



CENTRAL SOMERS TOWN, LONDON

FACTUAL AND INTERPRETATIVE REPORT ON GROUND INVESTIGATION

VOLUME 1: FACTUAL REPORT

Report No D5061-15/1

September 2016

Carried out for:

London Borough of Camden
5 Pancras Square
London
N1C 4AG

Engineer:

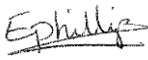
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Report No D5061-15/1

September 2016

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REPORT STRUCTURE

DATE	TITLE	REPORT NO.
September 2016	FACTUAL REPORT	D5061-15/1
September 2016	INTERPRETATIVE REPORT	D5061-15/2

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1 INTRODUCTION

In November 2015 ESG was commissioned by AKT II, on behalf of the London Borough of Camden, to carry out a ground investigation at Central Somers Town. The investigation was required to obtain geotechnical and geoenvironmental information for the proposed redevelopment of Edith Neville Primary School and the construction of new residential properties and local community facilities.

The scope of the investigation was specified by ESG and comprised cable percussion boreholes, windowless sampler boreholes, trial pits, in situ testing and laboratory testing. The investigation was performed in accordance with the contract specification, and the general requirements of BS 5930 (2015), BS EN 1997-2 (2007), BS EN ISO 22475-1 (2006) and other relevant related standards identified below. The fieldwork took place between 16 November and 7 January 2016.

2 SITE SETTING

2.1 Location and Description

Central Somers Town is located within the London Borough of Camden in central London at National Grid reference TQ 297 831, see Site Location Plan in Appendix A.

The site area can be divided into three sections. The western part of the site comprises a children's play area, an outdoor fitness area and a community play project. The children's play area is on hard standing, whilst the outdoor fitness equipment is on a mix of grass and rubber matting. There is some vegetation in the form of trees and bushes around the perimeter of the area. The community play project consists of a building and outdoor play area which is divided into a hard standing football pitch and a grass covered play area.

The central part of the site comprises Edith Neville Primary School. There is vegetation, comprising trees and shrubs, mainly along the external boundaries of the school. This part of the site is predominately level with the exception of a playground in the south west corner of the school which is on a lower level, accessed by steps and a ramp.

The eastern end of the site comprises Brill Place Park. This area is mainly grassed with hard standing footpaths crossing the park. There are dense bushes along the eastern boundary of the site with mature trees scattered across the park. In the north east corner of the park there is a

children's play area on hard standing with additional play equipment immediately adjacent to the boundary of the park on rubber matting. The park is gently undulating and slopes down towards the north western corner.

2.2 Published Geology

The published geological map for the area, BGS Sheet 256 (2006) and the BGS Geology of Britain Viewer (2016) show the solid geology to comprise the London Clay Formation which is underlain by the Lambeth Group.

There is no record of any superficial deposits in the area, although the geology map shows localised areas of 'Reworked Ground' to the east and west of the site.

3 FIELDWORK

The fieldwork was carried out in general accordance with BS 5930 (2015), BS EN 1997-2 (2007) and BS EN ISO 22475-1 (2006).

The exploratory hole and in situ test locations were selected by AKT II. The locations were set out from local features. The co-ordinates and reduced levels were surveyed by ESG to National Grid and Ordnance Datum. The exploratory hole and in situ test locations are shown on the Site Plan in Appendix A.

3.1 Exploratory Holes

TABLE 1 : SUMMARY OF EXPLORATORY HOLES

TYPE	QUANTITY	MAXIMUM DEPTH (m)	REMARKS
Cable Percussion Boring	11	30.30	Designated BH1, BH1A, BH2 to BH10
Trial Pit (machine dug)	2	2.20	Designated TP4 and TP5
Trial Pit (hand dug)	2	1.20	Designated HP2 and HP3.
Window Sampling	46	7.65	Designated WS2 to WS7, WS7B, WS8, WS9, WS9A, WS9B, WS10, WS10A, WS11, WS11A, WS11B, WS12, WS12A, WS13, WS13A, WS14, WS14A, WS14B, WS15, WS15A, WS16, WS17, WS17A, WS17B, WS18, WS19, WS20, WS20A, WS21, WS21A, WS22 to 24, WS24A, WS25, WS25A, WS26, WS26A and WS27 to 29.

BH1A was terminated on an obstruction at 0.40 m depth and relocated to BH1. BH6 also encountered an obstruction (at 2.80 m depth), but could not be relocated due to the space restrictions and the presence of numerous buried services in that part of the site.

In addition, a number of window sampler boreholes were terminated short of their scheduled depth, either due to encountering obstructions or due to evidence of asbestos. Further details are provided on the borehole logs.

The exploratory hole logs are presented in Appendix B. These provide information including the equipment and methods used, samples taken, tests carried out, water observations and descriptions of the strata encountered. Explanation of the terms and abbreviations used on the logs is given in the Key to Exploratory Hole Records in Appendix B, together with other explanatory information. The logging of soil is in accordance with BS EN ISO 14688-1+A1 (2013), as amplified by BS 5930 (2015).

Photographs of the trial pits are presented in Appendix G.

On completion of the fieldwork geotechnical samples were transported to the Wokingham office of ESG for temporary retention, with those required for testing being transferred to the in-house laboratories. Geoenvironmental samples were transported from site directly to ESG's environmental chemistry laboratory.

3.2 Groundwater and Gas Monitoring

Instrumentation installed in the exploratory holes for groundwater and gas monitoring are shown on the logs and summarised in Appendix C. Records of the six rounds of monitoring, being carried out by ESG on 15 / 22 January, 17 February, 22 March, 12 April, 23 May and 20 June 2016, are presented in Appendix C.

3.3 In Situ Testing

In situ testing was carried out in accordance with the relevant standards as tabulated below. The testing is summarised in the following table and the results are presented in Appendix D unless noted otherwise.

Relevant calibration certificates are included with the results in the appendix.

TABLE 2: SUMMARY OF IN SITU TESTING

TYPE	QUANTITY	REMARKS
Standard Penetration Tests	122	BS EN ISO 22476-3 (2011). Results presented on the borehole logs in Appendix B
Dynamic Cone Penetrometer Test	8	Designated TRL1, 2 and 5 to 10. Test results used to estimate California Bearing Ratio (CBR) values based on TRRL Overseas Road Note 8 (1990)

4 LABORATORY TESTING

4.1 Geotechnical Testing

Geotechnical laboratory testing was scheduled by ESG and was carried out in accordance with BS 1377 (1990) unless otherwise stated. The tests completed are summarised below and the results presented in Appendix E.

TABLE 3 : SUMMARY OF GEOTECHNICAL LABORATORY TESTING

TYPE	REMARKS
Water Content Determination	36 tests
Atterberg Limit Determination	36 tests
Particle Density	6 tests
Particle Size Distribution Analysis	4 tests
Oedometer Consolidation	6 tests
Unconsolidated Undrained Triaxial Compression Testing	58 tests
Consolidated Undrained Triaxial Compression Testing (Multistage)	3 tests
Water-soluble Sulphate Content Acid-soluble Sulphate Content Total Sulphur Content pH	Test methods are BS 1377 or others recognised in BRE Special Digest 1 (2005), as indicated on the results sheets in Appendix E.

4.2 Geoenvironmental Testing

Geoenvironmental laboratory testing was scheduled by ESG on selected soil samples recovered during the fieldwork. The testing was carried out by ESG's environmental chemistry laboratory at Burton on Trent. The results are presented in Appendix F.

REFERENCES

BGS England and Wales Sheet 256 : 2006 : North London. 1:50000 geological map (solid and drift) (Bedrock and Superficials). British Geological Survey.

BGS Geology of Britain Viewer : 2016. www.bgs.ac.uk. British Geological Survey.

BS 1377 : 1990 : Methods of test for soils for civil engineering purposes. British Standards Institution.

BS 5930 : 2015 : Code of practice for ground investigations. British Standards Institution.

BS EN 1997-2 : 2007 : Eurocode 7 - Geotechnical design - Part 2 Ground investigation and testing. British Standards Institution.

BS EN ISO 14688-1:2002+A1 : 2013 : Geotechnical investigation and testing - Identification and classification of soil - Part 1 Identification and description. British Standards Institution.

BS EN ISO 14688-2:2004+A1 : 2013 : Geotechnical investigation and testing - Identification and classification of soil - Part 2 Principles for a classification. British Standards Institution.

BS EN ISO 22475-1 : 2006 : Geotechnical investigation and testing – Sampling methods and groundwater measurements - Part 1 Technical principles for execution. British Standards Institution.

BS EN ISO 22476-3:2005+A1 : 2011 : Geotechnical investigation and testing - Field testing - Part 3 Standard penetration test. British Standards Institution.

TRRL: 1990: Overseas Road Note 8 – A user's manual for a programme to analyse dynamic cone penetrometer data. Transport and Road.

APPENDIX A
FIGURES AND DRAWINGS

Site Location Plan
Site Plan

A1
A2

Site Location Plan



THE
SITE

Reproduced from the 2012 Ordnance Survey 1:50 000 scale Landranger map No 176 by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright, Environmental Services Group Limited. All rights reserved. Licence Number 100006060

Notes: Scale 1:50 000	Project	Central Somers Town, London	Figure A1
	Project No.	D5061-15	
	Carried out for	London Borough of Camden	



GENERAL NOTES

1. Reproduced from Survey Solutions Drawing No. 12681UG-01 & 12681UG-02.
2. Hole Locations to National Grid Co-ordinate Reference System.

LEGEND TO SYMBOLS

- Borehole Location
- Window Sample Location
- Trial Pit Location
- DCP Test Location

Scale: 1:1000



x	x	x	x	x	x
Rev	Drawn	Date	Approv.	Date	Modification Details

AMENDMENTS

Title
SITE PLAN

Project
CENTRAL SOMERS TOWN, LONDON

Client
LONDON BOROUGH OF CAMDEN



Date	Drawn By	Approv. By
29/04/2016	BS	SW
Sheet Size	Scale	Project No
A3	1:1000	D5061-15
Drawing No	Rev	
A2	0	

APPENDIX B

EXPLORATORY HOLE RECORDS

Key to Exploratory Hole Records	Key
SPT Hammer Energy Ratio Report	SPT Hammer References SM22 and SM28
Borehole Logs	BH1, 1A, 2, to 10
Trial Pit Logs	TP4 and 5, HP2 and 3
Window Sampler Hole Logs	WS2 to 7, 7B, 8, 9, 9A, 9B, 10, 10A, 11, 11A, 11B, 12, 12A, 13, 13A, 14, 14A, 14B, 15, 15A, 16, 17, 17A, 17B, 18, 19, 20, 20A, 21, 21A, 22, 23, 24, 24A, 25, 25A, 26, 26A and 27 to 29

Key to Exploratory Hole Records



SAMPLES

Undisturbed

U	Driven tube sample	} nominally 100 mm diameter and full recovery unless otherwise stated	
UT	Driven thin wall tube sample		
TW	Pushed thin wall tube sample		
P	Pushed piston sample		
L	Liner sample (from Windowless or similar sampler), full recovery unless otherwise stated		
CBR	CBR mould sample		
BLK	Block sample		
CS	Core sample (from rotary core) taken for laboratory testing		
AMAL	Amalgamated sample		

Disturbed

D	Small sample
B	Bulk sample

Other

W	Water sample
G	Gas sample

ES	Environmental chemistry samples (in more than one container where appropriate)
EW	Soil sample
	Water sample

Comments

Sample reference numbers are assigned to every sample taken. A sample reference of 'NR' indicates that attempt was made to take a tube sample, however, there was no recovery.

Monitoring samples taken after completion of hole construction are not shown on the exploratory hole logs.

TESTS

SPT S or SPT C	Standard Penetration Test, open shoe (S) or solid cone (C)
----------------	--

The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach 50 the total blow count beyond the seating drive is given (without the N = prefix).

IV	<i>in situ</i> Vane shear strength, peak (p) and remoulded (r)
HV	Hand vane shear strength, peak (p) and remoulded (r)
PP	Pocket penetrometer test, converted to shear strength
KFH, KRH, KPI	Permeability tests (KFH = falling head, KRH = rising head; KPI = packer inflow); results provided in Field Records column (one value per stage for packer tests)

DRILLING RECORDS

The mechanical indices (TCR/SCR/RQD & If) are defined in BS 5930:2015

TCR	Total Core Recovery, %
SCR	Solid Core Recovery, %
RQD	Rock Quality Designation, %
If	Fracture spacing, mm. Minimum, typical and maximum spacings are presented. The term non-intact (NI) is used where the core is fragmented.

Flush returns, estimated percentage with colour where relevant, are given in the Records column

CRF	Core recovered (length in m) in the following run
AZCL	Assessed zone of core loss
NR	Not recovered

GROUNDWATER



Groundwater strike



Groundwater level after standing period

Notes:
See report text for full references of standards

Project Central Somers Town
Project No. D5061-15
Carried out for London Borough of Camden

Key

Sheet 1 of 2

Key to Exploratory Hole Records

INSTALLATION

Standpipe/ piezometer

Details of standpipe/piezometer installations are given on the Record. Legend column shows installed instrument depths including slotted pipe section or tip depth, response zone filter material type and layers of backfill.

SP
SPIE
PPIE
EPIE



The type of instrument installed is indicated by a code in the Legend column at the depth of the response zone:
Standpipe
Standpipe piezometer
Pneumatic piezometer
Electronic piezometer

Inclinometer or Slip Indicator

The installation of vertical profiling instruments is indicated on the Record. The base of tubing is shown in the Legend column.

ICE
ICM
SLIP



The type of instrument installed is indicated by a code in the Legend column at the base of the tubing:
Biaxial inclinometer
Inclinometer tubing for use with probe
Slip indicator

Settlement Points or Pressure Cells

The installation of single point instruments is indicated on the Record. The location of the measuring device is shown in the Legend column.

ESET
ETM
EPCE
PPCE

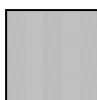


The type of instrument installed is indicated by a code in the Legend column:
Electronic settlement cell/gauge
Magnetic extensometer settlement point
Electronic embedment pressure cell
Electronic push in pressure cell

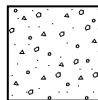
INSTALLATION LEGENDS

A legend describing the installation is shown in the rightmost column. Legends used to describe the backfill materials as indicated below.

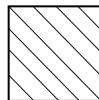
Arisings



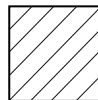
Concrete



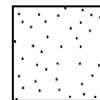
Grout



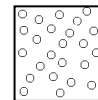
Bentonite



Sand



Gravel



Macadam



NOTES

- 1 Soils and rocks are described in accordance with BS EN ISO 14688-1:2002+A1:2013 and 14689-1:2003 respectively as amplified by BS 5930:2015.
- 2 For fine soils, consistency determined during description is reported for those strata where undisturbed samples are available. Where the logger considers that the sample may not be representative of the condition in situ, for whatever reason, the reported consistency is given in brackets. The reliability of the sample is indicated by Probably or Possibly as appropriate. Hence (Probably firm) indicates the logger is reasonably confident of the assessment, but (Possibly firm) means less certainty. Where the samples available are too disturbed to allow a reasonable assessment of the in situ condition, no consistency is given.
- 3 Evidence of the occurrence of very coarse particles (cobbles and boulders) is presented on the logs, however, because of their size in relation to the exploratory hole these records may not be fully representative of their size and frequency in the ground mass.
- 4 The declination of bedding and joints is given with respect to the normal to the core axis. Thus in a vertical borehole this will be the dip.
- 5 The assessment of SCR, RQD and Fracture Spacing excludes artificial fractures
- 6 Water level observations of discernible entries during the advancing of the exploratory hole are given at the foot of the log and in the Legend column. The term "none observed" is used where no discrete entries are identified although this does not necessarily indicate that the hole has not been advanced below groundwater level. Under certain conditions groundwater cannot be observed, for instance, drilling with water flush or overwater, or boring at a rate much faster than water can make its way into the borehole. In addition, where appropriate, water levels in the hole at the time of recovering individual samples or carrying out in situ tests and at shift changes are given in the Records column.
- 7 The borehole logs present the results of Standard Penetration Tests recorded in the field without correction or interpretation. However, in certain ground conditions (eg high hydraulic head or where very coarse particles are present) some judgement may be necessary in considering whether the results are representative of in situ mass conditions.

Notes:
See report text for full references of standards

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Key
Sheet 2 of 2

Hammer Energy Report



Date of test: 23/07/2015

Hammer ID: SM22

Instrumented rod:

Type BW
Cross-sectional area (A_a) 11.30 cm²
Young's modulus (E_a) 207000 MPa
Length 0.60 m

Hammer mass (m) 63.5 kg

Fall height (h) 0.76 m

Test type: SPT

Manufacturer: Archway

Model: Automatic Trip Hammer

Test rod type: NWW

Rig: Geotech 10

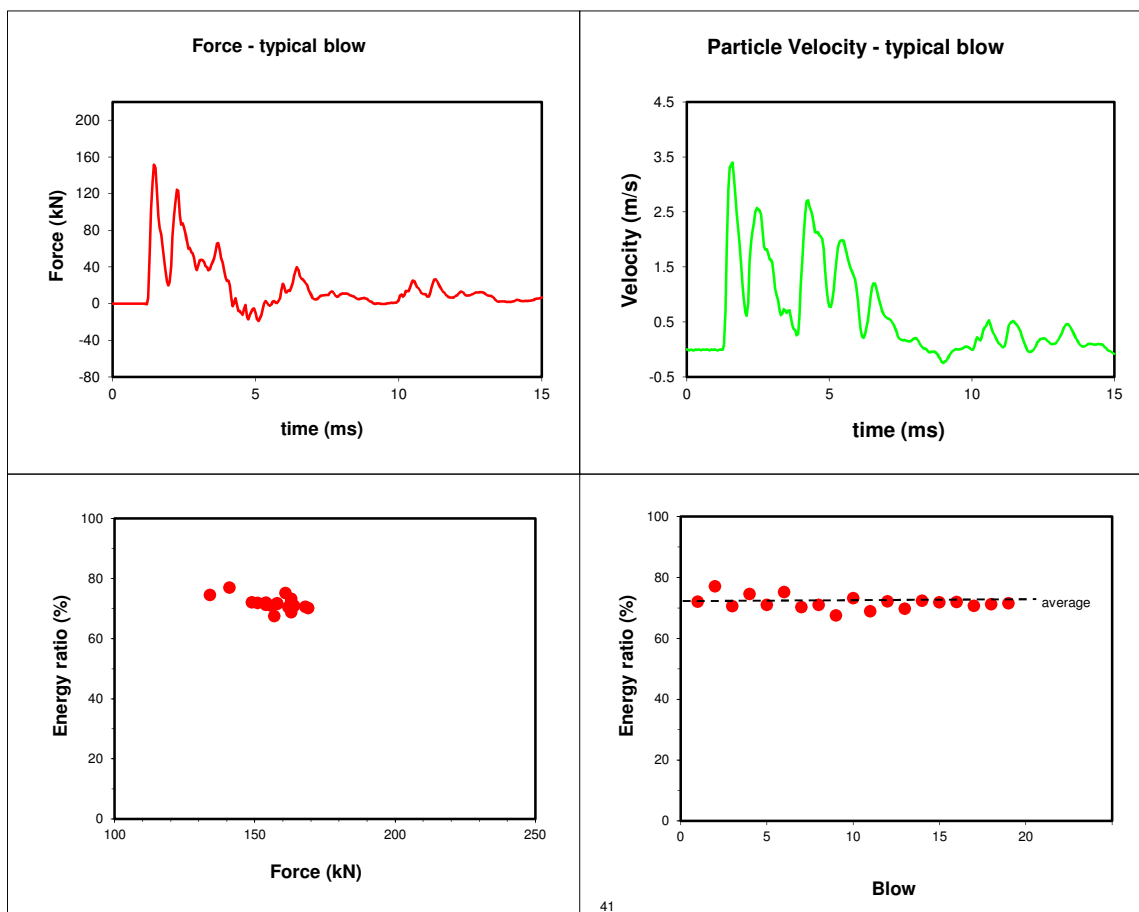
Rig ID: T61

Type: Rotary

Foreman: J Swan

Remarks:

Data obtained from test carried out in BH1, located in ESG Doncaster yard. Test carried out at depth of 5.36 mbgl, with a total blow count of 19. Energy determined from every blow.



Theoretical energy (E_{theor}) = $m \times g \times h$ =

0.473 kN-m (473 J)

Measured energy (E_{meas}) average of 19 blows =

0.339 kN-m

Energy ratio = $\frac{E_{\text{meas}}}{E_{\text{theor}}} =$

72 %

Test carried out by: Malcolm Carr

Test carried out in accordance with BS EN ISO 22476-3:2005

Signed for issue:

Equipment used: SPT Analyzer Serial No. 4032T

Hammer Energy Report



Date of test: 23/07/2015

Hammer ID: SM28

Instrumented rod:

Type BW
Cross-sectional area (A_a) 11.30 cm²
Young's modulus (E_a) 207000 MPa
Length 0.60 m

Hammer mass (m) 63.5 kg

Fall height (h) 0.76 m

Test type: SPT

Manufacturer: Archway

Model: Automatic Trip Hammer

Test rod type: NWY

Rig: Geotech 10

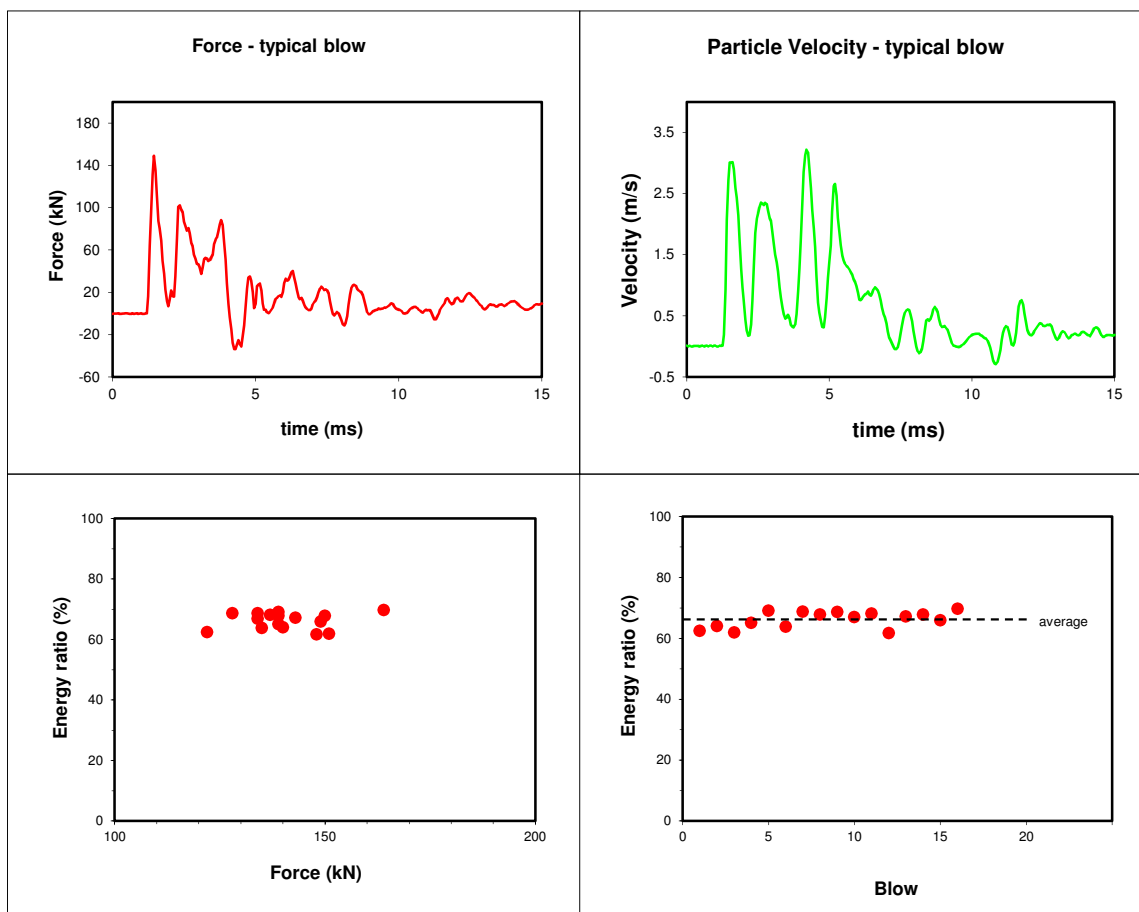
Rig ID: R61

Type: Rotary

Foreman: J Swan

Remarks:

Data obtained from test carried out in BH1, located in ESG Doncaster yard. Test carried out at depth of 5.42mbgl, with a total blow count of 16. Energy determined from every blow.



Theoretical energy (E_{theor}) = $m \times g \times h$ =

0.473 kN-m (473 J)

Measured energy (E_{meas}) average of 16 blows =

0.313 kN-m

Energy ratio = $\frac{E_{\text{meas}}}{E_{\text{theor}}}$ =

66 %

Test carried out by: Malcolm Carr

Test carried out in accordance with BS EN ISO 22476-3:2005

Signed for issue:

Equipment used: SPT Analyzer Serial No. 4032T

SPT Calibration Report

EQUIPE GROUP
www.equipgroup.com

General Information

Type of Hammer: SPT HAMMER
Client: GARY WHEELER DRILLING
Test No: EQU1337
Test Depth (m): 19.50
Date of Test: 24 August 2015
Valid until: 23 August 2016
Hammer ID: AR20

Mass of the hammer: $m = 63.5 \text{ kg}$
Falling height: $h = 0.76 \text{ m}$
 $E_{\text{theor}} = m \times g \times h = 473 \text{ J}$

Characteristics of the instrumented rod

Diameter: $d_r = 0.052 \text{ m}$
Length of the instrumented rod: 0.558 m
Area: $A = 11.61 \text{ cm}^2$
Modulus: $E_a = 206843 \text{ MPa}$

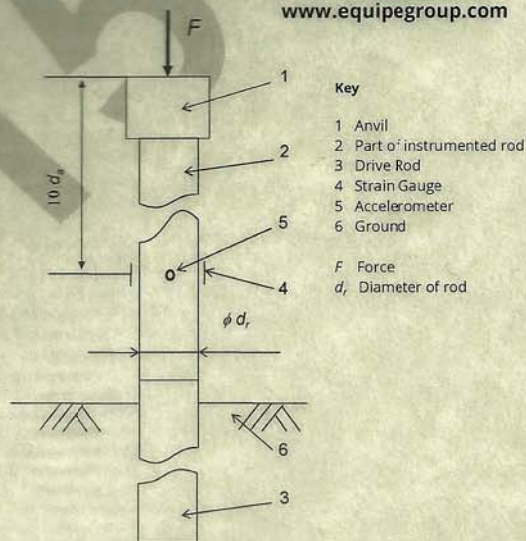
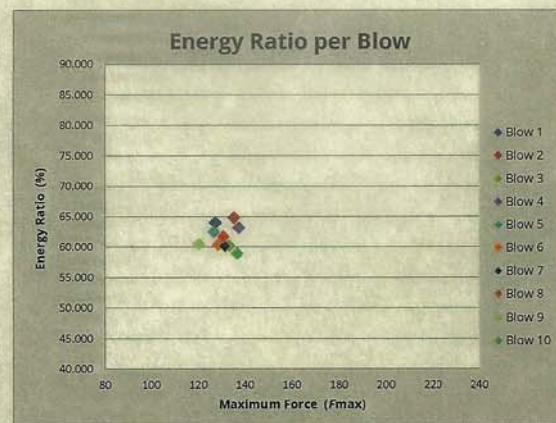
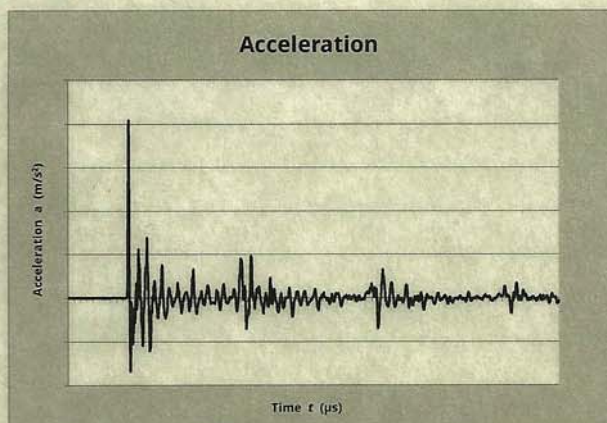
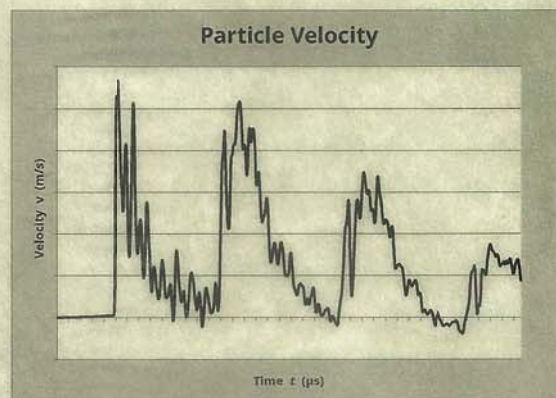


Fig. B.1 and B.2 BS EN ISO 22476-3 : 2005 + A1 : 2011



Observations:

1.

$E_{\text{meas}} = 0.290 \text{ kN-m}$

$E_{\text{theor}} = 0.473 \text{ kN-m}$

Energy Ratio $= \frac{E_{\text{meas}}}{E_{\text{theor}}} = 61.32\%$

Equipe SPT Analyzer Operators:

MH

Prepared by:

[Signature]

Checked by:

[Signature]

Date

26/08/2015

Borehole Log



Drilled Logged Checked Approved	PH/SS CM MM SW	Start 03/12/2015 End 04/12/2015	Equipment, Methods and Remarks Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 24.20m.		Depth from (m) 0.00	to (m) 24.20	Diameter (mm) 150	Casing Depth (m) 4.00	Ground Level 21.25 mOD	Coordinates (m) E 529625.39	National Grid N 183142.60
Samples and Tests					Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
0.20 0.20 0.20 - 0.40 0.50 0.50 0.50 - 0.70	D 2 ES 1 B 3 D 5 ES 4 B 6				(TOPSOIL) Dark brown organic silty SAND with rootlets. (MADE GROUND) Type 1 stone. (DRILLER DESCRIPTION) (MADE GROUND) Brown and grey sandy gravelly CLAY, locally with low cobble content. Gravel is angular of brick, concrete and occasional pottery. Sand is fine to coarse. Cobbles are angular of brick and concrete.	0.40-1.20 Low cobble content. Occasional wood and metal fragments.	(0.25) 0.25 (0.05) +20.95				
1.00 1.00 1.00 - 1.20 1.20 - 1.65 1.20 1.20 - 1.70	D 8 ES 7 B 9 SPTS D 10 B 11	N=2 (1/1,,1,)	0.00	dry			(2.90)				
2.20 - 2.65 2.20 2.20 - 2.70	SPTS D 12 B 13	N=2 (1/1,,1,)	2.00	dry							
3.20 - 3.65 3.20 3.20 - 3.70	SPTS D 14 B 15	N=7 (1/1,1,2,3)	3.00	dry	Soft greyish brown slightly sandy slightly gravelly CLAY with black organic lenses (up to 30mm across). Sand is fine to coarse. (Possibly ALLUVIUM)		3.20 +18.05 (0.60)				
4.20 - 4.65	UT 16	30 blows 100% rec	4.00	dry	Firm brown CLAY with frequent partings of orange silt. (LONDON CLAY FORMATION)		3.80 +17.45				
5.20 - 5.65 5.20	SPTS D 18	N=14 (1,2/2,3,4,5)	4.00	dry		5.20 Occasional selenite crystals.	(4.00)				
6.20 6.50 - 6.95	D 19 UT 20	40 blows 100% rec	4.00	dry							
7.00	D 21										
7.80 8.00 - 8.45 8.00	D 22 SPTS D 23	N=15 (2,2/3,3,4,5)	4.00	dry	Stiff to very stiff fissured dark grey CLAY with occasional partings of grey silt. Fissures are randomly orientated, closed and clean. (LONDON CLAY FORMATION)		7.80 +13.45 (1.20)				
9.00 9.50 - 9.95	D 24 UT 25	45 blows 100% rec	4.00	dry	Very stiff dark grey silty CLAY with occasional partings of dark grey silt and burrows infilled (up to 3mm diameter) with grey silt. (LONDON CLAY FORMATION)		9.00 +12.25				
Hole continues on next sheet											
Groundwater Entries			Depth Sealed (m)		Depth Related Remarks		Hard Boring		Duration (mins) Tools used		
No.	Depth Strike (m)	Remarks			Depths (m)	Remarks	Depths (m)				
1	3.40	Remained at 3.40 m after 20 minutes.	3.50		0.00 - 24.20	SPT hammer ID SM28 (Er 66%) rod type NWY					
2	5.20	Remained at 5.20 m after 20 minutes.									
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London			Borehole BH1			
Project No. D5061-15					Carried out for London Borough of Camden			Sheet 1 of 3			
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:36					AGS						

Borehole Log



Drilled	PH/SS	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	21.25 mOD
Logged	CM	03/12/2015	Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 24.20m.			(m)	(m)	(mm)	(m)	Coordinates (m)	E 529625.39
Checked	MM	End								National Grid	N 183142.60
Approved	SW	04/12/2015									
Samples and Tests						Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
10.00	D 26										
11.00 - 11.45 11.00	SPTS D 27	N=26 (3,5/5,6,7,8)	4.00	dry							
			03/12/15 4.00	1800 dry							
			04/12/15 4.00	0800 dry							
12.00	D 28										
12.50 - 12.95	UT 29	50 blows 100% rec	4.00	dry							
13.00	D 30						(8.00)				
14.00 - 14.45 14.00	SPTS D 31	N=28 (3,4/6,7,7,8)	4.00	dry							
15.00	D 32										
15.50 - 15.95	UT 33	55 blows 100% rec	4.00	dry							
16.00	D 34										
17.00 - 17.45 17.00	SPTS D 35	N=24 (3,3/5,5,6,8)	4.00	damp	Very stiff fissured dark grey CLAY. Fissures are randomly orientated, closed and clean. (LONDON CLAY FORMATION)		17.00 +4.25				
18.00	D 36										
18.50 - 18.95	UT 37	55 blows 100% rec	4.00	damp			(3.00)				
19.00	D 38										
Hole continues on next sheet							20.00 +1.25				
Groundwater Entries			Depth Sealed (m)			Depth Related Remarks		Hard Boring			
No.	Depth	Strike (m)	Remarks		Depths (m)		Remarks		Depths (m)	Duration (mins)	Tools used
3	16.00		Remained at 16.00 m after 20 minutes.								
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.						Project		Central Somers Town, London		Borehole	
Scale 1:50						Project No.		D5061-15		BH1	
(c) ESG www.esg.co.uk 03/05/2016 11:43:36						Carried out for		London Borough of Camden		Sheet 2 of 3	

Borehole Log



Drilled Logged Checked Approved	PH/SS CM MM SW	Start 03/12/2015 End 04/12/2015	Equipment, Methods and Remarks Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 24.20m.		Depth from (m) 0.00	to (m) 24.20	Diameter (mm) 150	Casing Depth (m) 4.00	Ground Level 21.25 mOD Coordinates (m) E 529625.39 National Grid N 183142.60
Samples and Tests					Strata Description				
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
20.00 - 20.45 20.00	SPTS D 39	N=31 (3,5/7,7,8,9)	4.00	damp	Very stiff dark grey silty CLAY with partings of dark grey silt. (LONDON CLAY FORMATION)		(1.20)		
21.00	D 40								
21.20	D 41								
21.50 - 21.75	UT 42	90 blows 100% rec	4.00	damp	Very stiff fissured light grey mottled brown silty CLAY. Fissures are randomly orientated, closed and clean. (LAMBETH GROUP)		21.20 (1.30)		
21.80	D 43								
22.50	D 44								
23.00 - 23.45 23.00	SPTS D 45	N=48 (4,6/9,11,12,16)	4.00	damp	Very stiff reddish brown mottled bluish grey CLAY. (LAMBETH GROUP)		22.50 (1.70)		
24.00	D 46		04/12/15 4.00	1800 damp					
					END OF EXPLORATORY HOLE		24.20 -2.95		
Groundwater Entries					Depth Related Remarks		Hard Boring		
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London		Borehole BH1		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:36					Project No. D5061-15 Carried out for London Borough of Camden		Sheet 3 of 3		

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Borehole Log



Drilled Logged Checked Approved	PH/SS CM MM SW	Start 26/11/2015 End 27/11/2015	Equipment, Methods and Remarks Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 20.45m.	Depth from (m) 0.00	to (m) 20.45	Diameter (mm) 150	Casing Depth (m) 1.50	Ground Level 20.81 mOD Coordinates (m) E 529657.69 National Grid N 183161.76	
Samples and Tests				Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.20 0.20 0.20 - 0.40 0.50 0.50 0.50 - 0.70	D 2 ES 1 B 3 D 5 ES 4 B 6	4 samples taken 4 samples taken			(TOPSOIL) Dark brown organic silty SAND. (MADE GROUND) Brown and grey gravelly silty SAND with low cobble content. Gravel is angular, fine to medium of brick and concrete. Cobbles are angular of brick and concrete. (MADE GROUND) Soft grey mottled brown slightly gravelly CLAY. Gravel is angular, fine to medium of brick and flint. Firm grey silty CLAY with occasional black staining and orange silt partings. (ALLUVIUM)		0.10 (0.10) +20.71 (0.40) 0.50 +20.31 (0.70)		
1.00 1.00 1.00 - 1.20 1.20 - 1.65 1.20 1.50	D 8 ES 7 B 9 SPTS D 10 ES 11	4 samples taken N=8 (1,1/1,2,2,3) 4 samples taken	0.00 26/11/15 1.50	1.10 1800 dry 0800 dry			1.20 +19.61 (0.80)		
2.20 - 2.65	UT 12	40 blows 100% rec	1.50	dry	Firm brown silty CLAY with numerous partings of orange silt. (LONDON CLAY FORMATION)		2.00 +18.81		
2.70	D 13								
3.20 - 3.65 3.20	SPTS D 14	N=12 (1,2/2,3,3,4)	1.50	dry					
4.20 - 4.65	UT 15	40 blows 100% rec	1.50	dry					
4.70	D 16								
5.20 - 5.65 5.20	SPTS D 17	N=18 (2,3/3,4,5,6)	1.50	dry					
6.00	D 18								
6.50 - 6.95	UT 19	45 blows 100% rec	1.50	dry					
7.00	D 20								
7.70	D 21								
8.00 - 8.45 8.00	SPTS D 22	N=19 (3,5/4,4,5,6)	1.50	dry	Stiff dark grey CLAY with occasional partings of grey silt and burrows. (LONDON CLAY FORMATION)		7.70 +13.11		
9.00	D 23								
9.50 - 9.95	UT 24	45 blows 100% rec	1.50	dry					
					Hole continues on next sheet	10.00 No burrows.			
Groundwater Entries No. Depth Strike (m) Remarks 1 1.10 Remained at 1.10 m after 20 minutes.				Depth Sealed (m) 1.20	Depth Related Remarks Depths (m) Remarks 1.20 - 20.45 SPT hammer ID SM28 (Er 66%) rod type NWY		Hard Boring Depths (m) Duration (mins) Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.				Project Central Somers Town, London Project No. D5061-15 Carried out for London Borough of Camden		Borehole BH2 Sheet 1 of 3			
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Borehole Log



Drilled	PH/SS	Start	Equipment, Methods and Remarks			Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	20.81 mOD	
Logged	CM	26/11/2015	Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 20.45m.			0.00	20.45	150	1.50	Coordinates (m)	E 529657.69	
Checked	MM	End								National Grid	N 183161.76	
Approved	SW	27/11/2015										
Samples and Tests						Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill			
10.00	D 25											
11.00 - 11.45 11.00	SPTS D 26	N=26 (3,5/5,6,7,8)	1.50	dry								
12.00	D 27						12.00	+8.81				
12.50 - 12.95	UT 28	45 blows 100% rec	1.50	dry	Stiff dark grey silty CLAY with numerous partings of grey silt. (LONDON CLAY FORMATION)							
13.00	D 29											
14.00 - 14.45 14.00	SPTS D 30	N=29 (3,5/6,7,8,8)	1.50	dry			(4.00)					
15.00	D 31											
15.50 - 15.95	UT 32	45 blows 100% rec	1.50	damp								
16.00	D 33						16.00	+4.81				
17.00 - 17.45 17.00	SPTS D 34	N=29 (3,5/7,6,8,8)	1.50	damp	Stiff fissured dark grey CLAY with occasional partings of dark grey silt. Fissures are closely spaced, randomly orientated, closed and clean. (LONDON CLAY FORMATION)							
18.00	D 35											
18.50 - 18.95	UT 36	45 blows 100% rec	1.50	damp			(4.45)					
19.00	D 37											
					Hole continues on next sheet							
Groundwater Entries					Depth Related Remarks					Hard Boring		
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used			
2	15.50		Rose to 15.40 m after 20 minutes.									
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project					Borehole		
Scale 1:50					Central Somers Town, London					BH2		
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AGS					Carried out for London Borough of Camden							

Borehole Log

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Borehole Log



Drilled	PH/SS	Start	Equipment, Methods and Remarks		Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	20.73 mOD	
Logged	CM	30/11/2015	Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 23.90m.		0.00	23.90	150	2.30	Coordinates (m)	E 529674.30	
Checked	MM	End								National Grid	N 183157.25
Approved	SW	01/12/2015									

Samples and Tests					Strata Description				
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.20	D 2				(TOPSOIL)		(0.25)		
0.20	ES 1				Dark brown organic silty SAND with rootlets.		0.25	+20.48	
0.20 - 0.40	B 3				(MADE GROUND)				
0.50	D 5				Greyish brown gravelly SAND with low cobble content. Gravel and cobbles are angular of brick and concrete.		(0.60)		
0.50	ES 4								
0.50 - 0.70	B 6								
1.00	D 8				(MADE GROUND)		0.85	+19.88	
1.00	ES 7				Dark grey and brown gravelly CLAY. Gravel is angular of brick, occasional oyster shells and black ash.		(0.35)		
1.00 - 1.20	B 9						1.20	+19.53	
1.20 - 1.65	SPTS D 10	N=7 (1,1/1,2,2,2)	0.00	dry	Firm grey slightly organic slightly sandy clayey SILT with occasional black staining (Possibly ALLUVIUM)		(1.00)		
1.20	D 10								
1.70	ES 11								
2.20 - 2.65	UT 12	30 blows 100% rec	1.60	dry	Firm to stiff brown mottled grey CLAY with orangish brown silt partings. (LONDON CLAY FORMATION)		2.20	+18.53	
2.70	D 13								
3.20 - 3.65	SPTS D 14	N=14 (2,2/3,3,3,5)	2.30	dry					
3.20	D 14								
4.20 - 4.65	UT 15	40 blows 100% rec	2.30	dry					
4.70	D 16					4.70-5.20 Occasional selenite crystals.	(5.50)		
5.20 - 5.65	SPTS D 17	N=15 (2,3/3,3,4,5)	2.30	dry					
5.20	D 17								
6.20	D 18								
6.50 - 6.95	UT 19	40 blows 100% rec	2.30	dry					
7.00	D 20		30/11/15 2.30	1800 dry		7.00 Fissured. Fissures are randomly orientated, closed and clean.			
7.00	D 20		01/12/15 2.30	0800 6.90					
7.70	D 21				Stiff fissured dark grey CLAY. Fissures are randomly orientated, closed and clean. (LONDON CLAY FORMATION)		7.70	+13.03	
8.00 - 8.45	SPTS D 22	N=18 (2,2/3,4,5,6)	2.30	damp			(1.30)		
8.00	D 22								
9.00	D 23				Stiff dark grey silty CLAY with partings of dark grey silt. (LONDON CLAY FORMATION)		9.00	+11.73	
9.50 - 9.95	UT 24	45 blows 100% rec	2.30	dry					
9.50	D 24								
Hole continues on next sheet									

Groundwater Entries			Depth Related Remarks		Hard Boring	
No.	Depth Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)
				0.00 - 23.90	SPT hammer ID SM28 (Er 66%) rod type NWY	
						Duration (mins) Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Central Somers Town, London

Project No. D5061-15

Carried out for London Borough of Camden

Borehole

BH3

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Borehole Log



Drilled	PH/SS	Start	Equipment, Methods and Remarks			Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	20.73 mOD	
Logged	CM	30/11/2015	Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 23.90m.			0.00	23.90	150	2.30	Coordinates (m)	E 529674.30	
Checked	MM	End									National Grid	N 183157.25
Approved	SW	01/12/2015										
Samples and Tests						Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill			
10.00	D 25					10.00 Occasional burrows (up to 3mm Ø) infilled with grey silt.	(3.00)					
11.00 - 11.45 11.00	SPTS D 26	N=25 (2,4/6,6,6,7)	2.30	dry		11.00 Fissured. Fissures are randomly orientated, closed and clean.						
12.00	D 27				Very stiff dark grey silty CLAY with occasional partings of dark grey silt. (LONDON CLAY FORMATION)	12.00 Fissured. Fissures are randomly orientated, closed and clean.	12.00 +8.73					
12.50 - 12.95	UT 28	45 blows 100% rec	2.30	dry								
13.00	D 29											
14.00 - 14.45 14.00	SPTS D 30	N=27 (2,4/6,6,7,8)	2.30	dry								
15.00	D 31											
15.50 - 15.95	UT 32	45 blows 100% rec	2.30	dry								
16.00	D 33						(8.80)					
17.00 - 17.45 17.00	SPTS D 34	N=33 (3,6/7,7,9,10)	2.30	dry								
18.00	D 35					18.00 Occasional burrows (up to 3mm Ø) infilled with grey silt.						
18.50 - 18.85	UT 36	55 blows 100% rec	2.30	dry								
18.90	D 37											
					Hole continues on next sheet							
Groundwater Entries					Depth Related Remarks					Hard Boring		
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used			
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London					Borehole		
Scale 1:50					Project No. D5061-15					BH3		
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Borehole Log



Drilled	PH/SS	Start	Equipment, Methods and Remarks			Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	20.73 mOD
Logged	CM	30/11/2015	Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 23.90m.			0.00	23.90	150	2.30	Coordinates (m)	E 529674.30
Checked	MM	End								National Grid	N 183157.25
Approved	SW	01/12/2015									
Samples and Tests						Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
20.00 - 20.45 20.00	SPTS D 38	N=39 (3,6/8,9,10,12)	2.30	dry	Very stiff fissured dark grey and light bluish grey mottled silty CLAY. Fissures are randomly orientated, closed and clean. (LAMBETH GROUP)		20.80 -0.07				
20.80	D 39	70 blows 100% rec	2.30	dry			(1.20)				
21.00 - 21.30	UT 40										
21.35	D 41										
22.00 - 22.50	B 42	50 (7,12/12,14,24 for 70mm)	2.30	21.90	Very dense light bluish grey and brown mottled very silty fine SAND. (LAMBETH GROUP)		22.00 -1.27	1			
22.50 - 22.87 22.50	SPTS D 43						(1.90)				
			01/12/15 2.30	1800 21.90	END OF EXPLORATORY HOLE			23.90 -3.17			
Groundwater Entries											
No.	Depth Strike (m)	Remarks	Depth Sealed (m)			Depth Related Remarks		Hard Boring		Duration (mins) Tools used	
1	22.00	Rose to 21.90 m after 20 minutes.				Depths (m) Remarks		Depths (m)			
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.						Project Central Somers Town, London			Borehole		
Project No. D5061-15						Carried out for London Borough of Camden			BH3		
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Borehole Log



Drilled	PH/SS	Start	Equipment, Methods and Remarks		Depth from	to	Diameter	Casing Depth	Ground Level	20.15 mOD
Logged	EP	20/11/2015	Dando 3000 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 20.45m.		(m)	(m)	(mm)	(m)	Coordinates (m)	E 529718.95
Checked	MM	End							National Grid	N 183231.91
Approved	SW	23/11/2015								

Samples and Tests					Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
0.20	ES 2	4 samples taken	0.00	dry	(MADE GROUND) MACADAM.		0.10 (0.10) +20.05				
0.20	D 1				(MADE GROUND) Dark brown to black silty gravelly SAND with high cobble content. Sand is fine to coarse. Gravel is angular to subrounded, fine to coarse of macadam and brick. Cobbles are angular of brick.		(0.40)				
0.20 - 0.40	B 3										
0.50	ES 5										
0.50	D 4										
0.50 - 0.60	B 6	4 samples taken			(MADE GROUND) Soft to firm brown slightly gravelly CLAY with low cobble content. Gravel is angular to subangular, fine to medium of brick. Cobbles are angular of brick.		0.50 +19.65				
1.00	ES 8	4 samples taken	1.00	dry	(MADE GROUND) Soft dark greenish brown slightly gravelly CLAY. Gravel is angular to subangular, fine to medium of brick and macadam.		1.00 +19.15				
1.00	D 7										
1.00 - 1.20	B 9										
1.20	D 10										
1.20 - 1.70	B 11										
1.20 - 1.65	SPTS	N=5 (1,1/1,1,1,2)			Firm becoming stiff brown mottled grey and orangish brown CLAY. (LONDON CLAY FORMATION)		1.50 +18.65				
1.70	ES 15	4 samples taken									
2.00	D 12										
2.20 - 2.65	UT 13	40 blows 100% rec	1.50	dry							
			20/11/15 2.50	1800 dry							
2.70	D 14		23/11/15 2.50	0800 dry							
3.20	D 16										
4.20 - 4.60	UT 17	45 blows 100% rec	2.50	dry			(5.20)				
4.65	D 18				4.65-5.20 Fine to medium gravel sized selenite crystals						
5.20	D 19	N=16 (1,2/3,4,4,5)	2.50	dry							
5.20 - 5.65	SPTS										
6.20	D 20										
6.50 - 6.95	UT 21				45 blows 100% rec	2.50	dry				
7.00	D 22							Firm to stiff fissured brownish grey CLAY. Fissures are randomly orientated, planar and smooth. (LONDON CLAY FORMATION)		6.70 +13.45	
7.80 - 8.00	B 23	N=16 (2,3/4,3,4,5)	2.50	dry			(2.30)				
8.00	D 24										
8.00 - 8.45	SPTS									8.00 Fine to medium-gravel sized claystone.	
9.00	D 25									9.00 Rare hard-wood fragments (<5mm x 10mm).	9.00 +11.15
9.50 - 9.85	UT 26				50 blows 100% rec	2.50	damp				
9.90	D 27				Stiff fissured dark grey CLAY. Fissures are randomly orientated, planar, undulating and smooth. (LONDON CLAY FORMATION)						
					Hole continues on next sheet						

Groundwater Entries			Depth Sealed (m)		Depth Related Remarks		Hard Boring	
No.	Depth Strike (m)	Remarks			Depths (m)	Remarks	Depths (m)	Duration (mins) Tools used
1	8.00	Rose to 7.90 m after 20 minutes. seepage			1.20 - 20.45	SPT hammer ID SM22 (Er 72%) rod type NWY	7.80 - 8.00	45 Chisel

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.	Project	Central Somers Town, London	Borehole	BH4
Scale 1:50	Project No.	D5061-15	Sheet 1 of 3	
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Borehole Log



Drilled Logged Checked Approved	PH/SS EP MM SW	Start 20/11/2015 End 23/11/2015	Equipment, Methods and Remarks Dando 3000 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 20.45m.	Depth from (m) 0.00	to (m) 20.45	Diameter (mm) 150	Casing Depth (m) 2.50	Ground Level 20.15 mOD Coordinates (m) E 529718.95 National Grid N 183231.91	
Samples and Tests				Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
11.00 11.00 - 11.45	D 28 SPTS	N=19 (1,3/3,5,5,6)	2.50	damp		11.00-12.00 Silty.	(5.00)		
12.00	D 29								
12.50 - 12.95	UT 30	50 blows 100% rec	2.50	damp					
13.00	D 31								
14.00 14.00 - 14.45	D 32 SPTS	N=29 (2,4/6,7,7,9)	2.50	damp	Stiff to very stiff fissured dark grey CLAY with partings of light brownish grey silt and rare silt infilled burrows (1mm x 10mm). (LONDON CLAY FORMATION)		14.00 +6.15		
15.00	D 33								
15.50 - 15.95	UT 34	55 blows 100% rec	2.50	damp					
16.00	D 35					16.00 Rare fine gravel sized pyrite.			
17.00 17.00 - 17.45	D 36 SPTS	N=26 (3,5/5,6,7,8)	2.50	damp			(6.45)		
18.00 - 18.95 18.00	UT 38 D 37	55 blows 100% rec	2.50	damp					
19.00	D 39								
					Hole continues on next sheet	20.00 Slightly sandy.			
Groundwater Entries No. Depth Strike (m) Remarks 2 15.50 Remained at 15.50 m after 20 minutes. seepage				Depth Sealed (m)		Depth Related Remarks Depths (m) Remarks		Hard Boring Depths (m) Duration (mins) Tools used	
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.				Project Central Somers Town, London		Borehole BH4			
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:38				Project No. D5061-15 Carried out for London Borough of Camden		Sheet 2 of 3			

Borehole Log

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Borehole Log



Drilled PH/SS	Start	Equipment, Methods and Remarks		Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	20.17 mOD
Logged	24/11/2015	Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 20.45m.		0.00	20.45	150	1.80	Coordinates (m)	E 529745.67
Checked MM	End							National Grid	N 183205.64
Approved SW	25/11/2015								

Samples and Tests				Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.20	ES 2				(MADE GROUND)		0.10 (0.10) +20.07		
0.20	D 1				MACADAM.				
0.20 - 0.40	B 3	4 samples taken			(MADE GROUND)		(0.70)		
0.50	ES 5				Dark brown silty sandy GRAVEL with high cobble content. Gravel is angular to subangular, fine to coarse of macadam, brick and concrete. Sand is fine to coarse. Cobbles are angular of brick.				
0.50	D 4				Occasional tile fragments.				
0.50 - 0.70	B 6	4 samples taken			(MADE GROUND)		0.80 +19.37		
1.00	ES 8				(MADE GROUND)		(0.50)		
1.00	D 7				Dark brown clayey sandy GRAVEL with medium cobble content. Gravel is angular to subangular, fine to coarse of macadam, brick and concrete. Sand is fine to coarse. Cobbles are angular of brick.				
1.00 - 1.20	B 9	4 samples taken	0.00	dry			1.30 +18.87		
1.20 - 1.65	SPTS D 10	N=6 (1,1/1,1,2,2)			Firm to stiff brown CLAY. (Possibly LONDON CLAY FORMATION)				
1.20	D 10								
1.55	ES 11	4 samples taken							
2.20 - 2.65	UT 12	35 blows 100% rec	1.80	dry					
2.70	D 13								
3.20 - 3.65	SPTS D 14	N=12 (1,1/2,3,3,4)	1.80	dry			(3.50)		
3.20									
4.20 - 4.65	UT 15	45 blows 100% rec	1.80	dry					
4.70	D 16		24/11/15 1.80	1800 dry					
5.20 - 5.65	SPTS D 17	N=15 (1,2/3,3,4,5)	1.80	dry	Firm to stiff brownish grey CLAY with occasional partings of fine orange silt. (LONDON CLAY FORMATION)	5.50-6.00 Rare fine to medium gravel size gypsum crystals.	4.80 +15.37		
5.20									
6.20	D 18								
6.50 - 6.95	UT 19	45 blows 100% rec	1.80	dry			(3.20)		
7.00	D 20								
8.00 - 8.45	SPTS D 21	N=18 (5,4/3,4,5,6)	1.80	dry	Grey CLAYSTONE recovered as fine to coarse gravel. (LONDON CLAY FORMATION)		8.00 +12.17		
8.00					Stiff to very stiff fissured dark grey CLAY with partings of light grey silt. Fissures are randomly orientated, planar and undulating. (LONDON CLAY FORMATION)		8.20 (0.20) +11.97		
9.00	D 22								
9.50 - 9.95	UT 23	45 blows 100% rec	1.80	dry					
					Hole continues on next sheet				

Groundwater Entries			Depth Related Remarks		Hard Boring	
No.	Depth Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)
				0.00 - 20.45	SPT hammer ID SM28 (Er 66%) rod type NWY	
						Duration (mins) Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.	Project	Central Somers Town, London	Borehole	BH5
Scale 1:50	Project No.	D5061-15		
(c) ESG www.esg.co.uk 03/05/2016 11:43:39	Carried out for	London Borough of Camden		Sheet 1 of 3

Borehole Log



Drilled Logged Checked Approved	PH/SS MM SW	Start 24/11/2015 End 25/11/2015	Equipment, Methods and Remarks Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 20.45m.			Depth from (m) 0.00	to (m) 20.45	Diameter (mm) 150	Casing Depth (m) 1.80	Ground Level 20.17 mOD	Coordinates (m) E 529745.67	National Grid N 183205.64
Samples and Tests						Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill			
10.00	D 24											
11.00 - 11.45 11.00	SPTS D 25	N=22 (3,4/5,5,6,6)	1.80	dry			(5.80)					
12.00	D 26											
12.50 - 12.95	UT 27	45 blows 100% rec	1.80	dry								
13.00	D 28											
14.00 - 14.45 14.00	SPTS D 29	N=25 (3,4/4,6,7,8)	1.80	dry	Very stiff fissured dark grey CLAY with occasional partings of light grey silt. Fissures are planar and undulating. (LONDON CLAY FORMATION)		14.00	+6.17				
15.00	D 30											
15.50 - 15.95	UT 31	45 blows 100% rec	1.80	dry								
16.00	D 32											
17.00 - 17.45 17.00	SPTS D 33	N=28 (3,5/6,6,8,8)	1.80	dry			(6.45)					
18.00	D 34											
18.50 - 18.95	UT 35	45 blows 100% rec	1.80	dry								
19.00	D 36											
					Hole continues on next sheet							
Groundwater Entries No. Depth Strike (m) Remarks					Depth Sealed (m)		Depth Related Remarks Depths (m) Remarks			Hard Boring Depths (m) Duration (mins) Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London					Borehole BH5		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:39					Project No. D5061-15 Carried out for London Borough of Camden					Sheet 2 of 3		

Borehole Log



Drilled Logged Checked Approved	PH/SS MM SW	Start 24/11/2015 End 25/11/2015	Equipment, Methods and Remarks Dando 100 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 20.45m.		Depth from (m) 0.00	to (m) 20.45	Diameter (mm) 150	Casing Depth (m) 1.80	Ground Level 20.17 mOD	Coordinates (m) E 529745.67	National Grid N 183205.64
Samples and Tests					Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
20.00 - 20.45 20.00	SPTS D 37	N=28 (3,5/5,6,8,9)	1.80 25/11/15 1.80	dry 1800 dry	END OF EXPLORATORY HOLE		20.45	-0.28			
Groundwater Entries					Depth Related Remarks		Hard Boring				
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London		Borehole BH5				
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:39					Project No. D5061-15 Carried out for London Borough of Camden		Sheet 3 of 3				

Borehole Log

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Borehole Log



Drilled GW Logged CM Checked MM Approved SW	Start 08/12/2015 End 15/12/2015	Equipment, Methods and Remarks Dando 2000 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 30.36m.	Depth from (m) 0.00 22.75	to (m) 22.75 30.00	Diameter (mm) 200 150	Casing Depth (m) 1.50 26.00	Ground Level 17.80 mOD Coordinates (m) E 529858.15 National Grid N 183177.61		
Samples and Tests			Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.30	ES 1				(TOPSOIL) Brown organic silty SAND with rootlets. (MADE GROUND) Grey silty SAND of ash.		0.10 (0.10) +17.70 0.40 (0.30) +17.40		
0.60 0.60 - 1.50	ES 2 B 4				(MADE GROUND) Brown sandy GRAVEL with high cobble content. Gravel and cobbles are of brick and concrete. Occasional boulder sized concrete fragments.		(0.45) 0.85 +16.95		
1.00	ES 3				Firm to stiff locally fissured brown CLAY with occasional orange veins and rootlets. (LONDON CLAY FORMATION)				
1.50 - 1.95 1.50 - 1.95	SPTS D 5	N=9 (1,2/2,2,2,3)	1.50	dry					
2.25	D 6					2.25-3.00 Gleying on fissure surfaces. 2.25-5.70 Clay is fissured.			
2.50 - 2.95	U 7	22 blows 100% rec	1.50	dry					
3.00	D 8					3.00-4.25 Occasional selenite crystals.	(4.85)		
3.25	D 9								
3.50 - 3.95 3.50 - 3.95	SPTS D 10	N=15 (2,2/4,3,4,4)	1.50	dry					
4.25	D 11								
4.50 - 4.95	U 12	17 blows 100% rec	1.50	dry					
5.00	D 13								
5.50	D 14								
6.00 - 6.45 6.00 - 6.45	SPTS D 15	N=16 (2,2/3,4,4,5)	1.50	dry	Stiff fissured grey CLAY with occasional partings of grey silt. Fissures are randomly orientated, closed and clean. (LONDON CLAY FORMATION)		5.70 +12.10		
7.00	D 16								
7.50 - 7.95	U 17	21 blows 100% rec	1.50	dry					
8.00	D 18		08/12/15 1.50	1800 dry		8.00 Occasional burrows (up to 2mm Ø) infilled with grey silt.			
8.50	D 19		09/12/15 1.50	0800 dry					
9.00 - 9.45 9.00	SPTS D 20	N=25 (2,4/6,6,6,7)	1.50	dry		9.00-13.00 Silty.			
					Hole continues on next sheet				
Groundwater Entries No. Depth Strike (m) Remarks			Depth Sealed (m)		Depth Related Remarks Depths (m) Remarks		Hard Boring Depths (m) Duration (mins) Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.			Project Central Somers Town, London Project No. D5061-15 Carried out for London Borough of Camden				Borehole BH7 Sheet 1 of 4		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:40									

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	17.80 mOD
Logged	CM	08/12/2015	Dando 2000 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 30.36m.			(m) 0.00	(m) 22.75	(mm) 200	(m) 1.50	Coordinates (m)	E 529858.15
Checked	MM	End				22.75	30.00	150	26.00	National Grid	N 183177.61
Approved	SW	15/12/2015									
Samples and Tests						Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
10.00	D 21										
10.50 - 10.95	U 22	31 blows 100% rec	1.50	dry							
11.00	D 23										
11.50	D 24										
12.00 - 12.45	SPTS D 25	N=27 (2,3/6,7,7,7)	1.50	dry							
			09/12/15 1.50	1800 dry			(13.30)				
			14/12/15 1.50	0800 dry							
13.00	D 26										
13.50 - 13.95	U 27	34 blows 100% rec	1.50	dry							
14.00	D 28										
14.50	D 29										
15.00 - 15.45	SPTS D 30	N=26 (2,3/6,6,7,7)	1.50	dry							
15.00 - 15.45											
16.00	D 31										
16.50 - 16.95	U 32	29 blows 100% rec	1.50	dry							
17.00	D 33										
17.50	D 34										
18.00 - 18.45	SPTS D 35	N=31 (3,3/7,8,8,8)	1.50	dry							
18.00 - 18.45											
19.00	D 36				Very stiff brown light bluish grey mottled silty CLAY. (LAMBETH GROUP)		19.00 -1.20				
19.50 - 19.95	U 37	40 blows 100% rec	1.50	dry			(1.50)				
Hole continues on next sheet											
Groundwater Entries			Depth Related Remarks			Hard Boring					
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.			Project			Central Somers Town, London			Borehole		
Scale 1:50			Project No.			D5061-15			BH7		
(c) ESG www.esg.co.uk 03/05/2016 11:43:40			Carried out for			London Borough of Camden			Sheet 2 of 4		

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks		Depth from	to	Diameter	Casing Depth	Ground Level	17.80 mOD
Logged	CM	08/12/2015	Dando 2000 Hand excavated inspection pit from GL to 1.20m. Cable percussive boring from 1.20m to 30.36m.		(m)	(m)	(mm)	(m)	Coordinates (m)	E 529858.15
Checked	MM	End			0.00	22.75	200	1.50	National Grid	N 183177.61
Approved	SW	15/12/2015			22.75	30.00	150	26.00		

Samples and Tests					Strata Description				
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
20.00	D 38								
20.50	D 39						20.50 -2.70		
21.00 - 21.45	SPTS D 40	N=40 (3,3/6,10,11,13)	1.50	dry	Very stiff reddish brown and bluish grey mottled silty CLAY. (LAMBETH GROUP)		(1.50)		
22.00	D 41						22.00 -4.20		
22.50 - 22.70	U 42	67 blows 100% rec	1.50	dry	Very stiff fissured grey with occasional light bluish grey mottling CLAY. Fissures are randomly orientated, closed and clean. (LAMBETH GROUP)		(0.25)		
22.75	D 43				Light bluish grey very silty SAND. Sand is fine. (LAMBETH GROUP)		22.25 -4.45		
22.75 - 23.80	B 44						(1.75)		
24.00 - 24.45	SPTS D 45	N=49 (2,3/7,11,14,17)	1.50	damp	Very stiff bluish grey CLAY. (LAMBETH GROUP)		24.00 -6.20		
			14/12/15	1800			(1.00)		
			15/12/15	0800					
25.00	D 46				Very stiff dark grey sandy CLAY. Sand is fine. (LAMBETH GROUP)		25.00 -7.20		
25.30	D 47						(0.50)		
25.50 - 25.95	SPTS D 48	N=49 (7,8/10,10,14,15)	24.00	25.50	Dense dark grey clayey SAND. Sand is fine. (LAMBETH GROUP)		25.50 -7.70		
26.50	D 49						(1.00)		
27.00 - 27.44	SPTS D 50	50 (3,6/9,14,15,12 for 67mm)	26.00	dry	Very stiff reddish brown and bluish grey mottled CLAY with occasional orange silt lenses. (LAMBETH GROUP)		26.50 -8.70		
28.00	D 51						(3.00)		
28.50 - 28.88	SPTS D 52	51 (4,7/12,14,25,0 for 0mm)	26.00	dry					
28.50									
29.50	D 53				Very stiff brown silty CLAY. (LAMBETH GROUP)		29.50 -11.70		
							(0.86)		
Hole continues on next sheet									

Groundwater Entries				Depth Related Remarks		Hard Boring	
No.	Depth Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins) Tools used
1	22.75	Rose to 21.90 m after 20 minutes.	24.00				
2	25.30	Rose to 21.80 m after 20 minutes.	26.00				

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Central Somers Town, London

Project No. D5061-15

Carried out for London Borough of Camden

Borehole

BH7

Sheet 3 of 4

Borehole Log

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Borehole Log



Drilled GW Logged EP Checked MM Approved SW	Start 03/12/2015 End 04/12/2015	Equipment, Methods and Remarks Pilcon CP	Depth from (m) 0.00 1.00	to (m) 1.00 24.00	Diameter (mm) 200 150	Casing Depth (m) 1.00 2.50	Ground Level 18.51 mOD Coordinates (m) E 529857.74 National Grid N 183145.70		
Samples and Tests			Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
			03/12/15 0.00	0800	(MADE GROUND) Brick and concrete. (Driller's description)				
1.50 - 1.95 1.50	SPTS D 5	N=9 (1,1/2,2,2,3)	1.00		Firm brown silty CLAY with occasional light blue gleying and occasional partings of orange brown silt. (LONDON CLAY FORMATION)		1.30 +17.21		
2.00	ES 6								
2.25	D 7						(1.70)		
2.50 - 2.95	U 8	17 blows 100% rec							
2.95 - 3.00	D 9								
3.25	D 10						3.00 +15.51		
3.50 - 3.95 3.50 - 3.95	SPTS D 11	N=16 (1,2/3,4,4,5)	2.50		Stiff brown fissured CLAY with occasional selenite crystals. Fissures are extremely to very closely spaced, randomly orientated and closed with gleying on surfaces. Occasional partings of orange brown silt. (LONDON CLAY FORMATION)				
4.25	D 12								
4.50 - 4.95	U 13	17 blows 100% rec							
4.95 - 5.00	D 14						(4.00)		
5.50	D 15								
6.00 - 6.45 6.00 - 6.50	SPTS D 16	N=17 (1,2/3,4,4,6)	2.50						
7.00	D 17						7.00 +11.51		
7.45 - 7.95	U 18				Stiff dark grey CLAY with thin laminae of grey silt and occasional fine gravel sized mudstone nodules. (LONDON CLAY FORMATION)		(1.00)		
7.95 - 8.00	D 19						8.00 +10.51		
8.50	D 20				Stiff dark grey fissured CLAY. Fissures are close, clean and randomly orientated. (LONDON CLAY FORMATION)		(0.50)		
9.00 - 9.45 9.00 - 9.45	SPTS D 21	N=22 (2,4/4,6,6,6)	2.50		Stiff dark grey silty CLAY with numerous partings of dark grey SILT and occasional burrows (>2mm) infilled with grey silt. (LONDON CLAY FORMATION)		8.50 +10.01		
			03/12/15 2.50	1800 dry					
			04/12/15 2.50	0800 dry					
					Hole continues on next sheet				
Groundwater Entries No. Depth Strike (m) Remarks			Depth Sealed (m)		Depth Related Remarks Depths (m) Remarks		Hard Boring Depths (m) Duration (mins) Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.			Project Central Somers Town, London Project No. D5061-15 Carried out for London Borough of Camden				Borehole BH8 Sheet 1 of 3		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:41									

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	18.51 mOD	
Logged	EP	03/12/2015	Pilcon CP			(m)	(m)	(mm)	(m)	Coordinates (m)	E 529857.74	
Checked	MM	End				0.00	1.00	200	1.00	National Grid	N 183145.70	
Approved	SW	04/12/2015				1.00	24.00	150	2.50			
Samples and Tests						Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill			
10.00	D 22											
10.50	U 23	29 blows 100% rec					(4.50)					
10.95 - 11.00	D 24											
11.50	D 25											
12.00 - 12.45	SPTS D 26	N=25 (2,4/4,6,7,8)	2.50									
12.00 - 12.45												
13.00	D 27				Stiff to very stiff dark grey silty CLAY with numerous partings of dark grey silt. (LONDON CLAY FORMATION)		13.00	+5.51				
13.50 - 13.95	U 28	31 blows 100% rec										
13.95 - 30.00	D 29											
14.50	D 30											
15.00 - 15.45	SPTS D 31	N=22 (2,3/5,5,6,6)	2.50									
15.00 - 15.45												
16.00	D 32						(6.30)					
16.50 - 16.95	U 33	33 blows 1000% rec										
16.95 - 17.00	D 34											
17.50	D 35											
18.00 - 18.45	SPTS D 36	N=25 (2,4/5,6,7,7)	2.50									
18.00 - 18.45												
19.30	D 37						19.30	-0.79				
19.50 - 19.95	U 38	41 blows 100% rec			Very stiff brown mottled bluish grey silty CLAY. (LAMBETH GROUP)							
19.95 - 20.00	D 39											
						Hole continues on next sheet						
Groundwater Entries						Depth Related Remarks			Hard Boring			
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)		Depths (m)		Remarks	Depths (m)		Duration (mins)	Tools used
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.						Project			Borehole			
						Central Somers Town, London						
						Project No.			BH8			
						D5061-15			Sheet 2 of 3			
						Carried out for			London Borough of Camden			
Scale 1:50												
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AGS												

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	18.51 mOD
Logged	EP	03/12/2015	Pilcon CP			(m)	(m)	(mm)	(m)	Coordinates (m)	E 529857.74
Checked	MM	End				0.00	1.00	200	1.00	National Grid	N 183145.70
Approved	SW	04/12/2015				1.00	24.00	150	2.50		
Samples and Tests						Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
20.50	D 40						(1.70)				
21.00 - 21.45	SPTS D 41	N=37 (2,3/7,9,10,11)	2.50		Very stiff brown, red and bluish grey mottled silty CLAY. (LAMBETH GROUP)		21.00 -2.49				
21.00 - 21.45											
22.00	D 42										
22.50 - 22.95	U 43	62 blows 100% rec					(2.70)				
22.95 - 23.00	D 44										
23.50	D 45										
24.00 - 24.23	SPTS D 46	28 (6,13/17,11 for 0mm)	04/12/15	1800 dry	Very stiff brown with light bluish grey mottling silty CLAY with fine and medium gravel sized calcareous mudstone nodules. (LAMBETH GROUP)		23.70 -5.19				
24.00 - 24.30			2.50		END OF EXPLORATORY HOLE		(0.30) -5.49				
24.00 - 24.30											
Groundwater Entries											
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depth Related Remarks		Hard Boring		Duration (mins) Tools used		
					Depths (m) Remarks		Depths (m)				
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.											
Scale 1:50			(c) ESG www.esg.co.uk 03/05/2016 11:43:41			Project Central Somers Town, London			Borehole		
AGS			Project No. D5061-15			Carried out for London Borough of Camden			BH8		
									Sheet 3 of 3		

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks		Depth from	to	Diameter	Casing Depth	Ground Level	18.77 mOD	
Logged	EP	18/12/2015	Dando 2000 Hand dug pit to 1.00m, Cable percussion drilling from 1.00m to 25m.		(m)	(m)	(mm)	(m)	Coordinates (m)	E 529872.85	
Checked	MM	End			0.00	25.00	200	3.30	National Grid	N 183126.44	
Approved	SW	22/12/2015									
Samples and Tests					Strata Description						
Depth	Type & No	Records	Date	Time	Main	Detail	Depth, Level	Legend	Backfill		
			Casing	Water			(Thickness)				
					(MADE GROUND) Brick concrete and flagstones (Driller's description)						
			18/12/15	0800							
			0.00								
			18/12/15	1800			(1.90)				
			0.00	Dry							
1.20 - 1.50	B 5										
1.50 - 1.95	SPTS	N=43 (3,14/14.9,13.7)	21/12/15	0800							
1.50 - 1.95	D 6		0.00	Dry							
					WOOD (Driller's description)		1.90 (0.10) +16.87				
2.00 - 2.40	B 7				(MADE GROUND) Brown sandy clayey GRAVEL with high cobble content. Gravel is subangular to angular fine to coarse of brick and concrete. Cobbles are of concrete and brick.		2.00 (0.10) +16.77				
2.40 - 2.70	B 8						(0.70)				
2.70	D 9										
2.70 - 3.50	B 10				Firm becoming stiff brown CLAY with rare pockets of orange fine sand. (LONDON CLAY FORMATION)		2.70 +16.07				
			21/12/15	1800							
			3.30	Dry							
3.50 - 3.95	U 11	14 blows 100% rec	22/12/15	0800							
			3.30	Dry							
4.00	D 12										
4.25	D 13										
4.50 - 4.95	SPTS	N=14 (1,2/2,3,4,5)	3.20								
4.50 - 4.95	D 14										
							(4.80)				
5.50	D 15										
6.00 - 6.45	U 16	22 blows 100% rec	3.20	Dry							
7.00	D 17										
7.10 - 7.40	D 18					7.10-7.40 Very weak to weak dark grey claystone.					
7.50 - 7.95	SPTS	N=16 (1,2/3,3,5,5)	3.20		Stiff brownish grey CLAY with rare silt infilled burrows. (LONDON CLAY FORMATION)		7.50 +11.27				
7.50 - 7.95	D 19										
8.50	D 20										
9.00 - 9.45	U 21	20 blows 100% rec	3.20	Dry							
							(3.00)				
9.50	D 22										
					Hole continues on next sheet						
Groundwater Entries					Depth Related Remarks			Hard Boring			
No.	Depth Strike (m)	Remarks	Depth Sealed (m)		Depths (m) Remarks		Depths (m)		Duration (mins) Tools used		
1	2.10	Rose to 1.90 m after 20 minutes. Fast	2.70				1.00 - 1.20		90 Chisel		
2	7.10	Seepage					1.20 - 2.10		420 Chisel		
								7.10 - 7.40		45 Chisel	
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London			Borehole			
Project No. D5061-15					Carried out for London Borough of Camden			BH9			
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:43:42								Sheet 1 of 3			

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	18.77 mOD	
Logged	EP	18/12/2015	Dando 2000 Hand dug pit to 1.00m, Cable percussion drilling from 1.00m to 25m.			(m)	(m)	(mm)	(m)	Coordinates (m)	E 529872.85	
Checked	MM	End				0.00	25.00	200	3.30	National Grid	N 183126.44	
Approved	SW	22/12/2015										
Samples and Tests					Strata Description							
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill			
10.00	D 23											
10.50 - 10.95	SPTS D 24	N=20 (2,2/4,5,5,6)	3.20		Stiff to very stiff brownish grey silty CLAY with rare light grey silt infilled burrows. (LONDON CLAY FORMATION)		10.50	+8.27				
10.50 - 10.95												
11.50	D 25											
12.00 - 12.45	U 26	24 blows 100% rec	3.20	Dry								
12.50	D 27											
13.00	D 28											
13.50 - 13.95	D 29											
13.95 - 14.40	SPTS	N=26 (2,4/6,6,7,7)	3.20									
14.50	D 30											
15.00 - 15.45	U 31	28 blows 100% rec	3.20	Dry			(9.10)					
15.50	D 32											
16.00	D 33											
16.50 - 16.95	SPTS D 34	N=27 (3,5/6,7,7,7)	3.20									
16.50 - 16.95												
17.50	D 35											
18.00 - 18.45	U 36	35 blows 100% rec	3.20	Dry								
18.50	D 37											
19.00	D 38											
19.50 - 19.95	SPTS D 39	N=55 (5,7/9,14,16,16)	3.20		Very stiff brownish red mottled bluish grey CLAY. (LAMBETH GROUP)		19.60	-0.83				
19.50 - 19.95												
					Hole continues on next sheet							
Groundwater Entries					Depth Related Remarks				Hard Boring			
No.	Depth Strike (m)	Remarks	Depth Sealed (m)		Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used			
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London				Borehole			
Project No. D5061-15									BH9			
Carried out for London Borough of Camden									Sheet 2 of 3			
Scale 1:50												
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Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks		Depth from	to	Diameter	Casing Depth	Ground Level	18.57 mOD	
Logged	EP	04/01/2016	Dando 2000 Hand dug pit to 1.20m, Cable percussion drilling from 1.20m to 30.30m.		(m)	(m)	(mm)	(m)	Coordinates (m)	E 529881.14	
Checked	MM	End			0.00	30.30	200	2.80	National Grid	N 183138.30	
Approved	SW	06/01/2016									
Samples and Tests					Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
			04/01/16	0800 Dry	(MADE GROUND) Dark brown clayey sandy GRAVEL with high cobble content. Gravel is subangular to angular fine to coarse of brick and concrete. Sand is fine to coarse. Cobbles are angular of concrete.		(1.40)				
1.40 1.50 - 1.95 1.50 - 1.95	D 5 SPTS D 6	N=18 (2,2/4,4,5,5)	0.00	Dry	(MADE GROUND) Firm to stiff brown mottled orange slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of flint and brick. Occasional wood fragments (Driller notes occasional sleepers). Slight hydrocarbon odour.		1.40 +17.17 (0.85)				
2.25	D 7		04/01/16 2.25	1800 Dry			2.25 +16.32				
2.50 - 2.95	U 8	27 blows 100% rec	05/01/16 2.25 2.80	0800 Dry Dry	Firm to stiff brown mottled grey CLAY. (LONDON CLAY FORMATION).						
3.00	D 9					3.00-3.05 Weak light brown claystone.					
3.25	D 10										
3.50 - 3.95 3.50 - 3.95	SPTS D 11	N=14 (1,2/3,3,4,4)	2.80	Dry		3.70-3.75 Weak light brown claystone.	(2.75)				
4.25	D 12										
4.50 - 4.95	U 13	20 blows 100% rec	2.80	Dry							
5.00	D 14				Stiff brown mottled orange CLAY with fine sand partings and rare fine gravel sized gypsum crystals. (LONDON CLAY FORMATION).		5.00 +13.57 (1.00)				
5.50	D 15										
6.00 - 6.45 6.00 - 6.45	SPTS D 16	N=16 (1,2/3,4,4,5)	2.80	Dry	Stiff to very stiff dark greyish brown CLAY with rare grey silt infilled burrows (<1mm x 4mm) and rare fine gravel sized pockets of black silt. (LONDON CLAY FORMATION).		6.00 +12.57				
7.00	D 17										
7.50 - 7.95	U 18	22 blows 100% rec	2.80	Dry							
8.00	D 19										
8.50	D 20										
9.00 - 9.45 9.00 - 9.45	SPTS D 21	N=19 (2,3/4,5,5,5)	2.80	Dry			(7.70)				
					Hole continues on next sheet						
Groundwater Entries					Depth Related Remarks			Hard Boring			
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London			Borehole			
Scale 1:50					Project No. D5061-15			BH10			
(c) ESG www.esg.co.uk 03/05/2016 11:43:43					Carried out for London Borough of Camden			Sheet 1 of 4			

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	18.57 mOD
Logged	EP	04/01/2016	Dando 2000 Hand dug pit to 1.20m, Cable percussion drilling from 1.20m to 30.30m.			(m)	(m)	(mm)	(m)	Coordinates (m)	E 529881.14
Checked	MM	End				0.00	30.30	200	2.80	National Grid	N 183138.30
Approved	SW	06/01/2016									
Samples and Tests					Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
10.00	D 22										
10.50 - 10.95	U 23	25 blows 100% rec	2.80	Dry							
11.00	D 24										
11.50	D 25										
12.00 - 12.45	SPTS D 26	N=24 (2,5/5,6,6,7)	2.80	Dry							
12.00 - 12.45											
13.00	D 27										
13.50 - 13.95	U 28	28 blows 100% rec	2.80	Dry							
14.00	D 29				Very stiff dark brownish grey silty CLAY with rare grey silt infilled burrows (<1mm x 4mm). (LONDON CLAY FORMATION)		13.70	+4.87			
14.50	D 30										
15.00 - 15.45	SPTS D 31	N=28 (2,3/5,6,8,9)	2.80	Dry							
15.00 - 15.45											
16.00	D 32										
16.50 - 16.95	U 33	30 blows	2.80	Dry							
17.00	D 34										
17.50	D 35										
18.00 - 18.45	SPTS D 36	N=36 (3,5/6,9,10,11)	2.80	Dry							
18.00 - 18.45											
19.00	D 37										
19.50 - 19.95	U 38	32 blows	2.80	Dry							
					Very stiff becoming hard brownish red mottled		19.80	-1.23			
					Hole continues on next sheet						
Groundwater Entries					Depth Related Remarks				Hard Boring		
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London				Borehole		
Project No. D5061-15					Project No. D5061-15				BH10		
Carried out for London Borough of Camden					Carried out for London Borough of Camden				Sheet 2 of 4		
Scale 1:50					AGS						
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Borehole Log



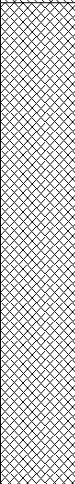
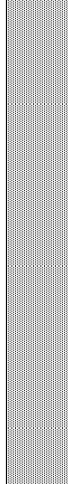
Drilled	GW	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	18.57 mOD	
Logged	EP	04/01/2016	Dando 2000 Hand dug pit to 1.20m, Cable percussion drilling from 1.20m to 30.30m.			(m) 0.00	(m) 30.30	(mm) 200	(m) 2.80	Coordinates (m)	E 529881.14	
Checked	MM	End								National Grid	N 183138.30	
Approved	SW	06/01/2016										
Samples and Tests					Strata Description							
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill			
20.00	D 39				bluish grey CLAY. (LAMBETH GROUP)							
20.50	D 40											
21.00 - 21.45 21.00 - 21.45	SPTS D 41	N=31 (4,4/6,7,9,9)	2.80	Dry								
22.00	D 42											
22.50 - 22.95	U 43	47 blows	2.80	Dry								
23.00	D 44											
23.50	D 45											
24.00 - 24.45 24.00 - 24.45	SPTS D 46	N=45 (4,8/10,10,11,14)	2.80	Dry								
25.00	D 47		05/01/16 2.80	1800 Dry								
25.00	D 47		06/01/16 2.80	0800 Dry				(10.50)				
25.50 - 25.95	U 48	41 blows	2.80	Dry								
26.00	D 49											
26.50	D 50											
27.00 - 27.45 27.00 - 27.45	SPTS D 51	N=47 (3,5/8,10,12,17)	2.80	Dry								
28.00	D 52											
28.50 - 28.95	U 53	53 blows	2.80	Dry								
29.00	D 54											
29.50	D 55											
						Hole continues on next sheet						
Groundwater Entries						Depth Related Remarks				Hard Boring		
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used			
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London				Borehole			
Project No. D5061-15					Project No. D5061-15				BH10			
Carried out for London Borough of Camden					Carried out for London Borough of Camden				Sheet 3 of 4			
Scale 1:50					(c) ESG www.esg.co.uk 03/05/2016 11:43:43							

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Trial Pit Log



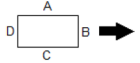
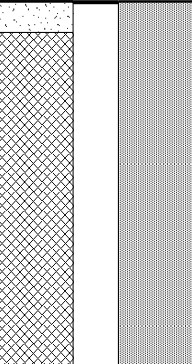
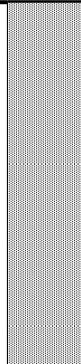
Logged TO		Start 24/11/2015		Equipment, Methods and Remarks JCB 3CX Machine excavated trial pit from GL to 1.80m. Trial pit terminated at 1.80m due to concrete obstruction.		Dimension and Orientation Width 0.70 m Length 2.20 m		A B C D ➔ 76 (Deg)		Ground Level 19.52 mOD	
Checked MM		End 24/11/2015								Coordinates (m) E 529862.48	
Approved SW										National Grid N 183128.37	
Samples and Tests				Strata Description							
Depth		Type & No	Records	Main			Detail	Depth, Level (Thickness)	Legend	Backfill	
				(TOPSOIL) Brown slightly clayey fine to coarse SAND with occasional rootlets.				(0.20)			
0.30 0.30 - 1.00		ES1 B4	4 samples taken	(MADE GROUND) Brown sandy gravelly CLAY with medium cobble content and occasional boulders. Gravel is angular to subangular, fine to coarse of brick, concrete, flint and sandstone. Cobbles are angular of brick and concrete. Boulders are angular of concrete. Rare fragments of glass, metal (including reinforcement bars) and wood.				0.20 +19.32			
0.50 0.50		D5 ES2	4 samples taken								
1.00 1.00		D6 ES3	4 samples taken					(1.60)			
1.30 - 1.80		B8									
1.50 1.50		D9 ES7	4 samples taken								
1.80		D10		END OF EXPLORATORY HOLE				1.80 +17.72			
Groundwater Entries				Remarks				Stability Stable			
No. Depth Strike (m) Remarks				Depths (m) Remarks				Shoring None			
								Weather Dry			
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.				Project Central Somers Town, London				Borehole			
Scale 1:25 (c) ESG www.esg.co.uk 03/05/2016 11:45:16				Project No. D5061-15				TP5			
				Carried out for London Borough of Camden				Sheet 1 of 1			

Trial Pit Log

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Trial Pit Log



Logged TO Checked MM Approved SW		Start 02/12/2015 End 02/12/2015	Equipment, Methods and Remarks Hand tools Hand excavated trial pit from GL to 1.20m.	Dimension and Orientation Width 0.40 m Length 0.50 m  127 (Deg)		Ground Level 21.09 mOD Coordinates (m) E 529670.66 National Grid N 183187.92	
Samples and Tests			Strata Description				
Depth	Type & No	Records	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
			(MADE GROUND) CONCRETE SLAB. (MADE GROUND) Brown gravelly fine to coarse SAND with low cobble content. Gravel is angular to subangular, fine to coarse of brick and concrete. Cobbles are angular of brick.		0.10 (0.10) +20.99 (1.10) 1.20 +19.89		
			END OF EXPLORATORY HOLE				
Groundwater Entries No. Depth Strike (m) Remarks			Remarks Depths (m) Remarks		Stability Stable Shoring None Weather Sunny		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.			Project Central Somers Town, London Project No. D5061-15 Carried out for London Borough of Camden		Borehole HP3 Sheet 1 of 1		



Borehole Log

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Borehole Log



Drilled GV	Start 24/11/2015	Equipment, Methods and Remarks Hand dug inspection pit from GL to 1.20m. Window sampling from 1.20m to 4.20m. Hole terminated at 4.20m during SPT due to refusal.		Depth from (m) 1.20 2.20	to (m) 2.20 4.20	Diameter (mm) 101 87	Casing Depth (m)	Ground Level 21.15 mOD	
Logged TO								Coordinates (m) E 529679.72	
Checked MM	End 24/11/2015							National Grid N 183184.48	
Approved SW									
Samples and Tests				Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.30 0.30 - 1.20 0.50	ES 1 B 4 ES 2	4 samples taken 4 samples taken			CONCRETE. (MADE GROUND) Brown sandy angular to subangular, fine to coarse GRAVEL of flint, brick and concrete with low cobble content. Frequent pieces of wood and porcelain. Sand is fine to coarse. Cobbles are angular of brick.		0.10 (0.10) +21.05 (0.60) 0.70 +20.45 (0.50) 1.20 +19.95		
1.00 1.20 - 1.65 1.20 1.50	ES 3 SPTS D 5 D 6	4 samples taken N=5 (0,0/1,1,2,1)			(MADE GROUND) Brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of brick, concrete and flint.				
2.00 2.00 2.20 - 2.65	ES 7 D 8 SPTS	4 samples taken N=9 (2,0/1,2,3,3)			(MADE GROUND) Brown slightly sandy gravelly CLAY. Sand is fine to medium, gravel is angular to subangular, fine to medium of brick and flint.				
2.50	D 9						(3.00)		
3.00 3.20 - 3.65 3.50	ES 10 SPTS D 11	4 samples taken N=9 (2,2/2,2,2,3)							
4.20 - 4.65	SPTS	N=30 (10,13/15,15,,)			END OF EXPLORATORY HOLE		4.20 +16.95		
Groundwater Entries					Depth Related Remarks		Hard Boring		
No.	Depth Strike (m)	Remarks	Depth Sealed (m)		Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used
					1.20 - 2.00	0.60m recovery			
					2.00 - 3.00	0.50m recovery			
					3.00 - 4.00	0.40m recovery			
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London		Borehole WS3		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:49:51					Project No. D5061-15 Carried out for London Borough of Camden		Sheet 1 of 1		

Borehole Log



Drilled Logged Checked Approved	GW TO MM SW	Start 25/11/2015 End 25/11/2015	Equipment, Methods and Remarks Hand dug inspection pit from GL to 1.20m. Window sampling from 1.20m to 7.65m.	Depth from (m) 1.20 3.20 5.20 6.20	to (m) 3.20 5.20 6.20 7.20	Diameter (mm) 101 87 77 67	Casing Depth (m)	Ground Level 21.17 mOD Coordinates (m) E 529633.40 National Grid N 183144.21		
Samples and Tests				Strata Description						
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill	
0.30 0.30 - 1.20 0.50	ES 1 B 4 ES 2	4 samples taken 4 samples taken			(MADE GROUND) Grass over brown slightly clayey fine to coarse SAND with occasional rootlets. (MADE GROUND) Brown gravelly fine to coarse SAND with low cobble content. Gravel is angular to subangular, fine to coarse of brick, concrete and flint. Cobbles are angular of brick.		0.20 (0.20) +20.97 (1.00) 1.20 +19.97			
1.00 1.20 - 1.65 1.20 1.50 1.50	ES 3 SPTS D 5 ES 7 D 6	4 samples taken 1.20-2.00 0.70m recovery. N=4 (0,0/0,1,1,2) 4 samples taken			Firm becoming stiff brown mottled grey silty CLAY. (LONDON CLAY FORMATION)		2.00 2.20 - 2.65 2.50 3.00 3.20 - 3.65 3.50			
4.00 4.20 - 4.65 4.50	D 8 SPTS D 9	2.00-3.00 0.70m recovery. N=7 (0,1/2,1,2,2)			Stiff brown mottled grey silty CLAY with occasional angular to subangular, fine to coarse gravel of siltstone. (LONDON CLAY FORMATION)		4.00 4.20 - 4.65 4.50 5.00 5.20 - 5.65 5.50			
6.00 6.20 - 6.65 6.50	D 10 SPTS D 11	3.00-4.00 0.60m recovery. N=10 (2,2/2,2,3,3)					6.00 6.20 - 6.65 6.50 7.00 7.20 - 7.65			
					END OF EXPLORATORY HOLE		7.65 +13.52			
Groundwater Entries										
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depth Related Remarks Depths (m) Remarks		Hard Boring Depths (m) Duration (mins) Tools used			
1	4.75									
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.				Project Central Somers Town, London				Borehole WS4		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:49:52				Project No. D5061-15 Carried out for London Borough of Camden				Sheet 1 of 1		

Borehole Log



Drilled GW		Start		Equipment, Methods and Remarks		Depth from (m)		to (m)		Diameter (mm)		Casing Depth (m)		Ground Level		20.68 mOD					
Logged TO		25/11/2015		Hand dug inspection pit from GL to 1.20m. Window sampling from 1.20m to 4.20m.		1.20		2.20		101				Coordinates (m)		E 529660.10					
Checked MM		End				2.20		4.20		87				National Grid		N 183153.09					
Approved SW		25/11/2015				4.20		6.20		77											
Samples and Tests						Strata Description															
Depth		Type & No		Records		Date Casing		Time Water		Main				Detail		Depth, Level (Thickness)		Legend		Backfill	
0.30 0.30 - 1.20 0.50		ES 1 B 4 ES 2		4 samples taken 4 samples taken						Grass over TOPSOIL. (MADE GROUND) Brown slightly clayey slightly gravelly fine to coarse SAND with occasional rootlets. Gravel is angular to subangular, fine to coarse of brick, flint and concrete.						0.10 (0.10) +20.58 0.30 (0.20) +20.38					
1.00 1.20 - 1.65 1.20		ES 3 SPTS D 5		4 samples taken N=4 (0,0/1,1,1,1)						(MADE GROUND) Brown slightly sandy gravelly CLAY with low cobble content. Gravel is angular to subangular, fine to coarse of brick, concrete and flint. Sand is fine to medium. Cobbles are angular of brick and concrete.						(0.90) 1.20 +19.48 (0.40)					
1.60 1.60		ES 7 D 6		4 samples taken						(MADE GROUND) Brown mottled grey slightly gravelly silty CLAY. Gravel is angular to subangular, fine to coarse of brick and concrete.						1.60 +19.08					
2.00 2.20 - 2.65		D 8 SPTS		N=8 (0,1/2,2,2,2)						Firm locally stiff brown mottled grey silty CLAY. (LONDON CLAY FORMATION)						(1.40)					
2.50		D 9																			
3.00 3.20 - 3.65		D 10 SPTS		N=13 (1,1/3,3,3,4)						Stiff brown mottled grey CLAY. (LONDON CLAY FORMATION)						3.00 +17.68					
3.50		D 11																			
4.00 4.20 - 4.65		D 12 SPTS		N=16 (2,2/3,4,4,5)																	
4.50		D 13																			
5.00 5.20 - 5.65		D 14 SPTS		N=18 (2,3/4,5,4,5)												(4.65)					
5.50		D 15																			
6.00 6.20 - 6.65		D 16 SPTS		N=18 (3,3/5,4,4,5)																	
6.50		D 17																			
7.00 7.20 - 7.65		D 18 SPTS		N=24 (4,3/6,5,6,7)																	
										END OF EXPLORATORY HOLE						7.65 +13.03					
Groundwater Entries						Depth Related Remarks						Hard Boring									
No.		Depth Strike (m)		Remarks		Depth Sealed (m)		Depths (m)		Remarks		Depths (m)		Duration (mins)		Tools used					
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.						Project Central Somers Town, London						Borehole									
						Project No. D5061-15						WS5									
Scale 1:50						Carried out for London Borough of Camden						Sheet 1 of 1									

Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks			Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	20.72 mOD
Logged	TO	25/11/2015	Hand excavated inspection pit from GL to 1.20m. Window sampling from 1.20m to 2.20m. Terminated at 2.20m due to concrete obstruction.							Coordinates (m)	E 529674.16
Checked	MM	End								National Grid	N 183157.31
Approved	SW	25/11/2015									
Samples and Tests						Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
0.30 0.30 - 1.20 0.50 1.00 1.20 1.50 1.80	ES 1 B 4 ES 2	4 samples taken 4 samples taken			Grass over TOPSOIL.		(0.20) 0.20 +20.52				
					(MADE GROUND) Brown mottled grey sandy gravelly CLAY with low cobble content. Gravel is angular to subangular, fine to coarse of brick, flint and concrete with occasional pieces of metal and glass. Sand is fine to medium. Cobbles are angular of brick and concrete.		(0.60) 0.80 +19.92				
	(MADE GROUND) Light brown mottled grey sandy GRAVEL with medium cobble content. Gravel is angular to subangular, fine of brick and concrete. Sand is fine to coarse. Cobbles are angular of brick.	(0.40) 1.20 +19.52									
	(MADE GROUND) Brown sandy GRAVEL. Gravel is angular, fine to coarse of brick and concrete. Sand is fine to coarse.	(1.00) 2.20 +18.52									
	END OF EXPLORATORY HOLE										
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Borehole Log

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Borehole Log



Drilled	GW	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	21.20 mOD
Logged	TP	03/12/2015	Hand excavated inspection pit from GL to 1.20m. Window sampling from 1.20m to 7.65m.			1.20	2.20	101	(m)	Coordinates (m)	E 529643.14
Checked	MM	End				2.20	5.20	87		National Grid	N 183114.37
Approved	SW	03/12/2015				5.20	7.65	77			
Samples and Tests						Strata Description					
Depth	Type & No	Records	Date	Time	Main	Detail	Depth, Level (Thickness)	Legend	Backfill		
			Casing	Water							
0.30 0.30 - 1.20 0.50	ES 1 B 4 ES 2	4 samples taken 4 samples taken			(MADE GROUND) MACADAM. (MADE GROUND) Brown slightly sandy gravelly CLAY with low cobble content. Gravel is angular to subangular, fine to coarse of brick, concrete and sandstone. Sand is fine to medium. Occasional pieces of metal and glass. Cobbles are angular of concrete.		0.10 (0.10) +21.10 (0.50) 0.60 +20.60 (0.40) 1.00 +20.20	  			
1.00 1.20 - 1.65 1.20	ES 3 SPTS D 5	4 samples taken 1.20-2.00 0.64m recovery N=9 (0,3/3,2,2,2)			(MADE GROUND) Light yellowish brown slightly gravelly SAND with low cobble content. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of brick and concrete. Cobbles are angular of brick and concrete.		1.00 +20.20 (1.50)				
1.50 1.50	ES 7 D 6	4 samples taken			(MADE GROUND) Loose dark brown slightly clayey gravelly fine to coarse SAND. Gravel is angular to subangular, fine to coarse of brick, concrete and sandstone.						
2.00 2.20 - 2.65	D 8 SPTS	2.00-3.00 0.90m recovery N=4 (0,0/2,2,0,0)									
2.60 2.60	D 10 ES 9	4 samples taken			Firm becoming stiff brown mottled grey slightly sandy CLAY. Sand is fine to medium. (LONDON CLAY FORMATION)		2.50 +18.70				
3.00 3.20 - 3.65	D 11 SPTS	3.00-4.00 0.90m recovery N=11 (2,2/2,3,3,3)									
3.50	D 12										
4.00 4.20 - 4.65	D 13 SPTS	4.00-5.00 0.90m recovery N=16 (2,2/3,4,4,5)									
4.50	D 14										
5.00 5.20 - 5.65	D 15 SPTS	5.00-6.00 0.90m recovery N=17 (2,3/4,4,4,5)					(5.15)				
5.50	D 16										
6.00 6.20 - 6.65	D 17 SPTS	6.00-7.00 0.80m recovery N=19 (3,3/4,4,5,6)									
6.50	D 18										
7.00 7.20 - 7.65	D 19 SPTS	N=21 (4,3/5,4,6,6)									
END OF EXPLORATORY HOLE							7.65 +13.55				
Groundwater Entries						Depth Related Remarks		Hard Boring			
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.						Project		Borehole			
Scale 1:50						Central Somers Town, London		WS8			
(c) ESG www.esg.co.uk 03/05/2016 11:49:53						Project No.		Sheet 1 of 1			
AGS						D5061-15					
						Carried out for					
						London Borough of Camden					

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Borehole Log



Drilled JW	Start 05/12/2015	Equipment, Methods and Remarks Hand excavated inspection pit from GL to 0.20m. Terminated at 0.20m due to probable asbestos.			Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level 20.27 mOD
Logged EP	End 05/12/2015								Coordinates (m) E 529698.52
Checked MM									National Grid N 183203.05
Approved SW									
Samples and Tests					Strata Description				
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
					(MADE GROUND) MACADAM. (MADE GROUND) Dark brown sandy GRAVEL with high cobble content. Gravel is angular to subangular, fine to coarse of brick, macadam and concrete. Sand is fine to coarse. Possible asbestos material observed. END OF EXPLORATORY HOLE		0.10 (0.10) +20.17 0.20 (0.10) +20.07		
Groundwater Entries					Depth Related Remarks			Hard Boring	
No.	Depth Strike (m)	Remarks	Depth Sealed (m)		Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London			Borehole	
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:47:25					Project No. D5061-15			WS10	
					Carried out for London Borough of Camden			Sheet 1 of 1	

Borehole Log



Drilled Logged Checked Approved	BW EP MM SW	Start 09/12/2015 End 09/12/2015	Equipment, Methods and Remarks Hand excavated inspection pit from GL to 1.20m. Window sampling from 1.20m to 4.65m. Terminated at 4.6m due to collapse of hole.	Depth from (m) 1.20 3.20	to (m) 3.20 4.20	Diameter (mm) 101 87	Casing Depth (m)	Ground Level 20.27 mOD Coordinates (m) E 529698.52 National Grid N 183203.05
Samples and Tests				Strata Description				
Depth	Type & No	Records	Date Casing Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.20	ES 1	4 samples taken		(MADE GROUND) MACADAM.		0.10 (0.10) +20.17		
0.70	ES 2	4 samples taken		(MADE GROUND) Brown slightly clayey becoming clayey sandy GRAVEL with occasional cobbles. Gravel is angular to subrounded, fine to coarse of brick, macadam and flint. Sand is fine to coarse.		(0.70)		
1.20 - 1.65 1.20	SPTS D 3	N=4 (0,0/0,1,1,2)		Firm becoming stiff brown mottled bluish grey CLAY. (LONDON CLAY FORMATION)		0.80 +19.47		
1.90 2.00	D 4 D 5							
2.20 - 2.65	SPTS	N=11 (1,2/2,3,3,3)						
2.50	ES 6	4 samples taken						
3.00	D 7							
3.20 - 3.65	SPTS	N=13 (1,3/2,3,4,4)						
3.50	D 8							
4.00	D 9							
4.20 - 4.65	SPTS	N=34 (5,5/7,10,8,9)						
				END OF EXPLORATORY HOLE		4.65 +15.62		
Groundwater Entries No. Depth Strike (m) Remarks				Depth Related Remarks Depths (m) Remarks		Hard Boring Depths (m) Duration (mins) Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.				Project Central Somers Town, London		Borehole WS10A		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:47:25				Project No. D5061-15 Carried out for London Borough of Camden		Sheet 1 of 1		

Borehole Log



Drilled JW	Start 05/12/2015	Equipment, Methods and Remarks Hand excavated inspection pit from GL to 0.40m. Terminated at 0.40m due to service.				Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level 20.12 mOD
Logged EP	05/12/2015									Coordinates (m) E 529717.88
Checked MM	End									National Grid N 183219.30
Approved SW	05/12/2015									
Samples and Tests					Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill	
					(MADE GROUND) MACADAM. (MADE GROUND) Dark brown sandy GRAVEL with high cobble content. Gravel is angular to subangular, fine to coarse of brick and macadam. Sand is fine to coarse. Possible asbestos material observed.		0.10 (0.10) +20.02 0.40 (0.30) +19.72	 		
					END OF EXPLORATORY HOLE					
Groundwater Entries					Depth Related Remarks			Hard Boring		
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used	
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London			Borehole WS11		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:47:25					Project No. D5061-15			Sheet 1 of 1		
AGS					Carried out for London Borough of Camden					

Borehole Log



Drilled Logged Checked Approved	JW EP MM SW	Start 05/12/2015 End 05/12/2015	Equipment, Methods and Remarks Hand excavated inspection pit from GL to 0.50m. Terminated at 0.50m due to possible asbestos.	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level 20.12 mOD Coordinates (m) E 529717.88 National Grid N 183219.30	
Samples and Tests				Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
					(MADE GROUND) MACADAM. (MADE GROUND) Dark brown sandy GRAVEL with high cobble content. Gravel is angular to subrounded, fine to coarse of brick and macadam. Sand is fine to coarse. END OF EXPLORATORY HOLE		0.10 (0.10) +20.02 (0.40) 0.50 +19.62	 	
Groundwater Entries				Depth Related Remarks				Hard Boring	
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depths (m)	Remarks	Depths (m)	Duration (mins)	Tools used
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.				Project Central Somers Town, London Project No. D5061-15 Carried out for London Borough of Camden				Borehole WS11A Sheet 1 of 1	
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:47:25				AGS					

Borehole Log

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Borehole Log



Drilled	BW/AM	Start	Equipment, Methods and Remarks			Depth from	to	Diameter	Casing Depth	Ground Level	20.20 mOD		
Logged	EP	21/11/2015	Hand tools Hand dug inspection pit from GL to 0.20m. Hole terminated at 0.20m due to asbestos.			(m)	(m)	(mm)	(m)	Coordinates (m)	E 529730.27		
Checked	MM	End								National Grid	N 183233.82		
Approved	SW	21/11/2015											
Samples and Tests						Strata Description							
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill				
0.20	D 1				(MADE GROUND) MACADAM. (MADE GROUND) Dark brown to black sandy angular to subrounded, fine to coarse GRAVEL of brick, macadam and probable asbestos with high cobble content. Cobbles are angular of brick. END OF EXPLORATORY HOLE		0.10 (0.10) +20.10 0.20 (0.10) +20.00						
Groundwater Entries													
No.	Depth	Strike (m)	Remarks	Depth Sealed (m)	Depth Related Remarks Depths (m) Remarks			Hard Boring Depths (m) Duration (mins) Tools used					
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London					Borehole			
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:47:26					Project No. D5061-15 Carried out for London Borough of Camden					WS12 Sheet 1 of 1			

Borehole Log

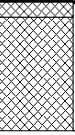
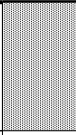
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Borehole Log

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Borehole Log



Drilled Logged Checked Approved	BW EP MM SW	Start 08/12/2015 End 08/12/2015	Equipment, Methods and Remarks Hand excavated inspection pit from GL to 0.85m. Terminated at 0.85m due to concrete obstruction.	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level 20.32 mOD Coordinates (m) E 529706.96 National Grid N 183186.22	
Samples and Tests				Strata Description					
Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.50 - 0.80	B 1				(MADE GROUND) Cobble paving. (MADE GROUND) Dark brown sandy GRAVEL with high cobble content. Gravel is angular to subangular, fine to coarse of brick and concrete. Sand is fine to coarse. Possible asbestos material observed.		0.10 (0.10) +20.22 (0.75) 0.85 +19.47		
					END OF EXPLORATORY HOLE				
Groundwater Entries					Depth Related Remarks		Hard Boring		
No. Depth Strike (m) Remarks					Depths (m) Remarks		Depths (m) Duration (mins) Tools used		
Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.					Project Central Somers Town, London Project No. D5061-15 Carried out for London Borough of Camden		Borehole WS13A Sheet 1 of 1		
Scale 1:50 (c) ESG www.esg.co.uk 03/05/2016 11:47:27					AGS				

Borehole Log

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