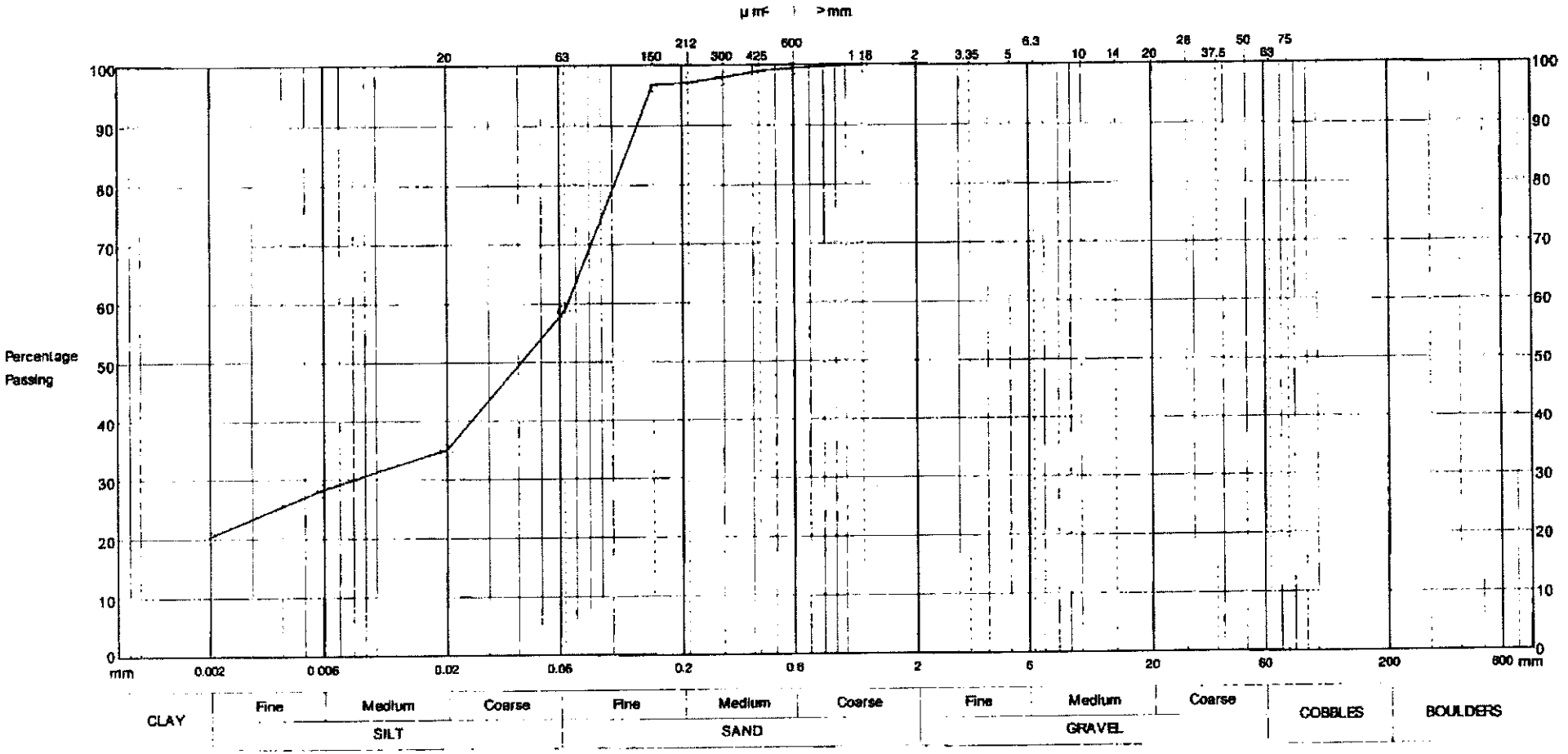
PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm										Size mm												
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	20	28	35	59	97	97	98	99	99	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-

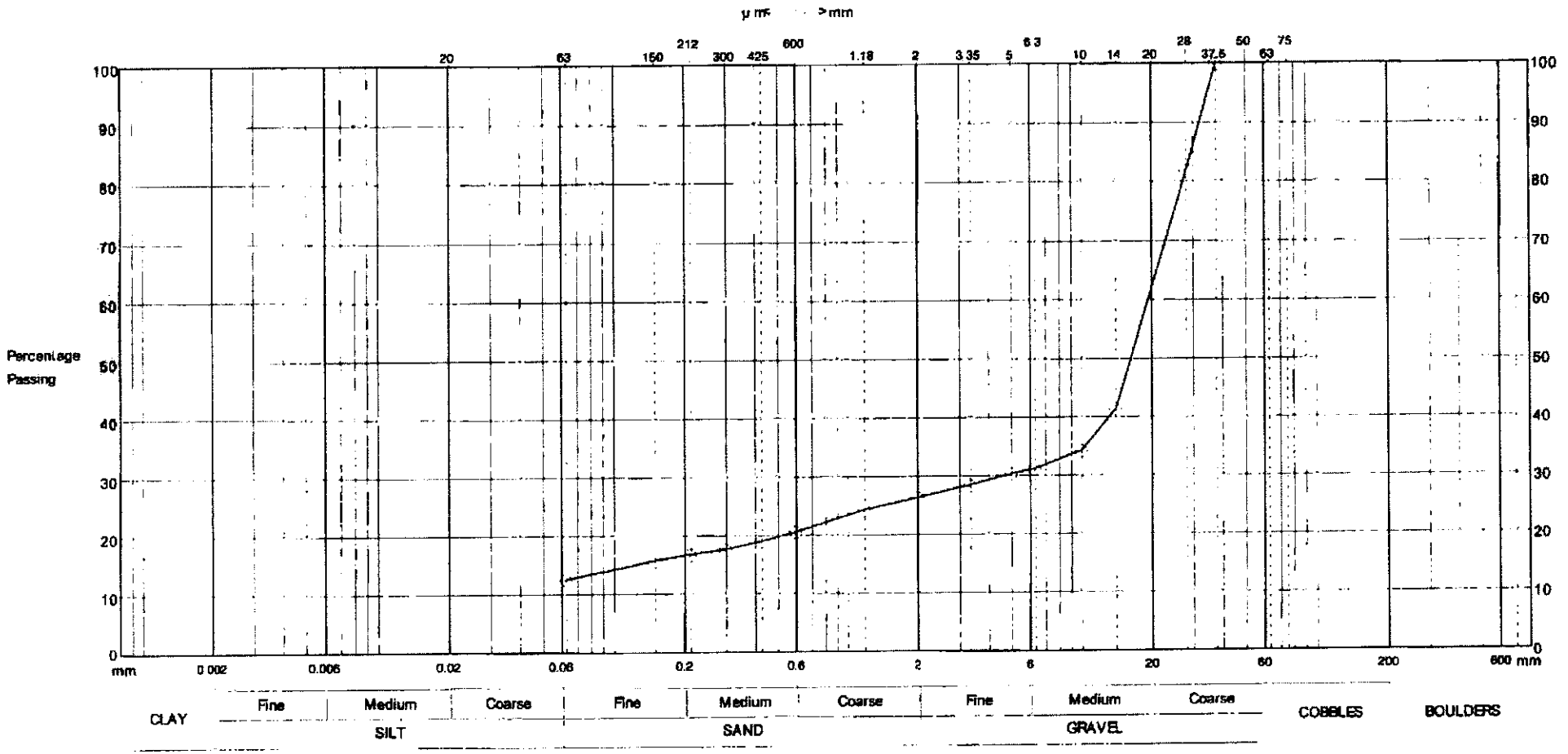


	Remarks	Method: Wet Sieve/Sedimentation	Sample Number: U4	Depth: 16.60 - 17.10
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6		BH/TP Number: BH1 11681

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	-	-	-	12	16	17	18	19	21	24	26	28	30	31	34	41	62	82	100	-	-	-	-	-

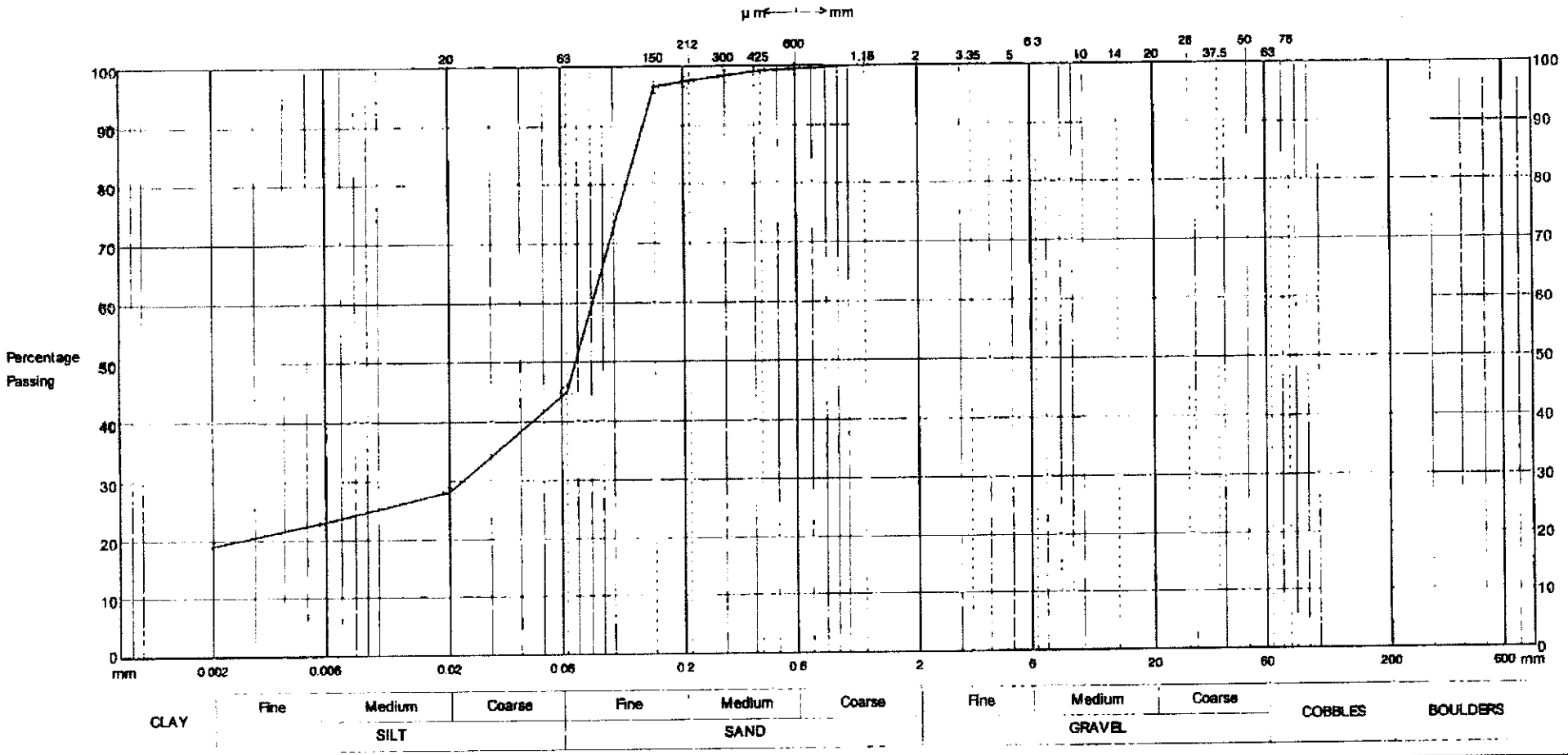


	Remarks	Method: Wet Sieve	Sample Number: B2	Depth: 1.20 - 1.70
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6		BH/TP Number: BH2 11681

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

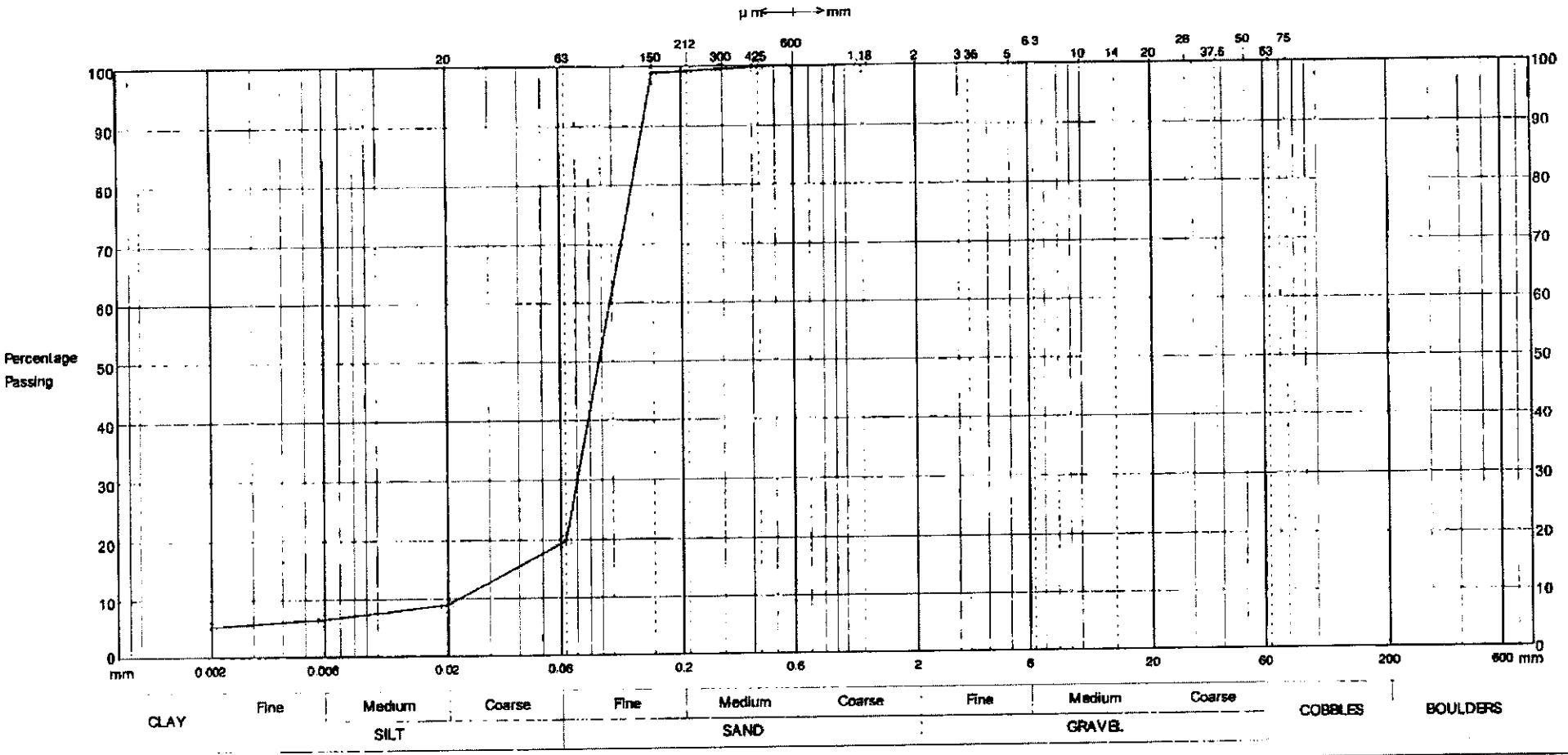
	Size µm											Size mm											
Sieve Size	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	19	23	28	45	97	98	98	99	99	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-



	Remarks	Method: Wet Sieve/Sedimentation	Sample Number: U1	Depth: 4.00 - 4.40
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6		BH/TP Number: BH2 : 11681

PARTICLE SIZE DISTRIBUTION

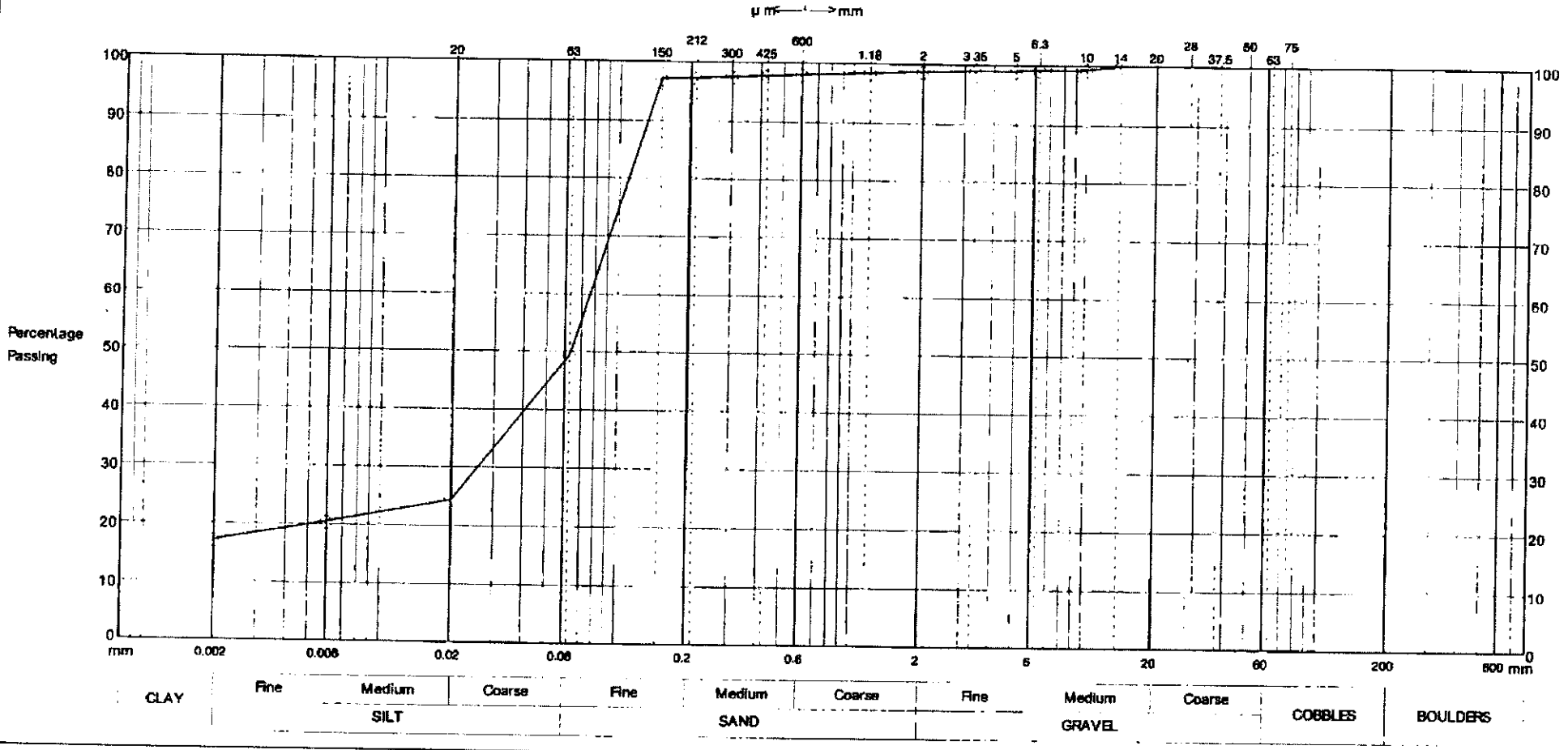
Sieve Size	Size µm									Size mm													
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	5	6	9	20	99	99	99	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-



	Remarks	Method: Wet Sieve/Sedimentation	Sample Number: B6	Depth: 6.30 - 6.80
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6		BH/TP Number: BH2 : 11681

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	17	20	24	49	97	97	97	98	98	98	99	99	99	99	99	100	-	-	-	-	-	-	-	-



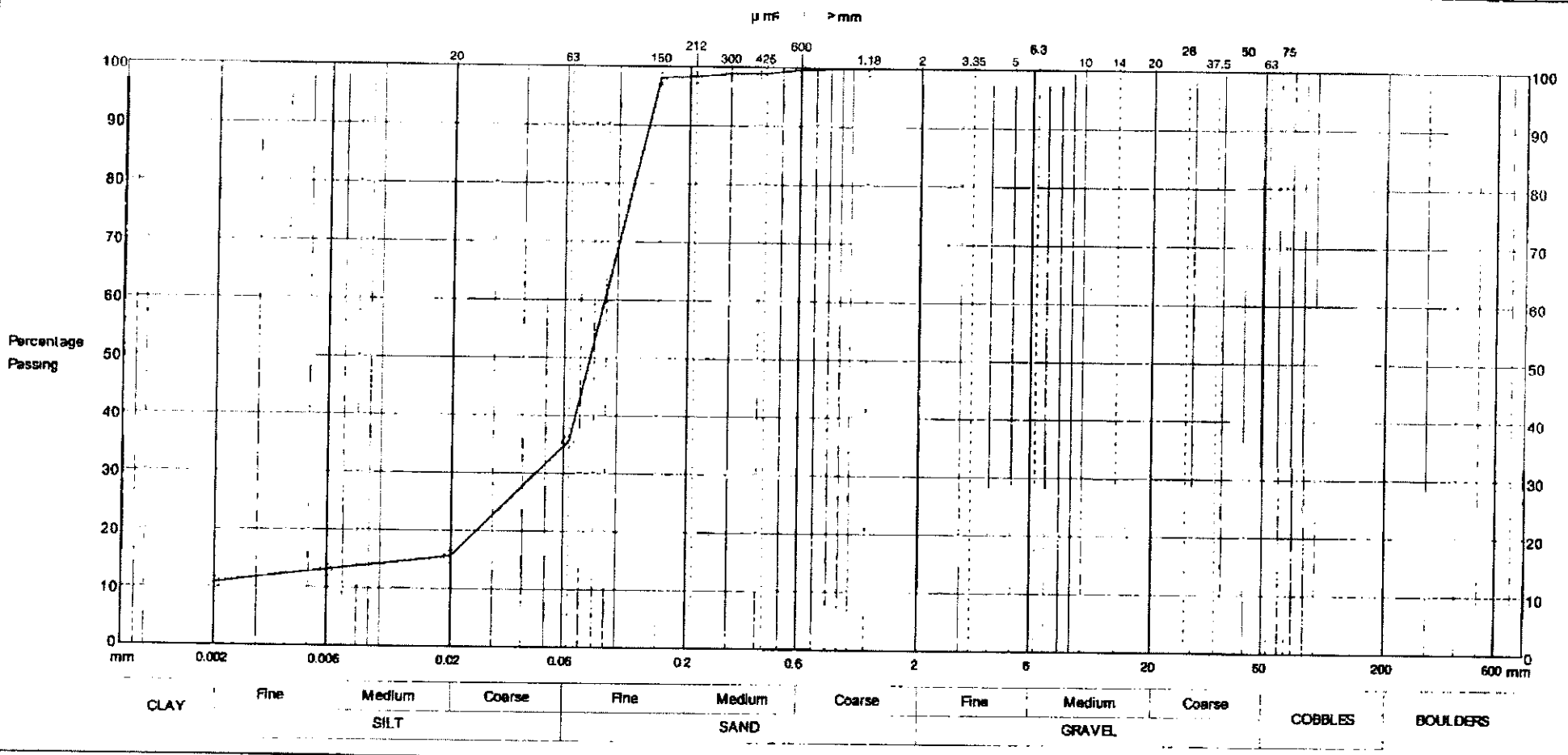
Remarks	Method	Sample Number	Depth	BH/TP Number
	Wet Sieve/Sedimentation	B8	9.00 - 9.50	BH2 11681

Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm															
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	11	13	16	36	98	98	99	99	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-



Remarks

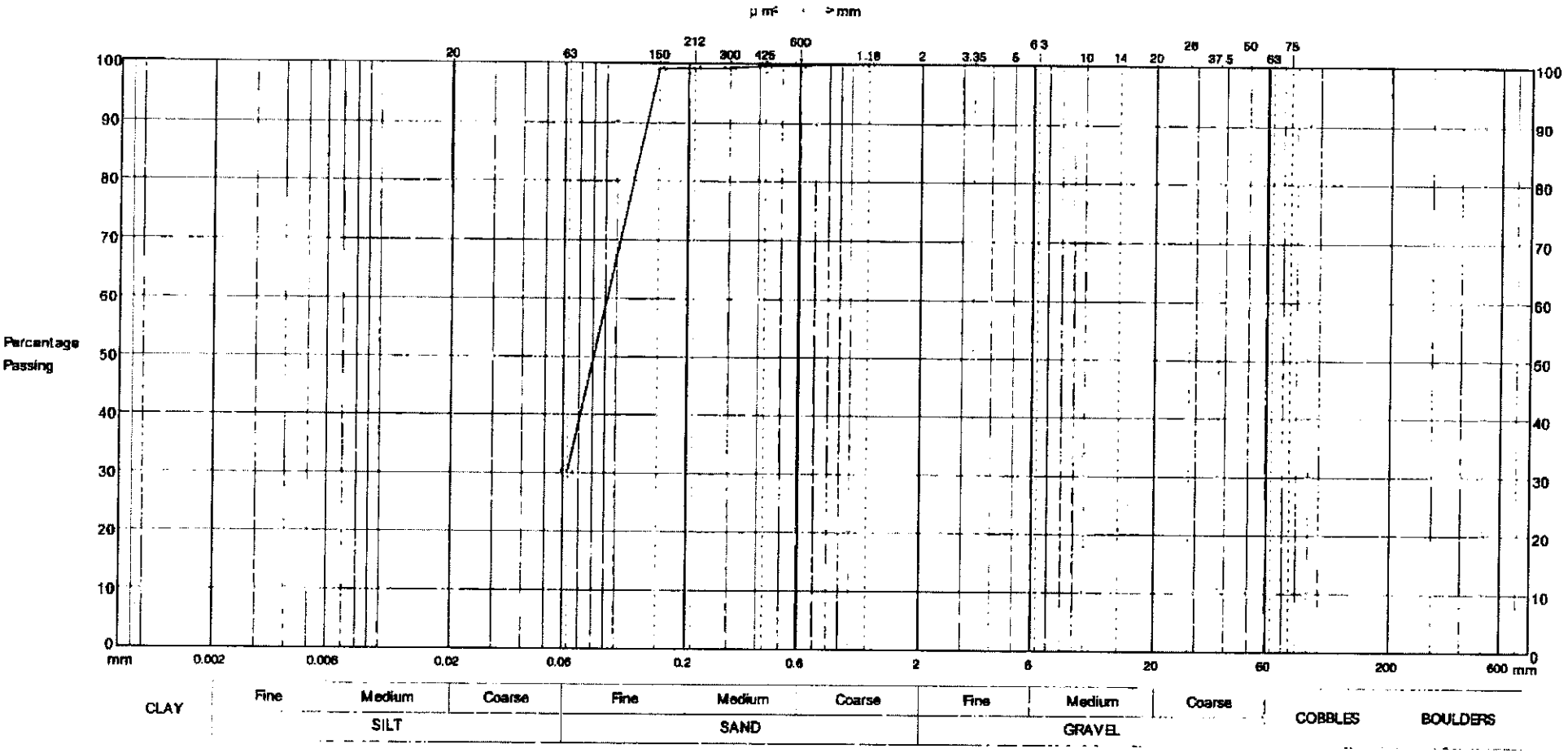
Method	Sample Number	Depth	BH/TP Number
Wet Sieve/Sedimentation	B10	12.70 - 13.20	BH2 11681

Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm													Size mm									
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	-	-	-	30	99	99	99	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-

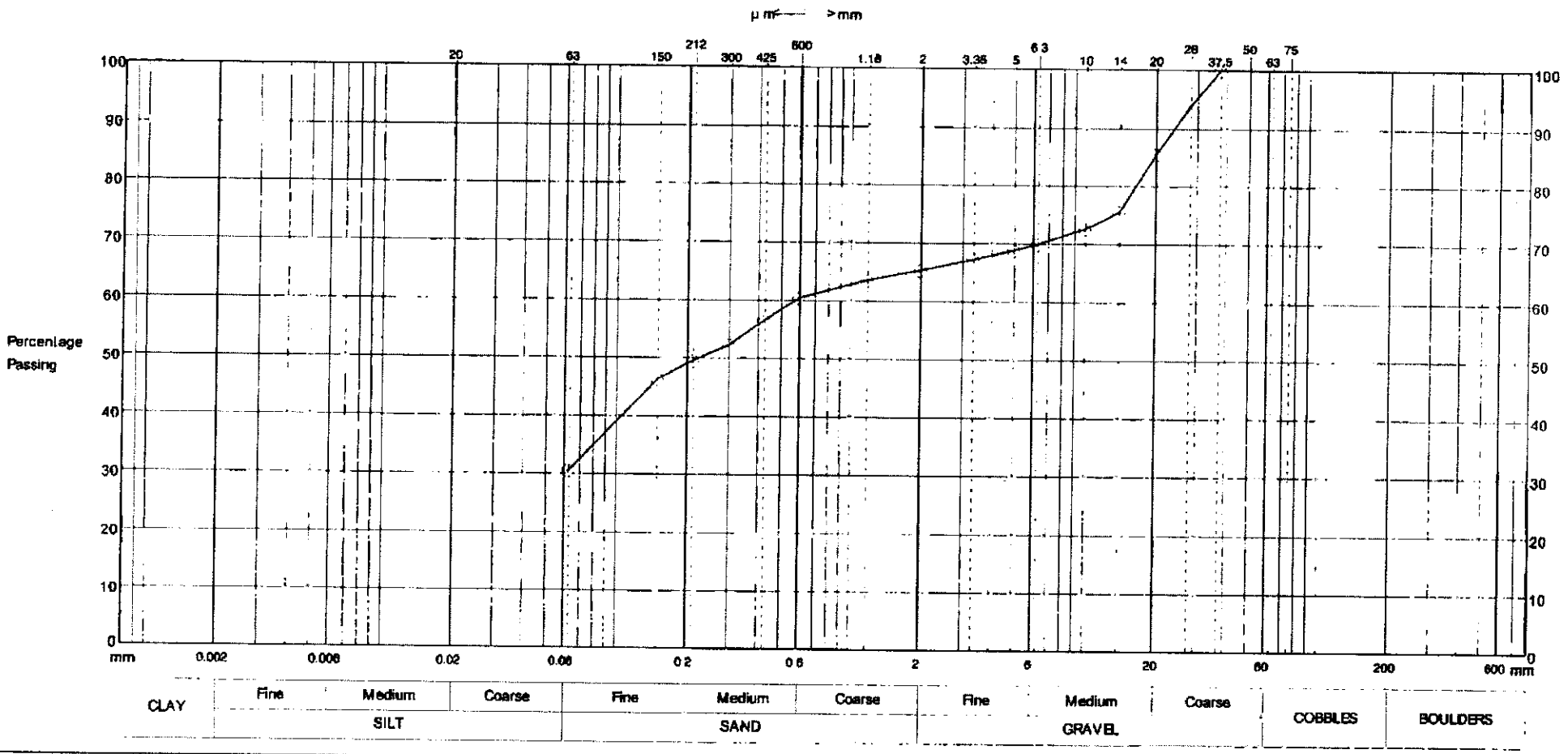


	Remarks	Method	Sample Number	Depth	BH/TP Number
		Wet Sieve	B12	15.30 - 15.80	BH2 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6			

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	-	-	-	31	46	50	52	57	60	63	65	67	69	70	73	75	86	94	100	-	-	-	-	-

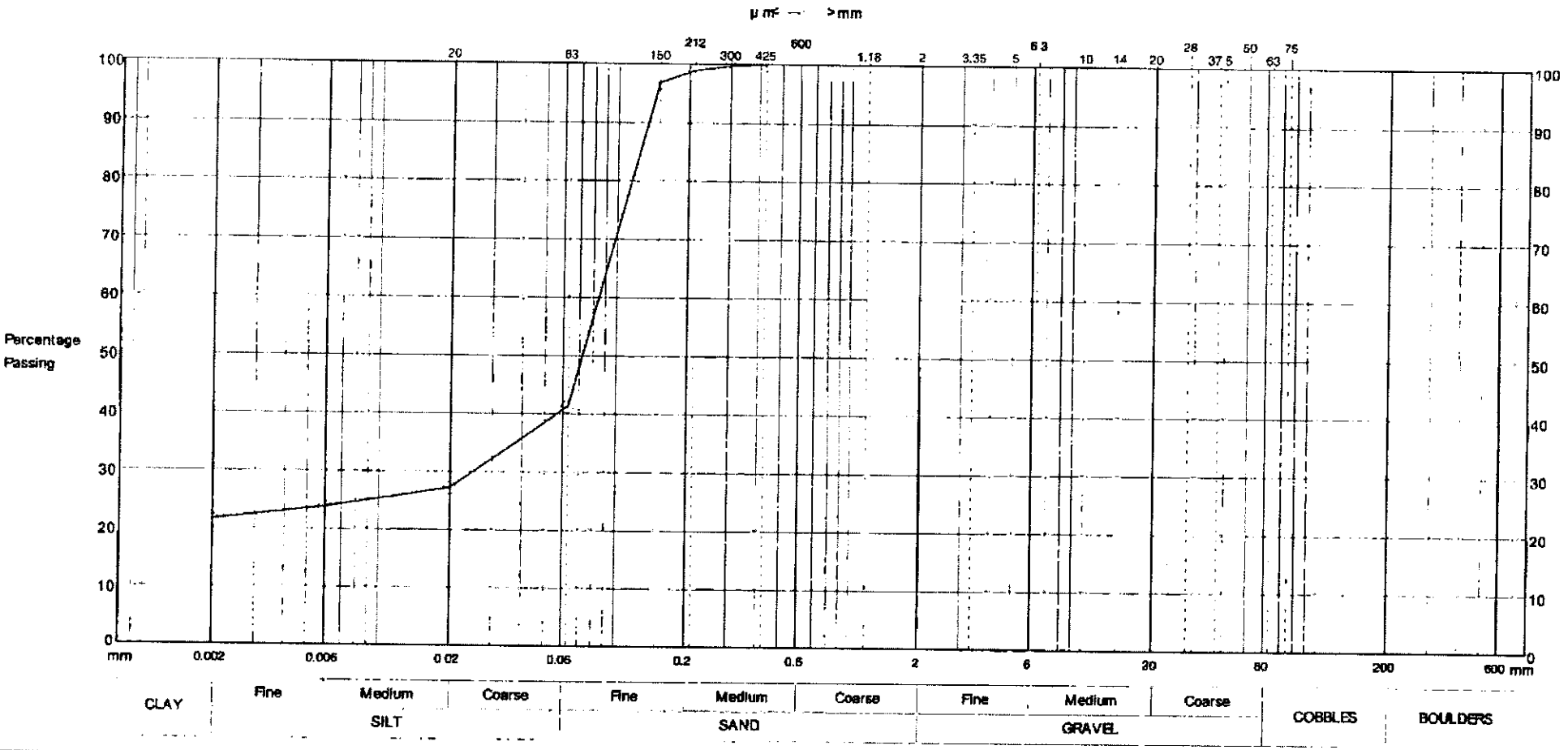


	Remarks	Method: Wet Sieve	Sample Number: B3	Depth: 1.20 - 1.70
				BH/TP Number: BH3 ; 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6		

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm											Size mm											
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	22	24	27	41	97	99	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

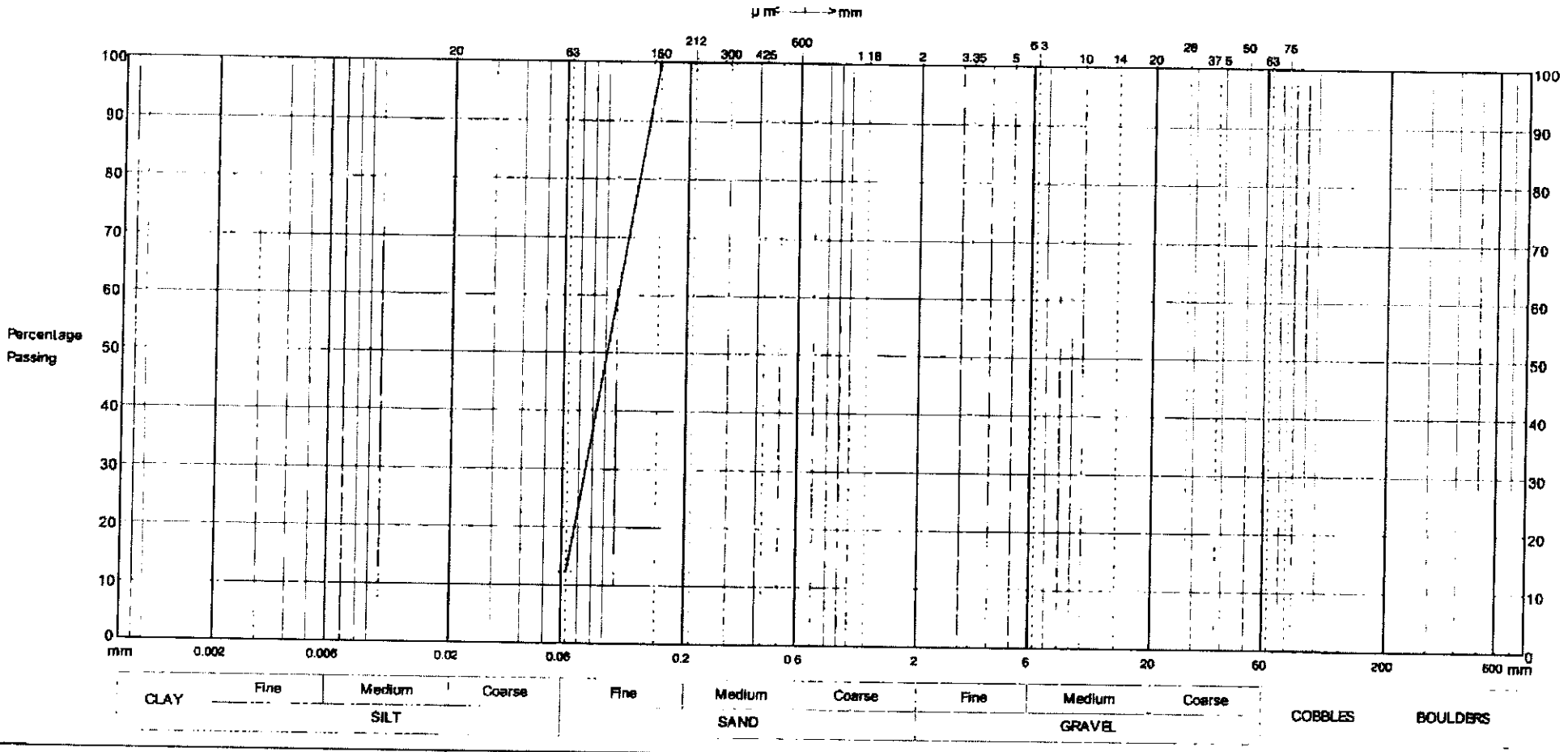


	Remarks	Method	Sample Number	Depth	BH/TP Number
		Wet Sieve/Sedimentation	U1	2.90 - 3.35	BH3 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6			

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm													Size mm									
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	-	-	-	13	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



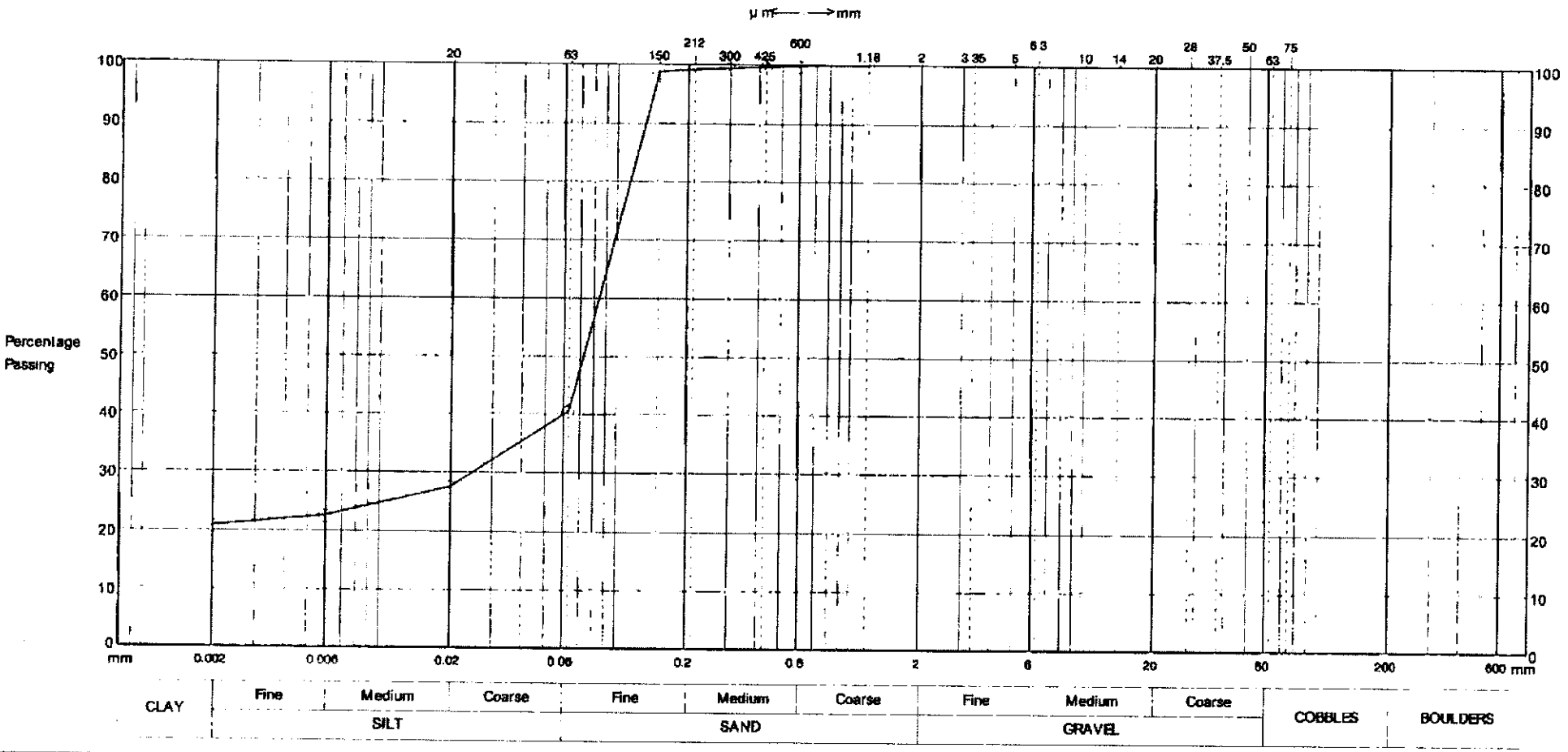
Remarks	Method	Sample Number	Depth	BH/TP Number
	Wet Sieve	U2	5.00 - 5.45	BH3 : 11681

Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	21	23	28	40	99	99	99	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-

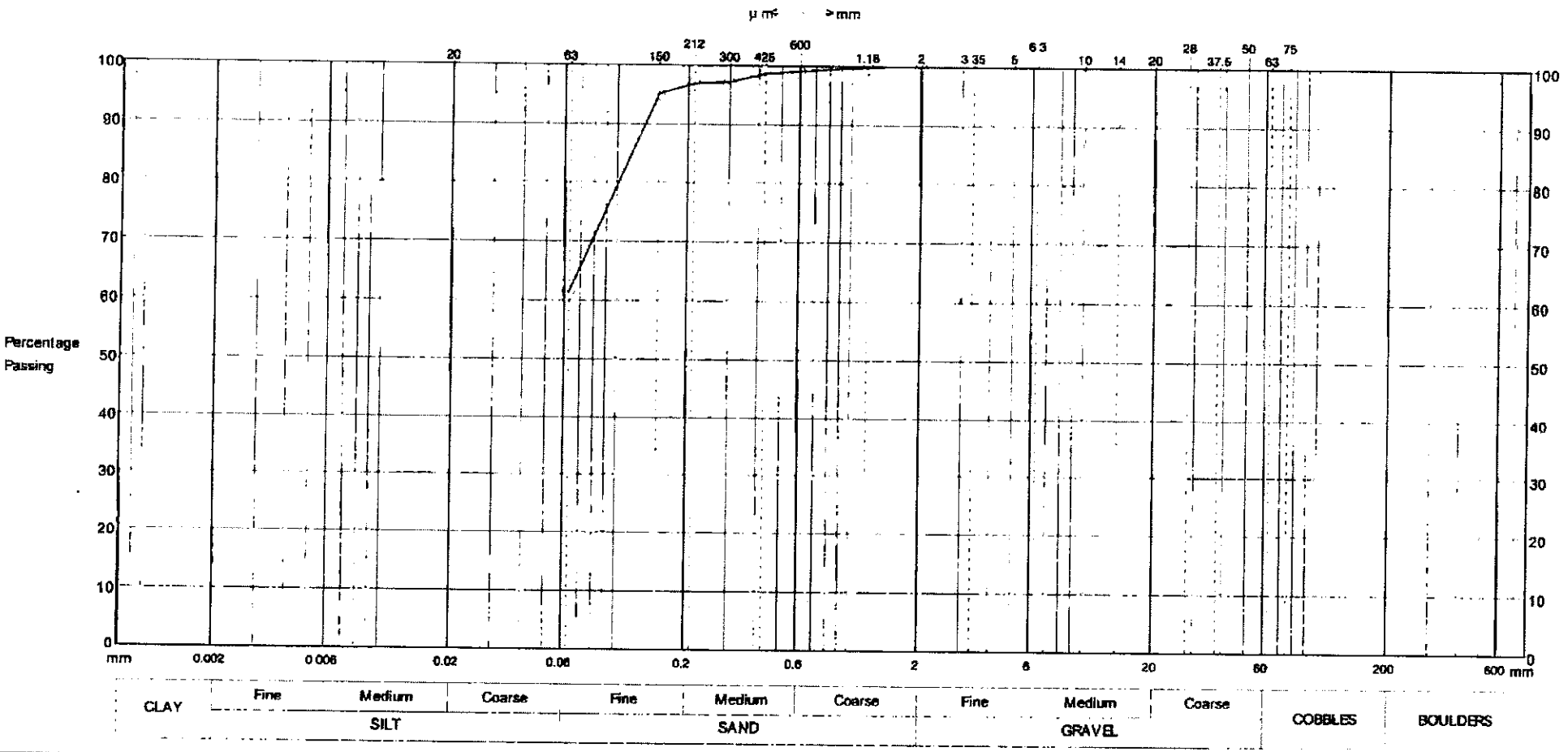


	Remarks	Method	Sample Number	Depth	BH/TP Number
		Wet Sieve	B8	7.50 - 8.00	BH3 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6			

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm														Size mm								
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	-	-	-	62	95	97	97	99	99	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-

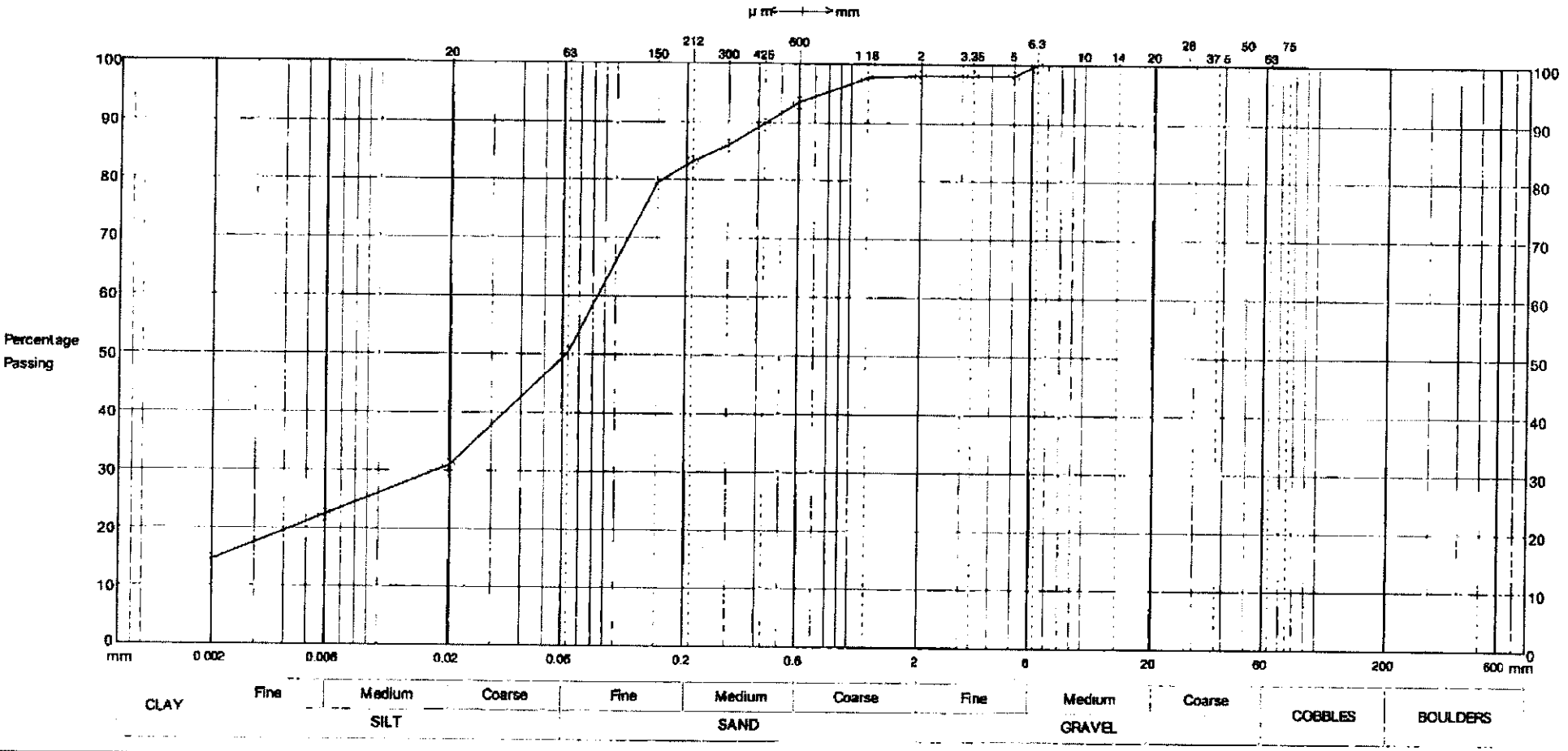


	Remarks	Method	Sample Number	Depth	BH/TP Number
		Wet Sieve	B10	10.50 - 11.00	BH3 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6			

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	14	22	31	50	79	83	86	90	93	98	98	98	98	100	-	-	-	-	-	-	-	-	-	-



Remarks

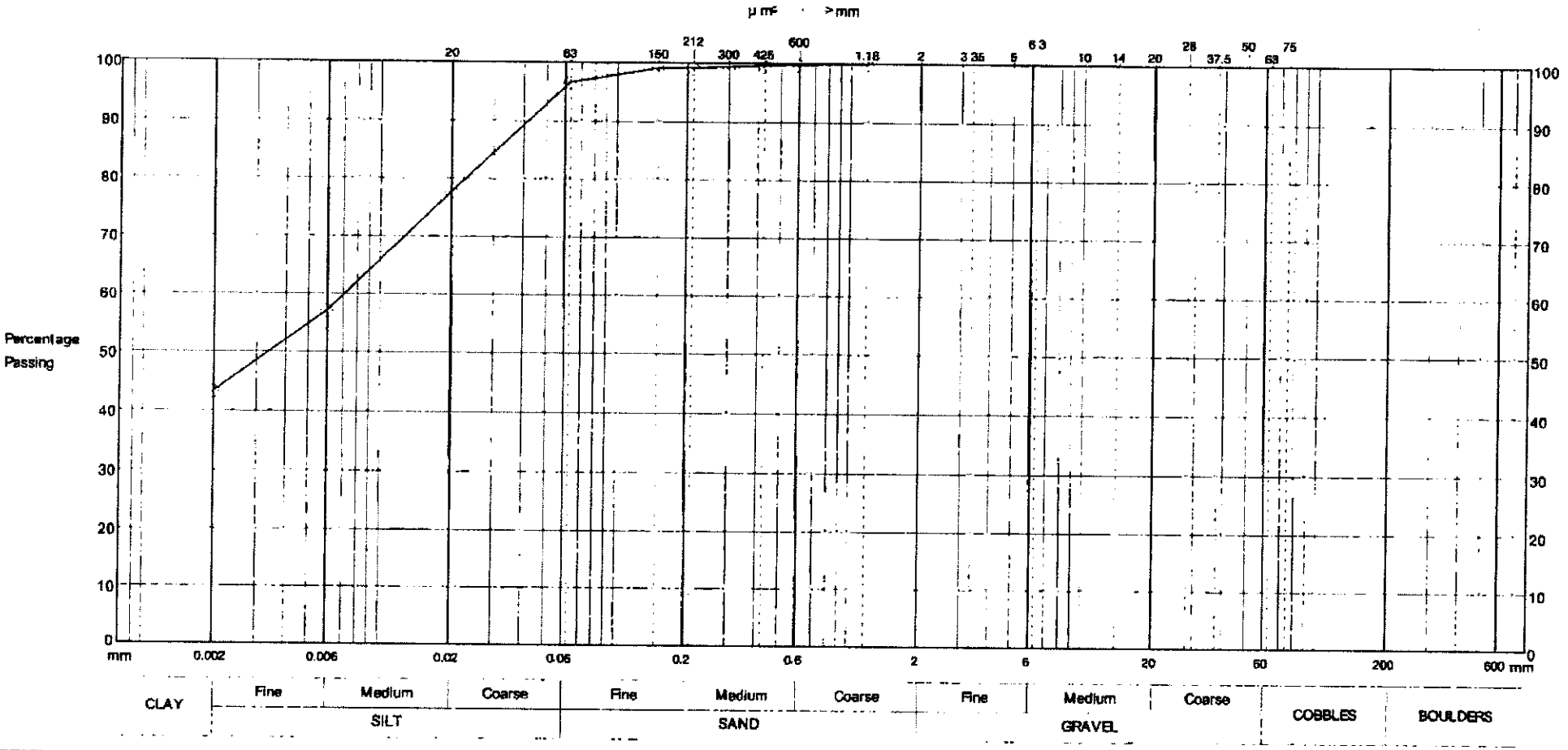
Method	Sample Number	Depth	BH/TP Number
Wet Sieve/Sedimentation	B12	13.90 - 14.40	BH3 11681

Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	43	57	78	97	99	99	99	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-

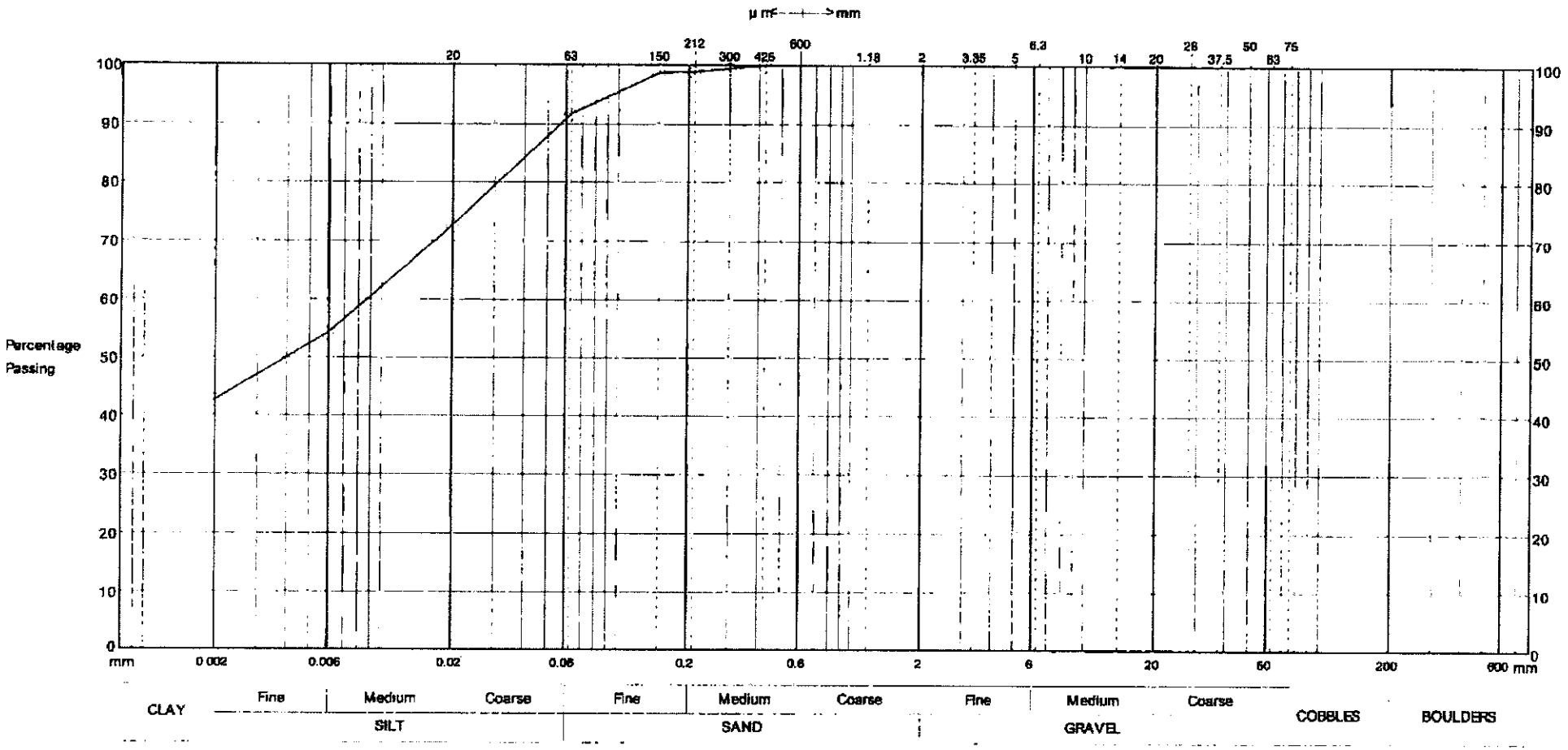


	Remarks	Method	Sample Number	Depth	BH/TP Number
		Wet Sieve/Sedimentation	U3	16.50 - 16.95	BH3 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6			

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	43	54	73	92	99	99	99	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

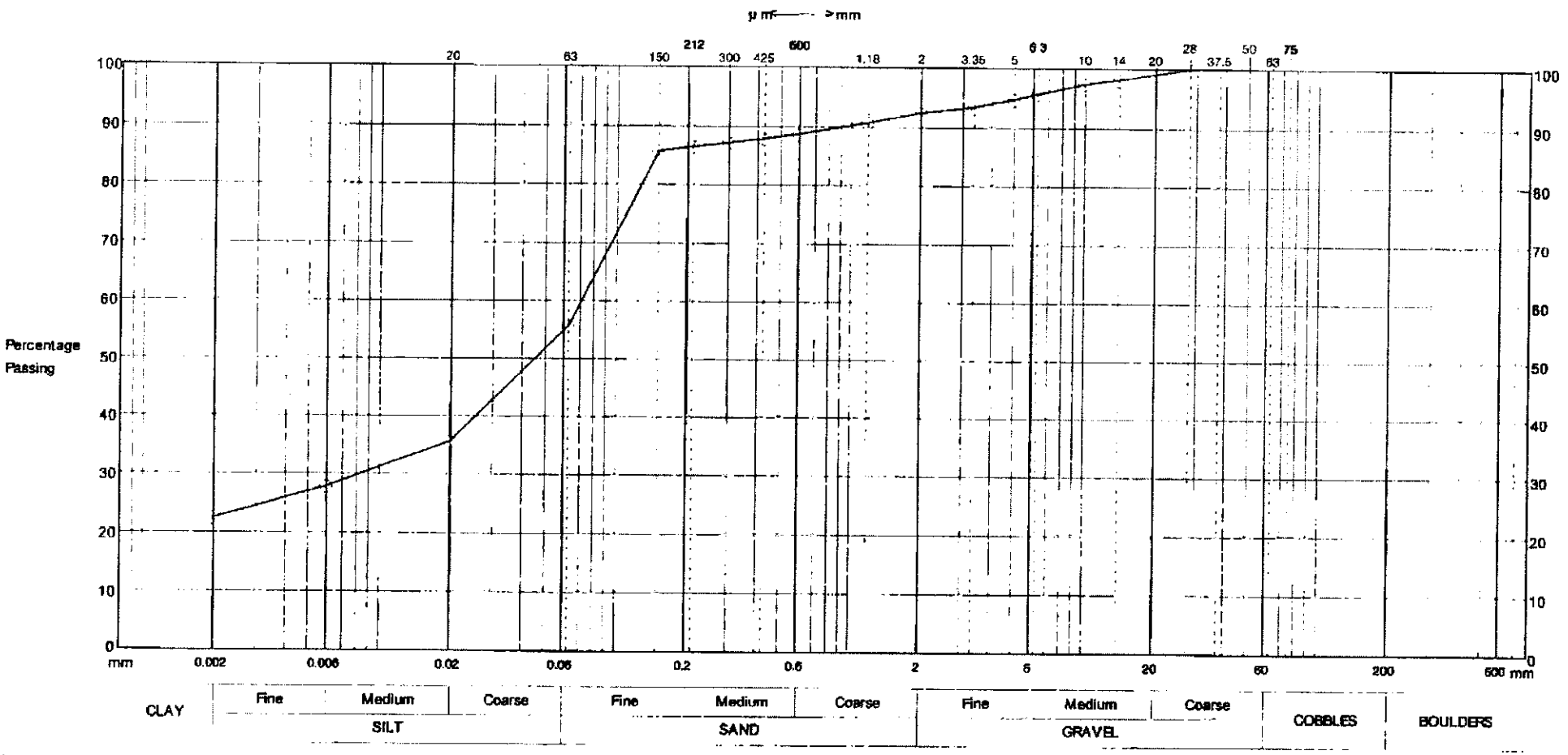


Remarks	Method	Sample Number	Depth	BH/TP Number	
	Wet Sieve/Sedimentation	U4	18.00 - 18.45	BH3	11681
	Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6				

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	22	28	36	56	86	86	87	88	89	91	92	93	95	96	97	98	99	100	-	-	-	-	-	-

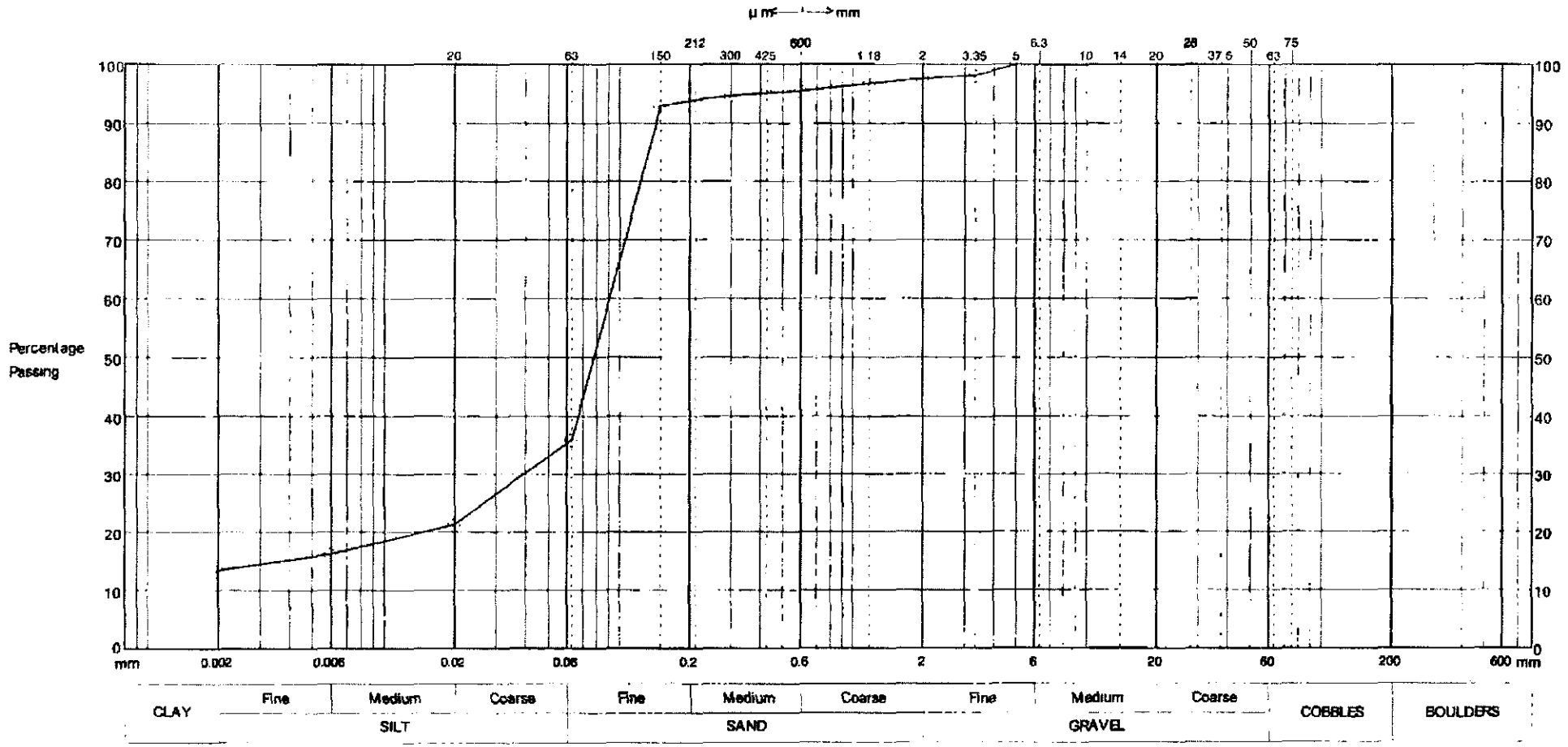


	Remarks	Method	Sample Number	Depth	BH/TP Number
		Wet Sieve/Sedimentation	B6	3.00	TP1 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6			

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm														
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	13	16	21	36	93	94	95	95	95	97	98	98	100	-	-	-	-	-	-	-	-	-	-	-

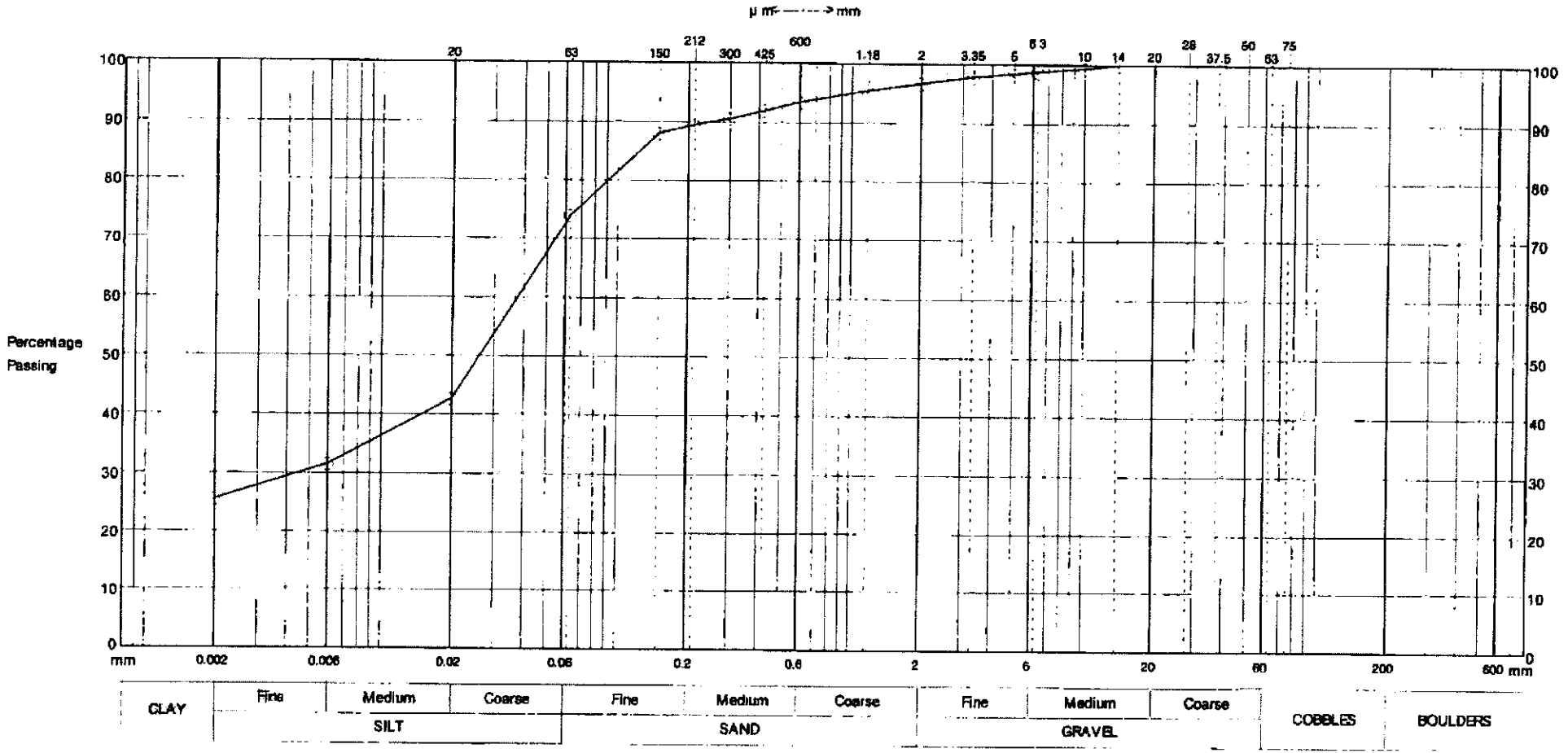


	Remarks	Method	Sample Number	Depth	BH/TP Number
		Wet Sieve/Sedimentation	B6	3.00	TP2 11681
		Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6			

GROUND ENGINEERING

PARTICLE SIZE DISTRIBUTION

Sieve Size	Size µm									Size mm													
	2	6	20	63	150	212	300	425	600	1.18	2	3.35	5	6.3	10	14	20	28	37.5	50	63	75	90	120
Percentage by Mass Passing Sieve	26	32	43	74	88	89	91	92	93	96	97	98	98	99	99	100	-	-	-	-	-	-	-	-



Remarks	Method	Sample Number	Depth	BH/TP Number	
	Wet Sieve/Sedimentation	B6	3.00	TP3	11681

Site: WITANHURST, 41 HIGHGATE WEST HILL, LONDON N6

GROUND ENGINEERING

TEST CERTIFICATE

One-Dimensional Consolidation Properties

(Tested in accordance with BS1377 : Part 5 1990)

Newark Road Peterborough
t:01733 555525 f:01733 315280
e: peterborough@enverity.co.uk

Client:	Ground Engineering	Certificate Number:	PL1955-1-27/731
Client Address:	Newark Road	Client Reference Number:	C11681
	Peterborough	Date Sampled:	Unknown
	Cambridgeshire	Date Received:	25.02.2009
Postcode:	PE1 5UA	Date Tested:	26.02.2009
Contact:	Steve Fleming	Sampling Certificate No:	N/A
Site Name:	Witanhurst	Certificate of Sampling:	N/A
Site Address:	London N6	Sampled By:	Client

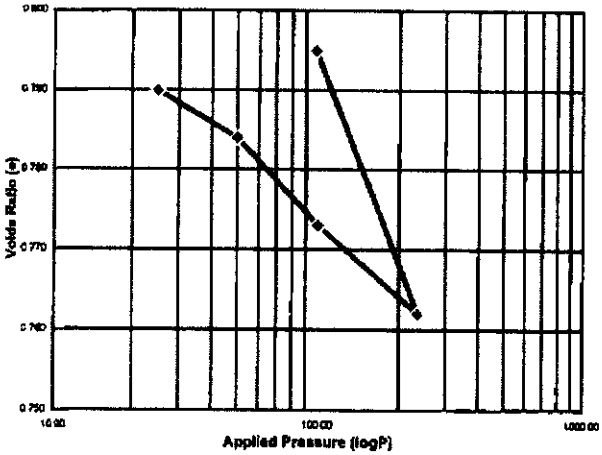
Test Details

Location:	BH3	
Sample Ref:	U3	
Sample Description:	Stiff brown CLAY with orange-brown sandy pockets and silt throughout	
Particle Density (Mg/m^3):	2.74	Assumed
Mean Lab Temp. (°C):	22	
Variations from Standard:	None	
Lab Reference:	PL1955-1-27	
Depth (m):	16.50 m	

Specimen Details

	INITIAL	FINAL
Height (mm):	18.83	18.83
Bulk Density (Mg/m^3):	1.97	2.00
Moisture Content (%):	29	31
Dry Density (Mg/m^3):	1.53	1.53
Voids Ratio:	0.796	0.795
Degree of Saturation (%):	99.5	106.0
Diameter (mm):	74.87	N/A
Swelling Pressure (kPa):	98	N/A
Method of time fitting used:	Log Time	N/A

Voids Ratio against logarithm of Applied Pressure



Applied Pressure (kPa)	Coefficient of Compressibility m_v (m^2/MN)	Coefficient of Consolidation c_v (m^2/year)
98		
235	0.14	2.73
100	0.05	-
50	0.20	-
25	0.11	-

Comments:

Approved Signatory:
[ ] M.Hartnup - Laboratory Manager
[ ] G.Meadows - Team Leader
[ ] J.Chapman - Team Leader

Signed:

Date Reported: 06/03/2009

Form Number: EN/C/731 Issue 1

for and on behalf of
Enverity
A DIVISION OF XPLOR LTD
Registered in England and Wales
Registration No. 3096780
Reg Office 7 Laureate Paddocks
Newmarket Suffolk CB8 7SQ

TEST CERTIFICATE

One-Dimensional Consolidation Properties

(Tested in accordance with BS1377 : Part 5 1990)

Newark Road Peterborough
t:01733 555525 f:01733 315280
e: peterborough@enverity.co.uk

Client:	Ground Engineering	Certificate Number:	PL1955-1-9/731
Client Address:	Newark Road	Client Reference Number:	C11681
	Peterborough	Date Sampled:	Unknown
	Cambridgeshire	Date Received:	26.02.2009
Postcode:	PE1 5UA	Date Tested:	26.02.2009
Contact:	Steve Fleming	Sampling Certificate No:	N/A
Site Name:	Witanhurst	Certificate of Sampling:	N/A
Site Address:	41 Highgate, West Hill, London N6	Sampled By:	Client

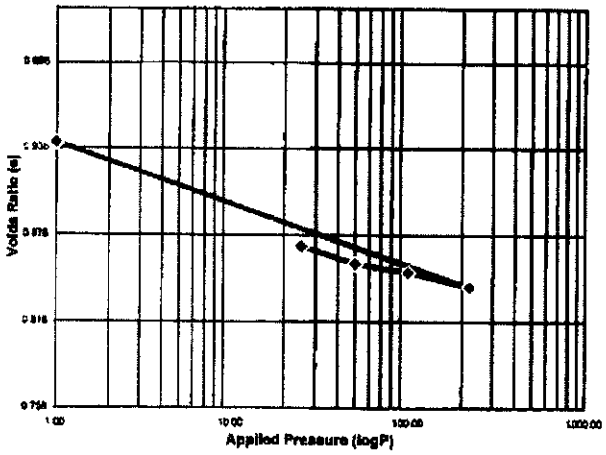
Test Details

Location:	BH1	
Sample Ref:	U3	
Sample Description:	Soft brown orange-brown grey very sandy SILT/CLAY	
Particle Density (Mg/m^3):	2.7	Assumed
Mean Lab Temp. (°C):	22	
Variations from Standard:	None	
Lab Reference:	PL1955-1-9	
Depth (m):	15.00 m	

Specimen Details

	INITIAL	FINAL
Height (mm):	19.01	18.31
Bulk Density (Mg/m^3):	1.85	1.90
Moisture Content (%):	33	32
Dry Density (Mg/m^3):	1.39	1.44
Voids Ratio:	0.942	0.870
Degree of Saturation (%):	95.0	97.8
Diameter (mm):	74.89	N/A
Swelling Pressure (kPa):	1	N/A
Method of time fitting used:	Log Time	N/A

Voids Ratio against logarithm of Applied Pressure



Applied Pressure (kPa)	Coefficient of Compressibility m_v (m^2/MN)	Coefficient of Consolidation c_v (m^2/year)
1		
220	0.24	2.73
100	0.05	-
50	0.07	-
25	0.25	-

Comments:

Approved Signatory: [✓] M.Hartnup - Laboratory Manager
[ ] G.Meadows - Team Leader
[ ] J.Chapman - Team Leader

Signed:

Date Reported: 06/03/2009

Form Number: EN/C/731 Issue 1

for and on behalf of Enverity
A DIVISION OF XPLOR LTD
Registered in England and Wales
Registration No. 3096780
Reg Office 7 Laureate Paddocks
Newmarket Suffolk CB8 7SQ

Shear Strength by Direct Shear (Small Shear Box)

Enverity

Client	Ground Engineering	**Lab Ref**	PL1955-1-4
Project	Witanhurst C11681	**Job**	PL1955-1
Borehole	BH1	**Sample**	U2

Test Details			
Standard	BS 1377 Part 7 :1990 Clause 4	**Particle Density**	2.73 Mg/m^3
Sample Type	Undisturbed	**Single or Multi Stage**	Single Stage
Lab. Temperature	22.0 deg.C	**Location**	BH1
Sample Description	Firm brown orange-brown grey slightly sandy CLAY/SILT		
Variations from procedure	None		

Specimen Details			
Specimen Reference	A	**Description**	See Above
Depth within Sample	5.00m	**Orientation within Sample**	N/A
Initial Height	24.000 mm	**Area**	3600.00 mm^2
Preparation	Remoulded	**Initial Moisture Content***	20.0 %
Bulk Density	1.98 Mg/m^3	**Dry Density**	1.65 Mg/m^3
Initial Voids Ratio	0.6551	**Degree of Saturation**	83.31 %
Dry or Submerged	Submerged		
Comments			

* Calculated from initial and dry weights of whole specimen

Settlement Vs Square Root Time