

FACTUAL REPORT OF INVESTIGATION

AT:- 14 Greville Road

ON:- 11 May 2004

FOR:- Norwich Union
c/o Cunningham Lindsey - St Albans

REF:- 1837760-14 Greville Road Management

JOB NO:- 65043

SPECIALIST CONTRACTING DIVISION

CET GROUP LIMITED

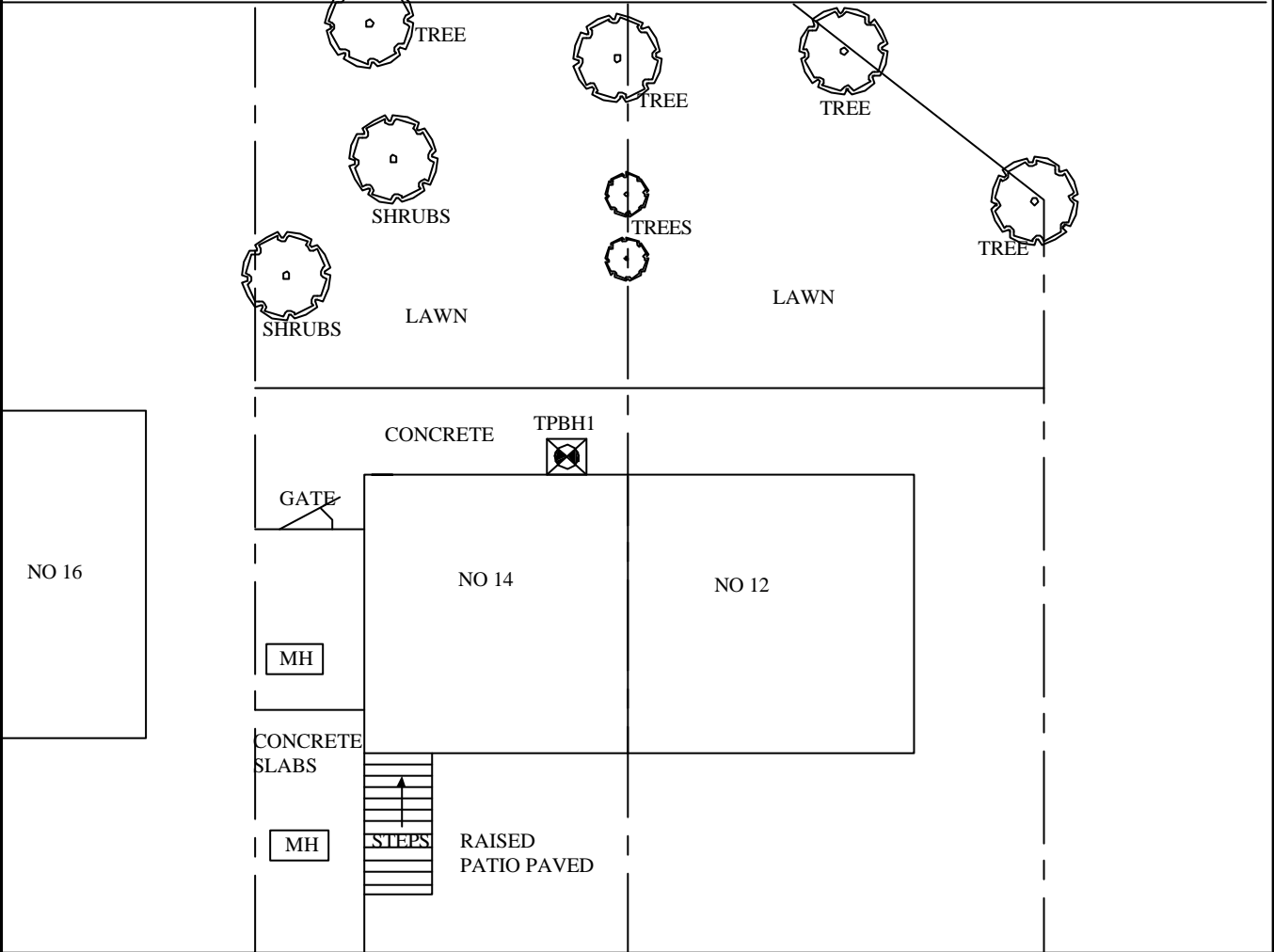
Lawness Barns, Mountnessing Road, Billericay, Essex CM12 0TS

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


Tel: 01277 655377

Fax: 01277 655977

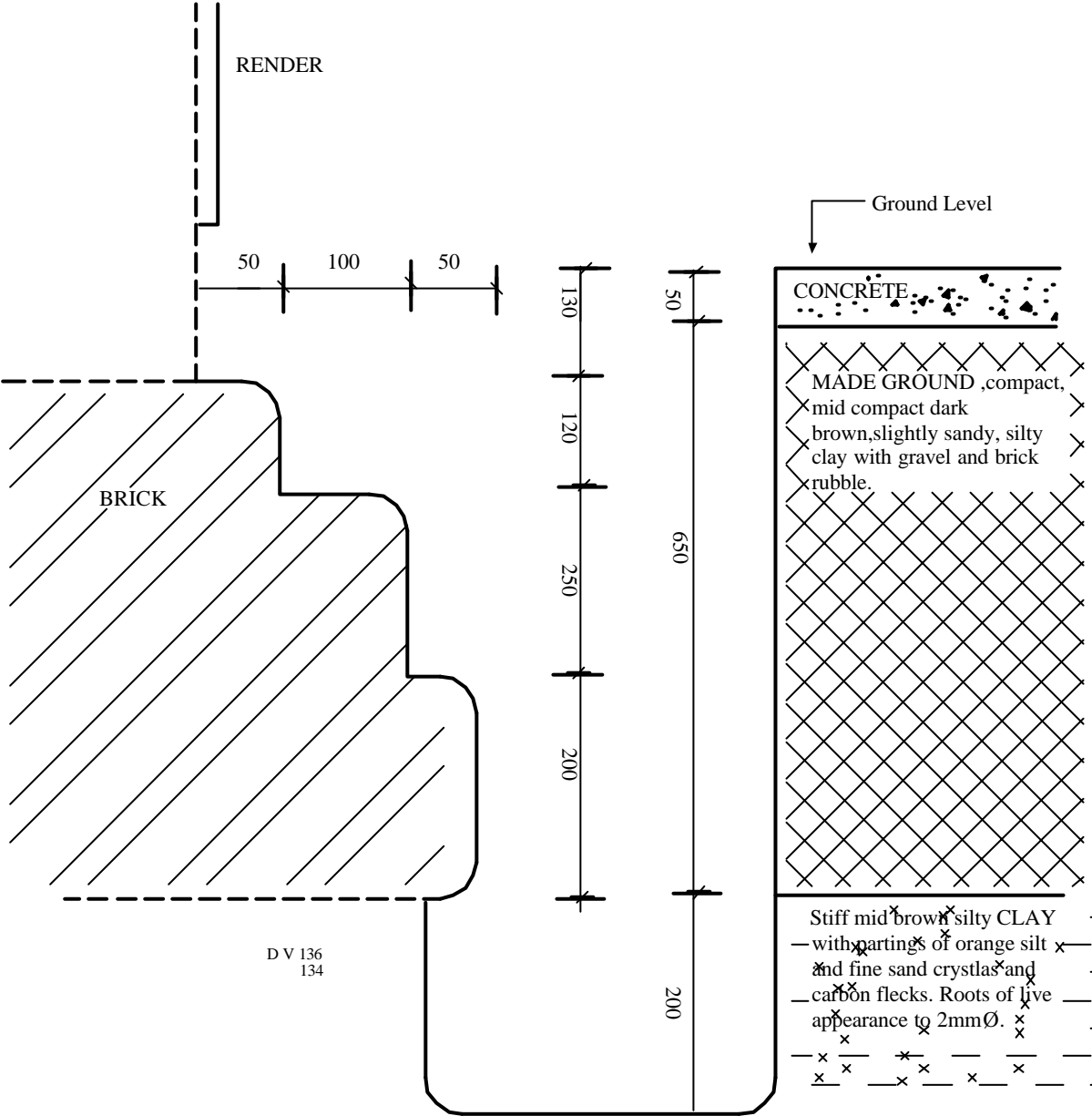
Investigation Layout Plan		Sheet: 1 of 1	Site: 14 Grenville Road
		Job No: 65043	
Drawn: GC (SI) LQ (Drawn By)		Date: 11.05.04	Work carried out for: Cunningham Lindsey
		Checked: SL	



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:	Key:			
	Combined Gully	RWWG	Surface Water Drain	-----
	Manhole	MH	Foul Water Drain	=====
	Rain Water Pipe	RWP	Tree / Bush	
	Rain Water Gully	RWG	(approx. ht in m)	
	Soil Vent Pipe	SVP	Trial Pit	
	Waste Gully	WG	Borehole	
Scale: N.T.S.	Waste Pipe	WP		

Trial Pit No: 1	Sheet: 1 of 1	Site: 14 Grenville Road, NW6
	Job No: 065043	
Excavation Method: Hand Tools	Date: 11/05/04	Work carried out for: Cunningham Lindsey
Weather: Dry	Drawn By: KG	
	Ground Level mOD:	



Remarks: All measurements in millimetres.			Key:	
			D	Small disturbed sample
			B	Bulk disturbed sample
			W	Water sample
			TDTD	Too dense to drive
			J	Jar sample
			V	Pilcon Vane (kPa)
			M	Mackintosh probe
Logged: GL	Checked: SL	Approved:	Scale:	N.T.S.

Borehole No: 1			Sheet: 1 of 1			Site: 14 Greville Road, London NW6 Work Carried out for: Cunningham Lindsey				
Boring Method: Hand Auger			Job No: 065043							
Diameter: 50mm			Date: 11/05/2004							
Coordinates:			Ground Level mOD:							
Depth (m)	Description of Strata		Thick-ness (m)	Legend	Sample	Test Type	Result	Depth (m)	Field Records/Comments	Depth to water (m)
0.90	As Trial Pit 1		0.90							
	Very stiff, mid brown, silty CLAY with partings of orange silt & fine sand, crystals & carbon flecks.		1.80	___x	D	V	140+	1.00	Roots of live appearance to 2mm diameter observed to 1.5m	

x___				D	V	140+	1.50	No roots observed below 1.5m		

2.70				___x.	D	V	140+	2.00		

___x				D	V	140+	2.50			

Borehole ends at 2.7m Too dense to hand auger										
Remarks: Borehole dry and open on completion					Key: T.D.T.D. Too Dense to Drive D Small disturbed sample J Jar sample B Bulk disturbed sample V Pilcon Vane (kPa) W Water sample M Mackintosh Probe					
Logged: GC	Checked: SL		Scale: NTS			Weather:				

Our Ref : 065043

Location : 14 Greville Road

Work carried out for: Cunningham Lindsey - St Albans

Laboratory Testing Results

Date Sampled: 11/05/2004

Date Received : 26/05/2004

Date Tested : 10/06/2004

Date of Report : 10/06/2004

Sample Ref		Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity Index [5]	Modified Plasticity Index (%) [6]	Soil Class [7]	Filter Paper Contact Time (h) [8]	Soil Sample Suction (kPa)	In situ Shear Vane Strength (kPa) [9]	Organic Content (%) [10]	pH Value [11]	Sulphate Content (g / l)		Class [14]
TP/BH No	Depth (m)															SO3 [12]	SO4 [13]	
1	0.70(U/S)	D	28	<5	67	24	43	0.10	43	CH	168	363	135					
	1.0	D	26	<5									> 140					
	1.5	D	24	<5	69	22	47	0.04	47	CH	168	869	> 140					
	2.0	D	28	<5									> 140					
	2.5	D	25	<5	67	26	41	-0.03	41	CH	168	1094	> 140					

Test Methods / Notes

[1] BS 1377 : Part 2 : 1990, Test No 3.2

[2] Estimated if <5%, otherwise measured

[3] BS 1377 : Part 2 : 1990, Test No 4.4

[4] BS 1377 : Part 2 : 1990, Test No 5.3

[5] BS 1377 : Part 2 : 1990, Test No 5.4

[6] BRE Digest 240 : 1993

[7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils

[8] BRE IP 4/93

[9] Values of shear strength were determined in situ by CET Group using a Pilcon hand vane or Geonor vane (GV).

[10] BS 1377 : Part 3 : 1990, Test No 4

[11] BS 1377 : Part 2 : 1990, Test No 9

[12] BS 1377 : Part 3 : 1990, Test No 5.6

[13] SO₄ = 1.2 x SO₃

[14] BRE Digest 363 : 1991, Table 1. Reference should also be made to Table 2 which depending on the pH and exposure conditions may require the class to be advanced by 1 or 2.

Key

D	Disturbed sample (small)
B	Disturbed sample (bulk)
U	Undisturbed sample
W	Groundwater sample
ENP	Essentially Non-Plastic by inspection
U/S	Underside of Foundation

Our Ref : 065043

Location : 14 Greville Road

Work carried out for: Cunningham Lindsey - St Albans

Moisture Content and Suction Profiles

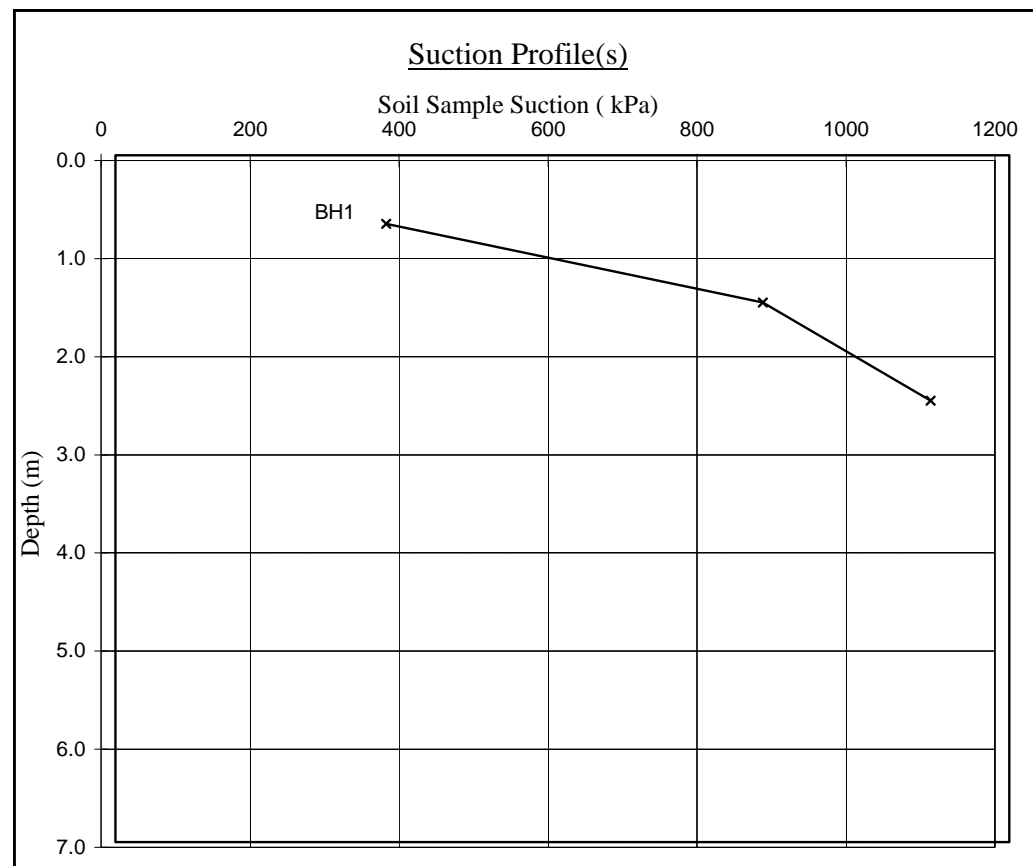
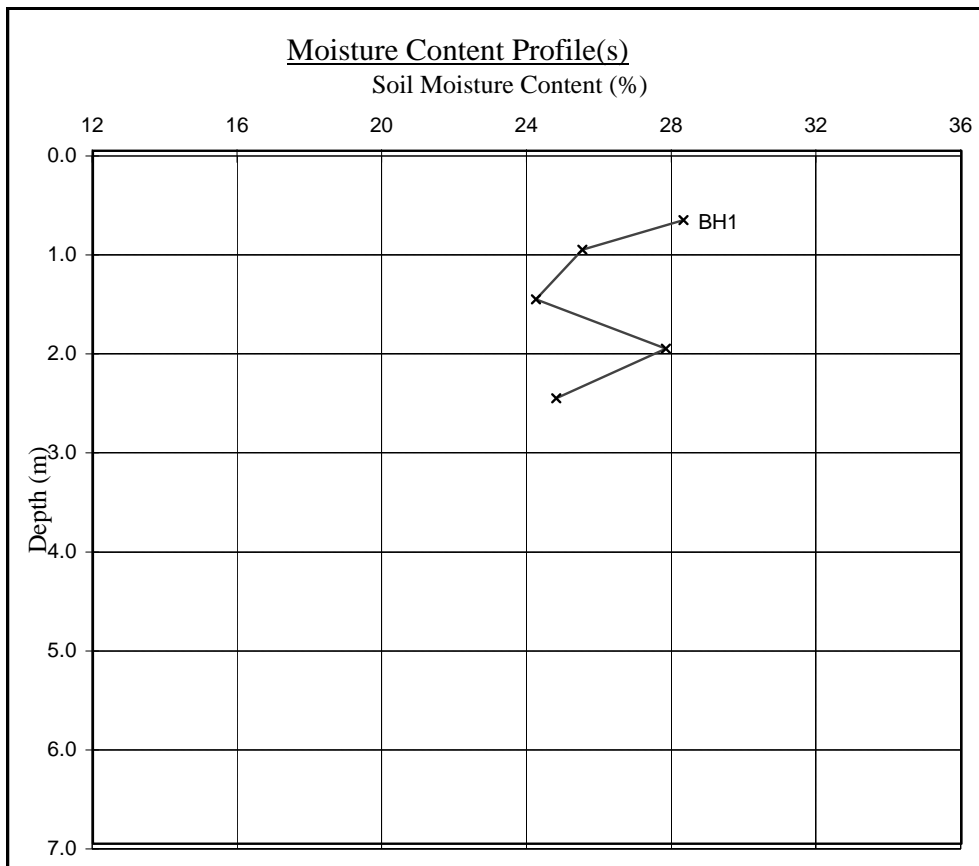
Note : Unless specifically noted the profiles have not been related to a site datum.

Date Sampled : 11/05/2004

Date Received : 26/05/2004

Date Tested : 10/06/2004

Date of Report : 10/06/2004



Notes

1. If the Soil Fraction > 0.425mm exceeds 5% the Equivalent Moisture Content of the remainder (calculated in accordance with BS 1377: Part 2 : 1990, cl.3.2.4 note 1) is also plotted and the alternative profile additionally shown as an appropriately coloured broken line.
2. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clays) at shallow depths.

Note

When shown, the theoretical equilibrium suction profiles are based on conventional assumptions associated with London Clay (and similarly overconsolidated clays) at shallow depths. Note that the sample disturbance component is dependant on the method of sampling and any subsequent recompaction. The above plots show this to be 100kPa which is the value suggested by the BRE on the basis of their limited number of tests on recompacted samples. This may or may not be appropriate in this instance and judgement should be exercised.



Our Ref : 065043

Location : 14 Greville Road

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Moisture Content and Shear Strength Profiles

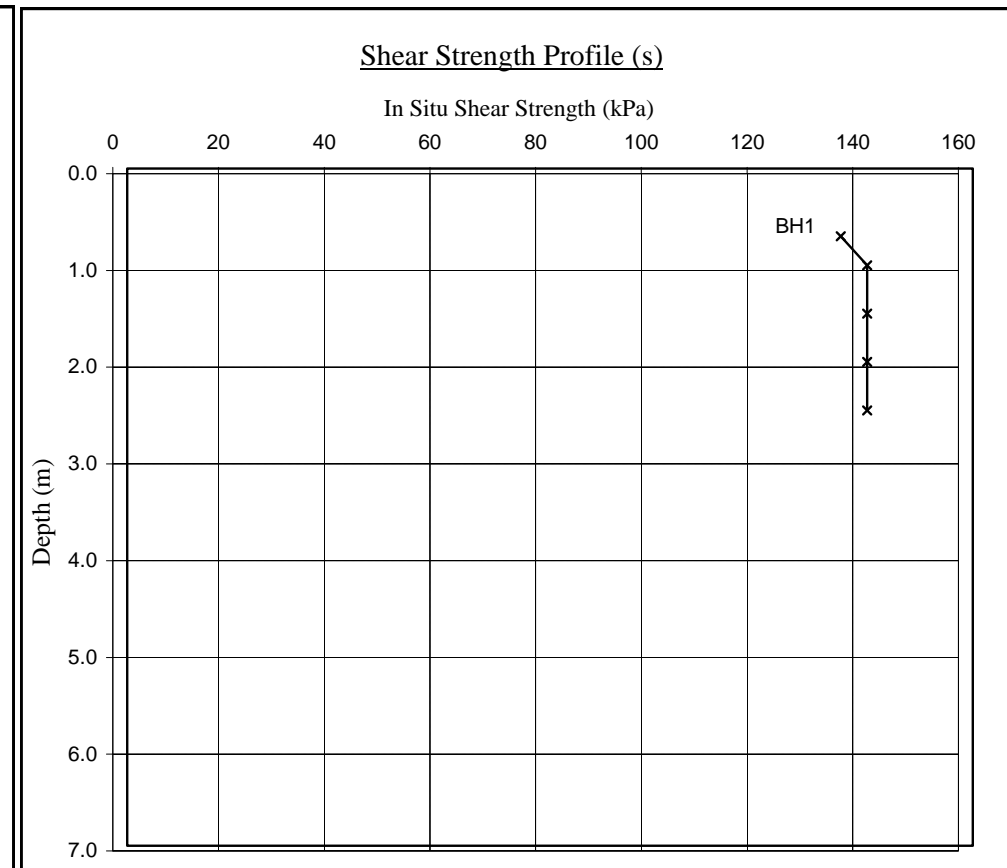
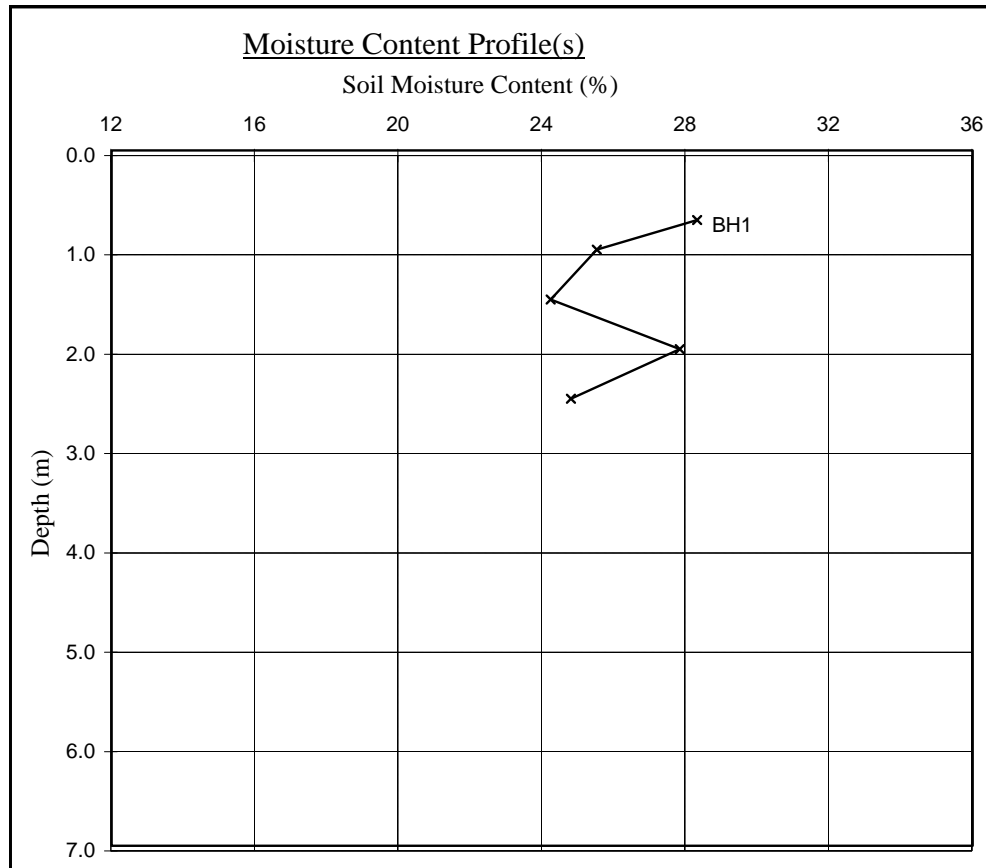
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2. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clays) at shallow depths.

Note

Unless otherwise stated, values of Shear Strength were determined in situ by CET Group using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa.



Tree Root Investigation Ltd

Sheet: 1 of 1
Job No: 065043
Date: 17.05.04
Order No: 69625/SS

Site: 14 Greville Road,
London, NW6.
Work carried
out for: Cunningham Lindsey

Certificate of Analysis

The following work was commissioned by CET Group Limited on behalf of their client. Root samples were obtained in sealed packets from the above site with no reference given as to the types of tree or shrub from which they may have originated.

The results were as follows -

Trial pit/ Borehole number	Root diameter (mm)	Tree, shrub or climber from which root originates	Result of starch test#
TP1 (underside)	1.5	<u>Acer</u> (sycamore; maple)	positive

The presence of starch indicates that the root was alive in the recent past.

Ronald Macleod

DR RONALD D MACLEOD
Managing Director

Address for correspondence: 3 Langley Drive, Kinnoull Hill, Perth, PH2 7XA.

Telephone: 01738 639113

Facsimile: 01738 639113

e-mail: rdmmacleod@btconnect.com

Directors: R.D. MacLeod, B.Sc., Ph.D., A.W. MacLeod.

Accounts/Quality Manager: Fiona M. Sinclair, H.N.C. (Management)

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