

# FACTUAL REPORT OF TRIAL PIT & BOREHOLE INVESTIGATION

DATE: 15-08-2017.

SITE: 12, Akenside Road, London. NW3 5BT.

FOR: Richard F Gill & Associates.

REF:

BY  
ARKLEY SOIL INVESTIGATION LLP  
FOUNDATION INVESTIGATION & TEST DRILLING  
UNIT 10, REEDS FARM ESTATE,  
ROXWELL ROAD,  
WRITTLE, CHELMSFORD,  
CM1 3ST  
E-mail: [arkley@btconnect.com](mailto:arkley@btconnect.com)



# Site Plan

Sheet: 1 of 1

## Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

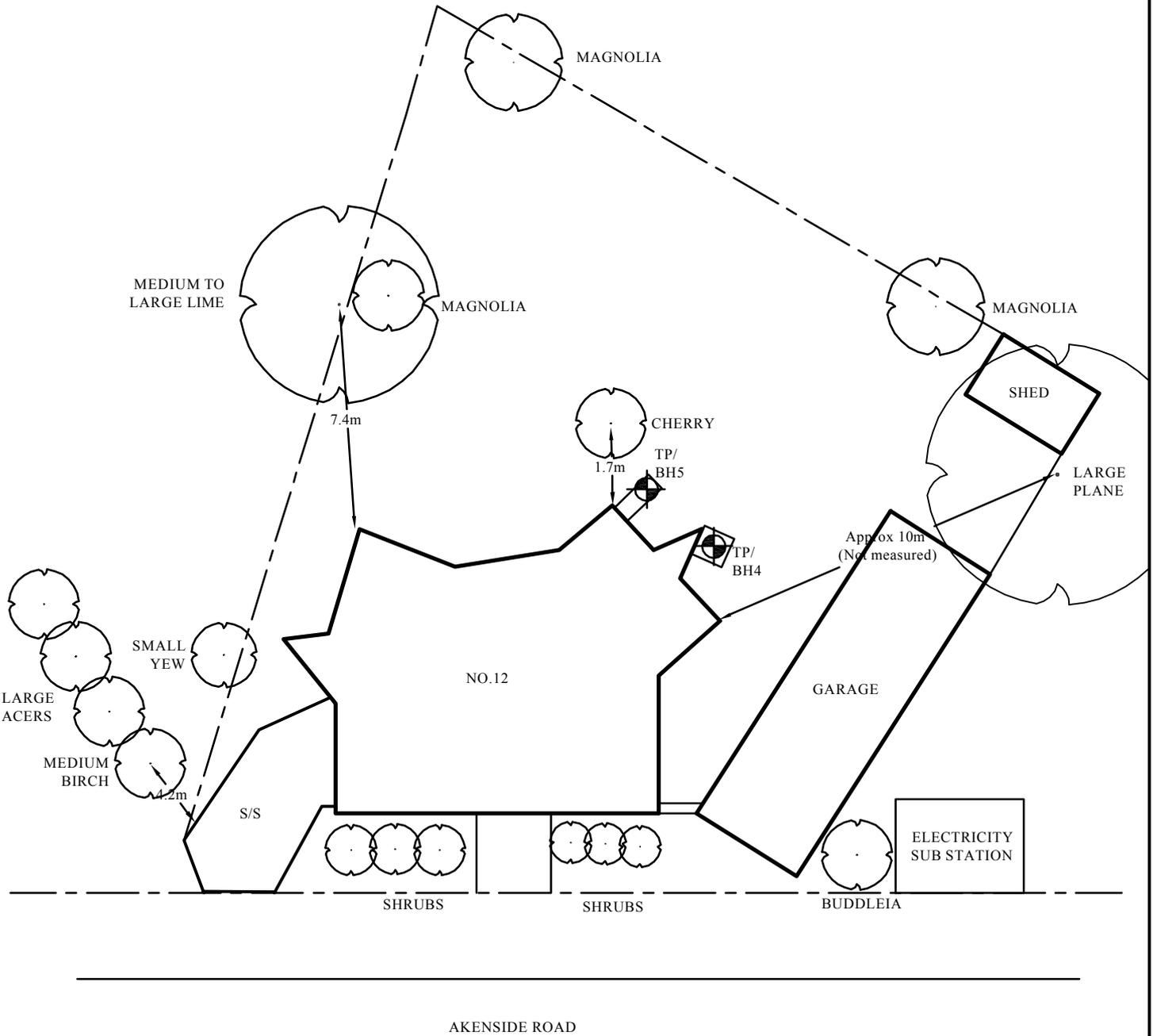
Tel: 01245 423948 / 07780 971533 Email: arkleysi@btconnect.com

Not to scale

Date: 15-08-17

Site: 12 Akenside Road  
London NW3

Client: Richard F Gill & Associates



Remarks:

Tree identification not authenticated.

Key:

TP = Trial Pit

BH = Borehole

H = Approximate Height

G = Gully

SVP = Soil vent pipe

IC = Inspection chamber

IL = Invert level

RWP = Rain water pipe

Trial Pit No: 4

Sheet: 1 of 1

# Arkley Soil Investigation LLP

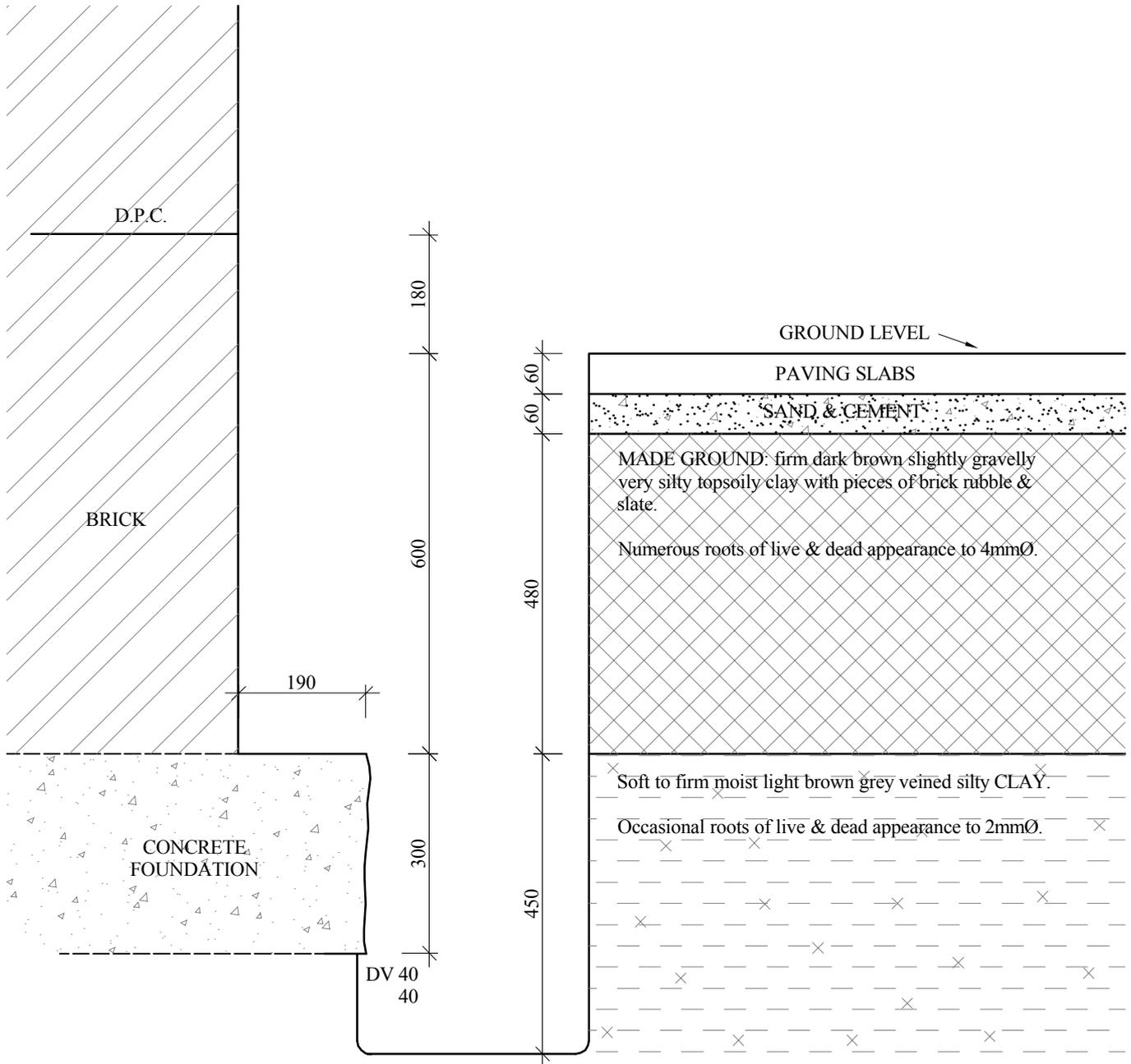
Foundation Investigation & Test Drilling  
Tel: 01245 423948 / 07780 971533 Email: arkleyisi@btconnect.com

Not to scale

Date: 15.8.17

Site: 12 Akenside Road  
London NW3

Client: Richard F Gill & Associates



FOR STRATA BELOW 1050mm SEE BH LOG

Remarks:

Key:

- D = Small Disturbed sample
- U = Undisturbed sample
- SPT = Standard Penetration Test
- M = Mackintosh Probe Penetration Test
- V = Pilcon Shear Vane Test
- W = Water sample
- B = Bulk sample

# Borehole No: 4

Sheet: 1 of 1

Ref No:

## Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

Tel: 01245 423948 / 07780 971533 Email: arkleyysi@btconnect.com

Boring Method: Hand tools

Date: 15.8.17

Site: 12 Akenside Raod  
London NW3

Client: Richard F Gill & Associates

Depth (m)	Description	Thick-ness	Legend	Samples		Insitu tests		Field comments	Depth to Water
				Type	Depth	Type	Result		
1.05	As trial pit four.	1.05						As trial pit four.	
1.5	Sift to firm light brown grey veined silty CLAY.	0.45		D	1.5	V	50 50	1.05 - Occasional roots of live & dead appearance to 1mmØ	
1.8	Firm light brown grey veined silty CLAY.	0.3						To 1.5m	
2.8	Firm to stiff light brown grey veined silty CLAY with layers of orange silt.	1.0		D	2.0	V	80 90		
				D	2.5	V	84 90		
4.0	Firm/medium dense mid brown-orange laminated very silty CLAY & silty SAND (CLAYGATE BEDS).	1.2		D	3.0	V	90 90		
				D	3.5				
				D	4.0	M	38 42 44 42		
	BOREHOLE ENDS AT 4.0m								

Remarks: Borehole moist & open on completion.

Key:

D = Small Disturbed sample

B = Bulk sample

U = Undisturbed sample

S.P.T. = Standard Penetration Test

M = Mackintosh Probe Penetration Test

V = Pilcon Vane Test

W = Water sample

Trial Pit No: 5

Sheet: 1 of 1

# Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

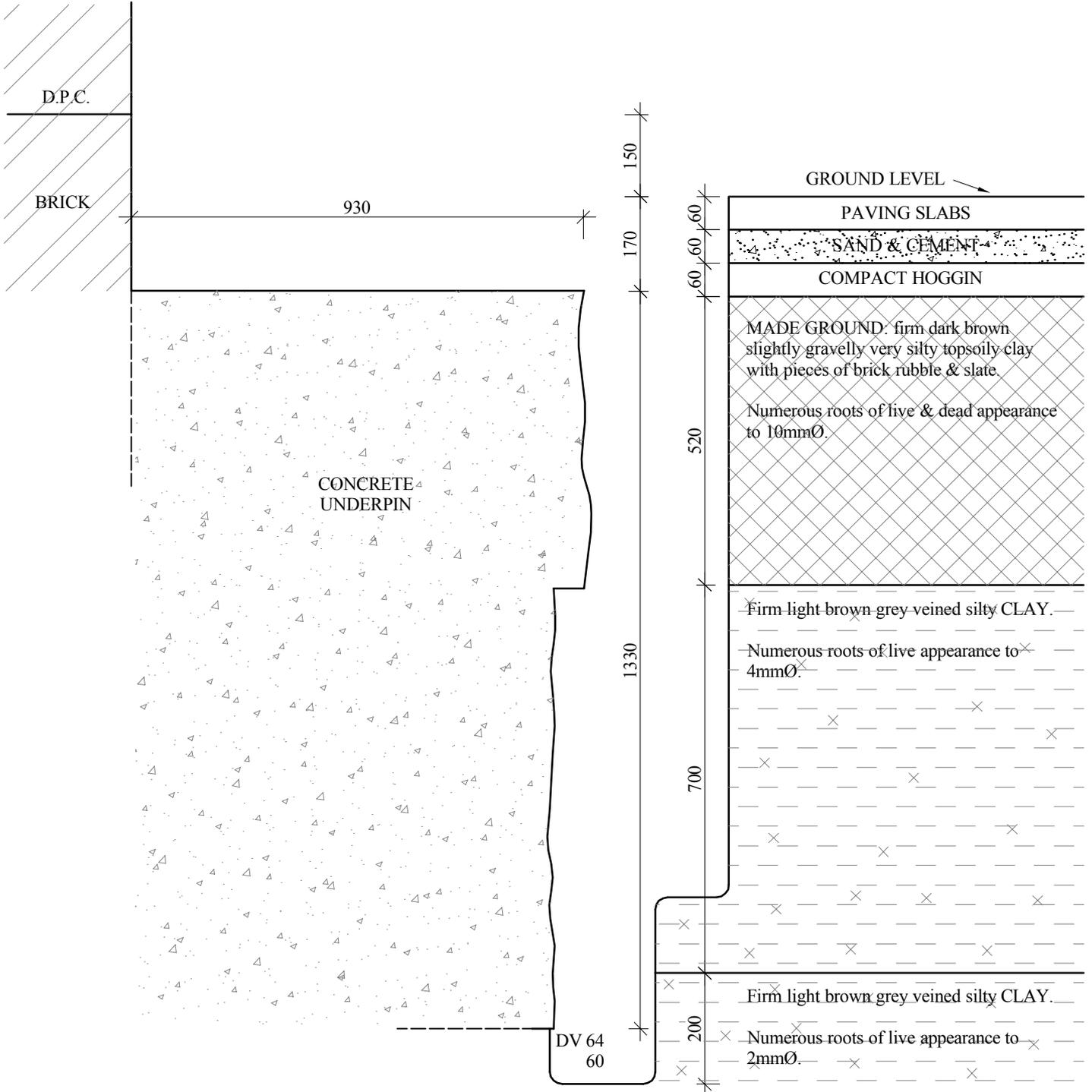
Tel: 01245 423948 / 07780 971533 Email: arkleyisi@btconnect.com

Not to scale

Date: 15.8.17

Site: 12 Akenside Road  
London NW3

Client: Richard F Gill & Associates



FOR STRATA BELOW 1600mm SEE BH LOG

Remarks:

Key:

D = Small Disturbed sample

W = Water sample

U = Undisturbed sample

B = Bulk sample

SPT = Standard Penetration Test

M = Mackintosh Probe Penetration Test

V = Pilcon Shear Vane Test

# Borehole No: 5

Sheet: 1 of 1

Ref No:

# Arkley Soil Investigation LLP

Foundation Investigation & Test Drilling

Tel: 01245 423948 / 07780 971533 Email: arkleyysi@btconnect.com

Boring Method: Hand tools

Date: 15.8.17

Site: 12 Akenside Raod  
London NW3

Client: Richard F Gill & Associates

Depth (m)	Description	Thick-ness	Legend	Samples		Insitu tests		Field comments	Depth to Water
				Type	Depth	Type	Result		
1.6	As trial pit five.	1.6						As trial pit five.	
	Firm light brown grey veined silty CLAY.	0.9		D	2.0	V	64 70	1.6 - Occasional roots of live appearance to 1mmØ ↓ To 2.0m	
2.5	Firm to stiff light brown grey veined very silty CLAY with layers of orange silt.	0.2		D	2.5	V	90 90		
2.7	Firm/medium dense mid brown-orange laminated very silty CLAY & silty SAND (CLAYGATE BEDS).	1.2		D	3.0	V	80 90	Slight moisture @ →	2.7
4.0	BOREHOLE ENDS AT 4.0m			D	4.0	M	26 40 42 40		

Remarks: Borehole moist & open on completion.

**Key:**

D = Small Disturbed sample

B = Bulk sample

U = Undisturbed sample

S.P.T. = Standard Penetration Test

M = Mackintosh Probe Penetration Test

V = Pilcon Vane Test

W = Water sample

# SOIL INVESTIGATION PHOTO SHEET.

SITE: 12, Akenside Road, London. NW3 5BT.

DATE: 15<sup>th</sup> August 2017.

CLIENT: Richard F Gill & Associates.

REF:



**Trial pit 4**



**Trial pit 4**



**Trial pit 4**



**Borehole 4**



**Trial pit 5**



**Trial pit 5**



**Trial pit 5**



**Trial pit 5**



**Trial pit 5 roots**



**Borehole 5**



**Trial pit 4 complete**



**Trial pit 5 complete**

## **REPORT NOTES**

### **Equipment Used:**

Hand tools, mechanical concrete breaker & spade, hand augers and 100mm diameter open bored continuous flight auger (access permitting)

### **Insitu tests:**

By Pilcon hand shear vane tester ( KPa ) in clay soils, and or Mackintosh probe penetration test( blows per 75mm ) in granular soil or made ground.

### **Soil description:**

Soil descriptions are on-site descriptions only.

### **Tree roots:**

Tree roots relate to tree roots observed in trial pits and boreholes only.

### **Note:**

Details reported in trial pits and boreholes relate to positions investigated only, as instructed by the client, on the date shown only. We therefore do not accept any responsibility for changes in soil conditions not investigated any variations due to climate, seasons, vegetation and varying ground water levels.

Full terms and conditions are available upon request.

By  
ARKLEY SOIL INVESTIGATION LLP  
FOUNDATION INVESTIGATION AND TEST DRILLING.  
Unit 10, Reeds Farm Estate,  
Roxwell Road,  
Writtle, Chelmsford,  
Essex.  
CM1 3ST.



Root identification  
Vegetation surveys  
Tree/Building investigations  
Plant taxonomy

# Richardson's Botanical Identifications

**Dr Ian B K Richardson**  
*BSc, PhD, CBiol, MiBiol, MiHort, FLS*  
**James Richardson**  
*BSc (Hons. Biology)*

**Enterprise House**  
**49-51 Whiteknights Road**  
**Reading**  
**RG6 7BB**

**Tel: (0118) 986 9552** (*Direct line*)  
**E-mail: [richardsons@botanical.net](mailto:richardsons@botanical.net)**  
**Web: [www.botanical.net](http://www.botanical.net)**

*Your ref:* -

*Our ref:* 75/2110

## **Arkley Soil Investigation LLP**

**Unit 10, Reeds Farm Estate**

**Roxwell Road**

**WRITTLE**

**Chelmsford CM1 3ST**

25/08/2017

Dear Sirs

### **12 Akenside Road, London**

The samples you sent in relation to the above on 15/08/2017 have been examined. The structure was referable as follows:

#### TP4, u/s/f

1 root: similar in some ways to PLATANUS (Plane). Tentative - this was a very IMMATURE and POOR sample. A further sample, not examined in detail appeared similar under low magnification. Dead\* (note this 'dead' result can be unreliable with such thin samples).

1 root: could be a SHRUB. Definitely NOT a conifer. Also a very immature root. Dead\* (as above, this 'dead' result could be an unreliable one).

7 samples: unfortunately insufficient cells for identification.

#### TP5, u/s/f

1 root: most like TILIA (Lime). 14 further samples, not examined in detail appeared similar under low magnification. Alive, recently\*.

1 piece of BARK only, insufficient material for identification.

12 samples: unfortunately insufficient cells for identification.

#### TP5, 1.0m

1 root: TILIA (Lime). 2 further samples, not examined in detail appeared similar under low magnification. Dead\*.

#### TP5, 1.3m

1 root: TILIA (Lime). 5 further samples, not examined in detail appeared similar under low magnification. Dead\*.

BH5, 1.6-2.0m

1 root: again, NOT coniferous. We cannot rule out TILIA (Lime). Again, this was a very IMMATURE sample. 8 further samples, not examined in detail appeared similar under low magnification. Dead\* (again note that this 'dead' result could be unreliable).

19 samples: unfortunately insufficient cells for identification.

I trust this is of help. Please call us if you have any queries; our Invoice is enclosed.

Yours faithfully



Dr Ian B K Richardson

- \* Based mainly on the Iodine test for starch. Starch is present in some cells of a living woody root, but is more or less rapidly broken down by soil micro-organisms on death of the root, sometimes before decay is evident. This result need not reflect the state of the parent tree.

\*\* Try out our web site on [www.botanical.net](http://www.botanical.net) \*\*

# Meridian Soils Limited

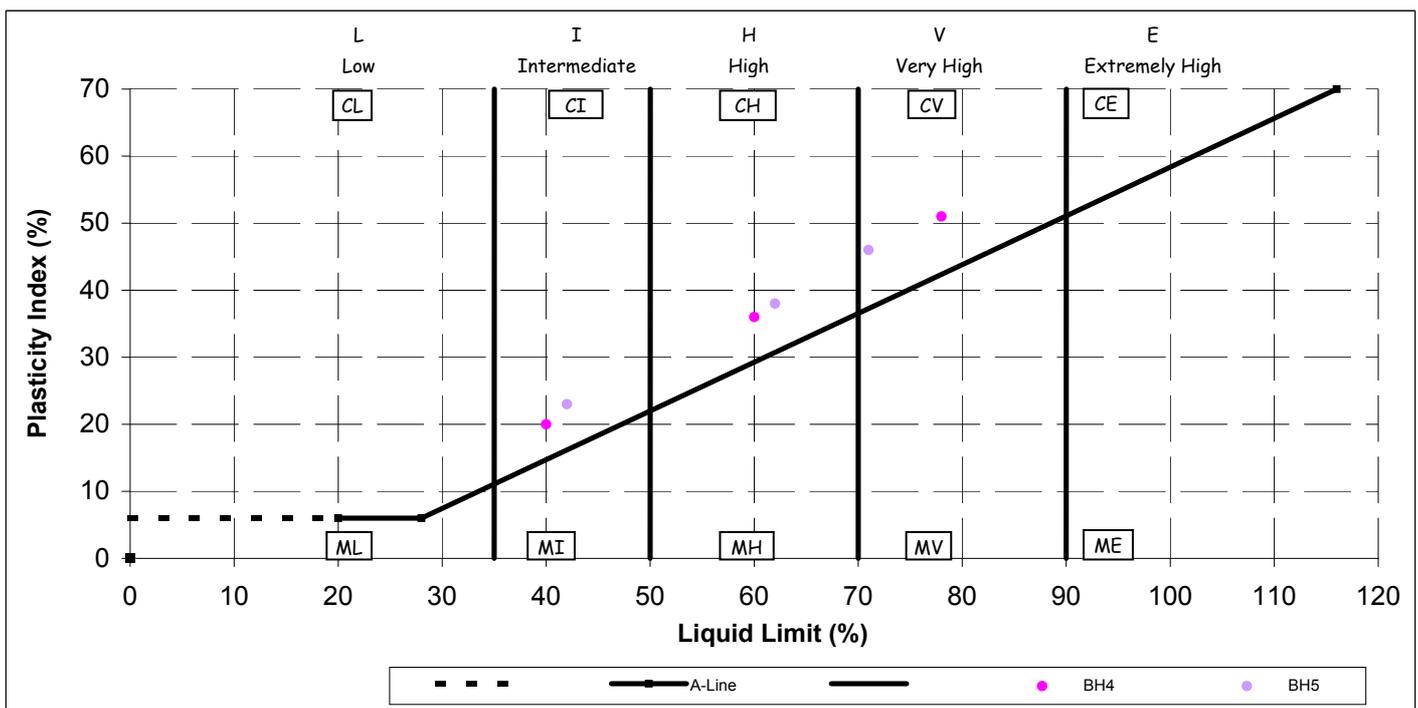
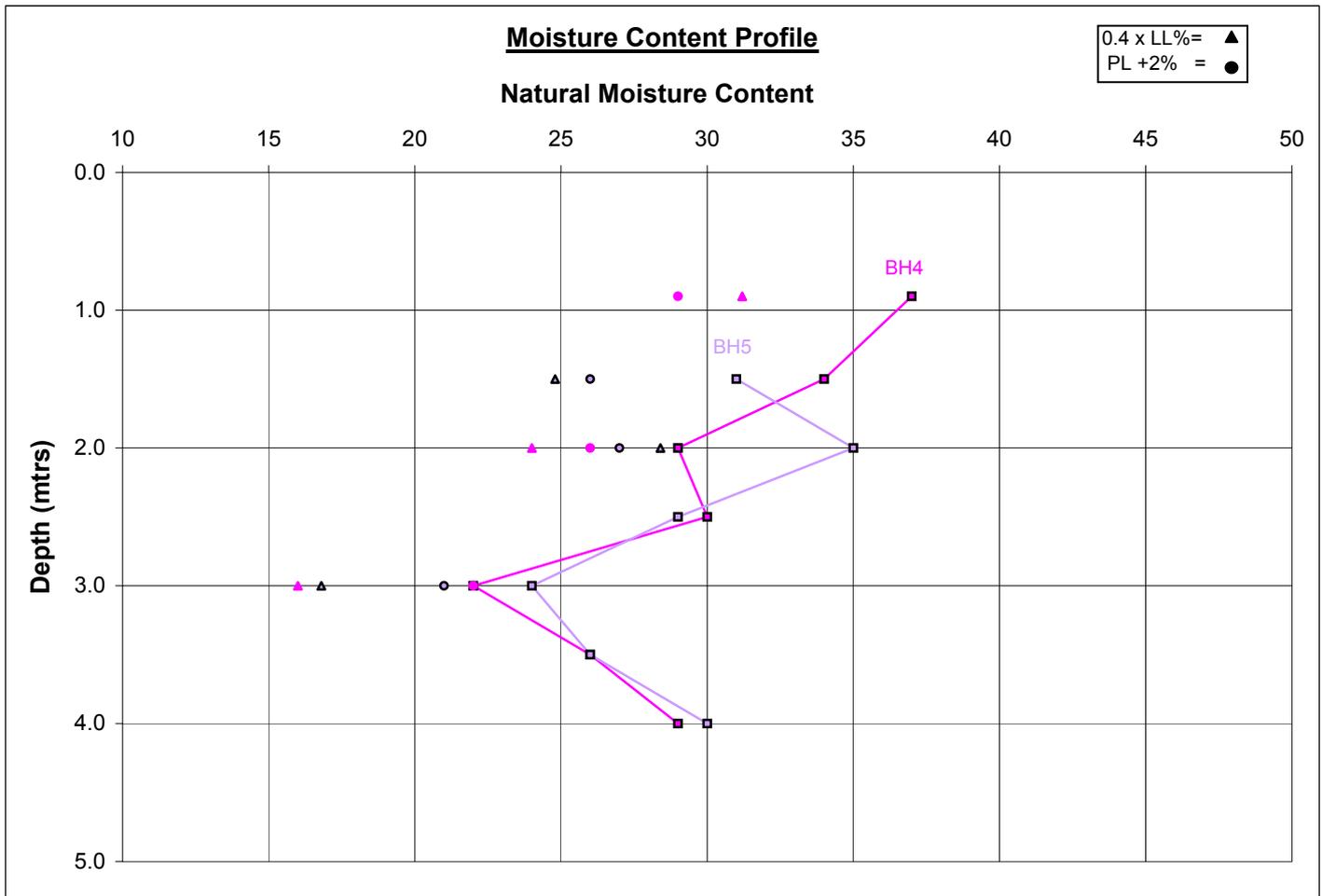
Electron House, Office & Technology Centre, West Hanningfield Road, Great Baddow, Essex. CM2 8JT  
 Telephone:- 01245 473113 E-mail:- mail@meridiansoils.co.uk Web:- www.meridiansoils.co.uk

Our Ref: S.9245

Client Ref:

Location: 12 Akenside Road, London, NW3 5BT.

Date: 5th September 2017



In Compliance with BS. 5930: 1982

Notes:

- 1) Unless specifically noted, the profiles have not been related to a site datum
- 2) If plotted, 0.4 LL and PL + 2 (after Driscoll, 1983) should only be applied to London Clay (and similar overconsolidated clays) at shallow depths.

# Meridian Soils Limited

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Telephone :- 01245 473113 E-mail:- mail@meridiansoils.co.uk Web:- www.meridiansoils.co.uk

Our Ref: S.9245

Client Ref:

Location: 12 Akenside Road, London, NW3 5BT.

Date: 5th September 2017

TP/BH No.	Sample No.	Depth mtrs.	Moisture Content %	Passing 0.425um sieve %	Equivalent Moisture %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Soil Class	Modified Plasticity Index %	Water Soluble Sulphate (g/l <sup>-1</sup> SO <sub>4</sub> )	pH value	Sulphate Class
4		0.90 (U.S)	37	100	37	78	27	51	CV	51			
		1.50	34										
		2.00	29	100	29	60	24	36	CH	36			
		2.50	30										
		3.00	22	98	22	40	20	20	CI	20			
		3.50	26										
		4.00	29										

## References

BS 1377:Part 2:1990  
BS 5930:1981

# Meridian Soils Limited

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TP/BH No.	Sample No.	Depth mtrs.	Moisture Content %	Passing 0.425um sieve %	Equivalent Moisture %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Soil Class	Modified Plasticity Index %	Water Soluble Sulphate (g/l <sup>-1</sup> SO <sub>4</sub> )	pH value	Sulphate Class
5		1.50 (U.S)	31	100	31	62	24	38	CH	38			
		2.00	35	100	35	71	25	46	CV	46			
		2.50	29										
		3.00	24	100	24	42	19	23	CI	23			
		3.50	26										
	4.00	30											

## References

BS 1377:Part 2:1990

BS 5930:1981