

SITE INVESTIGATION FACTUAL REPORT

Report No: 195670
Client: Cunningham Lindsey - Maidstone
Site: 19, Parkhill Road
London
Client Ref: 7469960-
Date of Visit: 09/09/2014



Home Emergency Response - Subsidence Investigation - Drainage Services – Crack & Level Monitoring – Property Video Surveys

Unit E2 First Floor Suite, Boundary Court
Willow Farm Business Park, Castle Donington
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CET is the trading name of CET Structures Ltd
Registered in England No. 02527130

Investigation Layout Plan			Sheet: 1 of 1 Job No: 195670E Date: 09/09/14	Site: 19 Parkhill Road, NW3 Work carried out for: Cunningham Lindsey																												
DB (SI)	SE (Checked)	NR (Drawn)	Weather: Dry																													
NO 19 X3 X2 LIGHT WELL PREVIOUS TP/BH + DATUM BH1 FRONT TREES																																
ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.																																
Remarks:		Key: <table><tr><td>Combined Gulley</td><td>RWWG</td><td>Surface Water Drain</td><td> </td></tr><tr><td>Manhole</td><td>MH</td><td>Foul Water Drain</td><td> </td></tr><tr><td>Rain Water Pipe</td><td>RWP</td><td>Tree / Bush</td><td> </td></tr><tr><td>Rain Water Gulley</td><td>RWG</td><td>(approx. ht in m)</td><td></td></tr><tr><td>Soil Vent Pipe</td><td>SVP</td><td>Trial Pit</td><td> </td></tr><tr><td>Waste Gulley</td><td>WG</td><td>Borehole</td><td> </td></tr><tr><td>Waste Pipe</td><td>WP</td><td></td><td></td></tr></table>			Combined Gulley	RWWG	Surface Water Drain		Manhole	MH	Foul Water Drain		Rain Water Pipe	RWP	Tree / Bush		Rain Water Gulley	RWG	(approx. ht in m)		Soil Vent Pipe	SVP	Trial Pit		Waste Gulley	WG	Borehole		Waste Pipe	WP		
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Scale: N.T.S.																																

Borehole No: 1			Sheet: 1 of 1		Site: 19 Parkhill Road, NW3									
Boring Method: Hand Auger			Job No: 195670E							Date: 09/09/2014				
Diameter: 75mm		Coordinates:	Ground Level mOD:							Work Carried out for: Cunningham Lindsey				
Depth (m)	Description of Strata		Thick-ness (m)	Legend	Sample	Test Type	Result	Depth (m)	Field Records/Comments	Depth to water (m)				
G/L 0.10	CONCRETE/PAVING		0.10											
1.00	MADE GROUND: medium compact mid brown silty clay with occasional brick fragments		0.90						Roots to 7mm diameter to 0.7m No roots observed below 0.7m					
					D	V	140+ 140+	1.00						
					D	V	140+ 140+	1.50						
					D	V	140+ 140+	2.00						
					D	V	140+ 140+	2.50						
					D	V	140+ 140+	3.00						
					D	V	140+ 140+	3.50						
					D	V	140+ 140+	4.00						
					D	V	140+ 140+	4.50						
					D	V	140+ 140+	5.00						
5.00	BH ends at 5.0m													
Remarks: Borehole dry & 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: DB	Checked: SE	Drawn by NR			Scale: NTS		Weather: Dry							

Our Ref : 195670

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Laboratory Testing Results

Date Sampled: 09/09/2014

Date Received : 10/09/2014

Date Tested : 10/09/2014

Date of Report : 18/09/2014

Sample Ref		Type	Moisture Content	Soil Fraction > 0.425mm	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Modified Plasticity Index	Soil Class	Filter Paper Contact Time	Soil Sample Suction	In situ Shear Vane Strength	Organic Content	pH Value	Sulphate Content		Class
TP/BH No	Depth (m)															(g / l)		
																SO3	SO4	
			(%) [1]	(%) [2]	(%) [3]	(%) [4]	(%) [5]	[5]	(%) [6]	[7]	(h) [8]	(kPa)	(kPa) [9]	(%) [10]	[11]	[12]	[13]	[14]
BH1	1.0	D	33	<5	77	26	51	0.14	51	CV	168	360	> 140					
	1.5	D	31	<5	80	25	55	0.10	55	CV	168	583	> 140					
	2.0	D	31	<5									> 140					
	2.5	D	34	<5	80	28	52	0.11	52	CV	168	281	> 140					
	3.0	D	33	<5									> 140					
	3.5	D	28	<5	72	27	45	0.02	45	CV	168	345	> 140					
	4.0	D	30	<5									> 140					
	4.5	D	29	<5							168	296	> 140					
	5.0	D	29	<5							168	369	> 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] In-house method S9a adapted from BRE IP 4/93

[9] Values of shear strength were determined in situ by CET 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] $SO_4 = 1.2 \times SO_3$

[14] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

Note that if the SO_4 content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4m or DS-5m class respectively unless water soluble magnesium testing is undertaken to prove otherwise

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 : 195670

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Moisture Content and Suction Profiles

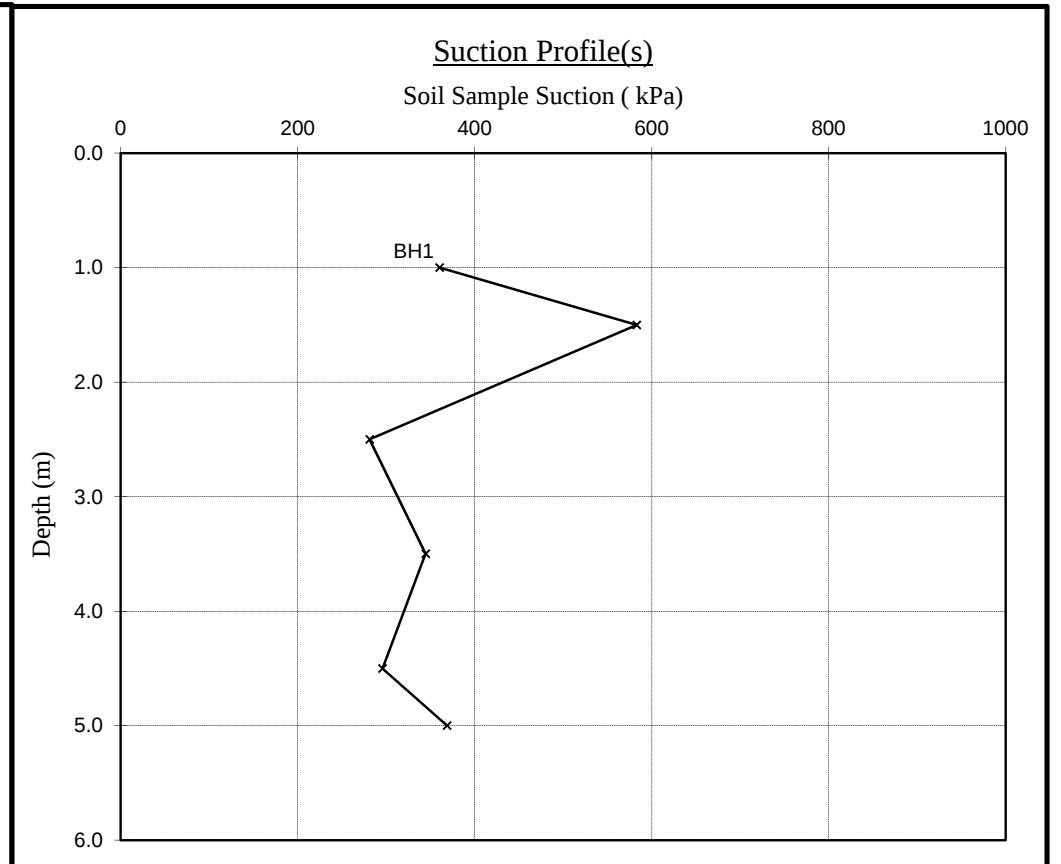
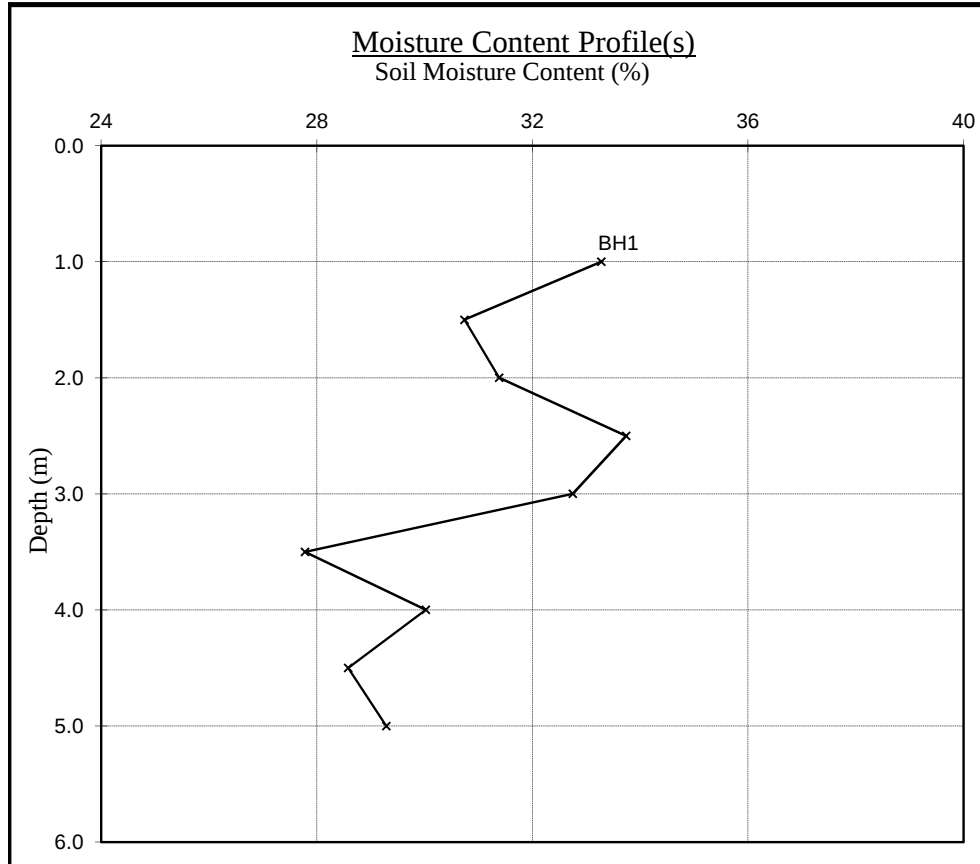
Note : Unless specifically noted the profiles have not been related to a site datum.

Date Sampled : 09/09/2014

Date Received : 10/09/2014

Date Tested : 10/09/2014

Date of Report : 18/09/2014



Notes

1. 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.

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Location : 19, Parkhill Road, NW3

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Moisture Content and Shear Strength Profiles

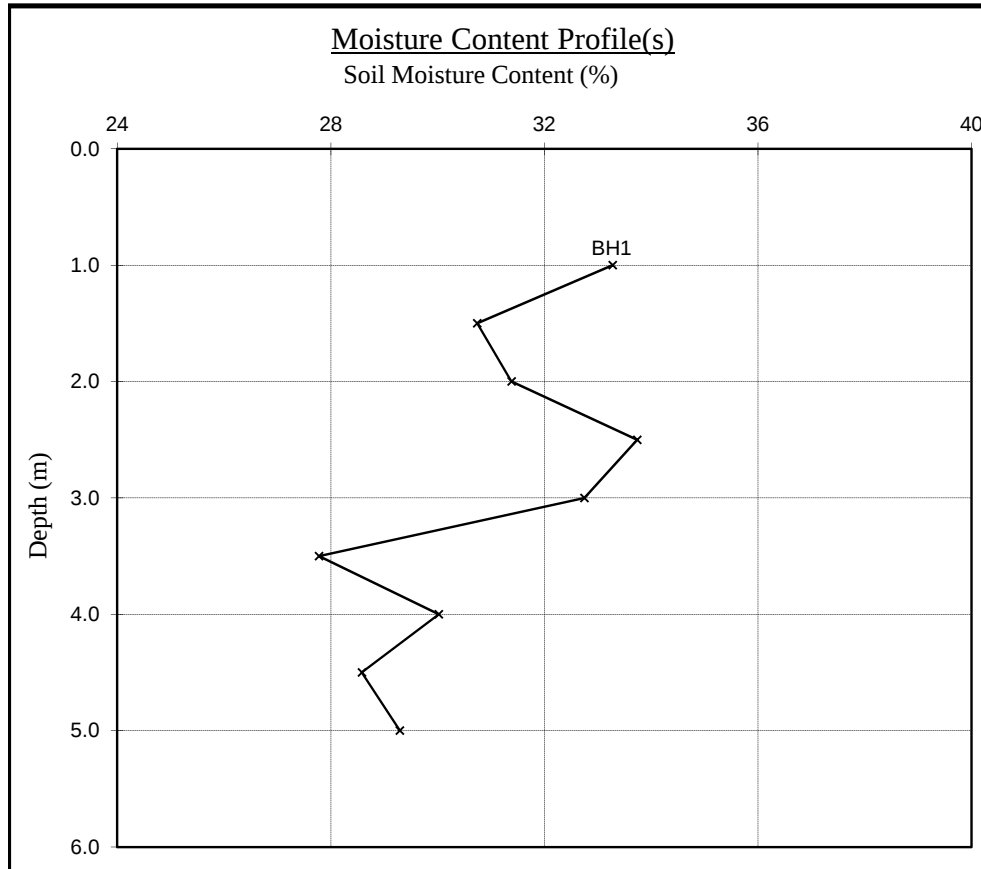
Date Sampled : 09/09/2014

Date Received : 10/09/2014

Date Tested : 10/09/2014

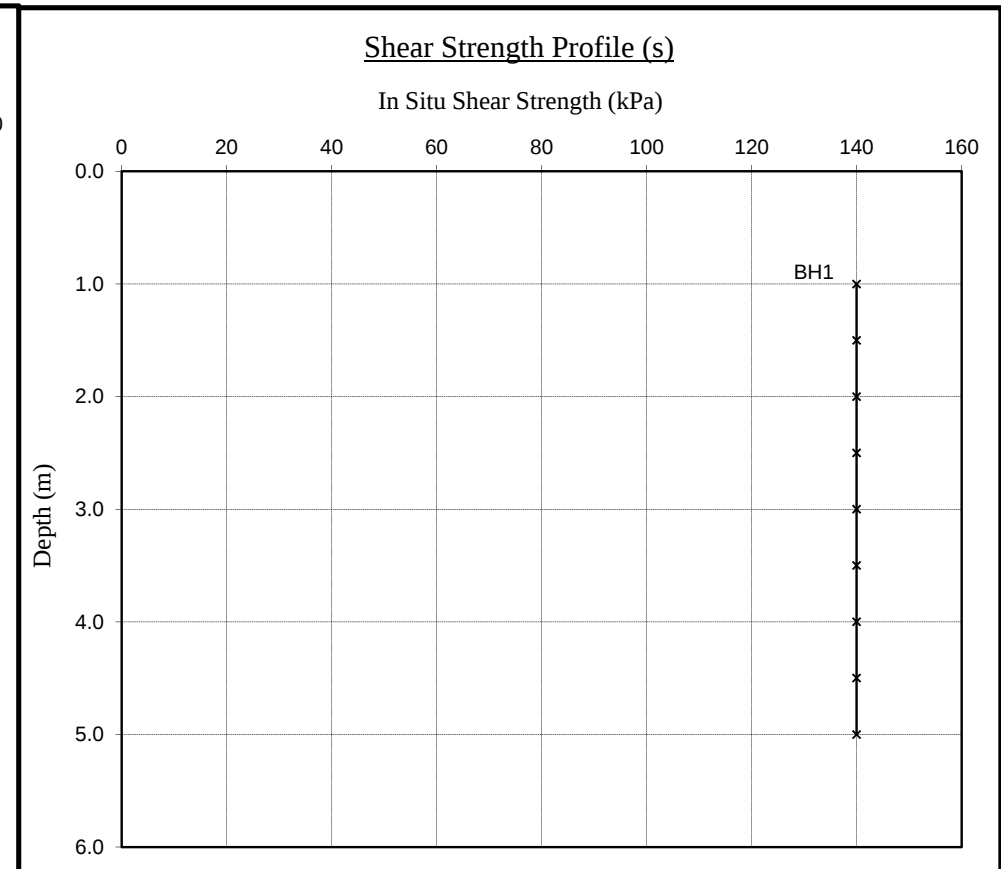
Date of Report : 18/09/2014

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Note

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

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Moisture Content and Suction Profiles

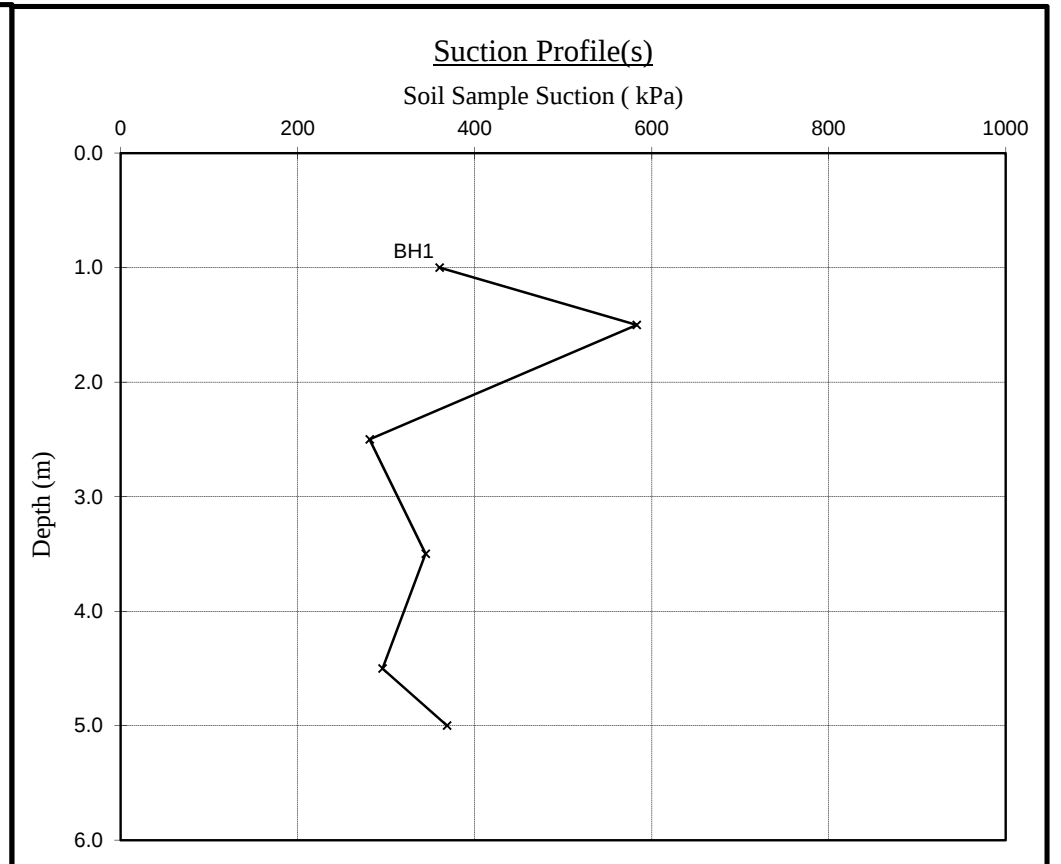
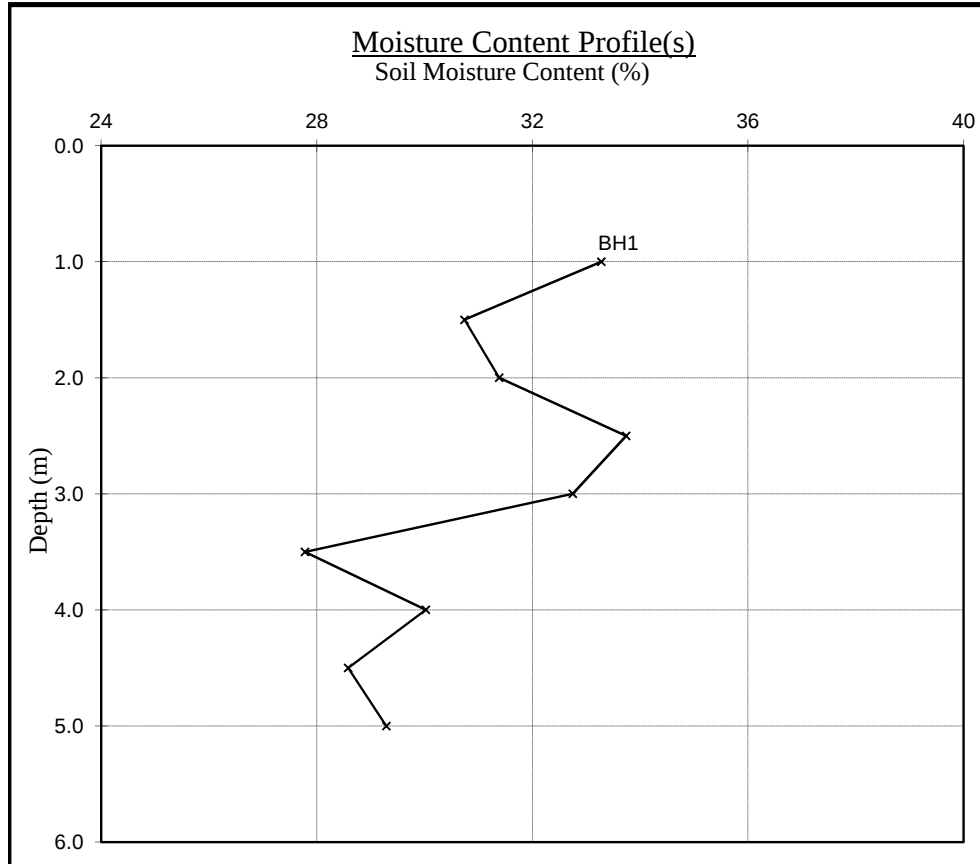
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Tree Root Identification Ltd

Sheet: 1 of 1

Job No: 195670
Date: 19/09/2014
Order No: 604349

Our Ref: CET190914

Site: 19 Parkhill Road, London.

Work carried
out for: Cunningham Lindsey

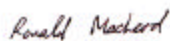
Certificate of Analysis

The following work was commissioned by CET 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#
BH1 (roots to a depth of 0.5m)	3.0	a member of the family Leguminosae* (2 roots)	positive
BH1 (roots from 0.5 to 2.3m)	2.0	cannot be identified as bark is missing (1 root)	negative

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

* Members of the Leguminosae include Laburnum, Robinia (false acacia) and the climber, Wisteria.



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Accounts/Quality Manager: Fiona M. Sinclair, BA English Studies (Merit)

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