KILN PLACE, CAMDEN

FACTUAL REPORT ON GROUND INVESTIGATION

Prepared for LONDON BOROUGH OF CAMDEN

Report Ref: 31348

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PROJECT: KILN PLACE, CAMDEN

CONSULTANT: PETER BRETT ASSOCIATES LLP

VOLUME - VERSION	STATUS	ORIGINATOR	CHECKER	APPROVED	DATE
1 of 1 – A	FINAL	SR/MM	CT	CT	05/01/16

ORIGINATOR	APPROVER
	
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The report is not to be used for contractual or engineering purposes unless this sheet is signed and the report designated “Final”.

The report has been prepared for the sole use and reliance by London Borough of Camden. GEL accepts no liability as a result of the use or reliance of this report by any other parties.

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EXPLORATORY HOLE PLAN 1

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1. INTRODUCTION

It is proposed to develop the residential estate at Kiln Place, Camden. Geotechnical Engineering Limited (GEL) was instructed by Peter Brett Associates LLP acting on behalf of London Borough of Camden to carry out an investigation to determine the ground conditions.

The scope of works and terms and conditions of appointment were specified by the Consultant and GEL correspondence reference T22190. The investigation was carried out under direction and partial supervision of the Consultant.

This report describes the investigation and presents the findings.

2. SITE LOCATION AND GEOLOGY

The site is situated at Kiln Place, Camden and may be located by its National Grid co-ordinates TQ 283 855.

British Geological Survey (BGS) England and Wales (Sheet No. 256 - North London, 1:50,000, 2006) and the BGS online geology (1:50,000) indicate the site is underlain by Worked Ground over the London Clay Formation.

3. GROUND INVESTIGATION

3.1 Fieldwork

The fieldwork was carried out in general accordance with BS5930:1999+A2:2010 during the period 12th to 24th November 2015 and comprised two boreholes and twelve foundation inspection pits.

The exploratory hole locations were selected by the Consultant and set out by this Company and are shown on Figure 1. The ground level and co-ordinates at each exploratory hole were established by this Company using GPS techniques.

The site is considered to be in an area that was subjected to significant historic bombing and therefore required an Unexploded Ordnance Survey (UXO). The survey comprised on site monitoring by a UXO specialist from 1st Line Defence. Down hole magnetometer testing was undertaken at regular intervals as the boreholes were advanced.

The boreholes, referenced BH102 and BH103 (Appendix A), were formed using a light cable tool (shell and auger) rig utilising 150mm tools and casing. Initially, an inspection pit was hand excavated at both borehole locations to a maximum depth of 1.20m to check for buried services. The boreholes were advanced using a clay cutter and bailer.

Disturbed samples of the arisings were taken and retained in plastic bags and airtight containers. Undisturbed samples of 100mm nominal diameter were taken in suitable cohesive soils using a thin walled, open drive sampler (UT100). Samples were wax sealed on site to prevent moisture loss.

Standard penetration tests (SPT) were carried out in general accordance with BS EN ISO 22476-3:2005+A1:2011. A split barrel or a solid cone was used depending upon the materials encountered and the split barrel samples retained in airtight jars. The SPT N value was taken as the number of blows to penetrate the 300mm test drive following a 150mm seating drive. Detailed SPT results, together with the energy ratio (E_r), are presented in Appendix A and summarised as uncorrected N values on the borehole logs.

Boreholes were monitored for groundwater ingress as boring proceeded. Upon encountering water, boring was temporarily stopped to allow the level to stabilise. Water levels were also

recorded at the start and finish of each day's work and on completion of the borehole and are presented on the relevant log.

On completion, BH102 and BH103 were backfilled with bentonite pellets and the surface reinstated.

Trial pits, referenced TP01 to TP105 and TP107 to TP113 (Appendix A), were hand excavated to uncover buried structures and foundation bases.

Samples for chemical analyses were dispatched daily from site directly to Derwentside Environmental Testing Services (DETS) under a Chain of Custody. The remaining samples were brought to this Company's laboratory for logging, testing and storage.

3.2 Logging

The logging of soils and rocks was carried out by an Engineering Geologist in general accordance with BS5930:1999+A2:2010. A key to the exploratory hole logs is presented in Appendix A.

Detailed descriptions of the samples are given in the borehole logs, Appendix A, along with details of sampling, in situ testing, groundwater ingress and relevant comments on drilling techniques.

Hand vane and pocket penetrometer tests were carried out on suitable samples. The results are presented on the borehole logs and also tabulated in Appendix A.

The trial pits were logged in situ to a depth of approximately 1.20m and thereafter from the surface. Detailed descriptions are given in the trial pit logs, Appendix A, along with relevant comments on stability.

3.3 Laboratory Testing

Two schedules of laboratory tests were prepared by the Consultant, the following tests being carried out in accordance with BS1377:1990, unless stated otherwise. The number in brackets refers to the test number given in that standard. The results are presented in Appendix B.
The natural water content was determined on twenty-five selected samples in accordance with BS EN ISO 17892-1:2014.

Liquid limit, plastic limit and plasticity index tests [Part 2:4.3, 5.3 and 5.4] were carried out on twenty-five selected samples. Atterberg line plots have also been presented.

Unconsolidated undrained triaxial compression tests were carried out under a single cell pressure on thirteen specimens prepared from full diameter UT100 samples [Part 7:8]. A cell pressure specified by the Consultant was used. Fully saturated, $\phi_u = 0$, conditions were assumed and the undrained cohesion, c_u was taken as half the deviator stress at failure.

The BRE SD1 (2005) reduced suite; water soluble sulphate, total sulphate and total sulphur, together with pH were determined for twelve samples by Chemtest using in-house methods.

Selected samples were despatched to Derwentside Environmental Testing Services (DETS), where chemical analyses were carried out to in-house methods for a suite of contaminants. The results are presented in Appendix C.

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4. REFERENCES

British Standards Institution (2010): Code of practice for site investigations. BS 5930 incorporating Amendments No. 1 & 2. BS5930: 1999+A2:2010. Amendment 1 removes text superseded by BS EN ISO 14688-1:2002, BS EN ISO 14688-2:2004 and BS EN ISO 14689-1:2003, and makes reference to the relevant standard for each affected sub clause. Amendment 2 removes text superseded by BS EN 22475-1:2006 and makes reference to the relevant standard for each affected sub clause.

British Standards Institution (1990): Methods of tests for soils for civil engineering purposes. BS 1377 Parts 1-9.

British Standards Institution (2014): Geotechnical investigation and testing – Laboratory testing of soil. Part 1: Determination of water content. BS EN ISO 17892-1:2014.

British Standards Institution (2012): Geotechnical investigation and testing. Field testing. Standard penetration test. BS EN ISO 22476-3:2005+A1:2011.

TP113
TP110
TP109
TP108
BH102
TP107
TP102
TP101
TP111
BH103
TP103
TP104/TP112
TP105

Key.

Cable Percussion Borehole.

Hand Excavated Trial Pit.

Notes:

Based on Drawing Provided by Peter Brett Associates.

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Client:	LONDON BOROUGH OF CAMDEN
Project:	KILN PLACE, CAMDEN
Title:	EXPLORATORY HOLE PLAN

Drawn By:	GR	Checked By:	MM	Paper Size:	A3
Scale:	1:500	Date:	January 2016		
Contract:	31348	Figure:	1		

APPENDIX A

FIELDWORK DATA

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KEY TO EXPLORATORY HOLE LOGS

Sample type

D Small disturbed	D*/ES Contamination	B Bulk disturbed	LB Large bulk disturbed	W Water	Cs Core subsample (prepared)
X/L Dynamic	C Core	U Undisturbed	UT Undisturbed thin wall	P Piston	Xs/Ls Dynamic subsample (prepared)

Test type

S SPT - Split spoon sampler followed by uncorrected SPT 'N' Value
C SPT - Solid cone followed by uncorrected SPT 'N' Value
(*250 - Where full test drive not completed, linearly extrapolated 'N' value reported, ** - Denotes no effective penetration)

H Hand vane - direct reading in kPa - not corrected for BS1377 (1990). Re* denotes refusal
M Mackintosh probe - number of blows to achieve 100mm penetration
PP Pocket penetrometer - direct reading in kg/sq.cm
Vo Headspace vapour reading, uncorrected peak values in ppm, using a PID (calibrated with Isobutylene, using a 10.6eV bulb)

Sample/core range/I_f

Dynamic sample

Undisturbed sample - open drive including thin wall. Symbol length reflects recovery

x x = Total Core Recovery (TCR) as percentage of core run

y y = Solid Core Recovery (SCR) as percentage of core run. Assessment of core is based on full diameter.

z z = Rock Quality Designation (RQD). The amount of solid core greater than 100mm expressed as percentage of core run.

Where SPT has been carried out at beginning of core run, disturbed section of core excluded from SCR and RQD assessment.

I_f - fracture spacing - the modal fracture spacing (mm) over the indicated length of core. Where spacing varies signficantly, the minimum, mode and maximum values are given. NI = non-intact core NA = not applicable

Instrumentation

Porous tip | Perforated standpipe | Granular response zone | Bentonite seal | Cement/ bentonite grout | Soil Backfill | Concrete

Stratum boundaries

Estimated boundary

Grading boundary

Logging

The logging of soils and rocks has been carried out in general accordance with BS 5930:1999 incorporating Amendments 1 (2006) & 2 (2010). Amendment 1 removes text superceded by BS ENO ISO 14688-1:2002, BS EN ISO 14688-2:2004 and BS EN ISO 14689-1:2003, and makes reference to the relevant standard for each affected sub clause. Amendment 2 removes text superceded by BS EN ISO 22475-1:2006 and makes reference to the relevant standard for each affected sub clause.

Chalk is logged in general accordance with Lord et al (2002) CIRIA C574. Where possible, dynamic samples in chalk have been logged in accordance with CIRIA C574; descriptions and gradings should be treated with caution given the potential for sample disturbance.

For rocks the term fracture has been used to identify a mechanical break within the core. Where possible incipient and drilling induced fractures have been excluded from the assessment of fracture state. Where doubt exists, a note has been made in the descriptions. All fractures are considered to be continuous unless otherwise reported.

Made Ground is readily identifiable when, within the material make up, man made constituents are evident. Where Made Ground appears to be reworked natural material the differentiation between in situ natural deposits and Made Ground is much more difficult to ascertain. The interpretation of Made Ground within the logs should therefore be treated with caution.

The descriptors "topsoil" and "tarmacadam" are used as generic terms and do not imply conformation to any particular standard or composition. Rootlets are defined as being less than 2mm in diameter, roots are defined as in excess of 2mm diameter.

General Comments

The process of drilling and sampling will inevitably lead to disturbance, mixing or loss of material in some soil and rocks.

Indicated water levels are those recorded during the process of drilling or excavating exploratory holes and may not represent standing water levels.

Legends are drawn in accordance with BS 5930:1999 incorporating Amendment 2.

All depths are measured along the axis of the borehole and are related to ground level at the point of entry. All inclinations are measured normal to the axis of the core.

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BOREHOLE LOG

BH102

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN — Sheet 1 of 5

Start Date 12 November 2015 — Easting 528337.4 — Scale 1 : 50

End Date 18 November 2015 — Northing 185504.3 — Ground level 42.00mOD — Depth 40.00 m

progress date/time water depth	sample no & type	depth (m) from to	casing depth (m)	test type & value	samp. /core range		instru -ment	description	depth (m)	reduced level (m)	legend
12/11/15 1100hrs 12/11/15 1300hrs Dry	1B	0.10 - 0.50						Grass over brown slightly sandy slightly gravelly clayey SILT. Gravel is angular and subangular fine to coarse brick and sandstone. Frequent rootlets. (MADE GROUND)	0.20	41.80	
13/11/15 0830hrs Dry	2B	0.60 - 1.00						Brown and black sandy (ashy) angular and subangular fine to coarse brick and concrete GRAVEL with a low subangular brick and concrete cobble content and rare fragments (up to 15mm) of metal. Frequent gravel size fragments of slag, slate, and glass. (MADE GROUND)	0.80	41.20	
	3B	1.20 - 1.65 1.20 - 1.60	Nil	C 13				Firm brown, yellowish brown and white sandy gravelly CLAY. Gravel is angular and subangular fine to coarse brick, slate, concrete and slag. (MADE GROUND)			
	4B 5D*	2.00 - 2.45 2.00 - 2.40 2.00 - 2.40	2.00	C 12							
	6B	3.00 - 3.45 3.00 - 3.40	3.00	C 13							
	7B	4.00 - 4.45 4.00 - 4.40	4.00	C 9					4.20	37.80	
	8B	4.70 - 5.00						Soft greyish brown slightly gravelly silty CLAY. Gravel is angular fine and medium brick and rounded fine to coarse flint. (MADE GROUND)			
	9UT	5.00 - 5.45	5.00	Blows 20					5.20	36.80	
	10D	5.45 - 5.50		PP 2.0				Firm brown and greyish brown slightly sandy silty CLAY with rare rounded medium and coarse flint gravel. (MADE GROUND)			
	11D	6.00		PP 1.72					6.50	35.50	
	12D	6.50 - 6.95	6.50	S 9				Firm brown slightly sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse brick, flint and sandstone. (MADE GROUND)			
	13B	7.00 - 7.50		PP 2.25							
	14D	7.50						Continued Next Page	{8.00}		

EQUIPMENT: Light cable percussive (shell and auger) rig.

METHOD: Hand dug inspection pit 0.00-1.20m. Cable percussion (150mm) 1.20-40.00m.

CASING: 150mm diam to 7.50m.

BACKFILL: On completion, hole backfilled with bentonite pellets 40.00-0.00m.

REMARKS: Downhole magnetometry for UXO risk investigation undertaken 0.00-14.00m.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m)	casing (m)	rose to (m)	time to rise (min)	remarks
4.10	4.10			Seepage.

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BOREHOLE LOG

BH102

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN — Sheet 2 of 5

Start Date 12 November 2015 — Easting 528337.4 — Scale 1 : 50

End Date 18 November 2015 — Northing 185504.3 — Ground level 42.00mOD — Depth 40.00 m

progress date/time water depth	sample no & type	depth (m) from to	casing depth (m)	test type & value	samp. /core range	instru -ment	description	depth (m)	reduced level (m)	legend
	15UT	8.00 - 8.45	7.50	Blows 58			8.00 - 8.45m: Stiff.	8.40	33.60	
	16D 17B	8.45 - 8.50 8.50 - 8.60		PP 3.92			Very weak orangish brown CLAYSTONE. (POSSIBLE MADE GROUND)	8.50	33.50	
	19D 18D*	9.00 9.00		PP 3.83			Stiff very closely fissured brown slightly sandy CLAY with frequent partings and pockets of fine orangish brown sand (up to 40mm). Frequent fine sand sized selenite crystals observed throughout. (WEATHERED LONDON CLAY FORMATION)			
	20D	9.50 - 9.95	7.50	S 21				10.00	32.00	
	21D	10.50		PP Re*			Stiff becoming very stiff dark greyish brown silty CLAY. Frequent fine sand sized selenite crystals observed throughout. (LONDON CLAY FORMATION)			
	22UT	11.00 - 11.40	7.50	Blows 46						
	23D	11.50		H Re*						
	24D	12.00		PP 2.67						
	25D	12.50 - 12.95	7.50	S 20						
	26D	13.50		PP Re*						
	27UT	14.00 - 14.40	7.50	Blows 52				14.45	27.55	
13/11/15 1330hrs Dry	28D	14.45		PP Re*			Very stiff dark greyish brown CLAY with frequent relict burrows (up to 10mm long) replaced by grey clay. Frequent fine sand sized selenite crystals observed throughout. (LONDON CLAY FORMATION)			
16/11/15 0940hrs 10.90m		14.95		H Re*						
	29D	15.50 - 15.95	7.50	S 26						
	30D	16.50		H Re*						
	31UT	17.00 - 17.40	7.50	Blows 54						
	32D 33B	17.45 17.60 - 17.70					17.45m: Rare shell fragments (up to 10mm). 17.60 - 17.70m: Light brown nodules (up to 50mm) of extremely weak claystone.			
							Continued Next Page	{18.00}		

water strike (m)	casing (m)	rose to (m)	time to rise (m)	remarks
8.50	7.50			Seepage.
17.60	7.50			Seepage.

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BOREHOLE LOG

BH102

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN — Sheet 3 of 5

Start Date 12 November 2015 — Easting 528337.4 — Scale 1 : 50

End Date 18 November 2015 — Northing 185504.3 — Ground level 42.00mOD — Depth 40.00 m

progress date/time water depth	sample no & type	depth (m) from	depth (m) to	casing depth (m)	test type & value	samp. /core range		instru -ment	description	depth (m)	reduced level (m)	legend
	34D	18.00										
	35D	18.50	18.95	7.50	S 30							
	36D	19.50										
	37B	19.80	19.90						19.80 - 19.90m: Band of weak light brown claystone.			
	38UT	20.00	20.40	7.50	Blows 60							
	39D	20.45										
	40D	21.00										
	41D	21.50	21.95	7.50	S 37							
	42D	22.50										
	43UT	23.00	23.40	7.50	Blows 76							
	44D	23.45										
	45B	23.50	23.65						23.50 - 23.65m: Band of weak light brown claystone.			
	46D	24.00										
	47D	24.50	24.95	7.50	S 40							
										25.50	16.50	
	48D	25.50							Very stiff dark greyish brown silty CLAY with frequent relict burrows (up to 10mm long) replaced by grey clay. Frequent fine sand sized selenite crystals observed throughout. (LONDON CLAY FORMATION)			
	49UT	26.00	26.40	7.50	Blows 74							
	50D	26.45										
	51D	27.00										
	52D	27.50	27.95	7.50	S 42							
									Continued Next Page	{28.00}		

water strike (m)	casing (m)	rose to (m)	time to rise (m)	remarks
19.80	7.50			Seepage.
23.50	7.50			Seepage.

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BOREHOLE LOG

BH102

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN — Sheet 4 of 5

Start Date 12 November 2015 — Easting 528337.4 — Scale 1 : 50

End Date 18 November 2015 — Northing 185504.3 — Ground level 42.00mOD — Depth 40.00 m

progress date/time water depth	sample no & type	depth (m) from	depth (m) to	casing depth (m)	test type & value	samp. /core range		instru -ment	description	depth (m)	reduced level (m)	legend
	53D	28.50										
	54UT	29.00	29.40	7.50	Blows 79							
	55D	29.95							29.95m: Possible subvertical planar smooth fissure.			
	56D	30.00										
16/11/15 1430hrs Dry		30.50	30.95	7.50	S 45							
17/11/15 0845hrs Dry												
	57D	31.50			PP Re*							
17/11/15 1310hrs Dry	58UT	32.00	32.40	7.50	Blows 78							
18/11/15 0845hrs Dry	59D	32.45							32.45 - 34.45m: Fissures are randomly orientated closely spaced planar and undulating smooth.			
	60D	33.00										
	61D	33.50		7.50	S 45							
										34.45	7.55	
	62D	34.50							Very stiff fissured dark greyish brown CLAY with frequent relict burrows (up to 10mm long) replaced by grey clay. Fissures are randomly orientated closely spaced planar and undulating smooth. Frequent fine sand sized selenite crystals observed throughout. (LONDON CLAY FORMATION)			
	63UT	35.00	35.40	7.50	Blows 84							
	64D	35.45										
	65D	36.00							36.00m: Rare shell fragments (up to 2mm).			
	66D	36.50		7.50	S 49							
	67D	37.50										
									Continued Next Page	{38.00}		

water strike (m) casing (m) rose to (m) time to rise (m) remarks

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BOREHOLE LOG

BH102

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

Sheet 5 of 5

Start Date 12 November 2015 Easting 528337.4

Scale 1 : 50

End Date 18 November 2015 Northing 185504.3 Ground level 42.00mOD

Depth 40.00 m

progress date/time water depth	sample no & type	depth (m) from	depth (m) to	casing depth (m)	test type & value	samp. /core range		instru -ment	description	depth (m)	reduced level (m)	legend
	68UT	38.00	38.40	7.50	Blows 100							
	69D	38.45							38.45 - 40.00m: Hard.			
	70D	39.00										
18/11/15 1400hrs Dry	71D	39.50	39.95	7.50	S 63					40.00	2.00	
									Borehole completed at 40.00m.			
										{48.00}		

water strike (m) casing (m) rose to (m) time to rise (m) remarks

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BOREHOLE LOG

BH103

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN — Sheet 1 of 3

Start Date 18 November 2015 — Easting 528391.1 — Scale 1 : 50

End Date 20 November 2015 — Northing 185455.5 — Ground level 43.94mOD — Depth 25.00 m

progress date/time water depth	sample no & type	depth (m) from	depth (m) to	casing depth (m)	test type & value	samp. /core range		instru -ment	description	depth (m)	reduced level (m)	legend
18/11/15 1300hrs	1B	0.10	0.60						MADE GROUND comprising black TARMACADAM.	0.05	43.89	
	2B	0.60	1.10						Brown slightly clayey slightly sandy angular to rounded fine to coarse brick and concrete GRAVEL with a low angular brick and concrete cobble content. Frequent gravel size fragments of flint and clinker. (MADE GROUND) 0.60 - 1.10m: Medium angular brick cobble content.	1.20	42.74	
18/11/15 1345hrs Dry												
19/11/15 0845hrs Dry		1.20	1.65	Nil	C 10				Firm brown slightly sandy gravelly CLAY with a low angular brick cobble content. Gravel is angular fine to coarse brick and sandstone. Rare wood fragments (up to 50mm). (MADE GROUND)			
	3B	1.20	1.60									
		2.00	2.45	2.00	C 5				2.00 - 2.40m: Soft.			
	4B	2.00	2.40							2.40	41.54	
	5B	2.50	3.00						Very soft dark greenish grey sandy clayey SILT with rare angular fine and medium brick gravel, frequent partially decomposed organic matter, rare wood fragments (up to 180mm) and a moderate organic odour. (MADE GROUND)			
	6D	3.00	3.45	3.00	S 3							
	7B	3.30	3.80									
	8D	4.00	4.45	4.00	S 2							
	9B	4.40	4.90									
	10D*	4.40	4.90									
	11D	4.90										
	12D	5.00	5.45	5.00	S 6					5.20	38.74	
	13B	5.30	5.80						Firm light brown silty CLAY with rare angular fine brick gravel and frequent pockets (up to 30mm) of orange sandy silt. (MADE GROUND)			
										6.20	37.74	
	14D	6.30							Soft to firm grey mottled brownish orange slightly gravelly silty CLAY. Gravel is angular fine to coarse flint. (WEATHERED LONDON CLAY FORMATION)			
	15UT	6.50	6.90	6.50	Blows 28					6.80	37.14	
	16D	6.95			H 60				Firm orangish brown rarely mottled grey CLAY. Frequent fine sand sized selenite crystals observed throughout. (WEATHERED LONDON CLAY FORMATION)			
	17D	7.50			H 82				7.50 - 9.00m: Orangish brown mottled grey with rare pockets (up to 20mm) of orange sand and white medium sand sized selenite crystals.			
									Continued Next Page	{8.00}		

EQUIPMENT: Light cable percussive (shell and auger) rig.

METHOD: Hand dug inspection pit 0.00-1.20m. Cable percussion (150mm) 1.20-25.00m.

CASING: 150mm diam to 7.50m.

BACKFILL: On completion, hole backfilled with bentonite pellets 25.00-0.10m and tarmacadam 0.10-0.00m.

REMARKS: Downhole magnetometry for UXO risk investigation undertaken 0.00-13.00m.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

water strike (m)	casing (m)	rose to (m)	time to rise (min)	remarks
6.30	6.30			Seepage.

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Geotechnical Engineering Limited

BOREHOLE LOG

BH103

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN — Sheet 2 of 3

Start Date 18 November 2015 — Easting 528391.1 — Scale 1 : 50

End Date 20 November 2015 — Northing 185455.5 — Ground level 43.94mOD — Depth 25.00 m

progress date/time water depth	sample no & type	depth (m) from to	casing depth (m)	test type & value	samp. /core range		instru -ment	description	depth (m)	reduced level (m)	legend
	18D	8.00 - 8.45	7.50	S 14							
	19D	9.00		H Re*							
	20D*	9.00									
	21UT	9.50 - 9.90	7.50	Blows 36							
									9.95	33.99	
	22D	9.95		H 124				Firm to stiff indistinctly fissured orangish brown CLAY with rare tabular clear selenite crystals (up to 6mm) and frequent fine sand sized selenite crystals observed throughout. (WEATHERED LONDON CLAY FORMATION)			
	23D	10.50		H Re*							
	24D	11.00 - 11.45	7.50	S 18							
	25D	12.00		H Re*				12.00 - 12.60m: Stiff. Orange staining on fissure surfaces and black speckling on some fissure surfaces.			
	26UT	12.50 - 12.90		Blows 42					12.60	31.34	
	27D	12.95		H Re*				Stiff indistinctly fissured dark brown CLAY with frequent relict burrows (up to 40mm long) replaced by grey clay. Frequent fine sand sized selenite crystals observed throughout. (LONDON CLAY FORMATION) 12.95m: 45° very closely spaced fissures.			
	28D	13.50		H Re*							
	29D	14.00 - 14.45	7.50	S 21							
	30D	15.00						15.00 - 18.00m: Locally silty.			
	31B	15.40 - 15.50						15.40 - 15.50m: Claystone recovered non-intact.			
	32UT	15.50 - 15.90	7.50	Blows 48							
	33D	15.95									
19/11/15 1400hrs Dry	34D	16.50									
20/11/15 0900hrs Dry	35D	17.00 - 17.45	7.50	S 24							
								Continued Next Page	{18.00}		

water strike (m)	casing (m)	rose to (m)	time to rise (m)	remarks
15.40	7.50			Seepage.

AGS

CONTRACT **31348**

CHECKED **CT**

Geotechnical Engineering Limited

BOREHOLE LOG

BH103

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN — Sheet 3 of 3

Start Date 18 November 2015 — Easting 528391.1 — Scale 1 : 50

End Date 20 November 2015 — Northing 185455.5 — Ground level 43.94mOD — Depth 25.00 m

progress date/time water depth	sample no & type	depth (m) from	depth (m) to	casing depth (m)	test type & value	samp. /core range		instru -ment	description	depth (m)	reduced level (m)	legend
	36D	18.00										
	37UT	18.50	18.90	7.50	Blows 74							
	38D	18.95							18.95m: Rare pyritised nodules (up to 5mm).			
	39B	19.10	19.20						19.10 - 19.20m: Claystone recovered non-intact.	19.20	24.74	
	40D	19.50							Stiff indistinctly fissured dark brown locally silty CLAY with rare shell fragments (up to 15mm). Frequent fine sand sized selenite crystals observed throughout. (LONDON CLAY FORMATION)			
	41D	20.00	20.45	7.50	S 24							
	42D	21.00										
	43UT	21.50	21.90	7.50	Blows 58				21.50m: Becoming very stiff.			
	44D	21.95										
	45D	22.50										
	46D	23.00	23.45	7.50	S 28							
	47D	24.00										
20/11/15 1050hrs Dry	48UT	24.50	24.90	7.50	Blows 64					25.00	18.94	
	49D	25.00							Borehole completed at 25.00m.	{28.00}		

water strike (m)	casing (m)	rose to (m)	time to rise (m)	remarks
19.10	7.50			Seepage.

AGS

CONTRACT **31348**

CHECKED **CT**

Geotechnical Engineering Limited

STANDARD PENETRATION TEST

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole no.	borehole depth (m)	bottom depth (m)	casing depth (m)	water level (m)	seating drive blows	seating drive pen (mm)	test drive blows	test drive pen (mm)	test type	N	energy ratio (%)
BH102	1.20	1.65	Nil	Dry	3 2	75 75	3 3 3 4	75 75 75 75	C	13	70
BH102	2.00	2.45	2.00	Dry	4 3	75 75	2 3 4 3	75 75 75 75	C	12	70
BH102	3.00	3.45	3.00	Dry	4 4	75 75	4 3 3 3	75 75 75 75	C	13	70
BH102	4.00	4.45	4.00	Dry	3 2	75 75	2 2 3 2	75 75 75 75	C	9	70
BH102	6.50	6.95	6.50	Dry	2 2	75 75	2 2 2 3	75 75 75 75	S	9	70
BH102	9.50	9.95	7.50	Dry	3 4	75 75	4 5 6 6	75 75 75 75	S	21	70
BH102	12.50	12.95	7.50	Dry	4 4	75 75	4 5 5 6	75 75 75 75	S	20	70
BH102	15.50	15.95	7.50	Dry	3 4	75 75	5 5 8 8	75 75 75 75	S	26	70
BH102	18.50	18.95	7.50	Dry	4 4	75 75	7 7 8 8	75 75 75 75	S	30	70
BH102	21.50	21.95	7.50	Dry	4 7	75 75	7 9 10 11	75 75 75 75	S	37	70
BH102	24.50	24.95	7.50	Dry	6 7	75 75	9 9 11 11	75 75 75 75	S	40	70
BH102	27.50	27.95	7.50	Dry	6 7	75 75	9 9 12 12	75 75 75 75	S	42	70
BH102	30.50	30.95	7.50	Dry	8 8	75 75	9 10 12 14	75 75 75 75	S	45	70
BH102	33.50	33.95	7.50	Dry	8 8	75 75	10 10 12 13	75 75 75 75	S	45	70
BH102	36.50	36.95	7.50	Dry	9 9	75 75	11 11 13 14	75 75 75 75	S	49	70
BH102	39.50	39.95	7.50	Dry	9 11	75 75	13 16 16 18	75 75 75 75	S	63	70
BH103	1.20	1.65	Nil	Dry	2 2	75 75	2 3 2 3	75 75 75 75	C	10	70
BH103	2.00	2.45	2.00	Dry	2 2	75 75	2 1 1 1	75 75 75 75	C	5	70
BH103	3.00	3.45	3.00	Dry	1 0	75 75	1 0 1 1	75 75 75 75	S	3	70
BH103	4.00	4.45	4.00	Dry	1 0	75 75	0 1 0 1	75 75 75 75	S	2	70
BH103	5.00	5.45	5.00	Dry	1 2	75 75	2 1 2 1	75 75 75 75	S	6	70
BH103	8.00	8.45	7.50	Dry	2 2	75 75	2 4 4 4	75 75 75 75	S	14	70
BH103	11.00	11.45	7.50	Dry	2 3	75 75	4 4 5 5	75 75 75 75	S	18	70
BH103	14.00	14.45	7.50	Dry	3 4	75 75	4 5 5 7	75 75 75 75	S	21	70

notes:

1. Test carried out in general accordance with BS EN ISO 22476-3:2005 + A1:2011
2. N values have not been subjected to any correction.
3. Test carried out using split spoon S, solid cone C.
4. Where full test drive not completed, linearly extrapolated N value reported.
5. <1 Denotes hammer self weight penetration (sank under own weight).
6. ** Denotes no effective penetration.

CONTRACT	CHECKED
31348	**CT**

Geotechnical Engineering Limited

STANDARD PENETRATION TEST

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole no.	borehole depth (m)	bottom depth (m)	casing depth (m)	water level (m)	seating drive blows	seating drive pen (mm)	test drive blows	test drive pen (mm)	test type	N	energy ratio (%)
BH103	17.00	17.45	7.50	Dry	3 3	75 75	4 6 6 8	75 75 75 75	S	24	70
BH103	20.00	20.45	7.50	Dry	4 4	75 75	5 5 7 7	75 75 75 75	S	24	70
BH103	23.00	23.45	7.50	Dry	4 5	75 75	6 6 8 8	75 75 75 75	S	28	70

notes:

1. Test carried out in general accordance with BS EN ISO 22476-3:2005 + A1:2011
2. N values have not been subjected to any correction.
3. Test carried out using split spoon S, solid cone C.
4. Where full test drive not completed, linearly extrapolated N value reported.
5. <1 Denotes hammer self weight penetration (sank under own weight).
6. ** Denotes no effective penetration.

CONTRACT	CHECKED
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Geotechnical Engineering Limited

IN-SITU HAND VANE/POCKET PENETROMETER

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole /trial pit no.	depth (m)	hand vane peak (kPa)	average hand vane peak (kPa)	hand vane remoulded (kPa)	average hand vane remoulded (kPa)	pocket penetrometer (kg/cm^2)	average pocket penetrometer (kPa)*	remarks
BH102	5.45					2.80 1.90 1.25	99	
BH102	6.00					1.20 1.75 2.20	86	
BH102	6.70					1.00 1.90 2.00	82	
BH102	7.00					2.25 1.75 2.75	113	
BH102	8.45					3.90 4.25 3.60	196	
BH102	9.00					3.70 3.70 4.10	192	
BH102	10.50					Re Re 4.25		
BH102	11.50	Re				4.00 4.00 4.10		
BH102	12.00					2.50 3.75 2.25	142	
BH102	13.50					Re Re Re		
BH102	14.45					Re Re Re		
BH102	14.95	Re						
BH102	16.50	Re						
BH102	31.50					Re Re Re		
BH103	6.95	60	60	22	22			
BH103	7.50	82	82	30	30			
BH103	9.00	Re Re Re						
BH103	9.95	124	124	24	24			

general remarks:

Hand vane test results reported as undrained shear strength.

*Average pocket penetrometer results reported as undrained shear strength.

CONTRACT	CHECKED
31348	**CT**

Geotechnical Engineering Limited

IN-SITU HAND VANE/POCKET PENETROMETER

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole /trial pit no.	depth (m)	hand vane peak (kPa)	average hand vane peak (kPa)	hand vane remoulded (kPa)	average hand vane remoulded (kPa)	pocket penetrometer (kg/cm^2)	average pocket penetrometer (kPa)*	remarks
BH103	10.50	Re Re Re						
BH103	12.00	Re Re Re						
BH103	12.95	Re						
BH103	13.50	Re Re Re						

general remarks:

Hand vane test results reported as undrained shear strength.

*Average pocket penetrometer results reported as undrained shear strength.

CONTRACT	CHECKED
31348	**CT**

Geotechnical Engineering Limited

TRIAL PIT LOG

TP101

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	16 November 2015	Easting	528350.2			Depth	0.97 m
End Date	16 November 2015	Northing	185491.6	Ground level	42.16mOD		

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				MADE GROUND comprising grey concrete slab paving.	0.05	42.11	
				MADE GROUND comprising weakly cemented yellowish grey CONCRETE composed of 90% medium and coarse sand with no voids.	0.12	42.04	
				Brown sandy angular fine to coarse brick, concrete, ceramic, sandstone and slate GRAVEL with a medium angular brick cobble content. Rare roots (up to 15mm diam). (MADE GROUND) 0.25m: Copper pipe (30mm diam) in northeast side of pit.			
				0.80 - 0.97m: Slightly clayey.			
Dry.				Trial pit completed at 0.97m.	0.97	41.19	

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.50x0.90x0.97m.
On completion, the trial pit was backfilled with materials arising.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT SKETCH

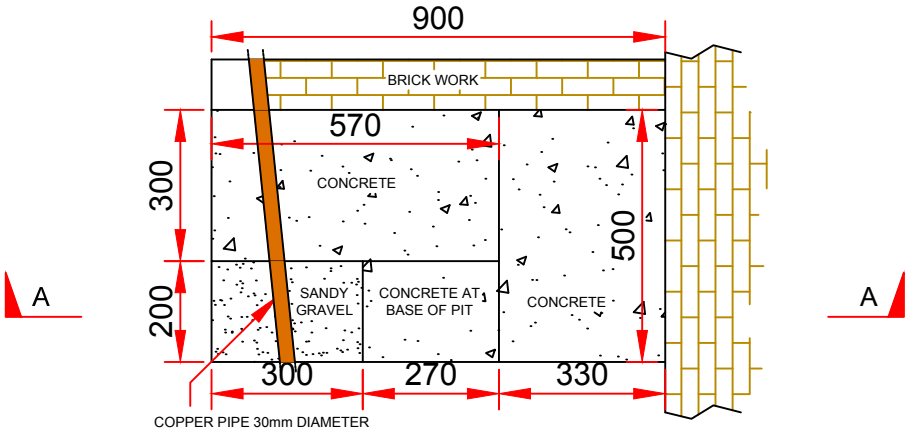
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

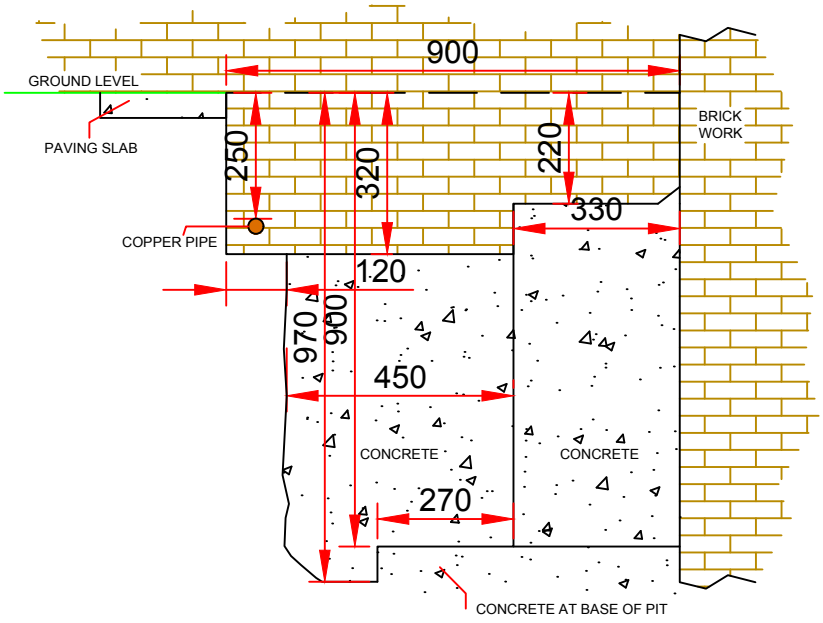
TP101

Scale 1/15

PLAN VIEW



CROSS SECTION A-A



Ground Level | Wall/Brickwork | Concrete Foundation/Footing

All measurements in mm.

CONTRACT	CHECKED
31348	**MM**

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Geotechnical Engineering Limited

TRIAL PIT LOG

TP102

CLIENT	LONDON BOROUGH OF CAMDEN		
SITE	KILN PLACE, CAMDEN	Sheet	1 of 1
Start Date	19 November 2015	Scale	1 : 25
End Date	19 November 2015 mOD	Depth	0.10 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
Dry.				MADE GROUND comprising dark grey CONCRETE composed of medium sand with no voids. (MADE GROUND)	0.01		
				MADE GROUND comprising light grey CONCRETE composed of aggregate of 90% medium sand and 10% angular fine and medium limestone gravel with no voids and frequent reinforcement bars (2mm diam, up to 150mm length). (MADE GROUND)	0.10		
				Trial pit completed at 0.10m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.35x0.30x0.10m.
On completion, the trial pit was backfilled with materials arising and concrete.
REMARKS: Pit terminated at Engineer's instruction.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

AGS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT SKETCH

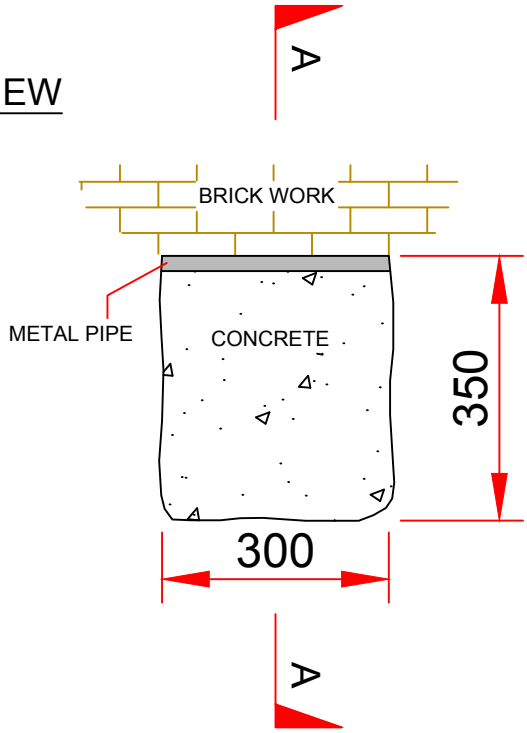
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

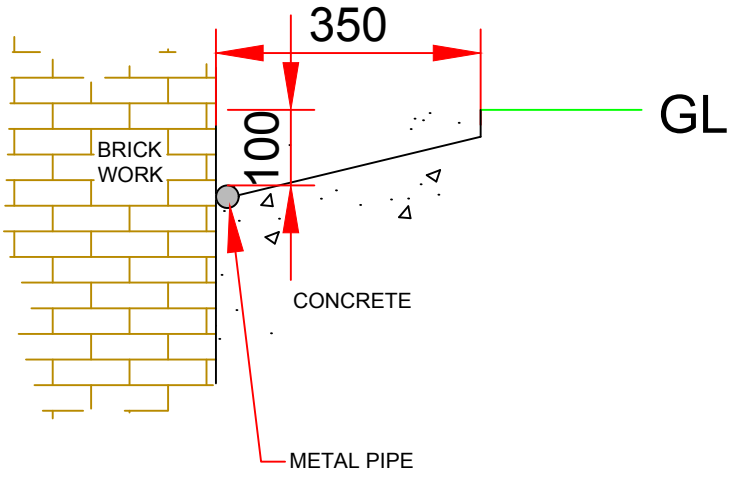
TP102

Scale 1/10

PLAN VIEW



CROSS SECTION A-A



Ground Level | Wall/Brickwork | Concrete Foundation/Footing

All measurements in mm.

CONTRACT	CHECKED
31348	**MM**

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Geotechnical Engineering Limited

TRIAL PIT LOG

TP103

CLIENT	LONDON BOROUGH OF CAMDEN		
SITE	KILN PLACE, CAMDEN	Sheet	1 of 1
Start Date	19 November 2015	Scale	1 : 25
End Date	19 November 2015 mOD	Depth	0.20 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
Dry.				MADE GROUND comprising reddish grey concrete slab paving. (MADE GROUND)	0.05		
				MADE GROUND comprising light grey CONCRETE composed of aggregate of 90% medium sand and 10% angular fine and medium limestone gravel with no voids. (MADE GROUND)	0.20		
				Trial pit completed at 0.20m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.77x0.45x0.20m.
On completion, the trial pit was reinstated with concrete.
REMARKS: Pit terminated due to strong power signal.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

AGS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT SKETCH

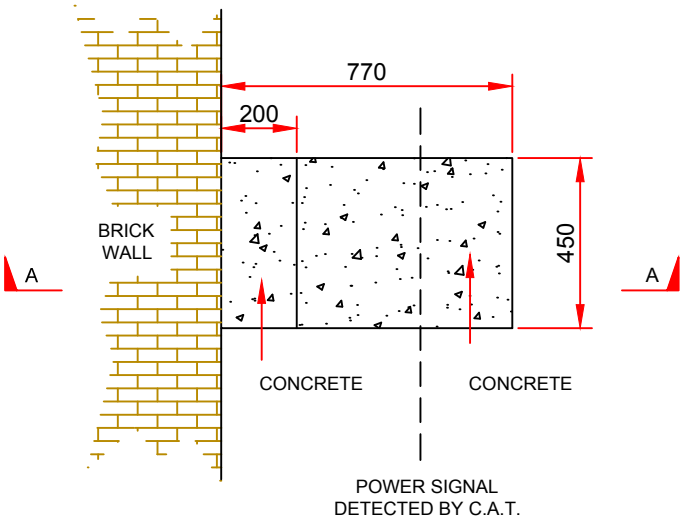
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

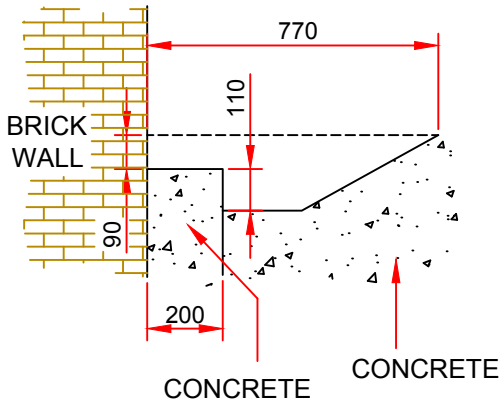
TP103

Scale 1/20

PLAN VIEW



CROSS SECTION A-A



Ground Level Wall/Brickwork Concrete Foundation/Footing

All measurements in mm.

CONTRACT	CHECKED
31348	**MM**

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TRIAL PIT LOG

TP104

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	17 November 2015	Easting	528383.7			Depth	1.35 m
End Date	17 November 2015	Northing	185448.6	Ground level	43.75mOD		

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				MADE GROUND comprising brick paving.	0.06	43.69	
				MADE GROUND comprising weakly cemented yellowish brown CONCRETE composed of 90% medium and coarse sand with no voids.	0.18	43.57	
				Yellowish brown sandy angular and subangular fine to coarse brick, sandstone and concrete GRAVEL. (MADE GROUND) 0.18 - 0.70m: Pinkish brown slightly sandy subangular to subrounded gravel in northwest pit wall.	0.45	43.30	
				Firm brown slightly sandy gravelly (ashy) CLAY with a low angular brick cobble content. Gravel is angular fine to coarse brick, concrete and slag. (MADE GROUND) 0.70 - 0.90m: Yellowish brown fine and medium sand in northwest pit wall.	1.35	42.40	
Dry.				Trial pit completed at 1.35m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.60x0.85x1.35m.
On completion, the trial pit was backfilled with materials arising.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT LOG

TP105

CLIENT	LONDON BOROUGH OF CAMDEN						
SITE	KILN PLACE, CAMDEN					Sheet	1 of 1
Start Date	18 November 2015	Easting	528287.2			Scale	1 : 25
End Date	18 November 2015	Northing	185437.1	Ground level	43.75mOD	Depth	1.25 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				MADE GROUND comprising grey concrete paving slabs (590x750mm) and brick paving.	0.05	43.70	
				MADE GROUND comprising brownish yellow slightly gravelly medium and coarse weakly cemented SAND. Gravel is subrounded fine quartz.	0.10	43.65	
				Soft brown sandy gravelly CLAY with a medium angular brick and concrete cobble content. Gravel is angular fine to coarse brick, concrete and slate with rare plastic fragments and an intact glass bottle (up to 120mm). (MADE GROUND)	0.60	43.15	
				Soft brown slightly gravelly slightly sandy (ashy) CLAY. Gravel is angular fine to coarse brick, concrete and slate. (MADE GROUND)	1.00	42.75	
				Dark brown silty gravelly (ashy) SAND. Gravel is angular and subangular fine to coarse clinker, slate, ceramic and flint. (MADE GROUND)	1.25	42.50	
Dry.				Trial pit completed at 1.25m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 1.50x1.32x1.25m.
On completion, the trial pit was backfilled with materials arising.

Sketch of Foundation - Not to scale. All dimensions in metres.

CONTRACT	CHECKED
31348	CT

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT SKETCH

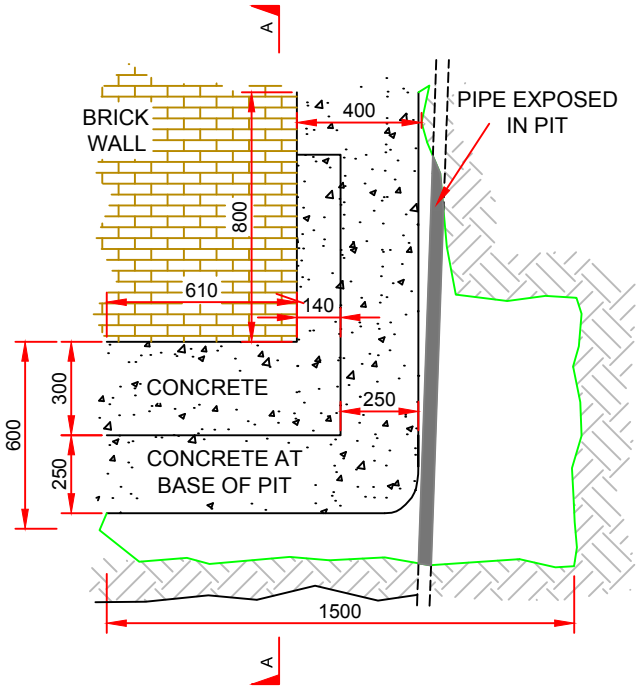
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

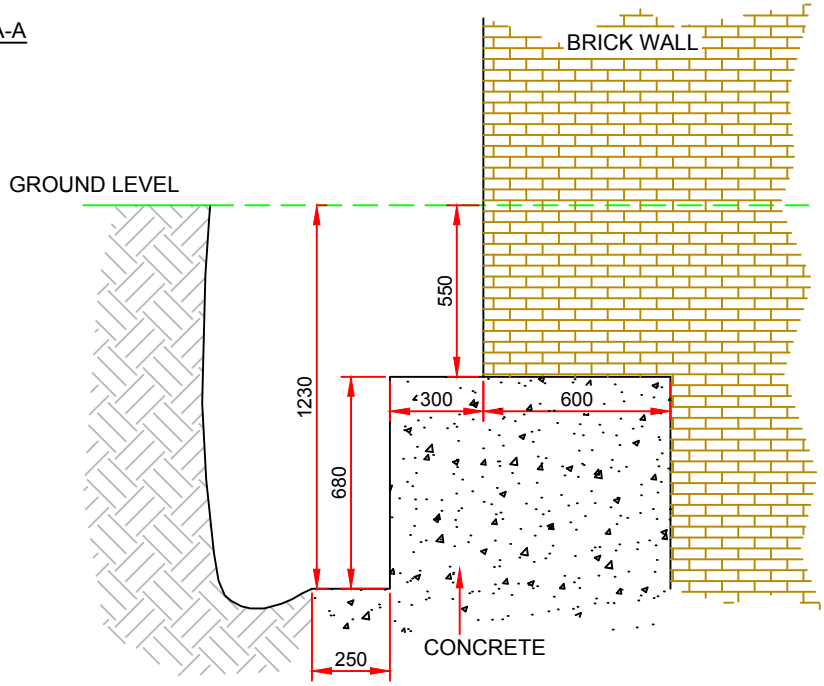
TP105

Scale 1/25

PLAN VIEW



CROSS SECTION A-A



Ground Level | Wall/Brickwork | Concrete Foundation/Footing

All measurements in mm.

CONTRACT	CHECKED
31348	MM

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TRIAL PIT LOG

TP107

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	19 November 2015	Easting	528335.7				
End Date	19 November 2015	Northing	185496.3	Ground level	43.33mOD	Depth	0.95 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				Grass over soft to firm slightly sandy gravelly CLAY with a medium angular brick and concrete paving slab cobble content. Gravel is angular fine to coarse brick, sandstone and concrete with rare reinforcement bars. (MADE GROUND)			
					0.65	42.68	
				Yellowish brown angular to rounded medium flint GRAVEL. (MADE GROUND)			
Dry.				Trial pit completed at 0.95m.	0.95	42.38	

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.45x0.45x0.95m.
On completion, the trial pit was backfilled with materials arising.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT SKETCH

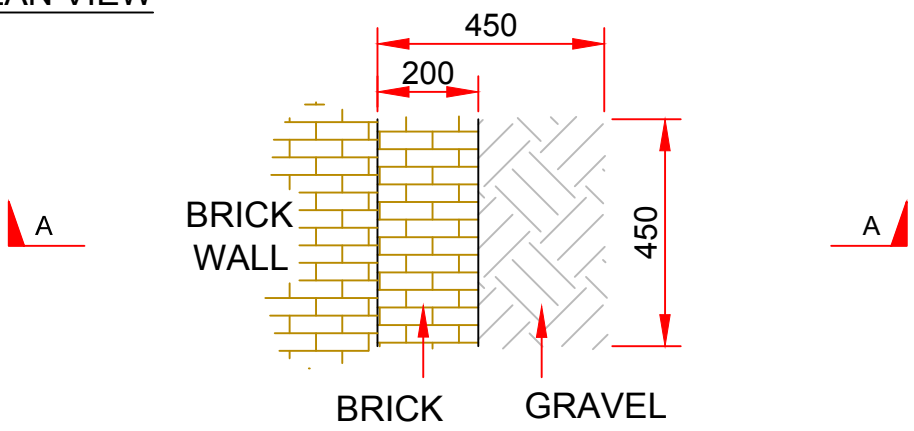
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

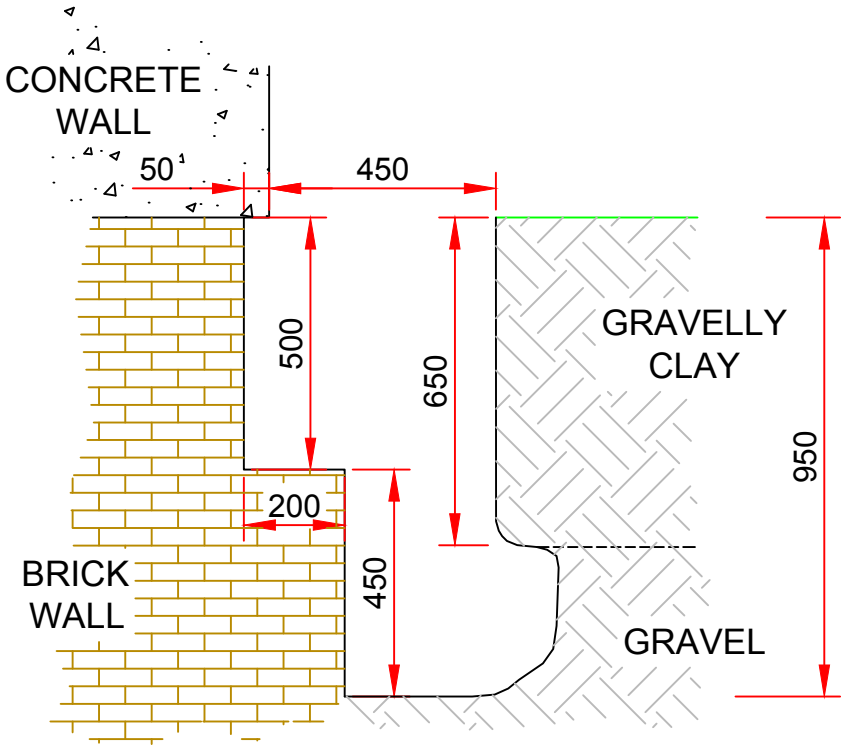
TP107

Scale 1/15

PLAN VIEW



CROSS SECTION A-A



Ground Level | Wall/Brickwork | Concrete Foundation/Footing

All measurements in mm.

CONTRACT	CHECKED
31348	**MM**

Geotechnical Engineering Ltd, Tel. 01452 527743

Geotechnical Engineering Limited

TRIAL PIT LOG

TP108

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	17 November 2015	Easting	528306.4				
End Date	17 November 2015	Northing	185509.0	Ground level	42.15mOD	Depth	0.50 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				Grass over firm brown slightly sandy slightly gravelly CLAY with a low angular brick cobble content. Gravel is angular fine to coarse ceramic, brick and concrete. (MADE GROUND)			
				0.35m: Yellow plastic gas pipe (30mm diam).			
Dry.				Trial pit completed at 0.50m.	0.50	41.65	

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.80x1.00x0.50m.
On completion, the trial pit was backfilled with materials arising.
REMARKS: Pit terminated due to buried service.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT SKETCH

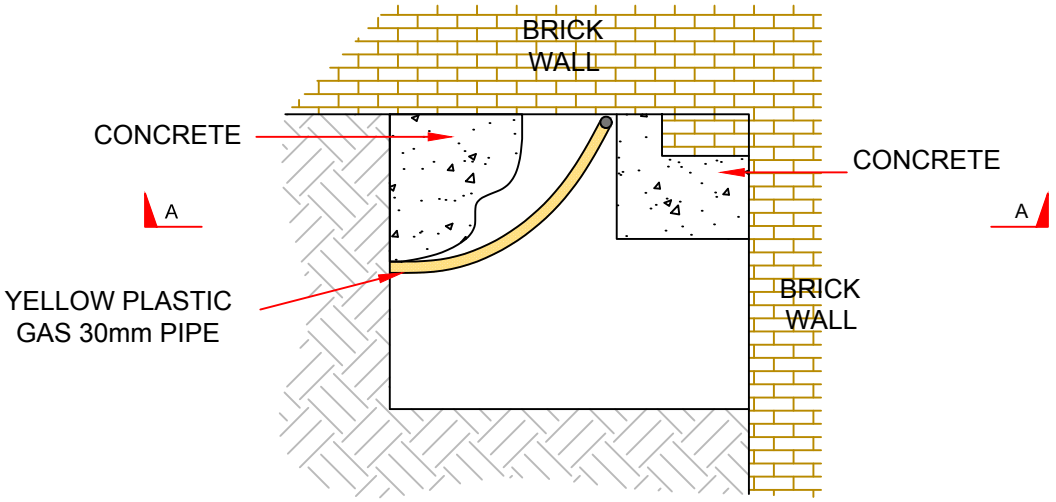
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

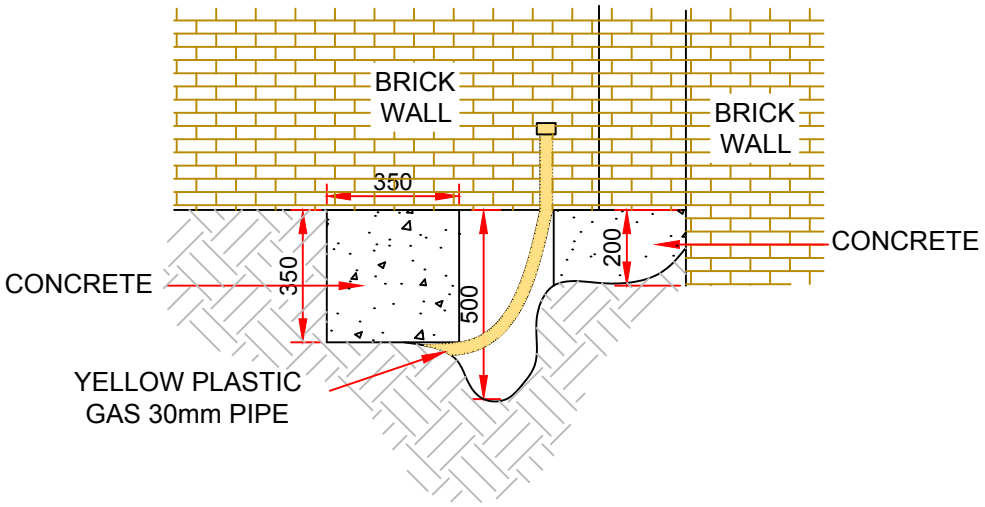
TP108

Scale 1/20

PLAN VIEW



CROSS SECTION A-A



Ground Level Wall/Brickwork Concrete Foundation/Footing

All measurements in mm.

CONTRACT	CHECKED
31348	**MM**

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Geotechnical Engineering Limited

TRIAL PIT LOG

TP109

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	13 November 2015	Easting	528311.7				
End Date	13 November 2015	Northing	185512.3	Ground level	41.50mOD	Depth	1.20 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				Grass over slightly sandy slightly gravelly clayey SILT. Gravel is angular and subangular fine to coarse brick, slag and sandstone. Frequent rootlets. (MADE GROUND)	0.20	41.30	
				Stiff brown slightly sandy gravelly CLAY with a medium angular brick cobble and a low concrete boulder content. Gravel is angular and subangular fine to coarse brick, concrete, slag, slate, metal and plastic. (MADE GROUND)			
Dry.				Trial pit completed at 1.20m.	1.20	40.30	

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.45x0.90x1.20m.
On completion, the trial pit was backfilled with materials arising.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT SKETCH

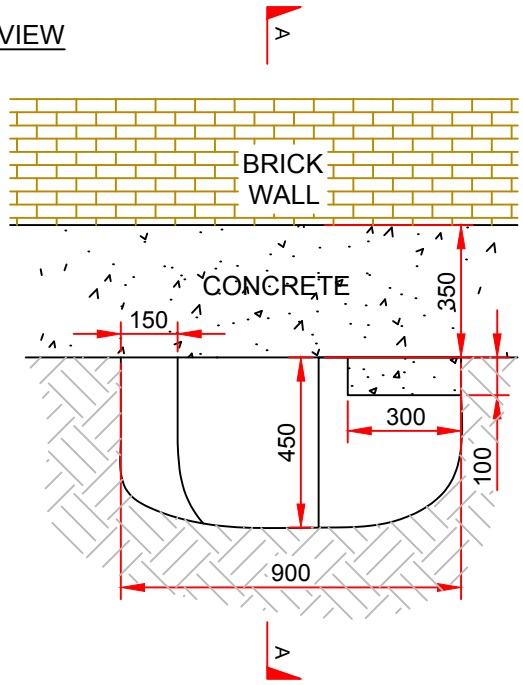
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

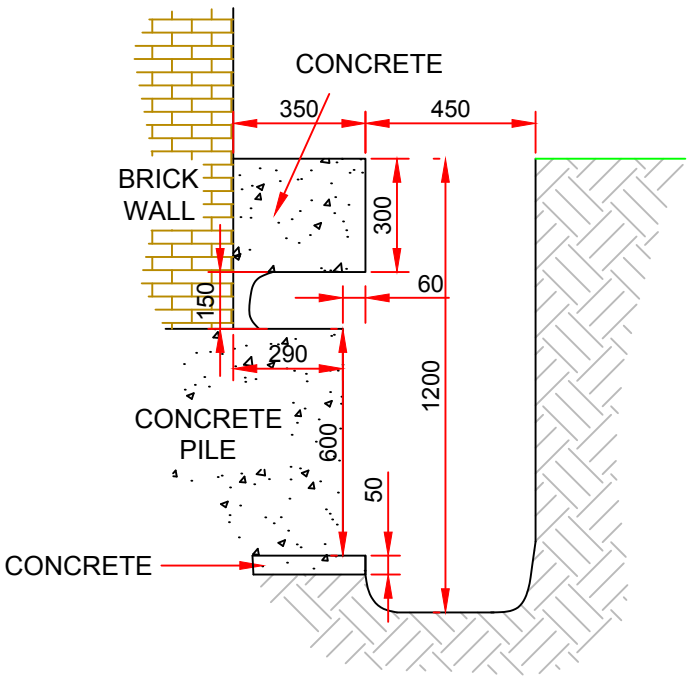
TP109

Scale 1/20

PLAN VIEW



CROSS SECTION A-A



Ground Level Wall/Brickwork Concrete Foundation/Footing

All measurements in mm.

CONTRACT	CHECKED
31348	**MM**

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Geotechnical Engineering Limited

TRIAL PIT LOG

TP110

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	12 November 2015	Easting	528315.8				
End Date	12 November 2015	Northing	185515.3	Ground level	41.27mOD	Depth	1.25 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				Grass over brown slightly sandy slightly gravelly SILT with a medium angular brick cobble content, rare concrete boulders and frequent fragments (up to 100mm) of fibreglass and glass. Gravel is angular and subangular fine to coarse brick, slag, ceramic, sandstone and glass. Frequent roots (up to 5mm) and rootlets. (MADE GROUND)	0.20	41.07	
				Yellowish brown slightly silty sandy angular and subangular fine to coarse sandstone, brick and concrete GRAVEL. (MADE GROUND)	0.40	40.87	
				Brown and black clayey sandy angular and subangular fine to coarse brick, slag, concrete, ceramic and slate GRAVEL with a high angular brick cobble content and rare metal fragments (up to 300mm). (MADE GROUND)	0.85	40.42	
				Brown and pinkish white clayey sandy angular and subangular fine to coarse brick, slag, concrete, ceramic and slate GRAVEL with a high angular concrete cobble content and rare metal fragments (up to 300mm). (MADE GROUND)	1.25	40.02	
Dry.				Trial pit completed at 1.25m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.50x0.80x1.25m.
On completion, the trial pit was backfilled with materials arising.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT LOG

TP111

CLIENT	LONDON BOROUGH OF CAMDEN						
SITE	KILN PLACE, CAMDEN					Sheet	1 of 1
Start Date	19 November 2015	Easting	528302.2			Scale	1 : 25
End Date	19 November 2015	Northing	185488.8	Ground level	44.41mOD	Depth	1.35 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				Grass over soft brown slightly sandy slightly gravelly silty CLAY. Gravel is angular fine to coarse brick and flint. Frequent rootlets and rare roots (up to 60mm diam). (MADE GROUND)	0.15	44.26	
				Light brown silty sandy angular and subangular fine to coarse brick, concrete and sandstone GRAVEL. (MADE GROUND)	0.30	44.11	
				Brown and light brown clayey sandy angular and subangular fine to coarse brick, concrete, slag and ceramic GRAVEL with rare metal fragments (up to 200mm). (MADE GROUND)	0.50	43.91	
				Firm light brown slightly gravelly silty CLAY with rare pockets (up to 20mm) of orange silty clay. Gravel is angular and subangular coarse siltstone and rare slag. Frequent roots (up to 10mm) and rootlets. (MADE GROUND)	1.35	43.06	
Dry.				Trial pit completed at 1.35m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.40x0.40x1.35m.
On completion, the trial pit was backfilled with materials arising.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT LOG

TP112

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	24 November 2015	Easting	528383.7				
End Date	24 November 2015	Northing	185448.6	Ground level	43.75mOD	Depth	1.35 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				MADE GROUND comprising brick paving.	0.06	43.69	
				MADE GROUND comprising weakly cemented yellowish brown CONCRETE composed of 90% medium and coarse sand with no voids.	0.18	43.57	
				Yellowish brown sandy angular and subangular fine to coarse brick, sandstone and concrete GRAVEL. (MADE GROUND) 0.18 - 0.70m: Pinkish brown slightly sandy subangular to subrounded gravel in northwest pit wall.	0.45	43.30	
				Firm brown slightly sandy gravelly (ashy) CLAY with a low angular brick cobble content. Gravel is angular fine to coarse brick, concrete and slag. (MADE GROUND) 0.70 - 1.35m: Yellowish brown fine and medium sand in northwest pit wall.	1.35	42.40	
Dry.				Trial pit completed at 1.35m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.90x1.75x1.35m.
On completion, the trial pit was backfilled with materials arising.
REMARKS: Pit excavated as an extension to TP104.

Sketch of Foundation - Not to scale. All dimensions in metres.

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT	CHECKED
31348	CT

Geotechnical Engineering Limited

TRIAL PIT SKETCH

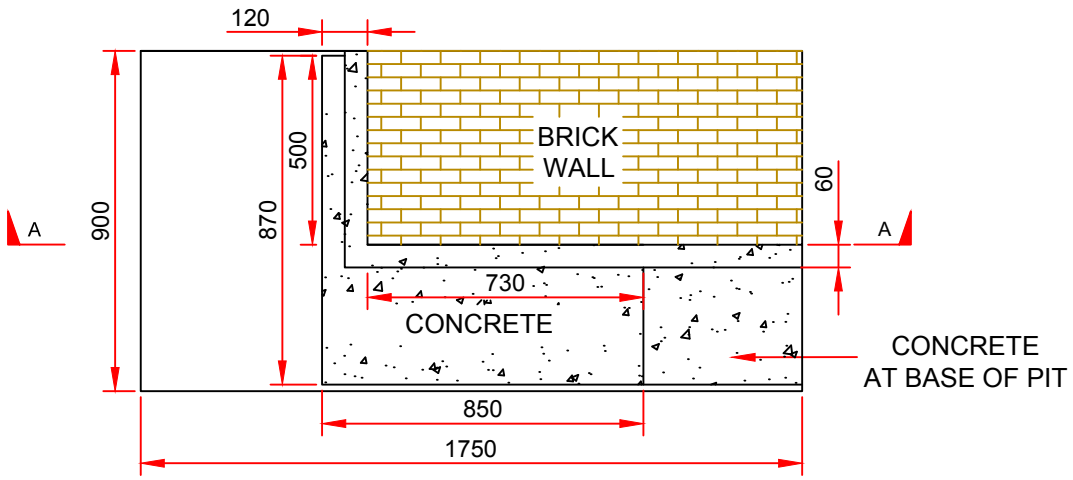
TP112

CLIENT LONDON BOROUGH OF CAMDEN

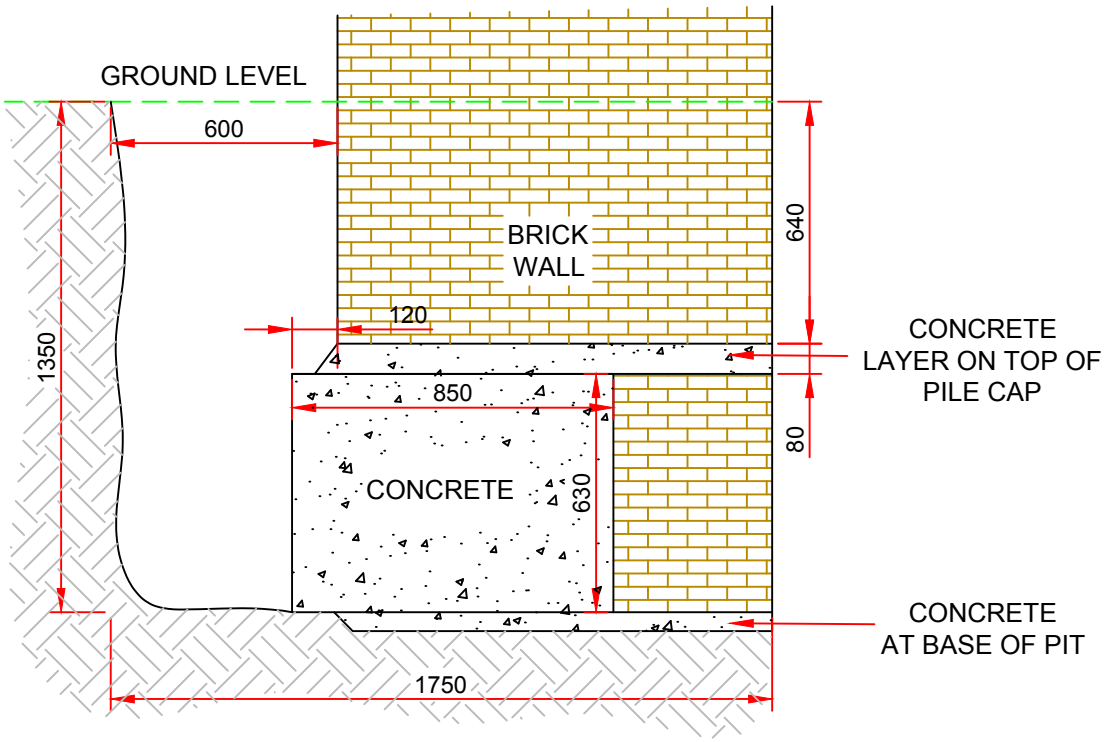
SITE KILN PLACE, CAMDEN

Scale 1/20

PLAN VIEW



CROSS SECTION A-A



Ground Level | Wall/Brickwork | Concrete Foundation/Footing

All measurements in mm.

Note: TP112 is an extension of TP104. All plan and section details for TP104 are included within this drawing.

CONTRACT	CHECKED
31348	**MM**

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TRIAL PIT LOG

TP113

CLIENT	LONDON BOROUGH OF CAMDEN					Sheet	1 of 1
SITE	KILN PLACE, CAMDEN					Scale	1 : 25
Start Date	20 November 2015	Easting	528315.5				
End Date	20 November 2015	Northing	185515.0	Ground level	41.32mOD	Depth	1.20 m

water record	sample/test no/type	sample/test result	sample/test depth (m)	description	depth (m)	level (m)	legend
				Grass over brown slightly sandy slightly gravelly SILT with a medium angular brick cobble content, rare concrete boulders and frequent fragments (up to 100mm) of fibreglass and glass. Gravel is angular and subangular fine to coarse brick, slag, ceramic, s (MADE GROUND)	0.20	41.12	
				Yellowish brown slightly silty sandy angular and subangular fine to coarse sandstone, brick and concrete GRAVEL. (MADE GROUND)	0.40	40.92	
				Brown and black clayey sandy angular and subangular fine to coarse brick, slag, concrete, ceramic and slate GRAVEL with a high angular brick cobble content and rare metal fragments (up to 300mm). (MADE GROUND)	0.85	40.47	
				Brown and pinkish white clayey sandy angular and subangular fine to coarse brick, slag, concrete, ceramic and slate GRAVEL with a high angular concrete cobble content and rare metal fragments (up to 300mm). (MADE GROUND)	1.20	40.12	
Dry.				Trial pit completed at 1.20m.			

Notes

Trial pit excavated by hand tools only.
Groundwater not encountered.
Trial pit sides remained stable and vertical.
Trial pit dimensions 0.82x2.30x1.20m.
On completion, the trial pit was backfilled with materials arising.
REMARKS: Pit excavated as an extension to TP110.

Sketch of Foundation - Not to scale. All dimensions in metres.

CONTRACT	CHECKED
31348	CT

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

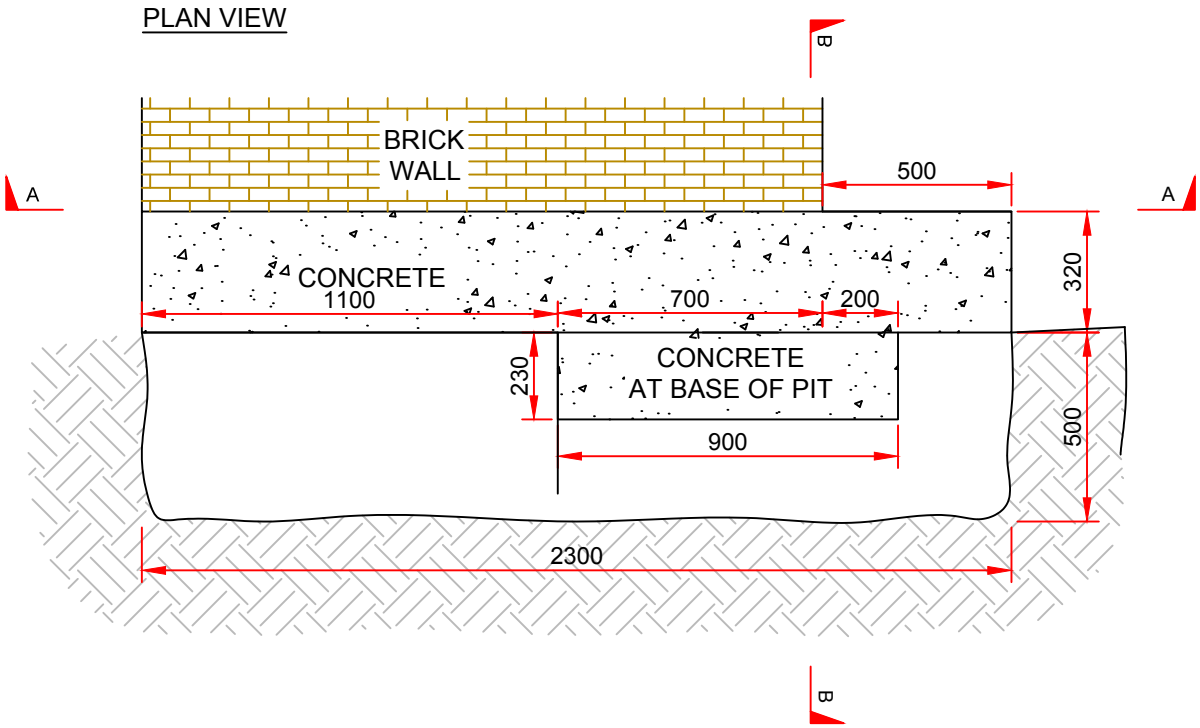
TRIAL PIT SKETCH

TP113

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

Scale 1/20



Ground Level | Wall/Brickwork | Concrete Foundation/Footing

All measurements in mm.

Note: TP113 is an extension of TP110. All plan and section details for TP110 are included within this drawing.

CONTRACT	CHECKED
31348	**MM**

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TRIAL PIT SKETCH

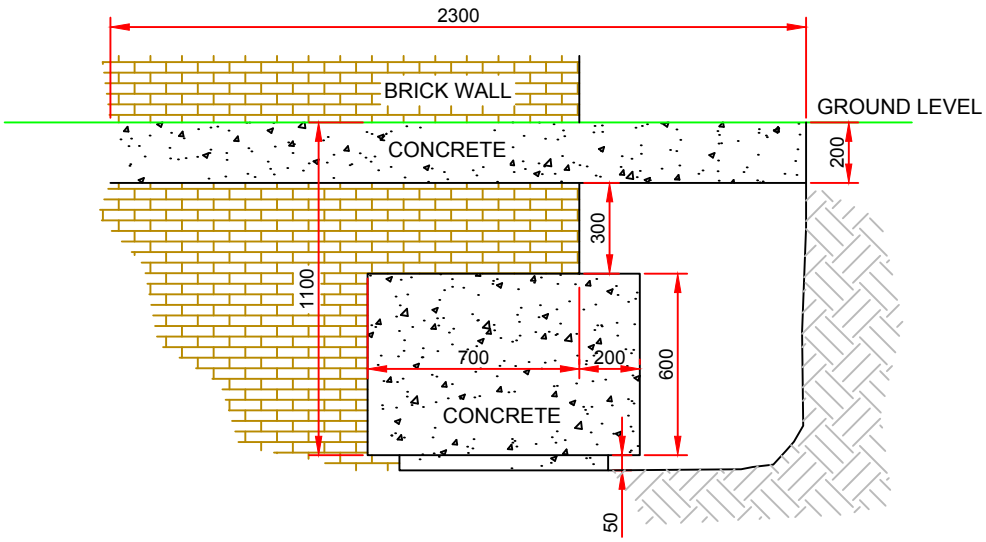
CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

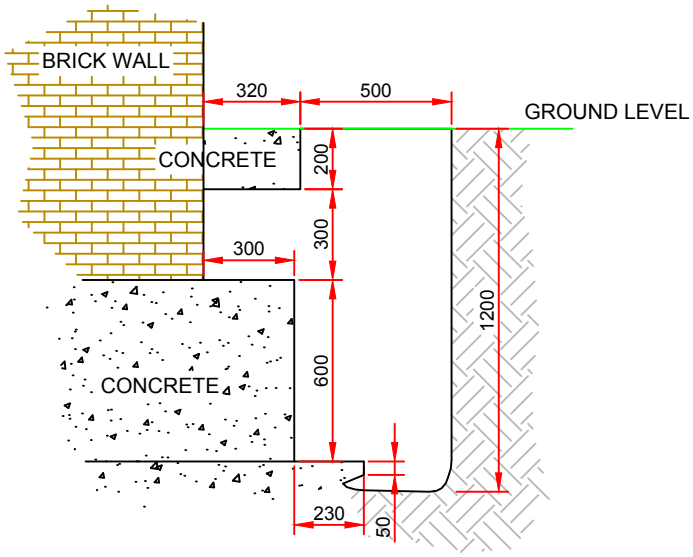
TP113

Scale 1/25

CROSS SECTION A-A



CROSS SECTION B-B



Ground Level | Wall/Brickwork | Concrete Foundation/Footing

All measurements in mm.

Note: TP113 is an extension of TP110. All plan and section details for TP110 are included within this drawing.

CONTRACT	CHECKED
31348	**MM**

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APPENDIX B

LABORATORY TESTING

2718

GEOTECHNICAL ENGINEERING LIMITED

Version No.	1
For the attention of Tom Worsley/Martin McDowell	Page No. 1 of 8
Date of Issue	04/12/2015

TEST REPORT

PROJECT/SITE	Kiln Place, Camden	Samples received	25/11/2015
GEL REPORT NUMBER	31348	Schedule received	25/11/2015
Your ref/PO:	0	Testing commenced	26/11/2015
Test report refers to	Schedule A	Status	Final

SUMMARY OF RESULTS ATTACHED

TEST METHOD & DESCRIPTION	QUANTITY	ACCREDITED TEST
BS EN ISO 17892-1: 2014:5. Water Content	15	YES
BS1377: Part 2: 1990:4.2-4.4&5.2-5.4, Liquid & Plastic Limits	15	YES
BS1377: Part 7: 1990:8&9, Undrained Triaxial Compression	8	NO
BRE SD1 Reduced Suite: pH, Sulphate - water and acid soluble, sulphur (subcontracted)	6	YES

Remarks

Approved Signatories:

S Robinson (Client Manager) C Andrew (Client Manager)

W Jones (Technical Support) J Hanson (Director) N Parry (Director)

Geotechnical Engineering Ltd
Centurion House
Olympus Park, Quedgeley
Gloucester GL2 4NF

Registered number: 00700739
VAT Number: 682 5857 89

www.geoeng.co.uk
geotech@geoeng.co.uk
TEL: 01452 527743
Fax: 01452 729314

Payments: Geotechnical Engineering Limited
Sort code: 30-15-99 **Bank account**: 00072116

Geotechnical Engineering Limited

LIQUID AND PLASTIC LIMITS

BS.1377 : Part 2 : 1990 : 4 and 5

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole /trial pit no.	sample		specimen depth (m)	natural water content (%)	specimen preparation and test method	fraction >0.425 mm (%)	liquid limit (%)	plastic limit (%)	plasticity index (%)	description and remarks
	no./type	depth (m)								
BH102	B	1.20	1.20	19.3	BXE#	57	48	26	22	Brown slightly sandy gravelly CLAY
BH102	5B	3.00	3.00	20.8	BXE	36	39	21	18	Orangish brown slightly sandy slightly gravelly CLAY
BH102	8UT	5.00	5.20	32.5	BXE	40	70	24	46	Brown mottled black slightly sandy gravelly CLAY
BH102	11D	6.50	6.50	32.5	BXE	2	73	28	45	Brown slightly sandy CLAY
BH102	14UT	8.00	8.20	31.0	BXD	1	74	26	48	Brown slightly sandy CLAY with rare gypsum
BH102	21UT	11.00	11.20	28.1	AXE	0	74	28	46	Brown slightly sandy silty CLAY
BH102	26UT	14.00	14.00	27.4	AXE	0	73	26	47	Brown slightly sandy silty CLAY
BH102	30UT	17.00	17.20	28.7	AXE	0	73	24	49	Brown slightly sandy CLAY
BH102	37UT	20.00	20.15	26.7	AXE	0	74	24	50	Brown slightly sandy CLAY
BH102	42UT	23.00	23.15	26.4	AXE	0	70	27	43	Brown slightly sandy CLAY
BH102	48UT	26.00	26.40	24.4	AXE	0	63	26	37	Brown slightly sandy CLAY
BH102	53UT	29.00	29.05	25.1	AXE	0	70	26	44	Brown slightly sandy CLAY
BH102	57UT	32.00	32.00	25.8	AXE	0	69	25	44	Brown slightly sandy CLAY
BH102	62UT	35.00	35.10	20.5	AXE	0	58	23	35	Brown slightly sandy CLAY
BH102	67UT	38.00	38.35	25.8	AXE	0	71	30	41	Brown slightly sandy CLAY

general remarks:
natural water content determined in accordance with BS EN ISO 17892 - 1 : 2014
NP denotes non-plastic
# denotes sample tested is smaller than that which is recommended in accordance with BS1377 or BS EN ISO 17892

specimen preparation:
A - as received
B - washed on 0.425mm sieve
C - air dried
D - oven dried (60°C)
E - oven dried (105°C)
F - not known

test method:
X - cone penetrometer (test 4.3)
Y - one point cone penetrometer (test 4.4)
Z - Casagrande apparatus (test 4.5)

CONTRACT **31348**

CHECKED **SR**

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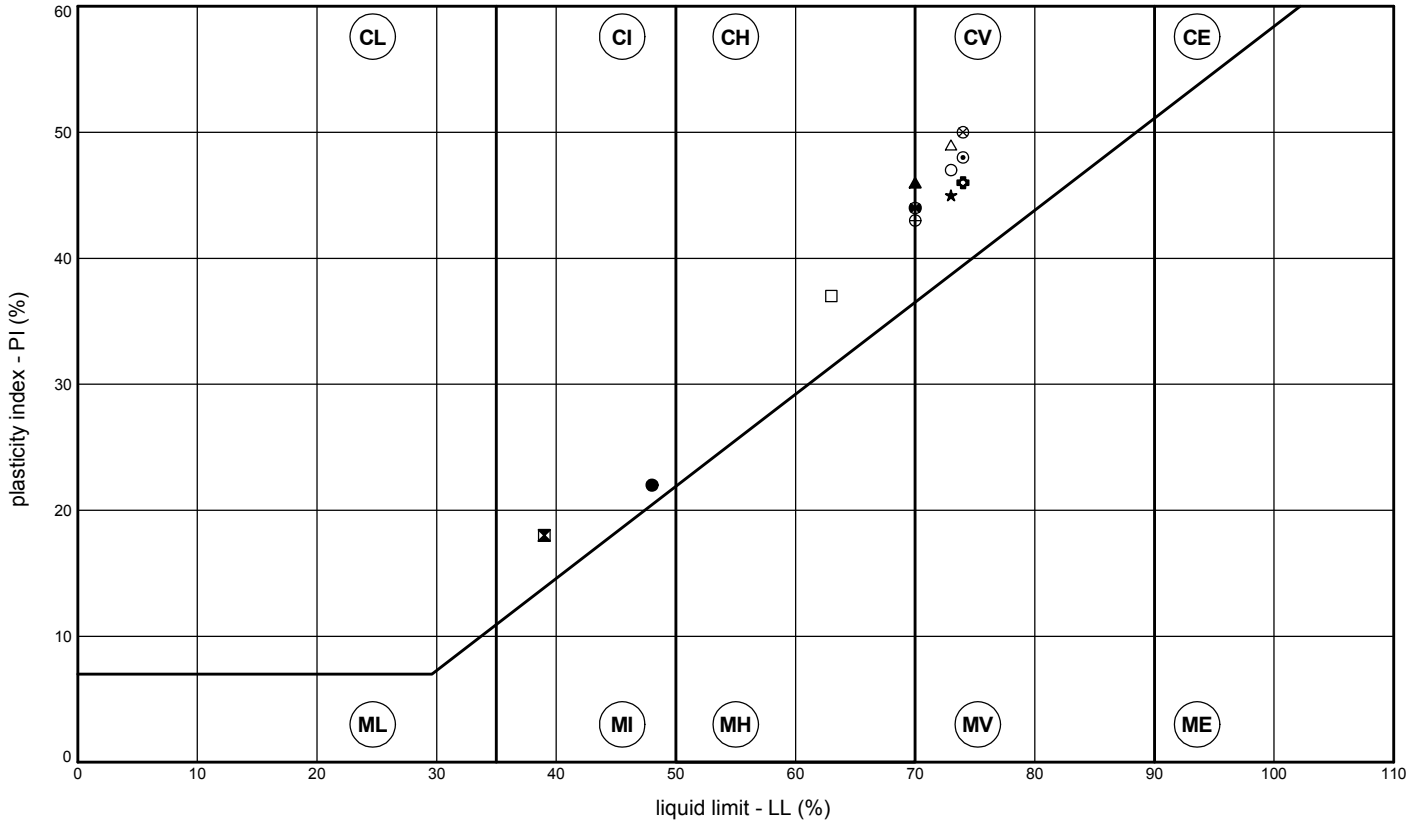
Geotechnical Engineering Limited

ATTERBERG LINE PLOT

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN



	BH/TP No.	depth (m)	LL	PL	PI	remarks
●	BH102	1.20	48	26	22	
⊠	BH102	3.00	39	21	18	
▲	BH102	5.20	70	24	46	
★	BH102	6.50	73	28	45	
⊙	BH102	8.20	74	26	48	
✿	BH102	11.20	74	28	46	
○	BH102	14.00	73	26	47	
△	BH102	17.20	73	24	49	
⊗	BH102	20.15	74	24	50	
⊕	BH102	23.15	70	27	43	
□	BH102	26.40	63	26	37	
⊗	BH102	29.05	70	26	44	

CONTRACT	CHECKED
31348	**SR**

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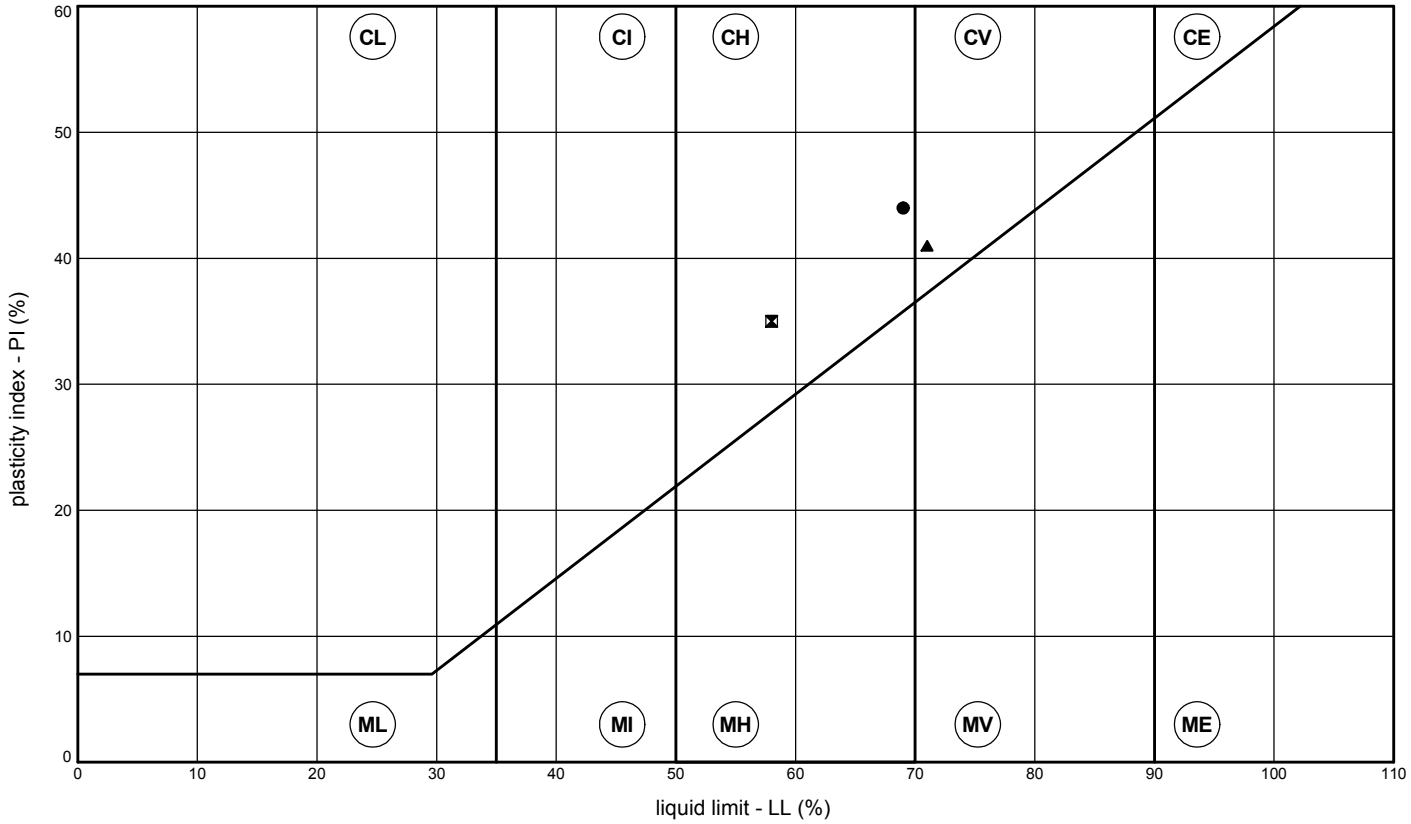
ATTERBERG LINE PLOT

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN



	BH/TP No.	depth (m)	LL	PL	PI	remarks
●	BH102	32.00	69	25	44	
⊠	BH102	35.10	58	23	35	
▲	BH102	38.35	71	30	41	

CONTRACT	CHECKED
31348	**SR**

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Geotechnical Engineering Limited

UNDRAINED TRIAXIAL COMPRESSION

BS.1377 : Part 7 : 1990 : 8 and 9

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole /trial pit no.	sample		specimen depth (m)	code	moisture content (%)	density		cell pressure (kPa)	deviator stress (kPa)	failure strain (%)	failure mode	shear strength* (kPa)	description and remarks
	no./ type	depth (m)				bulk (Mg/m^3)	dry (Mg/m^3)						
BH102	8UT	5.00	5.20	UU100	31.0	1.86	1.42	110	56	8.2	S	28	Brown mottled black slightly sandy gravelly CLAY
BH102	14UT	8.00	8.25	UU100	29.7	2.02	1.56	170	173	3.8	S	87	Brown slightly sandy slightly gravelly CLAY with rare gypsum
BH102	26UT	14.00	14.10	UU100	27.6	1.43	1.12	290	362	3.5	S	181	Brown slightly sandy silty CLAY
BH102	30UT	17.00	17.25	UU100	28.5	1.97	1.53	350	261	3.9	S	131	Brown slightly sandy CLAY
BH102	37UT	20.00	20.15	UU100	27.4	2.00	1.57	400	504	6.8	S	252	Brown slightly sandy CLAY
BH102	42UT	23.00	23.20	UU100	27.9	1.98	1.55	460	266	6.3	S	133	Brown slightly sandy CLAY
BH102	53UT	29.00	29.10	UU100	26.7	2.03	1.60	580	789	3.9	S	395	Brown slightly sandy CLAY
BH102	62UT	35.00	35.15	UU100	22.9	2.10	1.71	710	580	1.7	S	290	Brown slightly sandy CLAY

general remarks: * shear strength taken as half deviator stress at failure for each stage.
# denotes sample unsuitable to test.

code:
CD - Consolidated drained
CU - Consolidated undrained
UU - Unconsolidated undrained

M - Multistage
S - Set of 3 specimens
R - Remoulded

38 - 38mm dia. x 76mm
70 - 69mm dia. x 140mm
100 - 106mm dia. x 200mm

failure mode:
B - barrelling (plastic failure)
S - shear (brittle failure)
I - intermediate
O - other (see remarks)

membrane correction applied
sample taken vertically (unless specified)
rate of strain = 2%/min (unless specified)

membrane thickness:
38 - 0.2mm 70 - 0.4mm
106 - 0.4mm

CONTRACT **31348**

CHECKED **SR**

Geotechnical Engineering Ltd, Centurion House, Olympus Park, Quedgeley, Gloucester. GL2 4NF. Tel. 01452 527743 31348.GPJ 04/12/2015 15:50:14

Chemtest
The right chemistry to deliver results
Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.co.uk

UKAS TESTING
2183

Final Report

Report No.:	15-27903-1
Initial Date of Issue:	02-Dec-2015
Client	Geotechnical Engineering Ltd
Client Address:	Centurion House Olympus Park Quedgeley Gloucester Gloucestershire GL2 4NF
Contact(s):	Claire Andrew
Project	31348 - Kiln Place, Camden

Quotation No.:		**Date Received:**	27-Nov-2015
Order No.:		**Date Instructed:**	27-Nov-2015
No. of Samples:	6	**Target Date:**	01-Dec-2015
Turnaround (Wkdays):	5	**Results Due:**	03-Dec-2015

Date Approved: 02-Dec-2015

Approved By:

Details: Keith Jones, Technical Manager

Chemtest
The right chemistry to deliver results

Results - Soil

Project: 31348 - Kiln Place, Camden

Client: Geotechnical Engineering Ltd										
				Chemtest Job No.:	15-27903	15-27903	15-27903	15-27903	15-27903	15-27903
Quotation No.:				Chemtest Sample ID.:	225093	225094	225095	225096	225097	225098
Order No.:				Client Sample Ref.:	BH102	BH102	BH102	BH102	BH102	BH102
				Client Sample ID.:	3B	6B	12D	33B	50D	69D
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.2	3.0	6.5	17.6	26.5	38.5
				Bottom Depth (m):						
				Date Sampled:	25-Nov-2015	25-Nov-2015	25-Nov-2015	25-Nov-2015	25-Nov-2015	25-Nov-2015
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Moisture	N	2030	%	0.020	20	16	24	22	20	19
pH	U	2010		N/A	9.5	8.3	8.3	8.6	8.9	9.0
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.072	0.60	0.24	0.17	0.025	0.030
Total Sulphur	U	2175	%	0.010	0.13	0.24	0.089	1.9	0.50	0.40
Sulphate (Acid Soluble)	U	2430	%	0.010	0.23	0.38	0.14	0.20	0.20	0.15

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at our Coventry laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.co.uk

2718

GEOTECHNICAL ENGINEERING LIMITED

Version No.	1
For the attention of Tom Worsley/Martin McDowell	Page No. 1 of 7
	Date of Issue 08/12/2015

TEST REPORT

PROJECT/SITE	Kiln Place, Camden	Samples received	30/11/2015
GEL REPORT NUMBER	31348 B/TW	Schedule received	30/11/2015
Your ref/PO:	0	Testing commenced	01/12/2015
Test report refers to	Schedule B	Status	Final

SUMMARY OF RESULTS ATTACHED

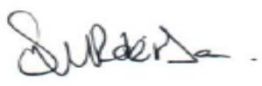
TEST METHOD & DESCRIPTION	QUANTITY	ACCREDITED TEST
BS EN ISO 17892-1: 2014:5. Water Content	10	YES
BS1377: Part 2: 1990:4.2-4.4&5.2-5.4, Liquid & Plastic Limits	10	YES
BS1377: Part 7: 1990:8&9, Undrained Triaxial Compression	5	NO
pH (subcontracted)	6	YES
Sulphate Content - 2:1 Water Soluble (subcontracted)	6	YES
Total Sulphate (subcontracted)	6	YES
Total Sulphur (subcontracted)	6	YES

Remarks

Approved Signatories:

S Robinson (Client Manager) C Andrew (Client Manager)

W Jones (Technical Support) J Hanson (Director) N Parry (Director)



Geotechnical Engineering Ltd
Centurion House
Olympus Park, Quedgeley
Gloucester GL2 4NF

Registered number: 00700739
VAT Number: 682 5857 89

www.geoeng.co.uk
geotech@geoeng.co.uk
TEL: 01452 527743
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Payments: Geotechnical Engineering Limited
Sort code: 30-15-99 **Bank account**: 00072116

Geotechnical Engineering Limited

LIQUID AND PLASTIC LIMITS

BS.1377 : Part 2 : 1990 : 4 and 5

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole /trial pit no.	sample		specimen depth (m)	natural water content (%)	specimen preparation and test method	fraction >0.425 mm (%)	liquid limit (%)	plastic limit (%)	plasticity index (%)	description and remarks
	no./type	depth (m)								
BH103	3B	1.20	1.20	25.1	BXE	52	48	26	22	Brown slightly sandy gravelly CLAY
BH103	9B	4.40	4.40	66.3	BXE	16	54	37	17	Brownish black slightly gravelly slightly sandy SILT with rare organic matter
BH103	13B	5.30	5.30	39.2	BXE	1	74	27	47	Brown slightly sandy CLAY
BH103	15UT	6.50	6.60	29.5	BXE	19	82	28	54	Greyish brown and orangish brown slightly sandy slighlty gravelly CLAY
BH103	21UT	9.50	9.70	32.1	BXD	2	79	28	51	Brown slightly sandy CLAY with rare gypsum
BH103	26UT	12.50	12.50	30.5	AXE	0	80	28	52	Brown slightly sandy CLAY
BH103	32UT	15.50	15.65	28.3	AXE	0	74	28	46	Brown slightly sandy CLAY
BH103	37UT	18.50	18.85	27.5	BXD	7	69	26	43	Brown slightly sandy slightly gravelly CLAY with rare gypsum
BH103	43UT	21.50	21.85	24.1	AXE	0	69	29	40	Brown slightly sandy CLAY
BH103	48UT	24.50	24.70	26.5	AXE	0	67	28	39	Brown slightly sandy CLAY

general remarks:
natural water content determined in accordance with BS EN ISO 17892 - 1 : 2014
NP denotes non-plastic
# denotes sample tested is smaller than that which is recommended in accordance with BS1377 or BS EN ISO 17892

specimen preparation:
A - as received
B - washed on 0.425mm sieve
C - air dried
D - oven dried (60°C)
E - oven dried (105°C)
F - not known

test method:
X - cone penetrometer (test 4.3)
Y - one point cone penetrometer (test 4.4)
Z - Casagrande apparatus (test 4.5)

CONTRACT **31348**

CHECKED **SR**

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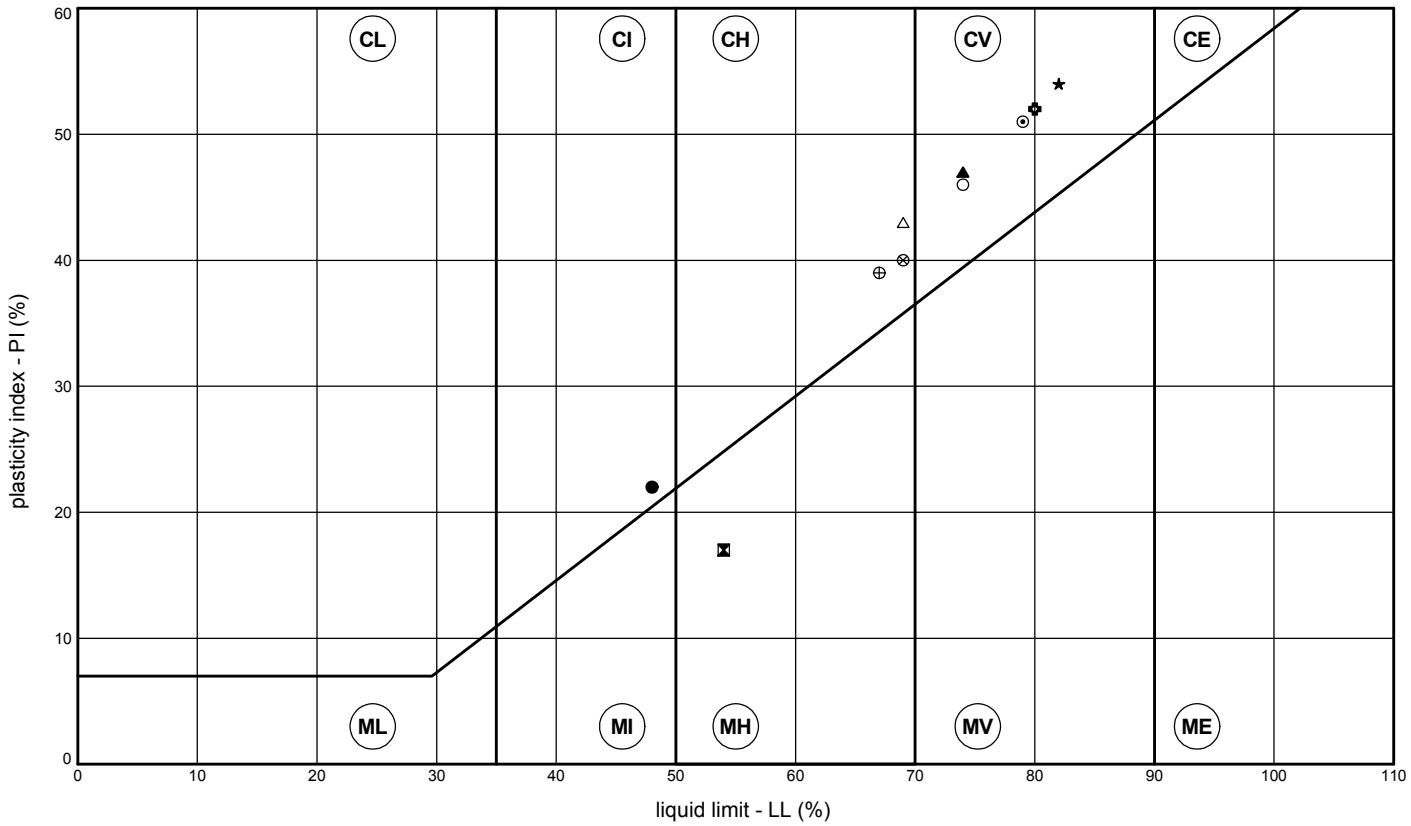
Geotechnical Engineering Limited

ATTERBERG LINE PLOT

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN



	BH/TP No.	depth (m)	LL	PL	PI	remarks
●	BH103	1.20	48	26	22	
⊠	BH103	4.40	54	37	17	
▲	BH103	5.30	74	27	47	
★	BH103	6.60	82	28	54	
⊙	BH103	9.70	79	28	51	
✿	BH103	12.50	80	28	52	
○	BH103	15.65	74	28	46	
△	BH103	18.85	69	26	43	
⊗	BH103	21.85	69	29	40	
⊕	BH103	24.70	67	28	39	

CONTRACT	CHECKED
31348	**SR**

Geotechnical Engineering Ltd, Centurion House, Olympus Park, Quedgeley, Gloucester. GL2 4NF. Tel. 01452 527743 31348.GPJ 08/12/2015 13:19:58

Geotechnical Engineering Limited

UNDRAINED TRIAXIAL COMPRESSION

BS.1377 : Part 7 : 1990 : 8 and 9

CLIENT LONDON BOROUGH OF CAMDEN

SITE KILN PLACE, CAMDEN

borehole /trial pit no.	sample		specimen depth (m)	code	moisture content (%)	density		cell pressure (kPa)	deviator stress (kPa)	failure strain (%)	failure mode	shear strength* (kPa)	description and remarks
	no./ type	depth (m)				bulk (Mg/m^3)	dry (Mg/m^3)						
BH103	15UT	6.50	6.65	UU100	31.5	1.93	1.46	140	85	16.4	S	43	Orangish brown mottled grey slightly sandy CLAY
BH103	21UT	9.50	9.75	UU100	32.8	1.98	1.49	200	174	5.3	S	87	Brown slightly sandy CLAY with rare gypsum
BH103	32UT	15.50	15.70	UU100	29.8	1.96	1.51	320	182	4.5	S	91	Brown slightly sandy CLAY
BH103	43UT	21.50	21.70	UU100	28.5	2.05	1.59	440	604	5.8	S	302	Brown slightly sandy CLAY
BH103	48UT	24.50	24.75	UU100	26.2	2.04	1.62	500	478	4.4	S	239	Brown slightly sandy CLAY

general remarks: * shear strength taken as half deviator stress at failure for each stage.
# denotes sample unsuitable to test.

code:
CD - Consolidated drained
CU - Consolidated undrained
UU - Unconsolidated undrained

M - Multistage
S - Set of 3 specimens
R - Remoulded

38 - 38mm dia. x 76mm
70 - 69mm dia. x 140mm
100 - 106mm dia. x 200mm

failure mode:
B - barrelling (plastic failure)
S - shear (brittle failure)
I - intermediate
O - other (see remarks)

membrane correction applied
sample taken vertically (unless specified)
rate of strain = 2%/min (unless specified)

membrane thickness:
38 - 0.2mm 70 - 0.4mm
106 - 0.4mm

CONTRACT **31348**

CHECKED **SR**

Geotechnical Engineering Ltd, Centurion House, Olympus Park, Quedgeley, Gloucester. GL2 4NF. Tel. 01452 527743 31348.GPJ 08/12/2015 14:08:34

Chemtest
The right chemistry to deliver results
Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.co.uk

UKAS TESTING
2183

Final Report

Report No.:	15-28239-1
Initial Date of Issue:	04-Dec-2015
Client	Geotechnical Engineering Ltd
Client Address:	Centurion House Olympus Park Quedgeley Gloucester Gloucestershire GL2 4NF
Contact(s):	Claire Andrew
Project	31348 - Kiln Place, Camden

Quotation No.:		**Date Received:**	02-Dec-2015
Order No.:		**Date Instructed:**	02-Dec-2015
No. of Samples:	6	**Target Date:**	04-Dec-2015
Turnaround (Wkdays):	4	**Results Due:**	07-Dec-2015

Date Approved: 04-Dec-2015

Approved By:

Details: Keith Jones, Technical Manager

Chemtest
The right chemistry to deliver results

Results - Soil

Project: 31348 - Kiln Place, Camden

Client: Geotechnical Engineering Ltd				Chemtest Job No.:	15-28239	15-28239	15-28239	15-28239	15-28239	15-28239
Quotation No.:				Chemtest Sample ID.:	226717	226718	226719	226720	226721	226722
Order No.:				Client Sample Ref.:	BH103	BH103	BH103	BH103	BH103	BH103
				Client Sample ID.:	3B	9B	15U	24D	32UT	48UT
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.2	4.4	6.5	11.0	15.5	24.5
				Bottom Depth (m):						
				Date Sampled:						
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Moisture	N	2030	%	0.020	21	36	27	22	13	21
pH	U	2010		N/A	8.5	8.3	8.1	7.9	8.9	9.0
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	1.1	0.14	0.17	0.89	0.16	0.068
Total Sulphur	U	2175	%	0.010	0.41	0.17	0.070	0.43	0.24	0.24
Sulphate (Total)	U	2430	%	0.010	1.0	0.41	0.13	1.4	0.61	0.62

Report Information

Key

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<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
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Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at our Coventry laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.co.uk

APPENDIX C

CHEMICAL ANALYSES

Derwentside Environmental Testing Services

Certificate of Analysis

Certificate Number 15-50937

30-Nov-15

Client Geotechnical Engineering Ltd
Centurion House
Olympus Park
Quedgeley
Gloucester
GL2 4NF

Our Reference 15-50937

Client Reference (not supplied)

Order No 31348/TW

Contract Title KILN PLACE, CAMDEN

Description 2 Soil samples.

Date Received 20-Nov-15

Date Started 20-Nov-15

Date Completed 30-Nov-15

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the scope of UKAS accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Rob Brown
Business Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-50937
Client Ref
Contract Title KILN PLACE, CAMDEN

			Lab No	902360	902361
			Sample ID	BH102	BH102
			Depth	2.00	9.00
			Other ID		
			Sample Type	SOIL	SOIL
			Sampling Date	13/11/15	13/11/15
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg	19	9.2
Cadmium	DETSC 2301#	0.1	mg/kg	1.8	0.4
Chromium	DETSC 2301#	0.15	mg/kg	22	34
Copper	DETSC 2301#	0.2	mg/kg	65	22
Lead	DETSC 2301#	0.3	mg/kg	630	15
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	35	32
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	1000	68
Inorganics					
Conductivity	DETSC 2009	1	uS/cm	930	1300
pH	DETSC 2008#			8.2	8.1
Alkalinity as CaCO3	DETSC 2030*	10	mg/kg	81000	45000
Organic matter	DETSC 2002#	0.1	%	3.0	0.7
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	10	16
Chloride	DETSC 2055	1	mg/kg	10.7	192
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	600	770
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	29	31
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	29	31
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1.5	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	37	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	38	< 10
TPH Ali/Aro	DETSC 3072*	10	mg/kg	68	31
PAHs					
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	2.4	< 0.1

Key: * -not accredited. # -MCERTS (accreditation only implied if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 15-50937
Client Ref
Contract Title KILN PLACE, CAMDEN

			Lab No	902360	902361
			Sample ID	BH102	BH102
			Depth	2.00	9.00
			Other ID		
			Sample Type	SOIL	SOIL
			Sampling Date	13/11/15	13/11/15
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Anthracene	DETSC 3301	0.1	mg/kg	0.8	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	4.9	< 0.1
Pyrene	DETSC 3301	0.1	mg/kg	4.7	< 0.1
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	2.2	< 0.1
Chrysene	DETSC 3301	0.1	mg/kg	2.2	< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	1.6	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	1.3	< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	2.0	< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	1.1	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.1	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	1.3	< 0.1
PAH	DETSC 3301	1.6	mg/kg	25	< 1.6
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3

Key: * -not accredited. # -MCERTS (accreditation only implied if report carries the MCERTS logo). n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 15-50937
Client Ref
Contract KILN PLACE, CAMDEN

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
902360	BH102 2.00 SOIL	13/11/15	GJ 250ml, GJ 60ml, PT 1L		
902361	BH102 9.00 SOIL	13/11/15	GJ 250ml, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Derwentside Environmental Testing Services

Certificate of Analysis

Certificate Number 15-52915-1

17-Dec-15

Client Geotechnical Engineering Ltd
Centurion House
Olympus Park
Quedgeley
Gloucester
GL2 4NF

Our Reference 15-52915-1

Client Reference 31348

Order No 31348/tw

Contract Title KILN PLACE, CAMDEN

Description 2 Soil samples.

Date Received 09-Dec-15

Date Started 09-Dec-15

Date Completed 17-Dec-15

Test Procedures Identified by prefix DETSn (details on request).

Notes **This report supersedes 15-52915. Extra testing**

Opinions and interpretations are outside the scope of UKAS accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Rob Brown
Business Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-52915-1
Client Ref 31348
Contract Title KILN PLACE, CAMDEN

			Lab No	913213	913214
			Sample ID	BH103	BH103
			Depth	4.40	9.00
			Other ID		
			Sample Type	SOIL	SOIL
			Sampling Date	20/11/15	20/11/15
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg	12	7.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.3
Chromium	DETSC 2301#	0.15	mg/kg	19	33
Hexavalent Chromium	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	45	20
Lead	DETSC 2301#	0.3	mg/kg	190	16
Mercury	DETSC 2325#	0.05	mg/kg	0.71	< 0.05
Nickel	DETSC 2301#	1	mg/kg	15	31
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	110	62
Inorganics					
Conductivity	DETSC 2009	1	uS/cm	1200	3900
pH	DETSC 2008#			8.2	7.8
Alkalinity as CaCO3	DETSC 2030*	10	mg/kg	56000	40000
Cyanide Total	DETSC 2130#	0.1	mg/kg	1.2	0.3
Organic matter	DETSC 2002#	0.1	%	11	0.2
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	1800	21
Chloride	DETSC 2055	1	mg/kg	57.5	190
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	260	2400
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.02	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	5.2	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	2.0	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10
TPH Ali/Aro	DETSC 3072*	10	mg/kg	< 10	< 10
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	57	< 10
EPH (C21-C28)	DETSC 3311	10	mg/kg	32	< 10

Key: * -not accredited. # -MCERTS (accreditation only implied if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 15-52915-1
Client Ref 31348
Contract Title KILN PLACE, CAMDEN

			Lab No	913213	913214
			Sample ID	BH103	BH103
			Depth	4.40	9.00
			Other ID		
			Sample Type	SOIL	SOIL
			Sampling Date	20/11/15	20/11/15
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
EPH (C28-C35)	DETSC 3311	10	mg/kg	33	< 10
EPH (C35-C40)	DETSC 3311	10	mg/kg	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	130	< 10
PAHs					
Naphthalene	DETSC 3301	0.1	mg/kg	1.4	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	0.2	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	2.3	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	1.9	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	9.3	< 0.1
Anthracene	DETSC 3301	0.1	mg/kg	1.1	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	8.8	< 0.1
Pyrene	DETSC 3301	0.1	mg/kg	7.9	< 0.1
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	3.7	< 0.1
Chrysene	DETSC 3301	0.1	mg/kg	3.8	< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	2.0	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	1.0	< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	4.4	< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	2.1	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.6	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	1.4	< 0.1
PAH	DETSC 3301	1.6	mg/kg	52	< 1.6
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	0.6

Key: * -not accredited. # -MCERTS (accreditation only implied if report carries the MCERTS logo). n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 15-52915-1
Client Ref 31348
Contract Title KILN PLACE, CAMDEN

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
913213	BH103 4.40	SOIL	NAD	none	Colin Patrick
913214	BH103 9.00	SOIL	NAD	none	Colin Patrick

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 15-52915-1
Client Ref 31348
Contract KILN PLACE, CAMDEN

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
913213	BH103 4.40 SOIL	20/11/15	GJ 250ml, GJ 60ml, PT 1L		
913214	BH103 9.00 SOIL	20/11/15	GJ 250ml, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time and/or inappropriate containers are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months