

Chelmer Site Investigations

Unit 15, East Hanningfield Industrial Estate
Old Church Road, East Hanningfield, Essex CM3 8AB

Telephone: 01245 400 930 **Fax:** 01245 400 933

Email: info@siteinvestigations.co.uk **Website:** www.siteinvestigations.co.uk



Factual Report

Client:

Shakib & Co

Site:

69 Redington Road
London NW3

CSI Ref:

FACT/4310

Dated:

6th & 7th March 2014

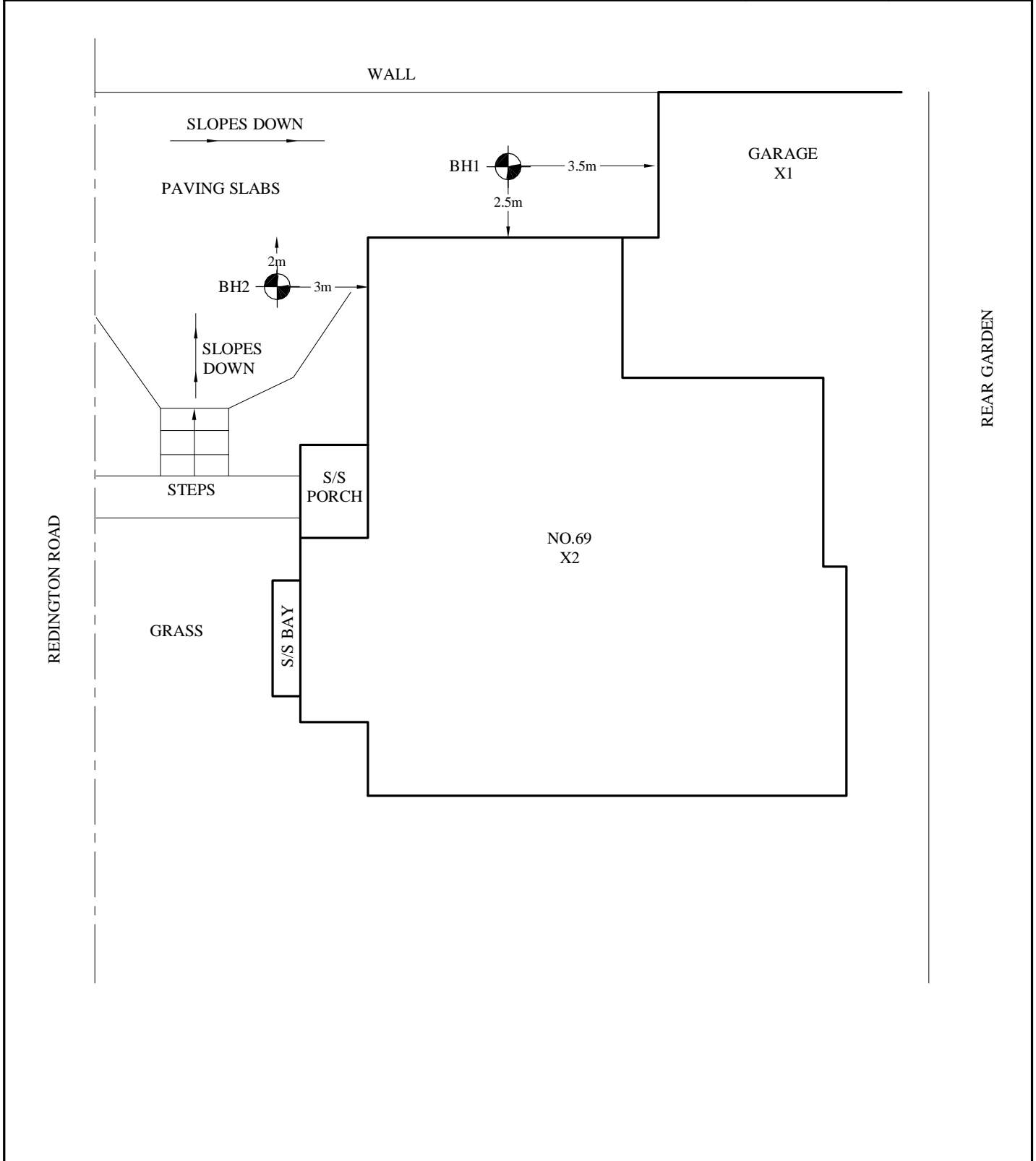
Chelmer Site Investigations

Unit 15 East Hanningfield Industrial Estate
 Old Church Road, East Hanningfield, Essex CM3 8AB
 Telephone: 01245 400930 Fax: 01245 400933

Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk










Client: Shakib & Co	Scale: N.T.S.	Sheet: 1 of 2	Date: 6.3.14	
Location: 69 Redington Road, London NW3	Job No: 4310	Weather: Overcast	Drawn by: JH	Checked by: ME



Notes:

On site tree identification for guidance only. Not authenticated.

Key:

						
Tree/Shrub	Borehole	Trial Pit	Gully	Tree Stump	Rain Water/ Soil Pipe	Manhole

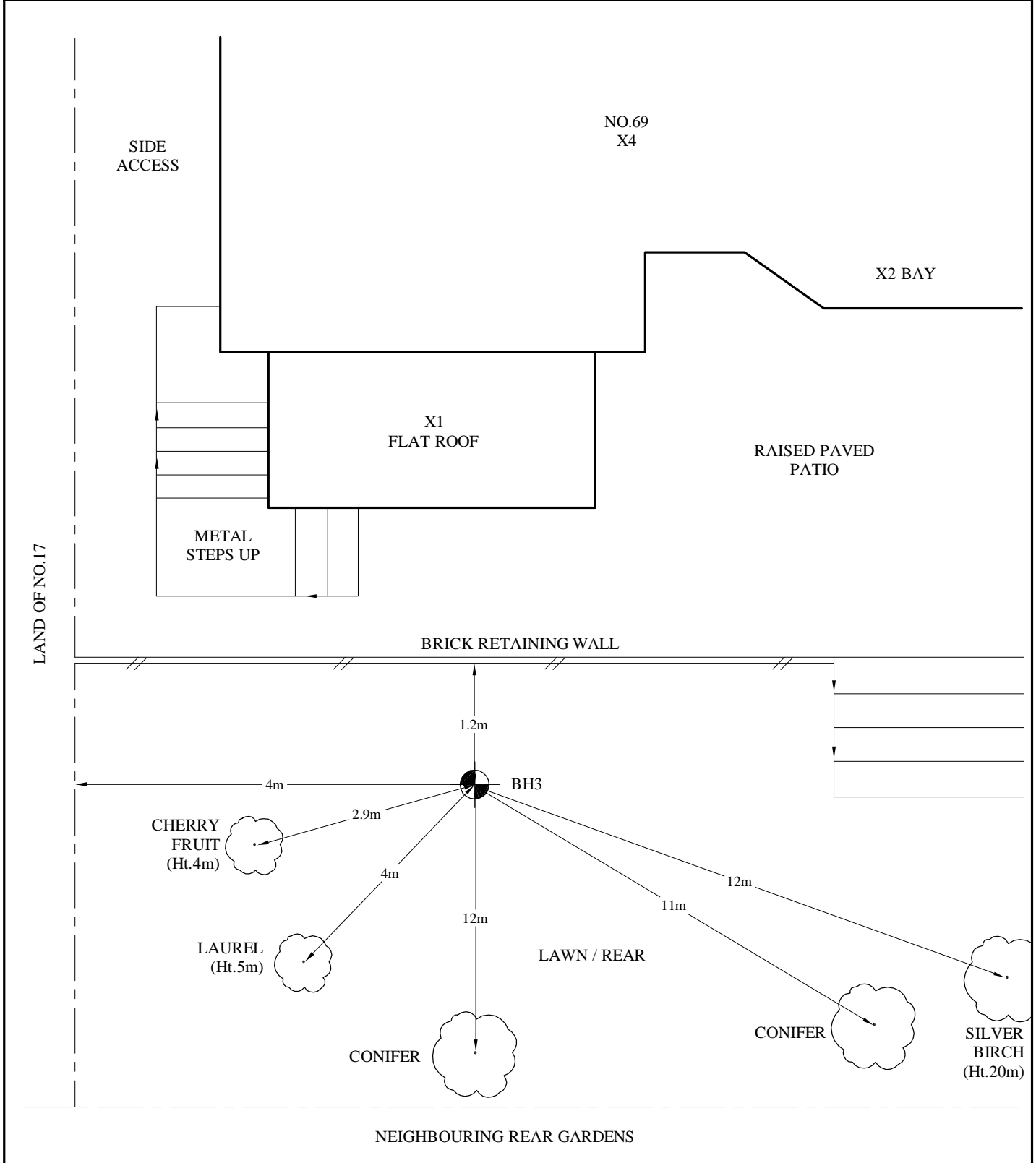
Chelmer Site Investigations

Unit 15 East Hanningfield Industrial Estate
 Old Church Road, East Hanningfield, Essex CM3 8AB
 Telephone: 01245 400930 Fax: 01245 400933

Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk










Client: Shakib & Co	Scale: N.T.S.	Sheet: 2 of 2	Date: 6.3.14	
Location: 69 Redington Road, London NW3	Job No: 4310	Weather: Overcast	Drawn by: JH	Checked by: ME



Notes:

On site tree identification for guidance only. Not authenticated.

Key:

						
Tree/Shrub	Borehole	Trial Pit	Gully	Tree Stump	Rain Water/ Soil Pipe	Manhole

Chelmer Site Investigations

Unit 15 East Hanningfield Industrial Estate
 Old Church Road, East Hanningfield, Essex CM3 8AB
 Telephone: 01245 400930 Fax: 01245 400933



Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk

Client: Shakib & Co		Scale: N.T.S.		Sheet No: 1 of 1		Weather: Overcast		Date: 6.3.14	
Site: 69 Redington Road, London NW3		Job No: 4310		Borehole No: 1		Boring method: GEO 205 (150mm Ø) C.F.A.			
Depth Mtrs.	Description of Strata	Thick-ness	Legend	Sample	Test Type Result	Root Information	Depth to Water	Depth Mtrs	
G.L. 0.1	CONCRETE PAVING SLAB	0.1							
	Soft, orange-brown, sandy, very silty CLAY. becoming firm from 1.5m. becoming stiff from 2.4m.	4.4		D D D D U D D D D	SPT N = 14	No roots observed.		1.0 1.5 2.0 2.5 2.75 - 3.25 3.5 4.0	
4.5	Stiff, dark brown, silty CLAY, with partings of grey, silt and fine sand.	2.1		D D U	SPT N = 19			4.5 5.0 5.75 - 6.25 6.25	
6.6	Stiff, dark grey, silty, very sandy CLAY.	1.4		D	SPT N = 24			7.0 7.5	
8.0	Borehole ends at 8.0m			D				8.0	
Drawn by: JH		Approved by: ME		Key: T.D.T.D. Too Dense to Drive D Small Disturbed Sample J Jar Sample B Bulk Disturbed Sample V Pilcon Vane (kPa) U Undisturbed Sample (U100) M Mackintosh Probe W Water Sample N Standard Penetration Test Blow Count					
Remarks: Groundwater 'seepage' at 6.25m. Plastic standpipe installed to 8.0m on completion. Borehole moist at base and open on completion.									

Chelmer Site Investigations

Unit 15 East Hanningfield Industrial Estate
 Old Church Road, East Hanningfield, Essex CM3 8AB
 Telephone: 01245 400930 Fax: 01245 400933



Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk

Client: Shakib & Co		Scale: N.T.S.		Sheet No: 1 of 1		Weather: Overcast		Date: 6.3.14	
Site: 69 Redington Road, London NW3		Job No: 4310		Borehole No: 2		Boring method: GEO 205 (150mm Ø) C.F.A.			
Depth Mtrs.	Description of Strata	Thick-ness	Legend	Sample	Test Type Result	Root Information	Depth to Water	Depth Mtrs	
G.L. 0.12	CONCRETE PAVING SLAB	0.12							
5.4	Soft, orange-brown, sandy, very silty CLAY, with partings of orange and brown, silt and fine sand. becoming firm from 1.5m. becoming stiff from 2.3m.	4.4		D	SPT N = 13	No roots observed.		1.0	
				D				1.5	
				D				2.0	
				D				2.5	
				U				2.75 - 3.25	
				D				3.5	
				D				4.0	
				D				4.5	
				D				5.0	
				D				5.4	
8.0	Stiff, dark grey, silty, very sandy CLAY.	2.6		U	SPT N = 18			(No recovery) 5.75 - 6.25 6.2	
				D				7.0	
				D				7.5	
	Borehole ends at 8.0m			D				8.0	

Drawn by: JH Approved by: ME

Remarks: Groundwater 'seepage' at 6.2m.
 Borehole wet and open on completion.
 Standpipe installed to 7.0m.

Key: T.D.T.D. Too Dense to Drive
 D Small Disturbed Sample J Jar Sample
 B Bulk Disturbed Sample V Pilcon Vane (kPa)
 U Undisturbed Sample (U100) M Mackintosh Probe
 W Water Sample N Standard Penetration Test Blow Count

Chelmer Site Investigations

Unit 15 East Hanningfield Industrial Estate
 Old Church Road, East Hanningfield, Essex CM3 8AB
 Telephone: 01245 400930 Fax: 01245 400933



Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk

Client: Shakib & Co		Scale: N.T.S.		Sheet No: 1 of 2		Weather: Overcast		Date: 7.3.14	
Site: 69 Reddington Road, London NW3		Job No: 4310		Borehole No: 3		Boring method: Secondman (100mm Ø) C.F.A.			
Depth Mtrs.	Description of Strata	Thick-ness	Legend	Sample	Test Type	Result	Root Information	Depth to Water	Depth Mtrs
G.L.	TOPSOIL with occasional gravel and brick fragments.	0.2					Roots of live appearance to 1mmØ to 0.2m.		
0.2	Firm, moist, orange-brown, grey veined, sandy, very silty CLAY. becoming stiff from 1.4m.	2.6		D			Hair and fibrous roots to 1.1m.	↓ No roots observed below 1.1m.	0.5
				D	V	60 64			1.0
				D			1.5		
				D	V	88 94	2.0		
2.8				D			2.5		
	Very stiff, moist, brown, silty, sandy CLAY, with brown, silt and fine sand.	1.0		D	V	140+ 140+		3.0	
3.8				D			3.5		
	Very stiff, grey, silty CLAY, with partings of grey, silt and fine sand.	1.1		D	V	140+ 140+		4.0	
4.9				D			4.5		
	Very stiff, grey, silty, very sandy CLAY.	1.0		D	V	140+ 140+		4.9	
5.9				D			5.5		
	Medium dense, wet, grey, clayey, silty, fine to medium SAND.	1.0		D	M	19 19 20 21		6.0	
Drawn by: MM		Approved by: ME		Key: T.D.T.D. Too Dense to Drive					
Remarks: Groundwater standing at 4.0m Groundwater 'seepage' at 4.9m				D Small Disturbed Sample J Jar Sample B Bulk Disturbed Sample V Pilcon Vane (kPa) U Undisturbed Sample (U100) M Mackintosh Probe W Water Sample N Standard Penetration Test Blow Count					
CONTINUED ON SHEET 2 OF 2									

Chelmer Site Investigations

Unit 15 East Hanningfield Industrial Estate
 Old Church Road, East Hanningfield, Essex CM3 8AB
 Telephone: 01245 400930 Fax: 01245 400933



Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk

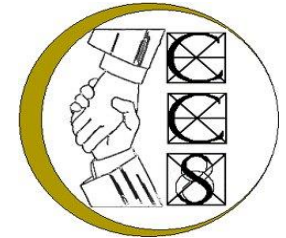
Client:		Scale:		Sheet No:		Weather:		Date:	
Shakib & Co		N.T.S.		2 of 2		Overcast		7.3.14	
Site:		Job No:		Borehole No:		Boring method:			
69 Reddington Road, London NW3		4310		3		Secondman (100mmØ) C.F.A.			
Depth Mtrs.	Description of Strata	Thick-ness	Legend	Sample	Test Type	Result	Root Information	Depth to Water	Depth Mtrs
6.9								6.5	
	Stiff to very stiff, dark grey, silty, very sandy CLAY.	8.1		D	M	37 35 40 41			7.0
				D	M	44 48 48 50			8.0
				D	M	50(50) 50(40) TDTD			9.0
				D	M	50(50) 50(45) TDTD			10.0
				D	M	50(40) 50(20) TDTD			11.0
				D	M	50(30) 50(20) TDTD			12.0
				D	M	50(20) 50(20) TDTD			13.0
				D	M	50(20) 50(10) TDTD			14.0
15.0	Borehole ends at 15.0m			D	M	50(15) 50(10) TDTD			15.0
Drawn by: MM		Approved by: ME		Key: T.D.T.D. Too Dense to Drive					
Remarks: Groundwater 'strike' at 6.5m. Borehole collapsed at 5.0m on completion. Standpipe installed to 7.0m.		D Small Disturbed Sample J Jar Sample B Bulk Disturbed Sample V Pilcon Vane (kPa) U Undisturbed Sample (U100) M Mackintosh Probe W Water Sample N Standard Penetration Test Blow Count							

**Groundwater Monitoring and
Landbourne Gas Assessment**

Site Ref: 4310

Site Name: 69 Redington Road, London NW3

Chelmer Consultancy Services
Unit 15, East Hanningfield Industrial Estate, Old Church Road
East Hanningfield, Essex CM3 8AB
Telephone: 01245 400 930 Fax: 01245 400 933
Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk



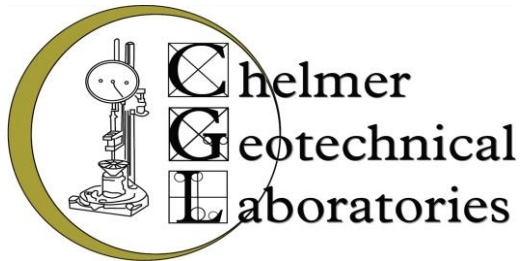
Well	Date	Methane Peak	Methane Steady	Methane GSV	Carbon Dioxide Peak	Carbon Dioxide Steady	Carbon Dioxide GSV	Oxygen	Atmos.	Flow	Response Zone	Depth to Water	CO	H2S
		%v/v	%v/v	l/hr	%v/v	%v/v	l/hr	%v/v	mbar	l/hr	m bgl	m bgl	ppm	ppm
BH1	14/03/2014	0.1	<0.1	0.0001	0.1	<0.1	0.0001	18.2	1016	0.1	1.00-8.00	5.02	2	0
	21/03/2014	0.1	<0.1	-0.0001	0.1	<0.1	-0.0001	19.6	997	-0.1		1.66	0	0
	27/03/2014	0.1	<0.1	0.0029	0.0	0.0	0.0000	20.6	1002	2.9		5.11	1	0
BH2	14/03/2014	0.1	<0.1	0.0001	0.1	<0.1	0.0001	20.1	1016	0.1	1.00-7.00	5.40	0	0
	21/03/2014	0.1	<0.1	0.0001	0.2	0.2	0.0002	21.1	997	0.1		1.66	0	0
	27/03/2014	0.1	<0.1	0.0034	0.7	0.7	0.0238	21.6	1002	3.4		5.48	0	0
BH3	14/03/2014	0.1	<0.1	0.0001	4.0	4.0	0.004	14.5	1016	0.1	1.00-7.00	3.25	0	0
	21/03/2014	0.1	<0.1	0.0001	3.3	3.3	0.0033	17.1	997	0.1		3.10	0	0
	27/03/2014	0.1	<0.1	0.0019	3.2	3.2	0.0608	17.9	1002	1.9		3.43	0	0

Notes

NR = Not recorded

Values in Bold exceed the CO₂ Building Regulations threshold (>1.5%)

Values in Red exceed the Buildings Regulations Action Level (CO₂ >5.0% and CH₄ >1.5%)



Chelmer Geotechnical Laboratories

Unit 15, East Hanningfield Industrial Estate
Old Church Road, East Hanningfield, Essex CM3 8AB

Telephone: 01245 400 930 **Fax:** 01245 400 933

Email: info@siteinvestigations.co.uk **Website:** www.soillabs.co.uk



Geotechnical Testing

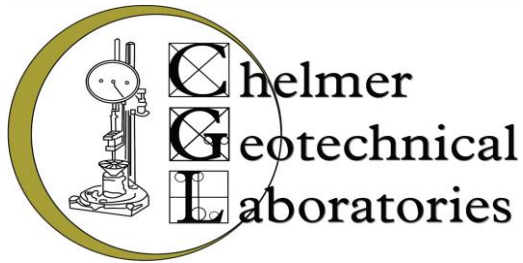
Client : Shakib & Co

Site Name : 69 Redington Road, London NW3 7RP

Client Reference : CSI4310

CGL Reference : CGL03923

Date of Completion : 21-Mar



Content Summary

This report contains all test results indicated on the attached test instruction/summary (Q17).

CGL Reference : CGL03923

Client Reference : CSI4310

For the attention of : Shakib & Co

This report comprises of the following : 3 Pages of Results

1 Moisture/Shear Strength Chart

1 Plasticity Chart

1 PSD

1 Triaxial

Notes :

General

Please refer to report summary notes for details pertaining to methods undertaken and their subsequent accreditations

Samples were supplied by Chelmer Site Investigations

All tests performed in-house unless otherwise stated

Deviant Samples

Samples were received in suitable containers Yes

A date and time of sampling was provided Yes

Arrived damaged and/or denatured No

Laboratory Testing Results

BS 1377 : 1990



Job Number : CGL03923 Date Received : 13/03/2014
 Client : Shakib & Co Date Testing Started : 17/03/2014
 Client Reference : CSI4310 Date Testing Completed : 21/03/2014
 Site Name : 69 Redington Road, London NW3 7RP Laboratory Used : Chelmer Geotechnical, CM3 8AB

Sample Ref			Sample 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)	Insitu Shear Vane Strength (kPa) [9]	Organic Content (%) [10]	pH Value [11]	Sulphate Content		
BH/TP/WS	Depth	UID															SO ₃ [12]	SO ₄ [13]	Class [14]
BH1	1.0	49984	D	26	<5	55	20	35	0.18	35	CH								
BH1	1.5	49985	D													4.6	0.06	0.07	DS-1
BH1	4.5	49991	D	28	<5	67	20	47	0.18	47	CH								
BH1	7.0	49995	D													6.7	0.12	0.14	DS-1
BH1	8.0	49996	D	30	<5	39	17	22	0.57	22	CI								

Notes :-

[1] BS 1377 : Part 2 : 1990, Test No 3.2 [7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils [12] BS 1377 : Part 3 : 1990, Test No 5.6

[2] Estimated if <5%, otherwise measured [8] In-house method S9a adapted from BRE IP 4/93 [13] SO₄ = 1.2 x SO₃

[3] BS 1377 : Part 2 : 1990, Test No 4.4 [9] Values of shear strength were determined in situ by Chelmer Site Investigations using a Pilcon hand vane or Geonor vane (GV). [14] BRE Special Digest One (Concrete in Aggressive Ground) 2005

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

[5] BS 1377 : Part 2 : 1990, Test No 5.4 [10] BS 1377 : Part 3 : 1990, Test No 4 Note that if the SO₄ 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

[6] BRE Digest 240 : 1993 [11] BS 1377 : Part 2 : 1990, Test No 9

Key	
D	Disturbed sample
B	Bulk sample
U	U100 (undisturbed sample)
W	Water sample
ENP	Essentially Non-Plastic
U/S	Underside Foundation

Comments :-

Produced :- MT/LL Checked By :- AK Date Checked :- 24-Mar-14

Laboratory Testing Results

BS 1377 : 1990



Job Number : CGL03923 Date Received : 13/03/2014
 Client : Shakib & Co Date Testing Started : 17/03/2014
 Client Reference : CSI4310 Date Testing Completed : 21/03/2014
 Site Name : 69 Redington Road, London NW3 7RP Laboratory Used : Chelmer Geotechnical, CM3 8AB

Sample Ref			Sample 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)	Insitu Shear Vane Strength (kPa) [9]	Organic Content (%) [10]	pH Value [11]	Sulphate Content		
BH/TP/WS	Depth	UID															SO ₃ [12]	SO ₄ [13]	Class [14]
BH2	1.0	49998	D													4.1	0.08	0.10	DS-1
BH2	1.5	49999	D	28	<5	56	20	36	0.23	36	CH								
BH2	3.5	50003	D	30	<5	64	19	45	0.24	45	CH								
BH2	5.5	50007	D	28	<5	45	16	29	0.42	29	CI								
BH2	7.0	50008	D													7.1	0.10	0.12	DS-1

Notes :-

[1] BS 1377 : Part 2 : 1990, Test No 3.2 [7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils [12] BS 1377 : Part 3 : 1990, Test No 5.6

[2] Estimated if <5%, otherwise measured [8] In-house method S9a adapted from BRE IP 4/93 [13] SO₄ = 1.2 x SO₃

[3] BS 1377 : Part 2 : 1990, Test No 4.4 [9] Values of shear strength were determined in situ by Chelmer Site Investigations using a Pilcon hand vane or Geonor vane (GV). [14] BRE Special Digest One (Concrete in Aggressive Ground) 2005

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

[5] BS 1377 : Part 2 : 1990, Test No 5.4 [10] BS 1377 : Part 3 : 1990, Test No 4 Note that if the SO₄ 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

[6] BRE Digest 240 : 1993 [11] BS 1377 : Part 2 : 1990, Test No 9

Key	
D	Disturbed sample
B	Bulk sample
U	U100 (undisturbed sample)
W	Water sample
ENP	Essentially Non-Plastic
U/S	Underside Foundation

Comments :-

Produced :- MT/LL Checked By :- AK Date Checked :- 24-Mar-14

Laboratory Testing Results

BS 1377 : 1990



Job Number : CGL03923 Date Received : 13/03/2014
 Client : Shakib & Co Date Testing Started : 17/03/2014
 Client Reference : CS14310 Date Testing Completed : 21/03/2014
 Site Name : 69 Redington Road, London NW3 7RP Laboratory Used : Chelmer Geotechnical, CM3 8AB

Sample Ref			Sample 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)	Insitu Shear Vane Strength (kPa) [9]	Organic Content (%) [10]	pH Value [11]	Sulphate Content		
BH/TP/WS	Depth	UID															SO ₃ [12]	SO ₄ [13]	Class [14]
BH3	1.5	50012	D	28	<5	57	18	39	0.27	39	CH					4.4	<0.01	<0.01	DS-1
BH3	3.0	50014	D	28	<5	51	17	34	0.34	34	CH			>140					
BH3	4.5	50018	D	30	<5	69	17	52	0.25	52	CH								
BH3	6.0	50021	D													7.2	0.18	0.22	DS-1
BH3	7.0	50022	D	35	<5	40	14	26	0.79	26	CI								
BH3	10.0	50025	D	29	<5	47	17	30	0.40	30	CI								
BH3	12.0	50027	D	35	<5	40	11	29	0.85	29	CI					7.4	0.31	0.37	DS-1
BH3	15.0	50030	D	36	<5	44	18	26	0.70	26	CI								

Notes :-

[1] BS 1377 : Part 2 : 1990, Test No 3.2 [7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils [12] BS 1377 : Part 3 : 1990, Test No 5.6

[2] Estimated if <5%, otherwise measured [8] In-house method S9a adapted from BRE IP 4/93 [13] SO₄ = 1.2 x SO₃

[3] BS 1377 : Part 2 : 1990, Test No 4.4 [9] Values of shear strength were determined in situ by Chelmer Site Investigations using a Pilcon hand vane or Geonor vane (GV). [14] BRE Special Digest One (Concrete in Aggressive Ground) 2005

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

[5] BS 1377 : Part 2 : 1990, Test No 5.4 [10] BS 1377 : Part 3 : 1990, Test No 4 Note that if the SO₄ 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

[6] BRE Digest 240 : 1993 [11] BS 1377 : Part 2 : 1990, Test No 9

Key	
D	Disturbed sample
B	Bulk sample
U	U100 (undisturbed sample)
W	Water sample
ENP	Essentially Non-Plastic
U/S	Underside Foundation

Comments :-

Produced :- MT/LL Checked By :- AK Date Checked :- 24-Mar-14

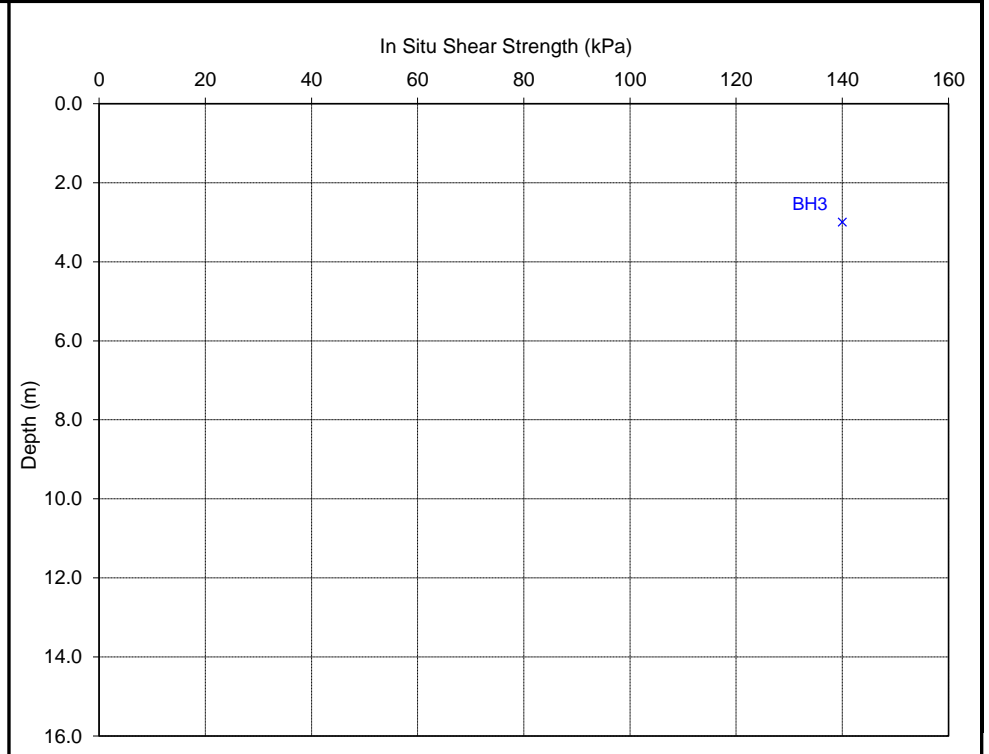
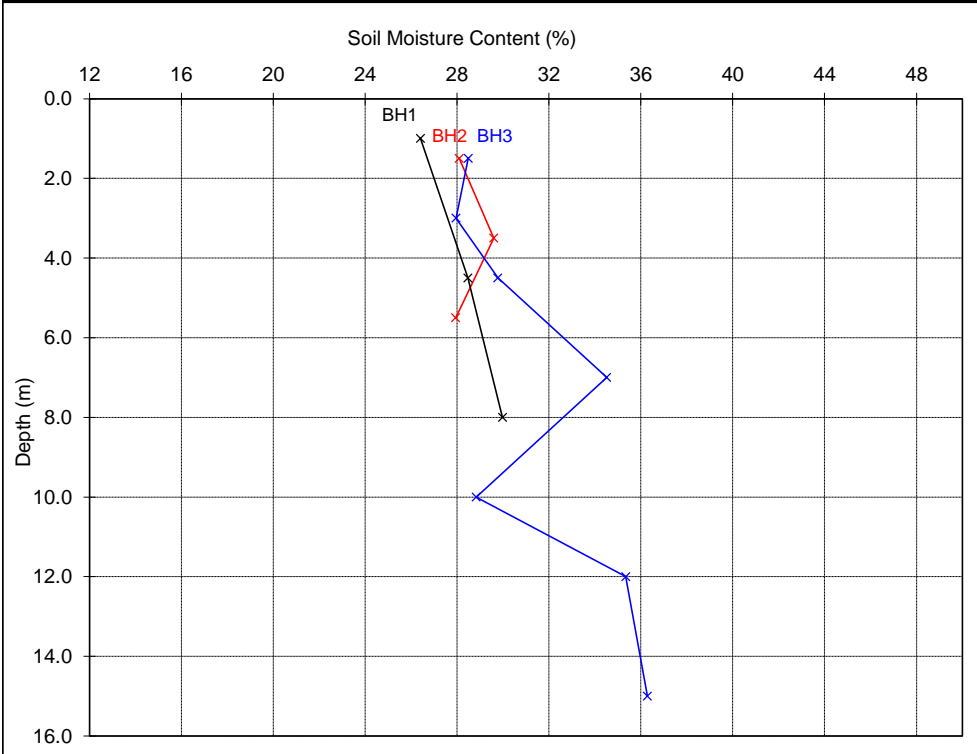
Laboratory Testing Results

Moisture Content/Shear Strength Profile



Job Number : CGL03923
 Client : Shakib & Co
 Client Reference : CSI4310
 Site Name : 69 Redington Road, London NW3 7RP

Date Received : 13/03/2014
 Date Testing Started : 17/03/2014
 Date Testing Completed : 21/03/2014
 Laboratory : Chelmer Geotechnical Laboratories, CM3 8AB



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 over consolidated clays) at shallow depths.

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

Comments :-

Checked By :- AK

Date Checked :- 24-Mar-14

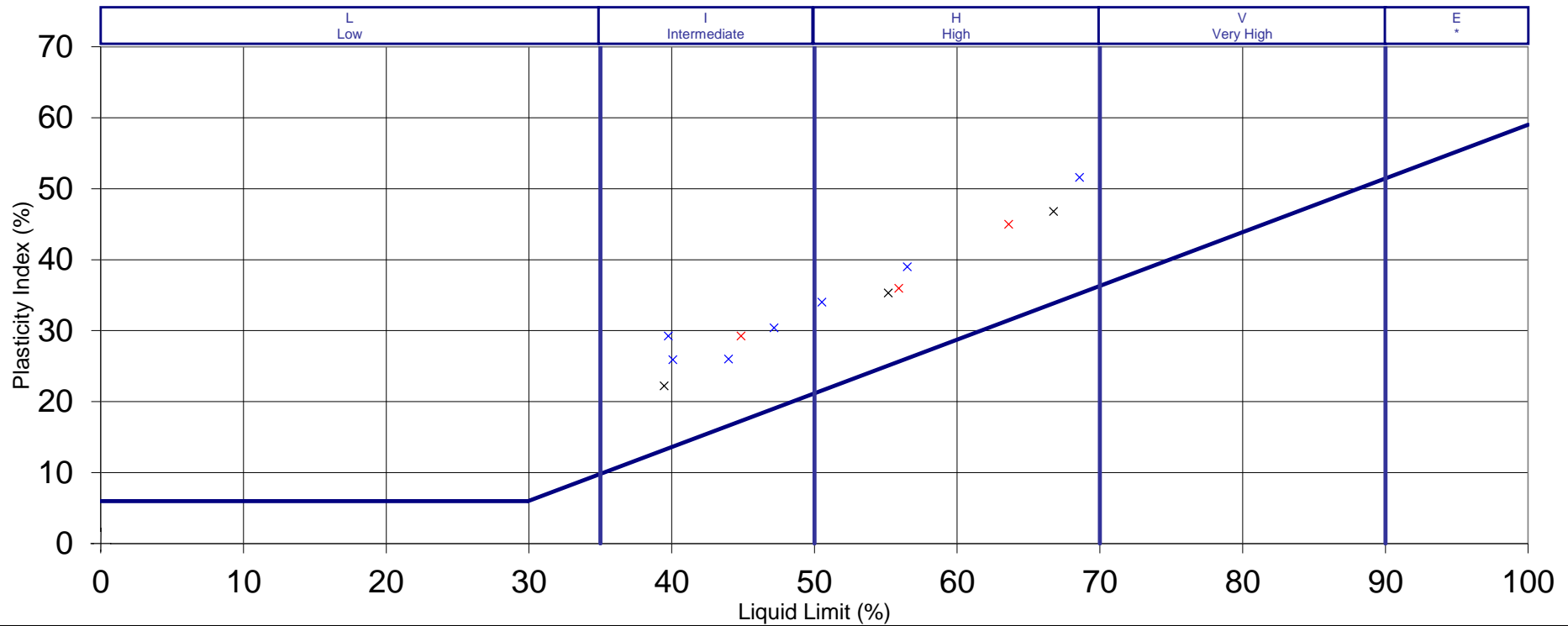
Laboratory Testing Results

Plasticity Chart for the classification of fine soils and the finer part of coarse soils
In Compliance with BS5930 : 1999



Job Number : CGL03923
Client : Shakib & Co
Client Reference : CSI4310
Site Name : 69 Redington Road, London NW3 7RP

Date Received : 13/03/2014
Date Testing Started : 17/03/2014
Date Testing Completed : 21/03/2014
Laboratory : Chelmer Geotechnical Laboratories, CM3 8AB



Notes :-

SILT (M-SOIL), M, plots below A-Line
CLAY, C, plots above A-Line } M and C may be combined as FINE SOIL, F.

Key :- BH1
BH2
BH3

Comments :-

Checked By :- AK

Date Checked :- 24-Mar-14

PARTICLE SIZE DISTRIBUTION

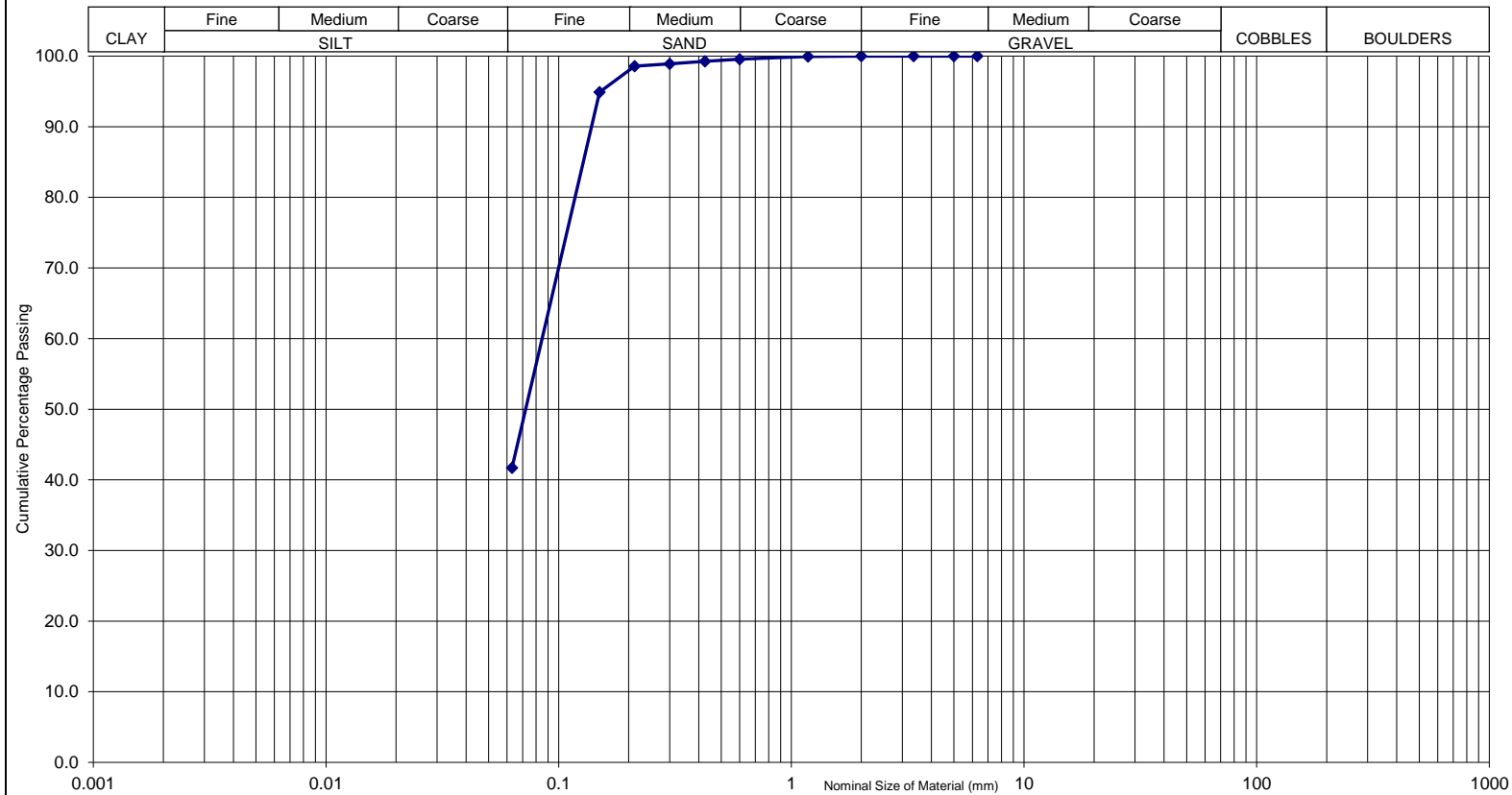
BS EN 1377-2:1990



Job Number : CGL03923
 Sample Number : BH3
 Depth (m) : 6.0
 Sample Ref : 50021

Site Name : 69 Redington Road, London NW3 7RP

Type of Sieving : Washed
 Date : 20-Mar-14
 Tested By : MT
 Laboratory : Chelmer Geotechnical CM3 8AB



Sieve Size (mm)	% Passing
90.0	100.0
75.0	100.0
63.0	100.0
50.0	100.0
37.5	100.0
28.0	100.0
20.0	100.0
14.0	100.0
10.0	100.0
6.3	100.0
5.0	100.0
3.35	100.0
2.00	100.0
1.18	99.9
0.600	99.6
0.425	99.3
0.300	98.9
0.212	98.6
0.150	94.9
0.063	41.7

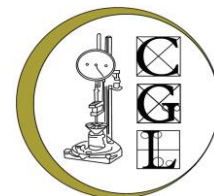
Calculations :- $f = \frac{(M_1 - M_2) + P}{M_1} \times 100$
 $f = 100P/M_1$ (dry sieving)

f = Percentage of fines passing 0.063mm
 M₁ = Mass of dried test sample before washing (kg)
 M₂ = Mass of dried residue retained on the 0.063m (kg)
 P = Mass of screened material remaining in the pan (kg)

Comments :-

Checked By :- GW

Date Checked :- 24-Mar-14

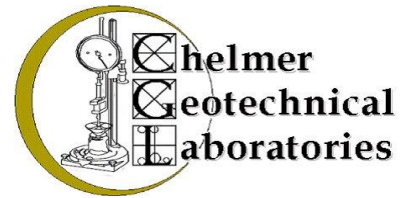


TRIAXIAL COMPRESSION TEST RESULTS

BOREHOLE NO.	MOISTURE CONTENT (%)	BULK DENSITY (Mg/m ³)	LATERAL PRESSURE (kN/m ²)	COMPRESSIVE STRENGTH (kN/m ²)	COHESION (kN/m ²)	SHEAR VANE TEST RESULTS
BH1 @ 2.75- 3.25m	28	2.02	70	180	92	110 kN/m ²
			210	185		
			350	188		
BH1 @ 5.75 - 6.25m	25	Not Testable				76 kN/m ²
BH2 @ 2.75- 3.25m	29	2.02	70	176	91	106 kN/m ²
			210	182		
			350	185		
Comments:- BH1 - 5.75-6.25m not testable due to high silt and fine sand content. Sample collapsed on extraction.						

SITE:	69 Redington Road, London, NW3 7RP	JOB NO:	CGL03923
DATE:	25/03/2014	TESTED BY:	GW
		CHECKED:	MCE

TESTS CARRIED OUT UNDER UNDRAINED CONDITIONS UNLESS SPECIFIED



This report is personal to the client, confidential and non assignable. It is issued with no admission of liability to any third party.

This report shall not be reproduced, except in full, without the written approval of Chelmer Site Investigations Laboratories Ltd.

Where our involvement consists exclusively of testing samples, the results and comments (if provided) relate only to the samples tested.

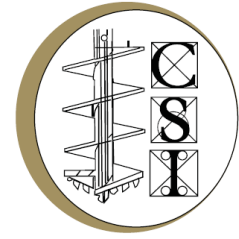
Any samples that are deemed to be subject to deviation will be recorded as such within the test summary.

Chelmer Site Investigations

Unit 15, East Hanningfield Industrial Estate, Old Church Road
East Hanningfield, Essex CM3 8AB

Telephone: 01245 400 930 Fax: 01245 400 933

Email: info@siteinvestigations.co.uk Website: www.siteinvestigations.co.uk



REPORT NOTES

Equipment Used

Hand tools, Mechanical Concrete Breaker and Spade, Hand Augers, 100mm/150mm diameter Mechanical Flight Auger Rig, GEO205 Flight Auger Rig, Window Sampling Rig, and Large or Limited Access Shell & Auger Rig upon request and/or access permitting.

On Site Tests

By Pilcon Shear-Vane Tester (Kn/m^2) in clay soils, and/or Mackintosh Probe in granular soils or made ground and/or upon request Continuous Dynamic Probe Testing and Standard Penetration Testing.

Note:

Details reported in trial-pits and boreholes relate to positions investigated only as instructed by the client or engineer on the date shown.

We are therefore unable to accept any responsibility for changes in soil conditions not investigated i.e. variations due to climate, season, vegetation and varying ground water levels.

Full terms and conditions are available upon request.