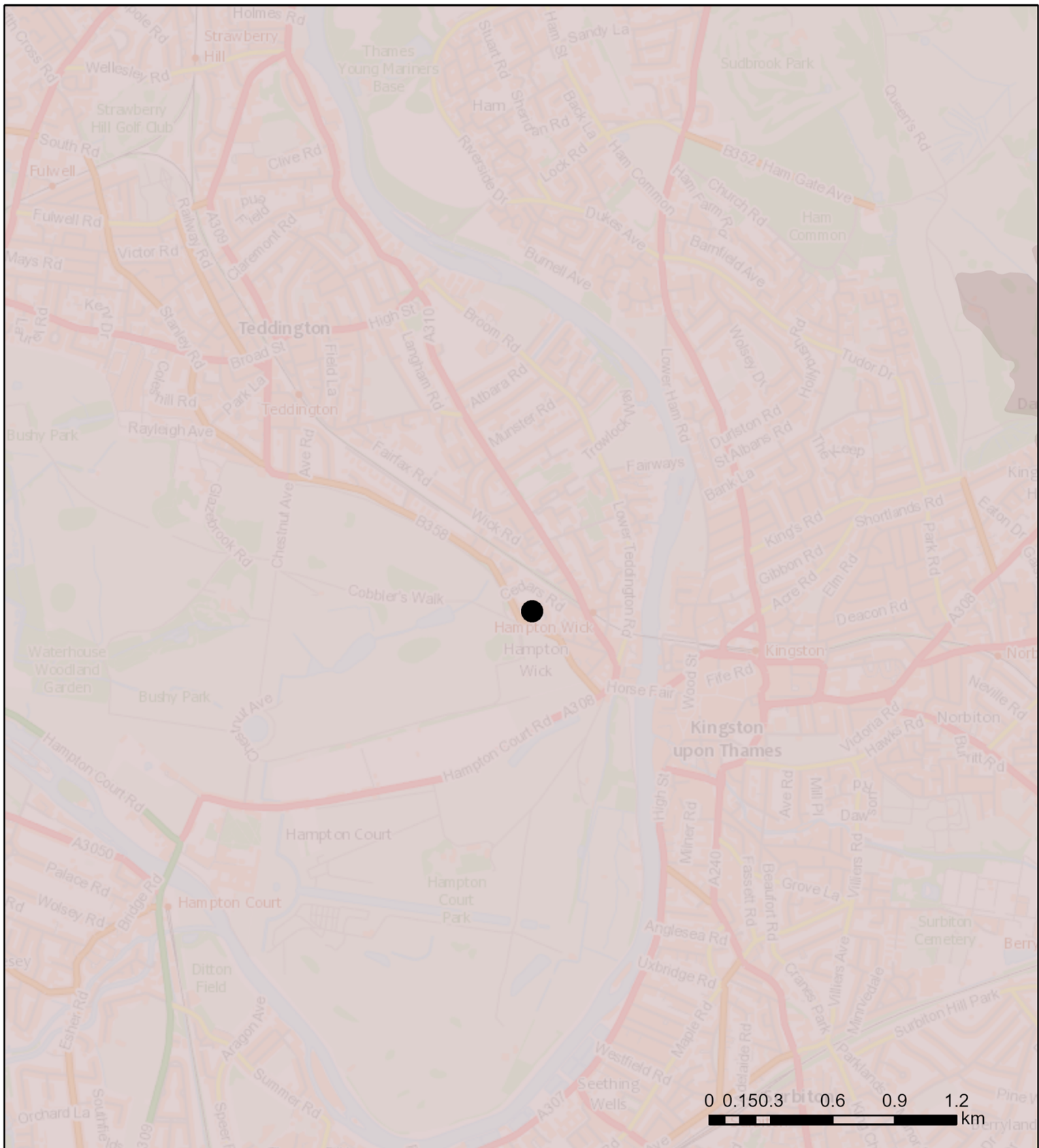


**Appendix C – British Geology Society Map**

# GeoIndex Report



British Geological Survey





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GeoIndex Onshore Data Sources: NERC, Natural England, English Heritage and Ordnance Survey

## Map Key

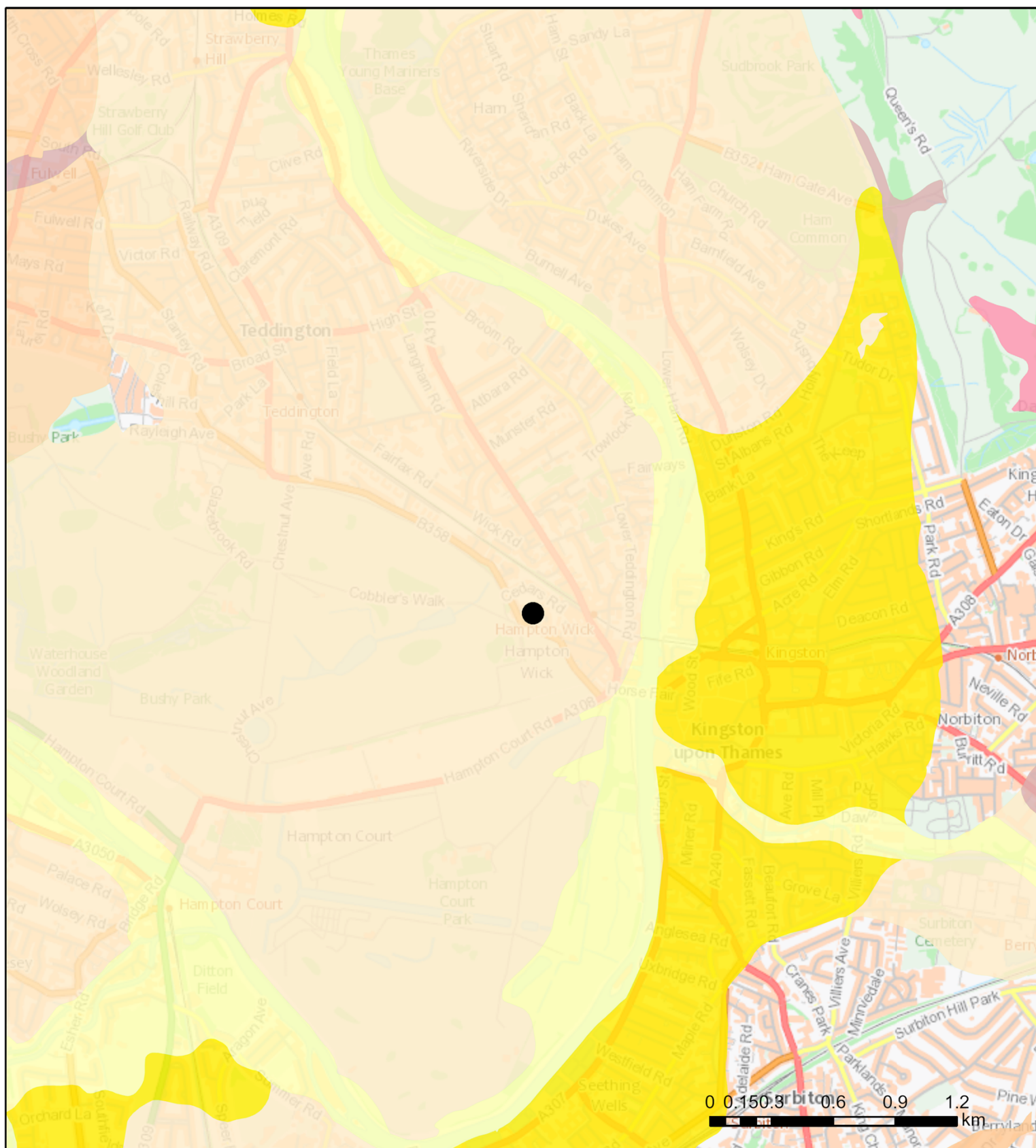
Bedrock geology 1:50,000 scale

-  LONDON CLAY FORMATION - CLAY AND SILT
-  CLAYGATE MEMBER - SAND, SILT AND CLAY

# GeoIndex Report



British Geological Survey



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GeoIndex Onshore Data Sources: NERC, Natural England, English Heritage and Ordnance Survey

## Map Key

Superficial deposits 1:50,000 scale

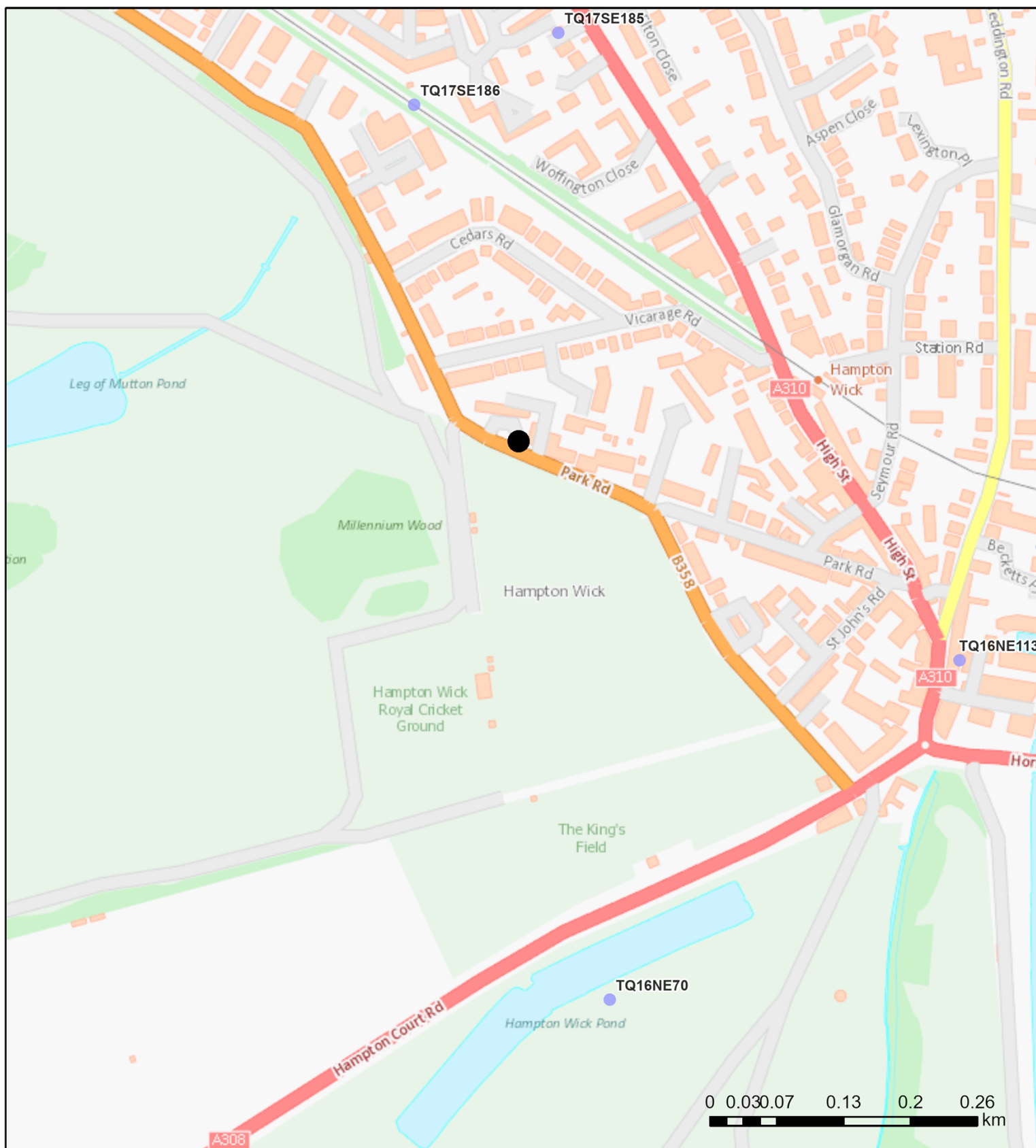
	<u>KEMPTON PARK GRAVEL MEMBER - SAND AND GRAVEL</u>
	<u>ALLUVIUM - CLAY, SILT, SAND AND PEAT</u>
	<u>ALLUVIUM - CLAY, SILT, SAND AND GRAVEL</u>
	<u>TAPLOW GRAVEL MEMBER - SAND AND GRAVEL</u>
	<u>BLACK PARK GRAVEL MEMBER - SAND AND GRAVEL</u>
	<u>HEAD - CLAY, SILT, SAND AND GRAVEL</u>
	<u>LANGLEY SILT MEMBER - CLAY AND SILT</u>



# GeoIndex Report



British Geological Survey



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GeoIndex Onshore Data Sources: NERC, Natural England, English Heritage and Ordnance Survey

## Map Key

### Borehole records

- Unknown Length
- Confidential
- 0 - 10m
- 10 - 30m
- 30m+



Appendix 1 Sheet 1

**BOREHOLE NO.** 1

TQ 16NE 113.

Ground Level.....  
Water Struck..... 4'6"  
Standing Water Level..... 5'0"

Diameter of Boring..... 8"  
Method..... Shell and Auger  
Start..... 13.1.70 Finish..... 13.1.70

REMARKS:

1759  
6948

Description of Strata		Thickness	Depth	Reduced Level	Disturbed Samples	Undisturbed Samples and Insitu Tests
Made	Sand, topsoil and rubble	1'6"	1'6"		1'0" J6466	
	Soft grey silty clay with brick fragments and gravel	3'0"			3'0" J6467	
Ground	Soft grey silty clay	5'2"	4'6"		4'6" W6474 5'0" J6468	
					7'0" J6469	
	Soft brown silty clay	2'4"	9'8"		10'0" J6470	
	Medium to coarse flint gravel	6'6"	12'0"		13'0" B6471 W6475	
	Firm brown clay	1'6"	18'6"		19'0" J6472	
	Firm to stiff grey clay	1'0"	20'0"		21'0" J6473	
	Bottom of Borehole		21'0"			
TOTALS		21'0"	21'0"			

NOTES: Descriptions in accordance with C.P.2001 "Site Investigations"

J = Jar Sample B = Bulk Sample W = Water Sample

U = Undisturbed Core Samples, 4 in dia. x 18 in long. Depth shown to top of sample. U\* = Sample not recovered.

N = Number of blows per ft. penetration in Standard Penetration Test.

V = Shear strength in lb/in<sup>2</sup> given by Insitu Vane Test.

<b>Contract Name</b>		HAMPTON WICK	
<b>Terresearch Ltd.</b>	<b>Report No.</b>	S.606/20	<b>Borehole No.</b> 1





TQ17SE 186

# Record of Borehole No.4

Location NPL TEDDINGTON

Sheet 1 of 1

Client PROPERTY SERVICES AGENCY

Type of boring LIGHT CABLE PERCUSSION

1706  
7002

Job No. 11311519

Ground level 8.00m O.D.

Diameter / 150mm

Casing / 150mm to 5.95m

Daily Progress	Ground water levels	Depth of casing	Samples			Scale	Strata		Description of strata	Casing	Geo-Cor
			Depth	No.	Type		Depth	Reduced level			
18.1.88.							G.L.	8.00	MADE GROUND: (100mm of CONCRETE overlying rubble).		
			0.40 - 1.00	1	B		0.30	7.70			
		1.00	1.00 - 1.45	2	BC(43)		1.00		Brown medium to coarse SAND and fine to medium occasionally coarse angular to sub-rounded flint GRAVEL.		
		2.00	2.00 - 2.45	3	BC(39)		2.00		--- becoming dense SAND with much fine to medium gravel.		
	▼ 2.85	3.00	2.85	5	W		2.90				
	2.85		3.00 - 3.45	4	BC(28)		3.00		--- becoming medium dense mottled dark greyish brown to brown SAND and fine to coarse GRAVEL, malodorous (very).		
	2.90	4.00	4.00 - 4.45	6	BC(24)		4.00		--- becoming mottled dark grey to brown		
	2.80	5.00	5.00 - 5.45	7	BC(23)		5.00				
			5.80	8	D		5.70	2.30			
			5.90	9	D		5.85	2.15	Stiff intact mottled dark grey and brown silty CLAY with small pockets of medium to coarse sand and fine gravel, malodorous.		
	5.95 sealed	5.95	6.00 - 6.45	10	U (21)						
			6.45	11	D						
			6.75	12	D				Stiff to Very stiff thinly laminated poorly very closely fissured dark brownish grey silty CLAY with partings of fine to medium sand, occasional shell fragments and occasional weak pyrites nodules.		
			7.05 - 7.50	13	DS(19)						
(7.50m)	DRY	5.95					7.50	0.50			
									BOREHOLE COMPLETED.		

**Key**  
 U... undisturbed 102mm diameter sample  
 D... disturbed jar sample  
 B... disturbed bulk sample  
 W... water sample  
 S( ) standard penetration test  
 C( ) cone penetration test  
 (33)... number of blows ('N' value)  
 ☒... groundwater encountered

**Remarks**  
 Starter pit dug to 1.50m.  
 Groundwater struck at 2.85m, did not rise, and was sealed off at 5.95m.  
 Stratum highly polluted between 2.90 and 5.70m.  
 Standpipe installed at 6.00m.  
 Filter zone 6.00 to 5.00m.  
 Seal 5.00 to 4.50m.  
 Backfill 4.50 to 1.00m.  
 Concrete 1.00 to G.L.

**GROUND ENGINEERING**



TQ16NE 70 1725-6915

For Institute use only Licence No.

N .....

TQ16/52

Eastern  
K.S.  
Thames  
N.R.A.

**RECORD OF WELL**

At HAMPTON WICK POND  
HAMPTON COURT PALACE  
Town or Village EAST MOLESLEY  
County KTS 9AU

270. TQ16NE

EXACT SITE  
OF WELL

Six-inch National Grid sheet and reference TQ 1725 6915  
HARRIS GROUP OF COMPANIES

State whether owner, tenant, builder, contractor, consultant, etc. CONTRACTOR  
Address (if different from above) BRENTSIDE WHARF, DOCK ROAD, BRENTFORD,  
MIDDLESEX. TW8 9AQ.

Level of ground surface above sea level (O.D.) 10.00 ft (.....m)

\*DELETE If well top is not at ground level state how far above\*  
AS below: ft (.....m)

NECESSARY

SHAFT.....ft (.....m); diameter.....ft (.....m);  
HEADINGS (please attach details—dimensions and directions)  
BORE.....ft (.....m); diameter at top.....in (.....mm);  
at bottom.....in (.....mm)

Full details of permanent lining tubes (position, length, inner and outer diameters, plain slotted etc.):  
6.60 metres of 150mm diameter polypropylene lining tube installed with  
the lower 3.00 metres slotted.

TEST  
CONDITIONS

Water struck at depths of 2.80 ft (.....m) below well top  
Rest level of water.....ft (.....m) below well top. Suction at.....ft (.....m)  
Yield on 4 hours\* test pumping at 1,250 galls per hour (.....l/s) with  
depression to 2.92 ft (.....m) below well top. Recovery to test level in 10 mins\*  
Capacity of pump 1,250 g.p.h. (.....l/s)  
Date of measurements 8th March 1991. (4 hour pump test)

NORMAL  
CONDITIONS

DESCRIPTION OF PERMANENT PUMPING EQUIPMENT:  
Make and/or type Grundfos SP5A.4 submersible Motive power Electric  
Capacity 1,250 galls (.....m<sup>3</sup>) per hour. Suction at 5.80 ft (.....m)  
below well top. Amount pumped 30,000 galls (.....m<sup>3</sup>) per day. Estimated  
consumption 210,000 galls (.....m<sup>3</sup>) per week  
Well made by Smith & Webb (Drilling) Ltd. Date of sinking 15th February 1991

ADDITIONAL NOTES ANALYSIS (please attach copy if available)

LOG OF  
STRATA  
OVERLEAF

RECEIVED NGDC  
DATE: 8th Oct 92  
SIG: [Signature]

Received from Smith & Webb  
Date 8th May 1992  
Observation well.....  
Recorder.....  
ER log.....  
Site marked on  
1" map.....  
6" map—Grid Sheet.....  
(use symbol)  
Copy to.....  
Date.....

INSTITUTE OF GEOLOGICAL SCIENCES  
HYDROGEOLOGY UNIT  
EXHIBITION ROAD  
LONDON SW7 2DE

NGDC  
ACCESSION  
NUMBER  
8577





Eastern  
h.s.  
Thames  
N.R.A

**RECORD OF WELL**

For Institute use only Licence No. N.....

At ..... HAMPTON WICK POND .....  
..... HAMPTON COURT PALACE .....  
Town or Village EAST MOLESLEY .....  
County ..... KT8 9AU .....

TQ16/52

270. TQ16NE  
TQ 1725 6915

EXACT SITE OF WELL

Six-inch National Grid sheet and reference .....  
HARRIS GROUP OF COMPANIES

For .....  
State whether owner, tenant, builder, contractor, consultant, etc.: CONTRACTOR  
Address (if different from above) BRENTSIDE WHARF, DOCK ROAD, BRENTFORD,  
MIDDLESEX... TWS 8AQ.....

Level of ground surface above sea level (O.D.) ..... ft (..... 10.00 ..... m)

\*DELETE AS NECESSARY

If well top is not at ground level state how far above:\* ..... ft (..... m)  
below: ..... ft (..... m);  
SHAFT..... ft (..... m); diameter..... ft (..... m);

HEADINGS (please attach details—dimensions and directions)

BORE..... ft (..... 6.60 ..... m); diameter: at top..... in (..... 150 ..... mm);  
at bottom..... in (..... 150 ..... mm)

Full details of permanent lining tubes (position, length, inner and outer diameters, plain slotted etc.):  
6.60 metres of 150mm diameter polypropylene lining tube installed with  
the lower 3.00 metres slotted.

TEST CONDITIONS

Water struck at depths of ..... ft (..... 2.80 ..... m) below well top  
Rest level of water..... ft (..... 2.80 ..... m) ~~xxxxx~~\* below well top. Suction at..... ft (..... 5.80 ..... m)  
Yield on..... 4..... hours\* test pumping at..... 1,250..... galls per ..... hour.. (..... l/s) with  
depression to..... ft (..... 2.92 ..... m) below well top. Recovery to rest level in ..... 10..... mins\*  
Capacity of pump..... 1,250..... g.p.h. (..... l/s)

NORMAL CONDITIONS

DESCRIPTION OF PERMANENT PUMPING EQUIPMENT:  
Make and/or type Grundfos SP5A.4 submersible ..... Motive power..... Electric .....  
Capacity..... 1,250..... galls (..... m<sup>3</sup>) per hour. Suction at ..... ft (..... 5.80 ..... m)  
below well top. Amount pumped..... 30,000..... galls (..... m<sup>3</sup>) per day. Estimated  
consumption..... 210,000..... galls (..... m<sup>3</sup>) per week

Well made by Smith & Webb (Drilling) Ltd. .... Date of sinking..... 15th February 1991

ADDITIONAL NOTES ANALYSIS (please attach copy if available)

LOG OF STRATA OVERLEAF

INSTITUTE OF GEOLOGICAL SCIENCES  
HYDROGEOLOGY UNIT  
EXHIBITION ROAD  
LONDON SW7 2DE

Received from Smith & Webb  
Date 21st May 1992  
Observation well.....  
Recorder.....  
ER log.....  
Site marked on  
1" map.....  
6" map—Grid Sheet.....  
(use symbol)  
Copy to.....  
Date.....





# HAMPTON WICK PONDS

TQ 16/52

owner		Licence No. 401 21143		Nat. Grid Ref. TQ 1725 6915	
occupier		IGS Ref. No.		Status	
ground Level	m OD	ft. OD	Aquifer Gravels		
level of Well Top	m OD	ft. OD			
fast Water Level	m bwt	ft. bwt	Summary of Geological Section		
Date	m OD	ft. OD	Thickness	Depth	
Construction					
Depth bwt	Dia.	Linings (below well top)			
		From	To	Dia.	Type
6.6 M	150 mm	0	6.6 M	150 mm	UPVC
		0.3	6.6 M	"	slotted
Abstraction Rates					
Type of Pump		Chem./Bact. Anal. YES NO			
gph		Well Driller			
gpd					

insufficient space has been allowed, continue in 'Notes' overleaf.

Site Plan

Notes

Topsoil	1.00	1
Firm brown and grey clay	1.40	2
Brown sand and gravel	3.10	5
Brown clay	0.10	5
Blue clay	1.00	6
TQ 16/52		



## Appendix D– Greenfield Discharge and Storage Calculations