

Site Investigation Report

WHC reference: 7527

Job information

Client: Crawford & Company

Client reference: SU1299487

Visit date: 8th January 2024

Report date: 28th February 2024

Job Summary



Address: South Lodge, Wellington Court, Spencers Wood, Berkshire, RG7 1BN

Services Utilised:



Trial Hole
Actioned: Yes
Number: 1



Drainage repairs
Actioned: No



Borehole
Actioned: Yes
Number: 3



Root samples taken
Actioned: Yes



Dynamic or Mackintosh probe
Actioned: No
Number: 0



Soil samples taken
Actioned: Yes



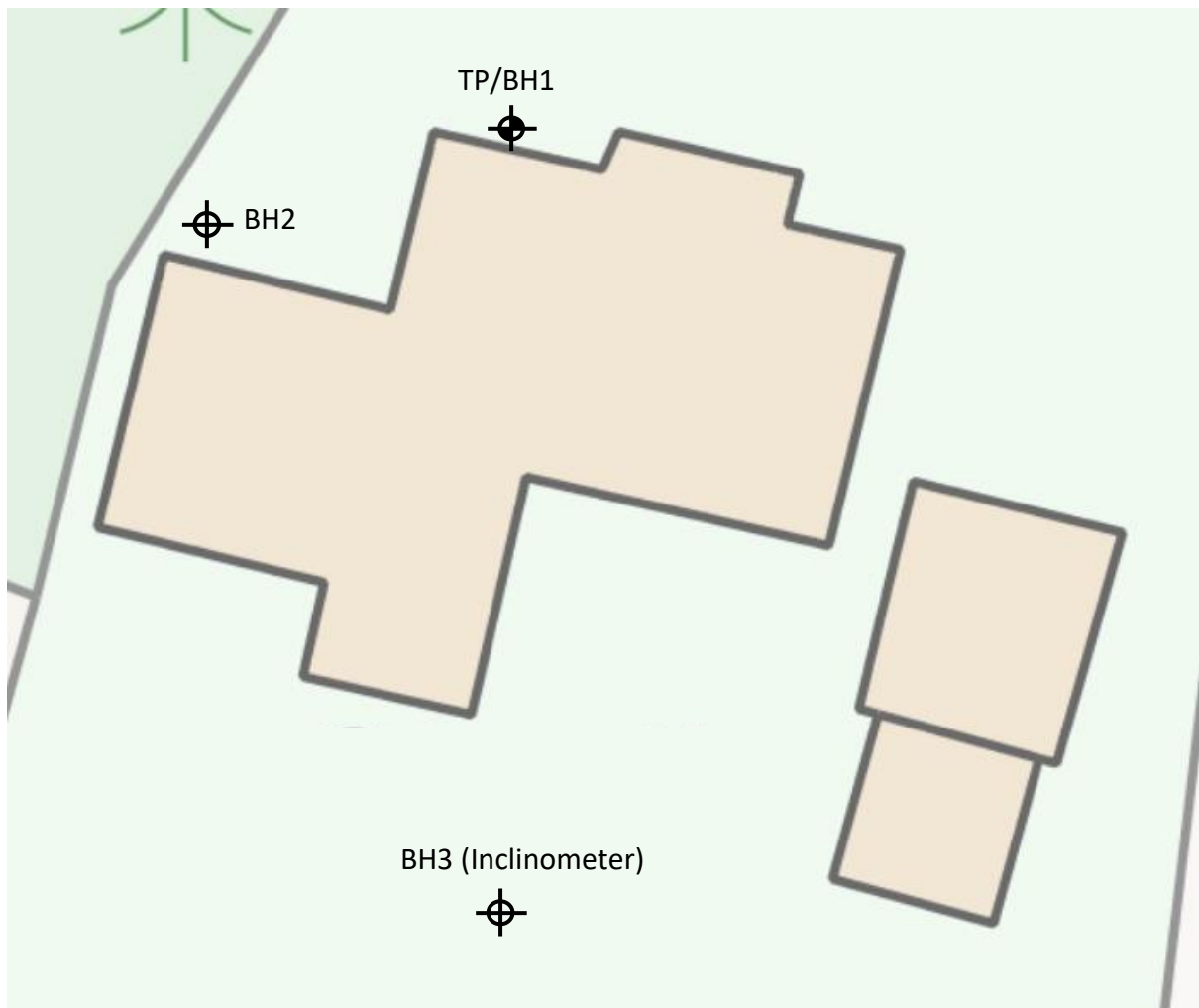
CCTV survey
Actioned: No



Contact us
Read below

Plans

Site Plan:



Key

	Datum Point		Combined Drains		Foul Pipe
	Dynamic Probe		Foul Drains		Storm Pipe
	Trial Pit		Storm Drains		Foul Gully
	Borehole		Unsurveyed Drains		Storm Gully
	Trial pit/BH		Property Boundary		Area of Damage

Job Information

Job Overview:

Brief

William Hunt Consulting were commissioned by Crawford & Company to undertake a site investigation within the area of concern, located at the rear elevation of the property. Site Investigation to consist of 1No. Trial Pit together with 3No. Boreholes by windowless sampler alongside Root Identification and Laboratory Testing.

Findings:

Borehole Findings

Borehole Logs can be found in Appendix A, where in Borehole 1, very firm light brown Clay was found present from ground level to 1.00m below ground level, followed by light grey/brown Clay softening up with depth to 1.50mbgl. Below this, soft grey silty Clay was recorded to a depth of 2.00mbgl, underlain by firm sandy Gravel to 5.00m below ground level, at which point the borehole was terminated. Borehole did not encounter groundwater with roots being identified at 0.20m–0.60m and 1.30m–1.50m.

In both Boreholes 2 and 3, Topsoil mixed Clay was found present from ground level to 0.50m below ground level, followed by firm light brown Clay to 2.00mbgl. Below this, soft silty grey Clay was recorded to a depth of 2.50m below ground level, followed by dry silty grey Clay to 3.00mbgl. Underlain by firm sandy Gravel to a depth of 4.50m below ground level, at which point the boreholes were terminated. Boreholes did not encounter groundwater, roots identified in BH2 at depths of 1.00m and 2.00m. Inclinator installed to 4m in BH3.

Root Identification

Root Identification Results can be found in Appendix B, where in TP/BH1, multiple conifer roots closely resembling the TAXODIACEAE Group (Sequoias, Redwoods, Swamp, Cypress) were identified at depths of 0.20mbgl – 0.60mbgl and 1.30mbgl – 1.50mbgl. In their absence, Cypress, Thuja (Western Red Cedar) or Juniper would be suggested.

In TP/BH2, further roots closely resembling the TAXODIACEAE Group – or, in their absence, either Cypress, Thuja (Western Red Cedar) or Juniper, were identified at depths of 1.00mbgl and 2.00mbgl.

Trial Pit Records

Trial Pit Details can be found in Appendix C, where in trial pit 1, a 270mm thick stepped concrete foundation found present and commencing from 0.17m below ground level, with a total projection of 1.10m. Trial pit 1 found Type 1 MOT from ground level to 0.27mbgl, followed by Made Ground to 0.44mbgl, underlain by brown/grey firm Clay.

Soil Sample Testing

Laboratory Testing Results can be found in Appendix D.

Photographs

Images:

Photo 1 – Trial Pit 1 Location



Photo 2 – Trial Pit 1



Photo 3 – Borehole 2 Location



Photo 4 – BH1 Cores (0.00m – 3.00m)



Photo 5 – BH1 Cores (3.00m – 5.00m)



Appendices

Appendix A – Borehole Logs

		Percussion Drilling Log									
Project Name: South Lodge				Client: Crawford & Company				Date: 08/01/2024			
Location: South Lodge, Wellington Court, Spencers Wood, Berkshire, RG7 1BN				Contractor: WHC							
Project No. : 7527				Crew Name: ABW & JK				Drilling Equipment: Windowless Sampler			
Borehole Number BH1		Hole Type WLS		Level		Logged By ABW		Scale 1:25		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.50	D					Very firm light brown Clay.			
		1.00	D		1.00			Light brown/grey Clay softening up with depth.	1		
		1.50	D		1.50			Soft grey silty Clay.			
		2.00	D		2.00			Firm sandy Gravel.	2		
		2.50	D								
		3.00	D						3		
		3.50	D								
		4.00	D						4		
		4.50	D								
		5.00	D		5.00			End of Borehole at 5.000m	5		
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks Borehole was terminated at 5.00m. Borehole did not encounter groundwater, with roots being identified at 0.20m-0.60m and 1.30m-1.50m.											



Percussion Drilling Log

Project Name: South Lodge		Client: Crawford & Company		Date: 08/01/2024	
Location: South Lodge, Wellington Court, Spencers Wood, Berkshire, RG7 1BN		Contractor: WHC			
Project No. : 7527		Crew Name: ABW & JK		Drilling Equipment: Windowless Sampler	
Borehole Number BH2	Hole Type WLS	Level	Logged By ABW	Scale 1:23	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.50	D		0.50			Topsoil mixed Clay.	
		1.00	D					Firm light brown Clay.	1
		1.50	D						
		2.00	D		2.00			Soft silty grey Clay.	2
		2.50	D		2.50			Dry silty grey Clay.	
		3.00	D		3.00			Firm sandy Gravel.	3
		3.50	D						
		4.00	D						4
		4.50	D		4.50			End of Borehole at 4.500m	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks
Borehole was terminated at 4.50mbgl. Borehole did not encounter groundwater, roots identified at depths of 1.00m and 2.00m



		Percussion Drilling Log									
Project Name: South Lodge				Client: Crawford & Company				Date: 08/01/2024			
Location: South Lodge, Wellington Court, Spencers Wood, Berkshire, RG7 1BN				Contractor: WHC							
Project No. : 7527				Crew Name: ABW & JK				Drilling Equipment: Windowless Sampler			
Borehole Number BH3		Hole Type WLS		Level		Logged By ABW		Scale 1:23		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
					0.50			Topsoil mixed Clay.			
					2.00			Firm light brown Clay.	1		
					2.50			Soft silty grey Clay.	2		
					3.00			Dry silty grey Clay.	3		
					4.50			Firm sandy Gravel.	4		
							End of Borehole at 4.500m				
Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
Remarks Borehole was terminated at 4.50mbgl. Borehole did not encounter groundwater, Inclinator installed to 4.00m.											

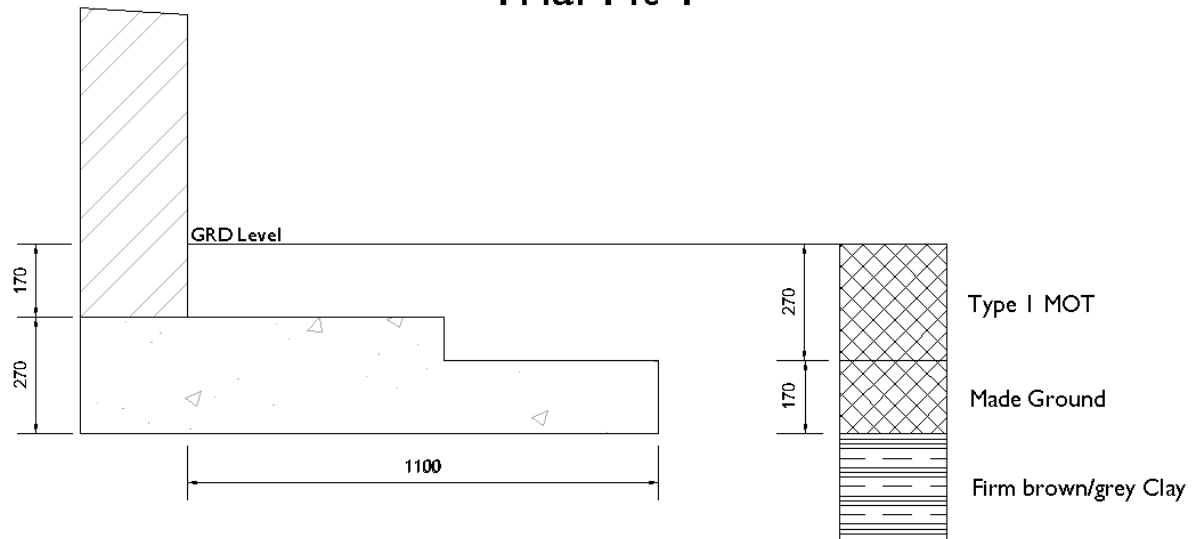
Appendix B – Root Identification Results

South Lodge, Wellington Court RG7 1BN

The samples you sent in relation to the above on 19/01/2024 have been examined. Their structures were referable as follows:

TP/BH1, 0.2-0.6m	
6 no.	Examined root: a conifer. Could be the TAXODIACEAE group (Sequoias, Redwoods, Swamp Cypress). In their absence, we would suggest either Cypress, Thuja (Western Red Cedar) or Juniper.
2 no.	Examined root: too DECAYED for identification.
2 no.	Both samples revealed too few cells for microscopic identification.
TP/BH1, 1.3-1.5m	
9 no.	Examined root: as above, could be the TAXODIACEAE group - or, in their absence, either Cypress, Thuja (Western Red Cedar) or Juniper.
1 no.	Microscopic examination showed insufficient cells for recognition.
TP/BH2 - Roots 1	
6 no.	Examined root: also in many ways like the TAXODIACEAE group (see above), with our next best suggestions being either Cypress, Thuja (Western Red Cedar) or Juniper.
2 no.	Examined root: too DECAYED for identification.
TP/BH2 - Roots 2	
11 no.	Examined root: again, most like the TAXODIACEAE group (see above), with our second suggestions being either Cypress, Thuja (Western Red Cedar) or Juniper. A very POOR sample.
1 no.	Examined root: too DECAYED for identification.
4 no.	Unfortunately all with insufficient cells for identification.

Trial Pit I



Appendix D – Laboratory Testing Results

		Summary of Natural Moisture Content, Liquid Limit and Plastic Limit Results									
Job No.		Project Name						Programme			
34702		South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN						Samples received		17/01/2024	
Project No.		Client						Schedule received		15/01/2024	
7527		William Hunt Consulting						Project started		18/01/2024	
								Testing Started		14/02/2024	
Hole No.	Sample				Soil Description	NMC	Passing 425µm	LL	PL	PI	Remarks
	Ref	Top m	Base m	Type							
BH1	-	0.00	0.50	D	Orangish brown mottled grey slightly sandy silty CLAY with frequent roots and rootlets	23					
BH1	-	0.50	1.00	D	Greenish grey mottled orangish brown and dark grey slightly sandy silty CLAY with decayed organic matter and roots	19	100	59	19	40	
BH1	-	1.00	1.50	D	Light grey slightly mottled orangish brown slightly sandy silty CLAY with flecks of decayed organic matter	18					
BH1	-	1.50	2.00	D	Grey and orangish brown slightly sandy silty CLAY with black flecks coated in sand and gravel (gravel is fmc and sub-angular to angular flint)	13	73	37	14	23	
BH1	-	2.00	2.50	D	Orangish brown clayey silty very gravelly SAND (gravel is fmc and sub-angular to sub-rounded)	8.5					
BH1	-	2.50	3.00	D	Brown SAND/GRAVEL (gravel is fmc and angular to rounded)	8.7	-	-	-	-	Non-plastic
BH1	-	3.00	3.50	D	Grey silty SAND and GRAVEL (gravel is fmc and sub-angular to sub-rounded)	9.8					
BH1	-	3.50	4.00	D	Greyish brown gravelly SAND (gravel is fmc and angular to sub-rounded)	13	-	-	-	-	Non-plastic
BH1	-	4.00	4.50	D	Brown SAND/GRAVEL (gravel is fmc and angular to rounded)	13	-	-	-	-	Non-plastic
BH1	-	4.50	5.00	D	Greyish brown SAND/GRAVEL (gravel is fmc and angular to sub-rounded)	9.9	-	-	-	-	Non-plastic
BH2	-	0.00	0.50	D	Brown slightly gravelly slightly sandy silty CLAY with roots and rootlets and occasional brick fragments (gravel is fmc and sub-angular to sub-rounded)	20					
BH2	-	0.50	1.00	D	Brown mottled grey slightly sandy slightly gravelly silty CLAY with occasional brick fragments (gravel is fmc and sub-angular to sub-rounded)	16	75	37	13	24	

	Test Methods: BS1377: Part 2: 1990: Natural Moisture Content : clause 3.2 Atterberg Limits: clause 4.3, 4.4 and 5.0 <i>These results only apply to the items tested</i>	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	Checked and Approved Initials J.P Date: 22/02/2024
	NOTE: The report shall not be reproduced except in full without authority of the laboratory		
	2519		Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

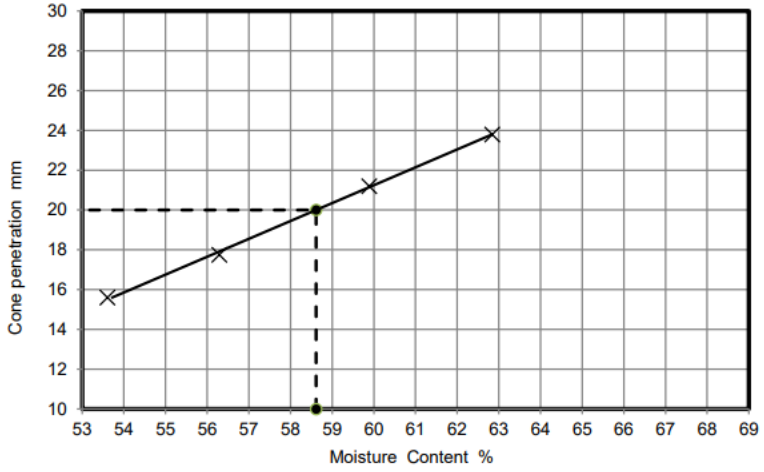
		Summary of Natural Moisture Content, Liquid Limit and Plastic Limit Results									
Job No.		Project Name						Programme			
34702		South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN						Samples received		17/01/2024	
Project No.		Client						Schedule received		15/01/2024	
7527		William Hunt Consulting						Project started		18/01/2024	
								Testing Started		14/02/2024	
Hole No.	Sample				Soil Description	NMC	Passing 425µm	LL	PL	PI	Remarks
	Ref	Top m	Base m	Type							
BH2	-	1.00	1.50	D	Grey and orangish brown slightly sandy silty CLAY with occasional flecks of decayed organic matter and roots	21					
BH2	-	1.50	2.00	D	Greenish grey mottled orangish brown slightly sandy silty CLAY with occasional roots and rootlets	27	98	53	17	36	
BH2	-	2.00	2.50	D	Grey and orangish brown slightly sandy silty CLAY with flecks of brown organic matter and rare fmc gravel	18					
BH2	-	2.50	3.00	D	Grey clayey silty very gravelly SAND with occasional roots (gravel is fmc and sub-angular to sub-rounded)	7.3	18	27	13	14	Sample washed to obtain test fraction
BH2	-	3.00	3.50	D	Grey slightly clayey slightly silty very gravelly SAND (gravel is fmc and sub-angular to sub-rounded)	11					
BH2	-	3.50	4.00	D	Greyish brown SAND/GRAVEL (gravel is fmc and angular to rounded)	9.4	-	-	-	-	Non-plastic
BH2	-	4.00	4.50	D	Grey very gravelly SAND (gravel is fmc and sub-angular to sub-rounded)	16					
BH2	-	4.50	5.00	D	Greyish brown SAND/GRAVEL (gravel is fmc and angular to rounded)	13	-	-	-	-	Non-plastic

	Test Methods: BS1377: Part 2: 1990: Natural Moisture Content : clause 3.2 Atterberg Limits: clause 4.3, 4.4 and 5.0 <i>These results only apply to the items tested</i>	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	Checked and Approved Initials J.P Date: 22/02/2024
	NOTE: The report shall not be reproduced except in full without authority of the laboratory		
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)		

2519

MSF-5-R1

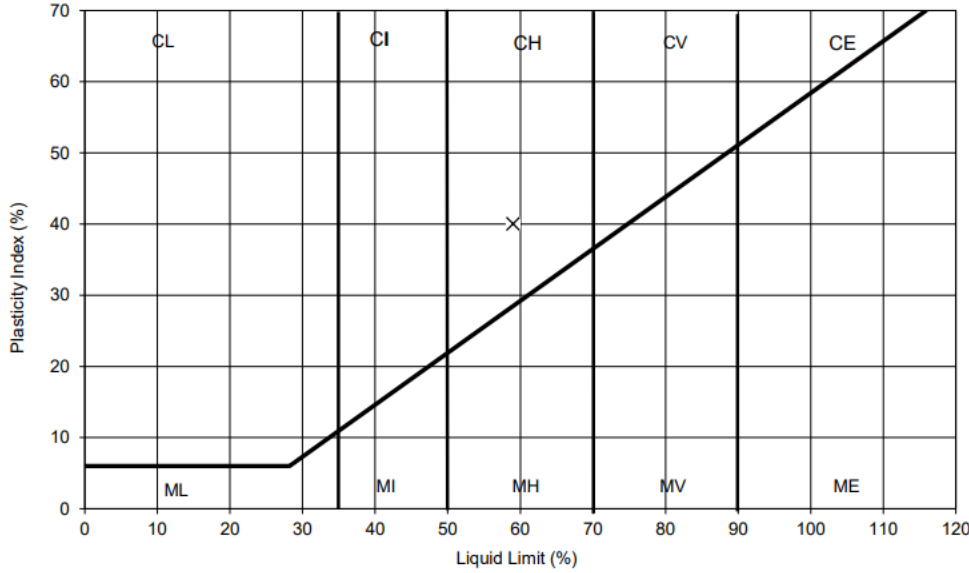
	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX		Job No.	34702	
			Borehole/Pit No.	BH1	
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN		Sample No.	-	
Project No.	7527	Client	William Hunt Consulting	Depth Top	0.50 m
Soil Description	Greenish grey mottled orangish brown and dark grey slightly sandy silty CLAY with decayed organic matter and roots		Depth Base	1.00 m	
			Sample Type	D	
			Samples received	17/01/2024	
			Schedules received	15/01/2024	
			Project Started	18/01/2024	
			Date Tested	16/02/2024	



NATURAL MOISTURE CONTENT	19	%
% PASSING 425µm SIEVE	100	%
LIQUID LIMIT	59	%
PLASTIC LIMIT	19	%
PLASTICITY INDEX	40	%

Remarks

PLASTICITY INDEX

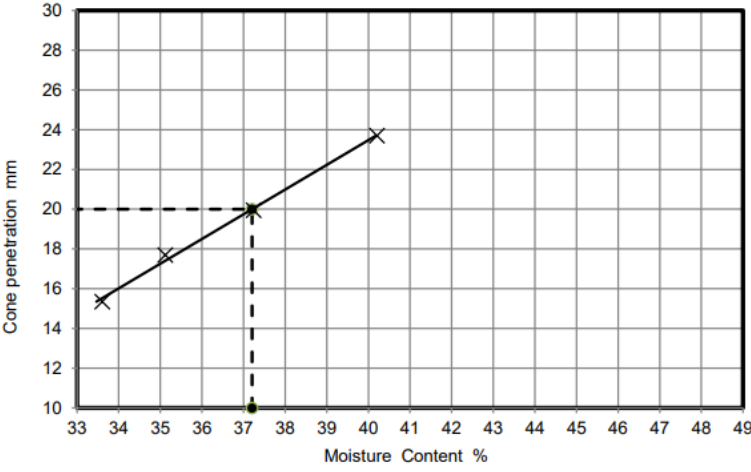


These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 : Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 : Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 : Clause 3.2 : 1990: Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	
	2519	
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	

MSF-5 R2

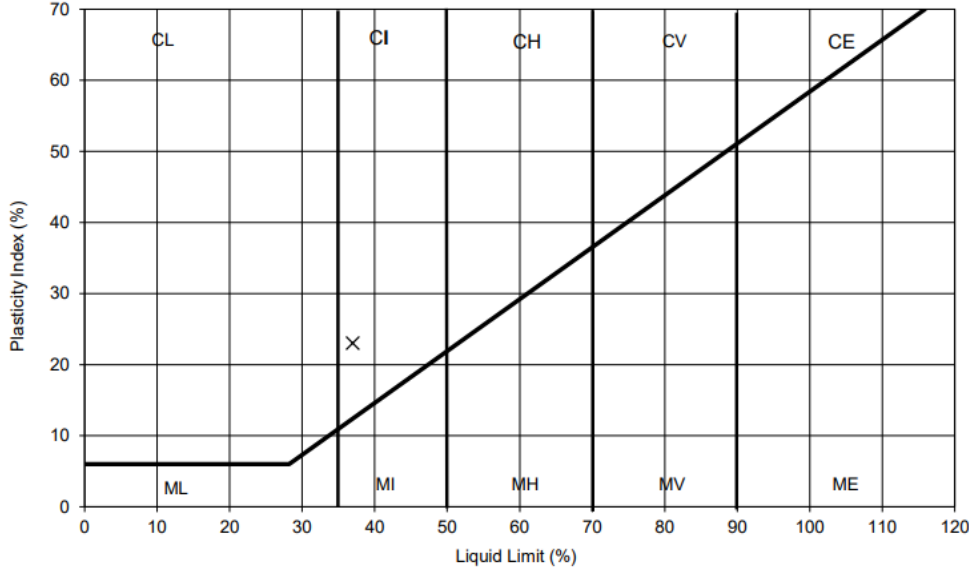
	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX		Job No.	34702	
			Borehole/Pit No.	BH1	
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN		Sample No.	-	
Project No.	7527	Client	William Hunt Consulting	Depth Top	1.50 m
Soil Description	Grey and orangish brown slightly sandy silty CLAY with black flecks coated in sand and gravel (gravel is fmc and sub-angular to angular flint)		Depth Base	2.00 m	
			Sample Type	D	
			Samples received	17/01/2024	
			Schedules received	15/01/2024	
			Project Started	18/01/2024	
			Date Tested	15/02/2024	



NATURAL MOISTURE CONTENT	13	%
% PASSING 425µm SIEVE	73	%
LIQUID LIMIT	37	%
PLASTIC LIMIT	14	%
PLASTICITY INDEX	23	%

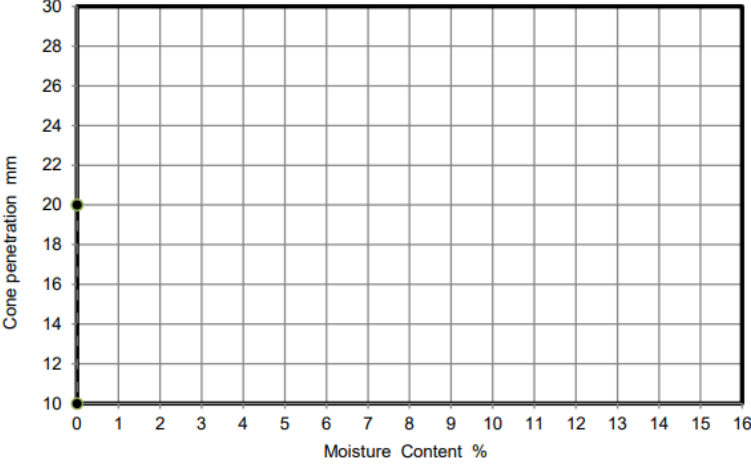
Remarks

PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX			Job No.	34702
				Borehole/Pit No.	BH1
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN			Sample No.	-
Project No.	7527	Client	William Hunt Consulting	Depth Top	2.50 m
Soil Description	Brown SAND/GRAVEL (gravel is fmc and angular to rounded)			Depth Base	3.00 m
				Sample Type	D
				Samples received	17/01/2024
				Schedules received	15/01/2024
				Project Started	18/01/2024
				Date Tested	14/02/2024

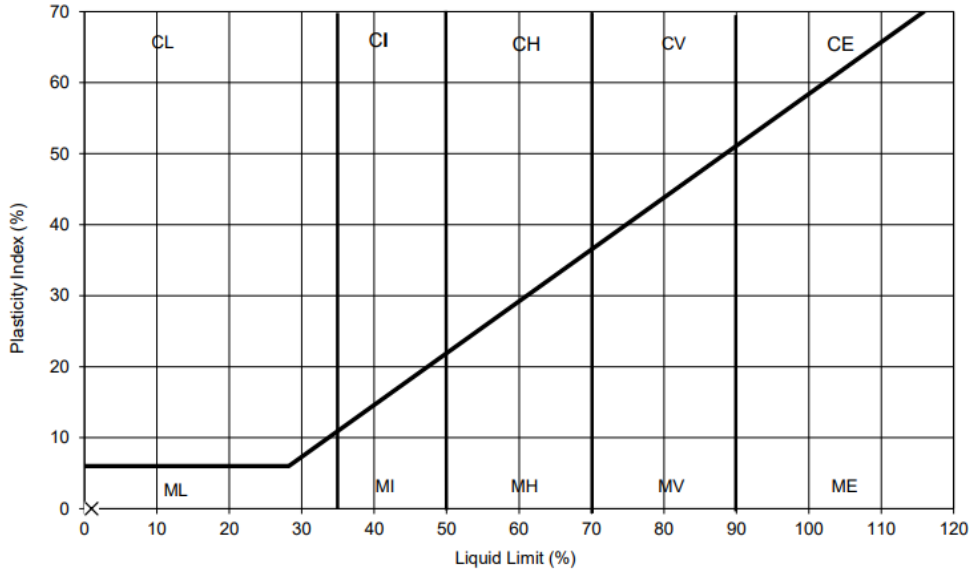


NATURAL MOISTURE CONTENT	8.7	%
% PASSING 425µm SIEVE	-	%
LIQUID LIMIT	-	%
PLASTIC LIMIT	-	%
PLASTICITY INDEX	-	%

Remarks

Non-plastic

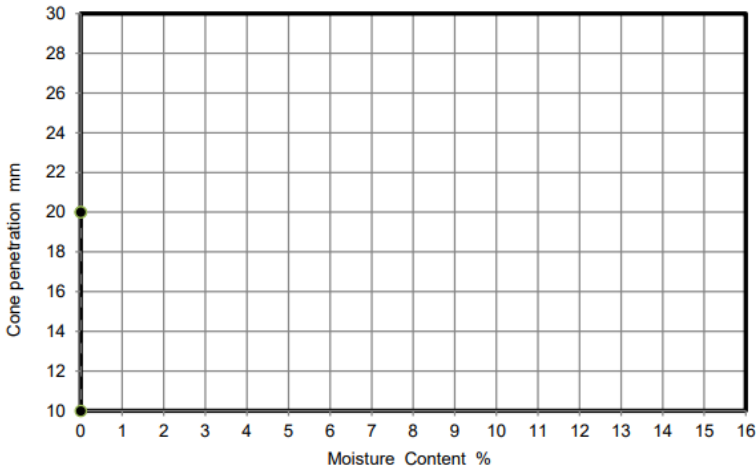
PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	
	2519	
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	

	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX			Job No.	34702
				Borehole/Pit No.	BH1
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN			Sample No.	-
Project No.	7527	Client	William Hunt Consulting	Depth Top	3.50 m
Soil Description	Greyish brown gravelly SAND (gravel is fmc and angular to sub-rounded)			Depth Base	4.00 m
				Sample Type	D
				Samples received	17/01/2024
				Schedules received	15/01/2024
				Project Started	18/01/2024
				Date Tested	14/02/2024

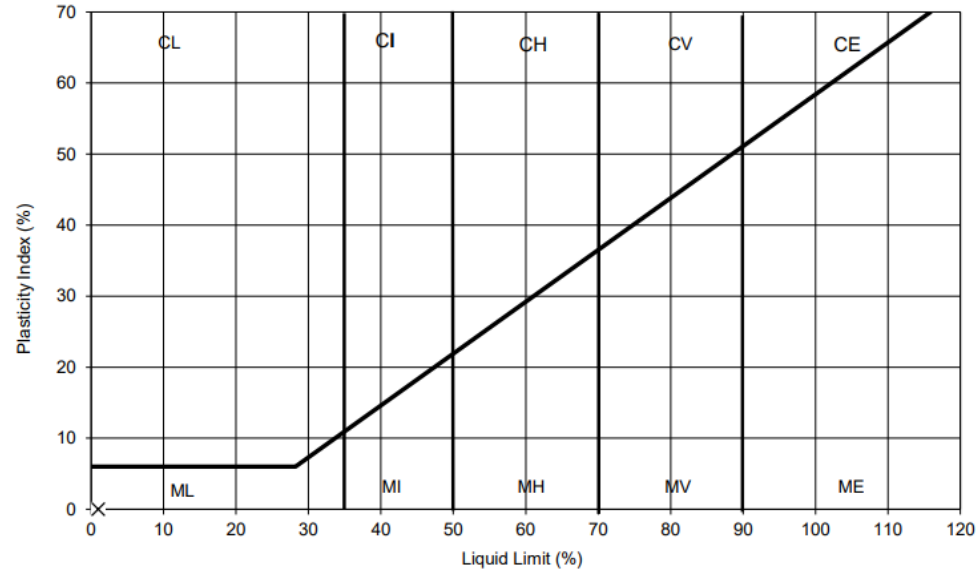


NATURAL MOISTURE CONTENT	13	%
% PASSING 425µm SIEVE	-	%
LIQUID LIMIT	-	%
PLASTIC LIMIT	-	%
PLASTICITY INDEX	-	%

Remarks

Non-plastic

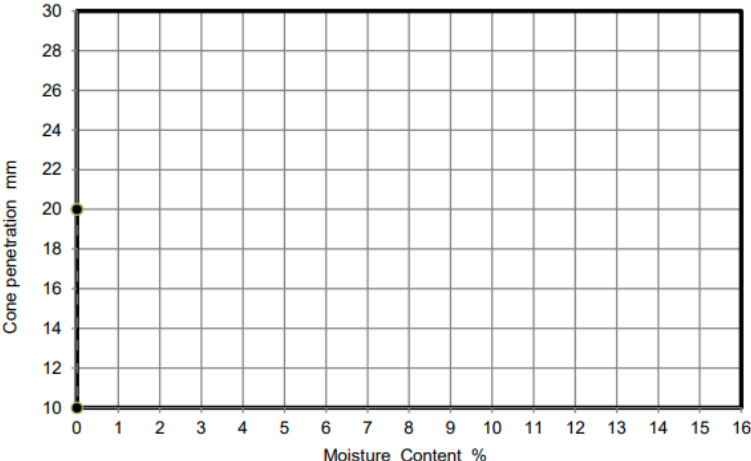
PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024	
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com		
	2519	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	MSF-5 R2

	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX			Job No.	34702
				Borehole/Pit No.	BH1
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN			Sample No.	-
Project No.	7527	Client	William Hunt Consulting	Depth Top	4.00 m
Soil Description	Brown SAND/GRAVEL (gravel is fmc and angular to rounded)			Depth Base	4.50 m
				Sample Type	D
				Samples received	17/01/2024
				Schedules received	15/01/2024
				Project Started	18/01/2024
				Date Tested	14/02/2024

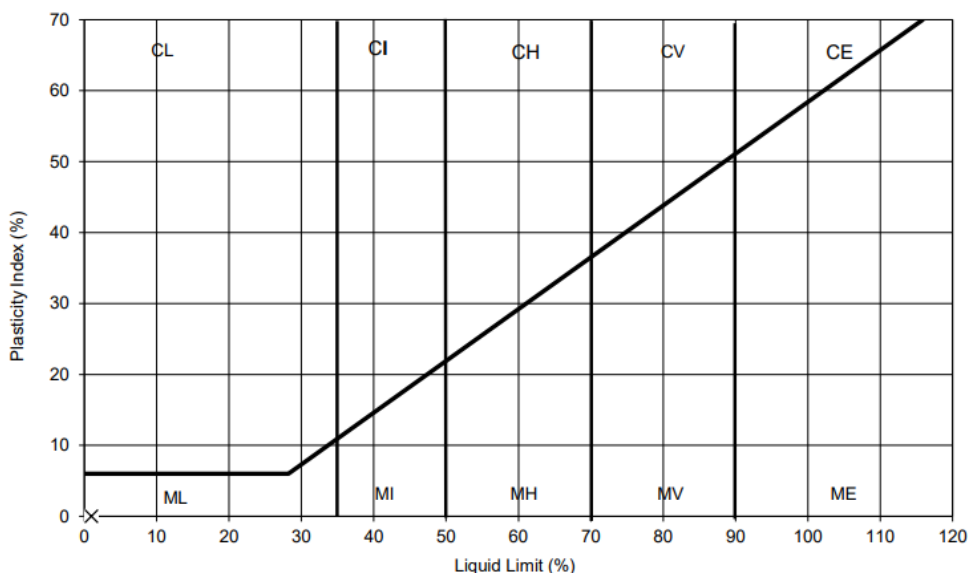


NATURAL MOISTURE CONTENT	13	%
% PASSING 425µm SIEVE	-	%
LIQUID LIMIT	-	%
PLASTIC LIMIT	-	%
PLASTICITY INDEX	-	%

Remarks

Non-plastic

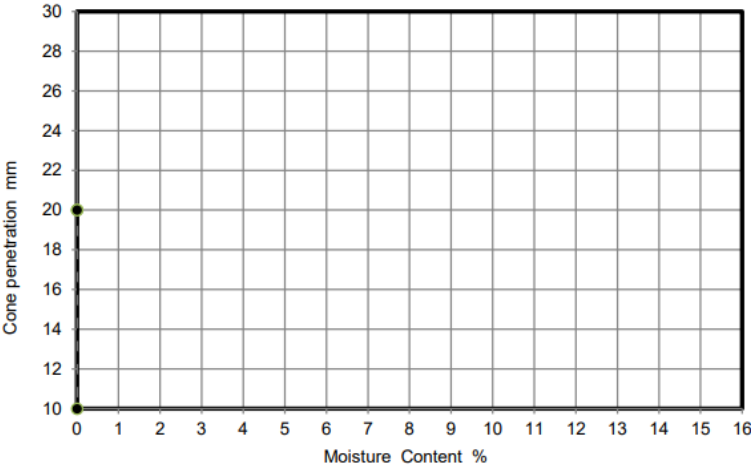
PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990: Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	
	MSF-5 R2	

	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX		Job No.	34702	
			Borehole/Pit No.	BH1	
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN		Sample No.	-	
Project No.	7527	Client	William Hunt Consulting	Depth Top	4.50 m
Soil Description	Greyish brown SAND/GRAVEL (gravel is fmc and angular to sub-rounded)		Depth Base	5.00 m	
			Sample Type	D	
			Samples received	17/01/2024	
			Schedules received	15/01/2024	
			Project Started	18/01/2024	
			Date Tested	14/02/2024	

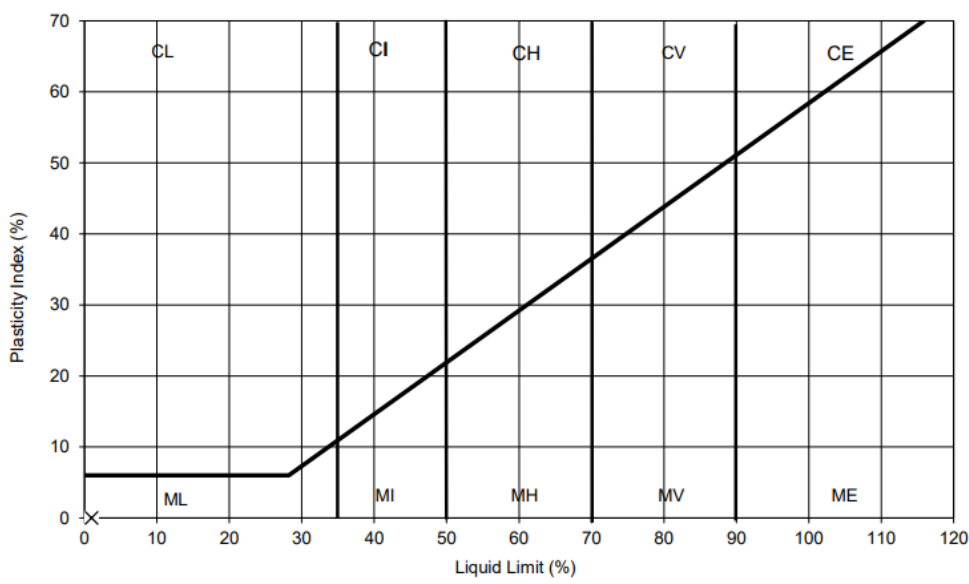


NATURAL MOISTURE CONTENT	9.9	%
% PASSING 425µm SIEVE	-	%
LIQUID LIMIT	-	%
PLASTIC LIMIT	-	%
PLASTICITY INDEX	-	%

Remarks

Non-plastic

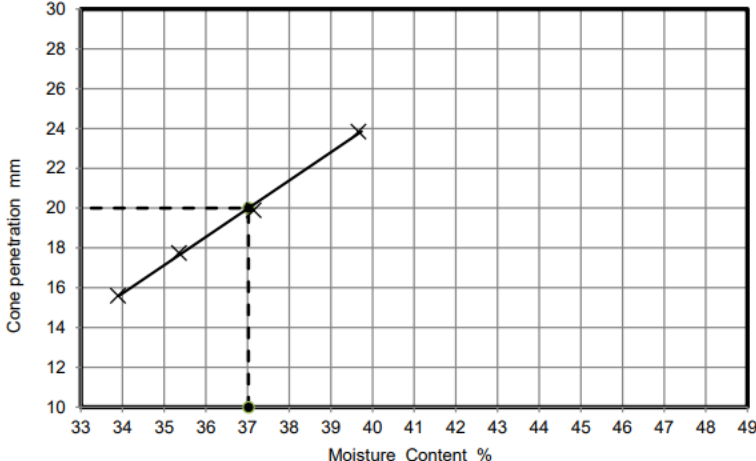
PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	
	2519 Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	
	MSF-5 R2	

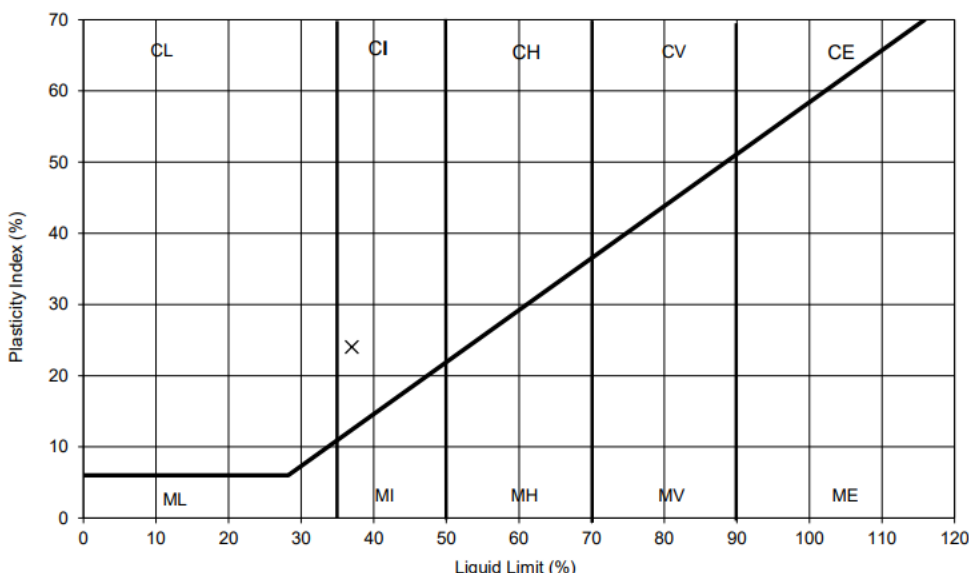
	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX		Job No.	34702	
			Borehole/Pit No.	BH2	
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN		Sample No.	-	
Project No.	7527	Client	William Hunt Consulting	Depth Top	0.50 m
Soil Description	Brown mottled grey slightly sandy slightly gravelly silty CLAY with occasional brick fragments (gravel is fmc and sub-angular to sub-rounded)		Depth Base	1.00 m	
			Sample Type	D	
			Samples received	17/01/2024	
			Schedules received	15/01/2024	
			Project Started	18/01/2024	
			Date Tested	15/02/2024	



NATURAL MOISTURE CONTENT	16	%
% PASSING 425µm SIEVE	75	%
LIQUID LIMIT	37	%
PLASTIC LIMIT	13	%
PLASTICITY INDEX	24	%

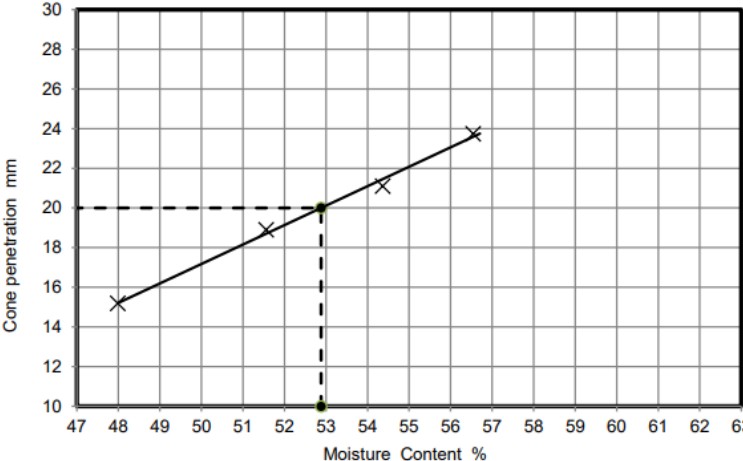
Remarks

PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

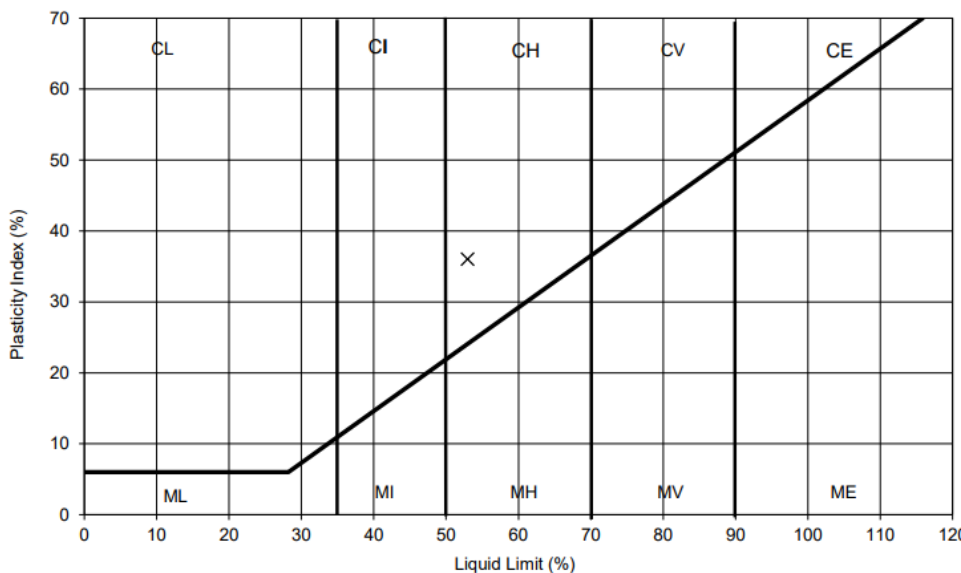
	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX			Job No.	34702
				Borehole/Pit No.	BH2
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN			Sample No.	-
Project No.	7527	Client	William Hunt Consulting	Depth Top	1.50 m
Soil Description	Greenish grey mottled orangish brown slightly sandy silty CLAY with occasional roots and rootlets			Depth Base	2.00 m
				Sample Type	D
				Samples received	17/01/2024
				Schedules received	15/01/2024
				Project Started	18/01/2024
				Date Tested	16/02/2024



NATURAL MOISTURE CONTENT	27	%
% PASSING 425µm SIEVE	98	%
LIQUID LIMIT	53	%
PLASTIC LIMIT	17	%
PLASTICITY INDEX	36	%

Remarks

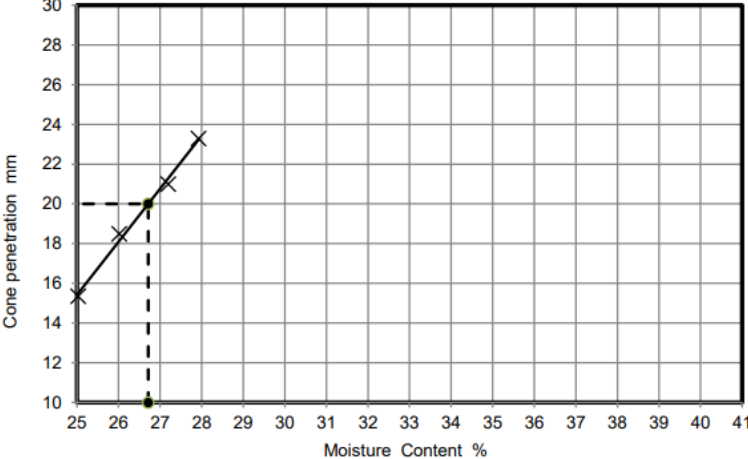
PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990: Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	
	MSF-5 R2	

	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX		Job No.	34702	
			Borehole/Pit No.	BH2	
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN		Sample No.	-	
Project No.	7527	Client	William Hunt Consulting	Depth Top	2.50 m
Soil Description	Grey clayey silty very gravelly SAND with occasional roots (gravel is fmc and sub-angular to sub-rounded)		Depth Base	3.00 m	
			Sample Type	D	
			Samples received	17/01/2024	
			Schedules received	15/01/2024	
			Project Started	18/01/2024	
			Date Tested	15/02/2024	

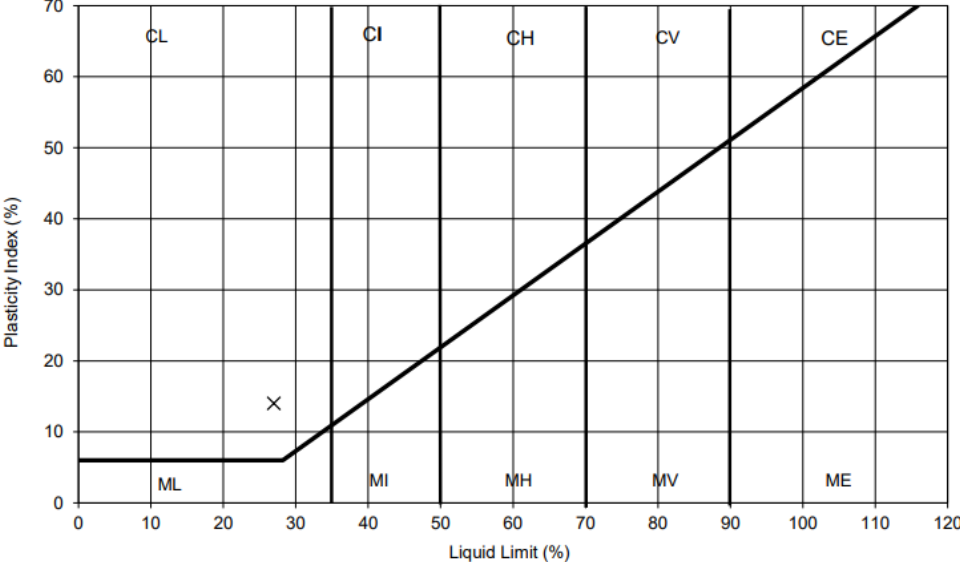


NATURAL MOISTURE CONTENT	7.3	%
% PASSING 425µm SIEVE	18	%
LIQUID LIMIT	27	%
PLASTIC LIMIT	13	%
PLASTICITY INDEX	14	%

Remarks

 Sample washed to obtain test fraction

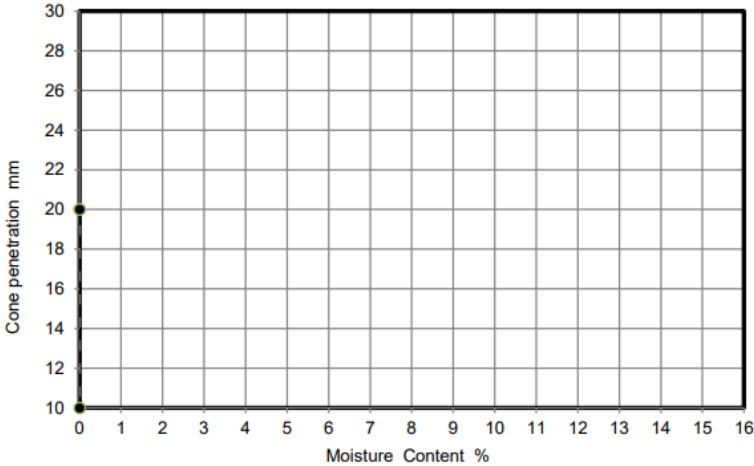
PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024	
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com		
	2519	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	MSF-5 R2

	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX		Job No.	34702	
			Borehole/Pit No.	BH2	
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN		Sample No.	-	
Project No.	7527	Client	William Hunt Consulting	Depth Top	3.50 m
Soil Description	Greyish brown SAND/GRAVEL (gravel is fmc and angular to rounded)		Depth Base	4.00 m	
			Sample Type	D	
			Samples received	17/01/2024	
			Schedules received	15/01/2024	
			Project Started	18/01/2024	
			Date Tested	14/02/2024	

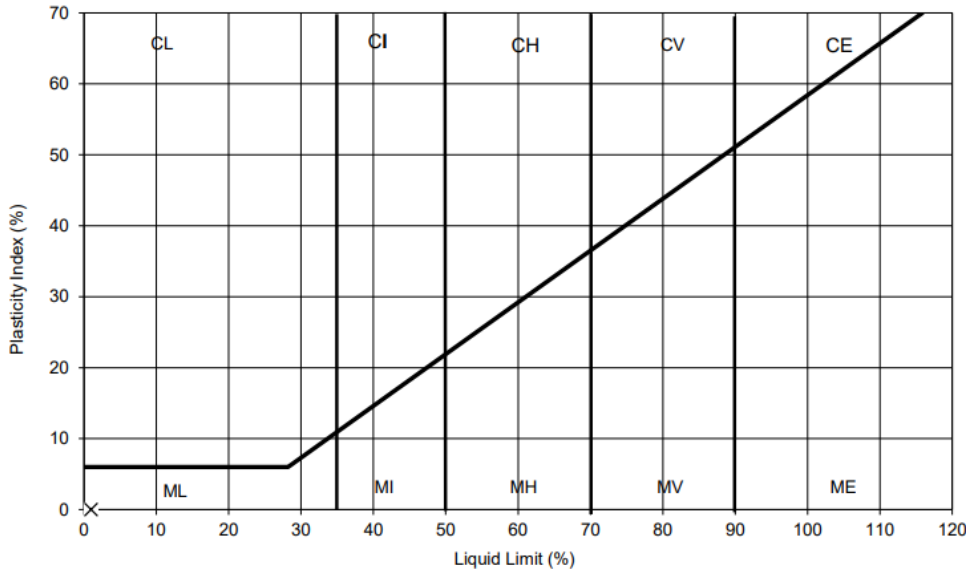


NATURAL MOISTURE CONTENT	9.4	%
% PASSING 425µm SIEVE	-	%
LIQUID LIMIT	-	%
PLASTIC LIMIT	-	%
PLASTICITY INDEX	-	%

Remarks

Non-plastic

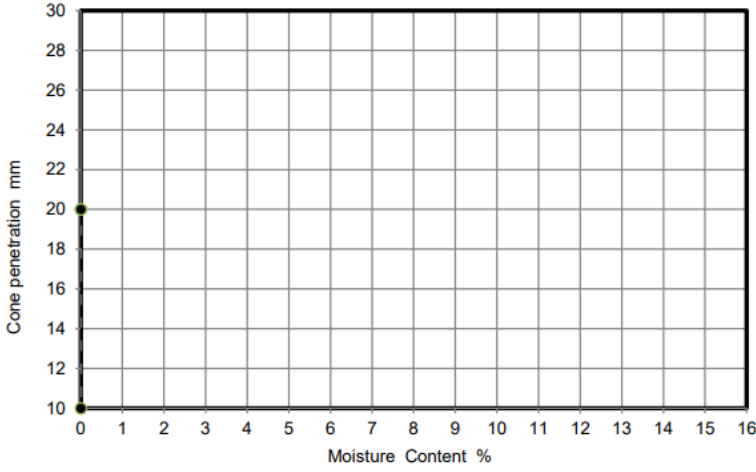
PLASTICITY INDEX



These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	
	Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	
	MSF-5 R2	

	LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX			Job No.	34702
				Borehole/Pit No.	BH2
Site Name	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN			Sample No.	-
Project No.	7527	Client	William Hunt Consulting	Depth Top	4.50 m
Soil Description	Greyish brown SAND/GRAVEL (gravel is fmc and angular to rounded)			Depth Base	5.00 m
				Sample Type	D
				Samples received	17/01/2024
				Schedules received	15/01/2024
				Project Started	18/01/2024
				Date Tested	14/02/2024

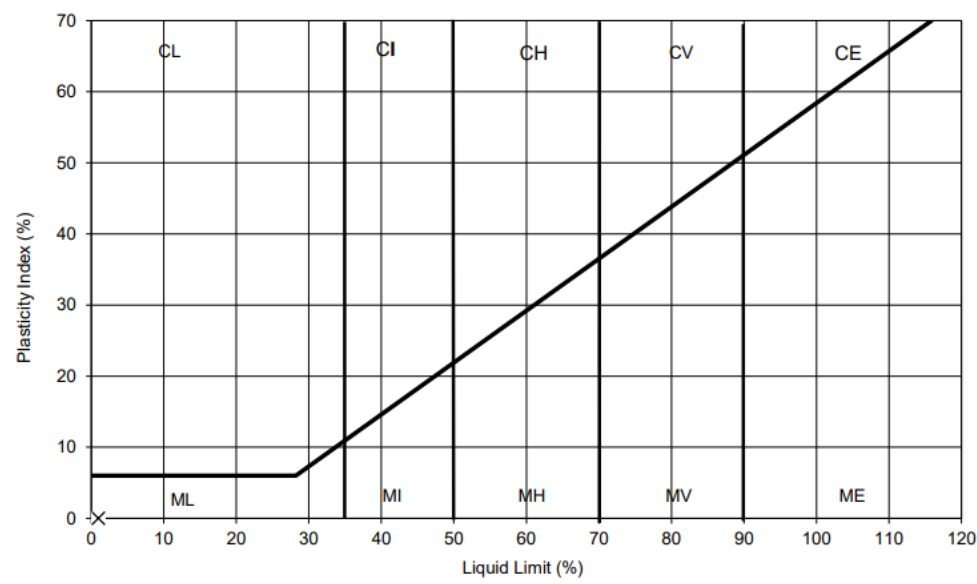


NATURAL MOISTURE CONTENT	13	%
% PASSING 425µm SIEVE	-	%
LIQUID LIMIT	-	%
PLASTIC LIMIT	-	%
PLASTICITY INDEX	-	%

Remarks

Non-plastic

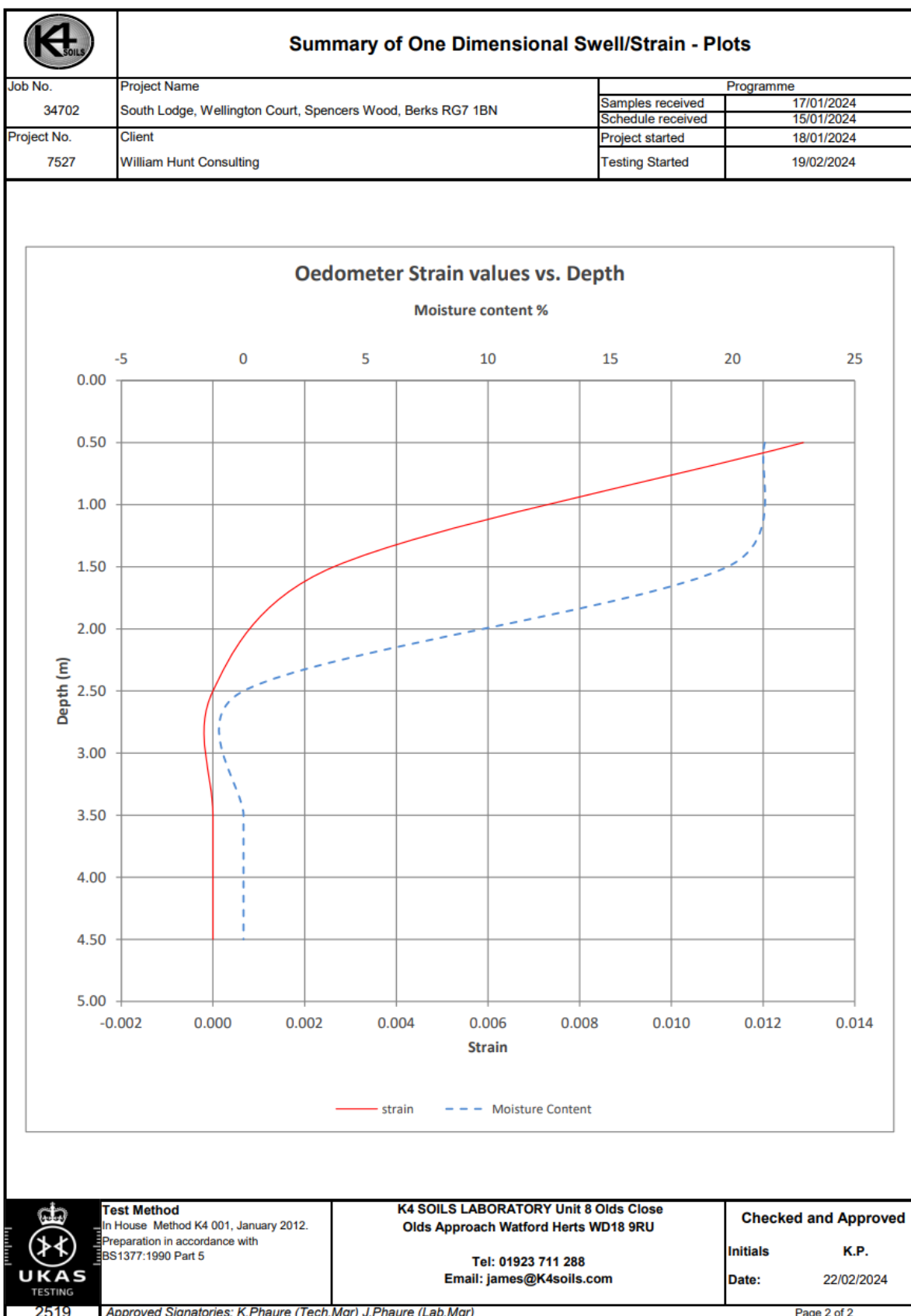
PLASTICITY INDEX



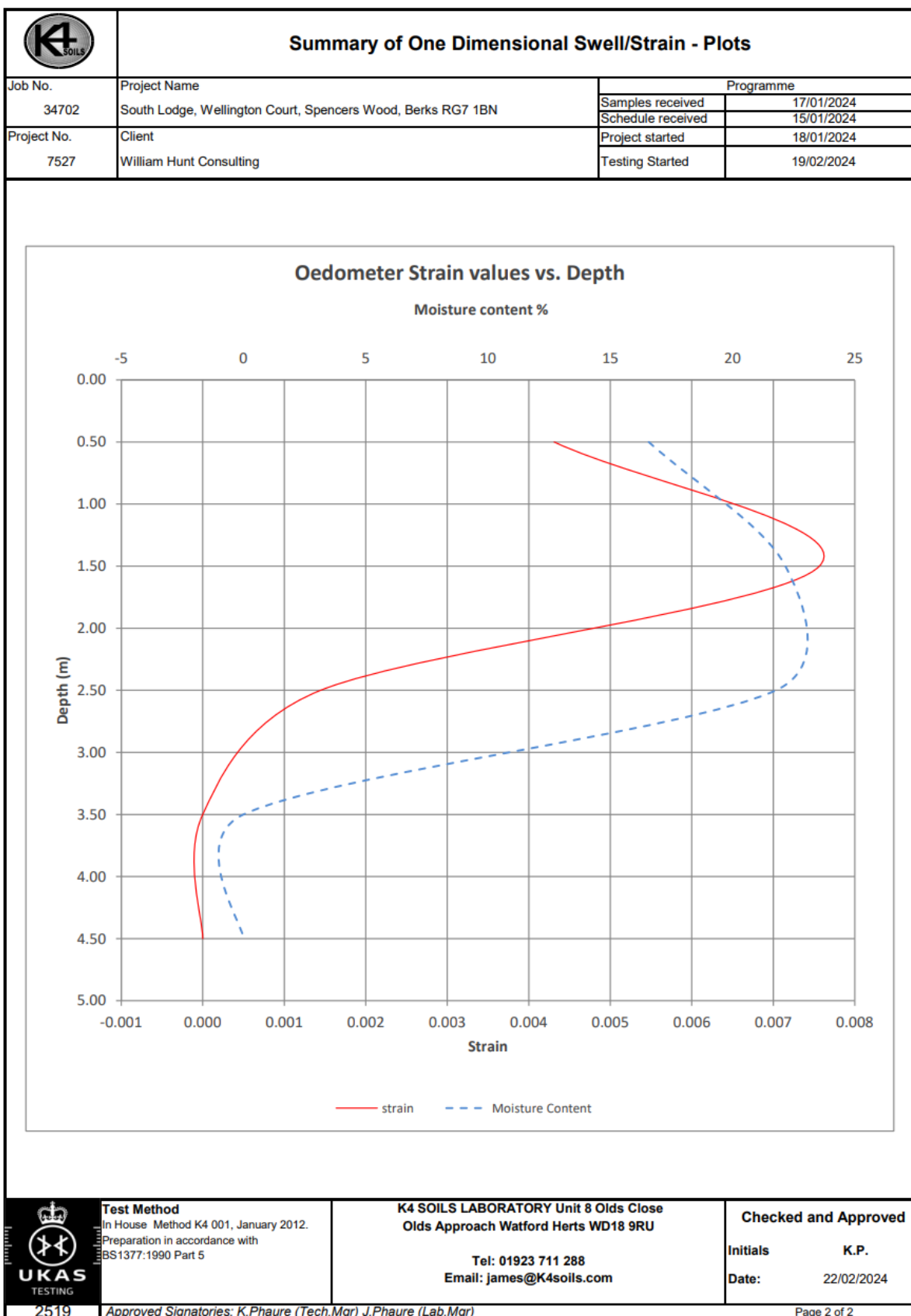
These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

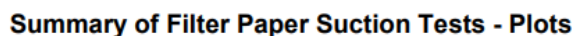
	TEST METHOD BS1377: Part 2 :Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method BS1377: Part 2 :Clause 5.0 : 1990: Determination of the plastic limit and plasticity index BS1377: Part 2 :Clause 3.2 : 1990:Determination of the moisture content by the oven drying	Checked and Approved Initials: J.P Date: 22/02/2024
	Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: James@k4soils.com	
	2519 Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)	
	MSF-5 R2	

		Summary of One-Dimensional Swell/Strain Tests								
Job No.	Project Name						Programme			
34702	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN						Samples received	17/01/2024		
							Schedule received	15/01/2024		
Project No.	Client						Project started	18/01/2024		
7527	William Hunt Consulting						Testing Started	19/02/2024		
Notes: Heave potential (Dd) expressed in mm and corrected by 0.1 mm to take account of disturbance during sample preparation Dd is calculated based on the difference in depth between samples. A shrinkage factor of 0.5 has been assumed										
Hole No.	Sample			Soil Description	Strain %	Corrected Dd mm	Moisture Content %	Bulk Density Mg/m3	Dry Density Mg/m3	Remarks
	Ref	Depth	Type							
BH1	-	0.50	D	Greenish grey mottled orangish brown and dark grey slightly sandy silty CLAY with decayed organic matter and roots	0.013	3.12	21	2.12	1.74	
BH1	-	1.50	D	Grey and orangish brown slightly sandy silty CLAY with black flecks coated in sand and gravel (gravel is fmc and sub-angular to angular flint)	0.003	1.22	20	2.10	1.75	
BH1	-	2.50	D	Brown SAND/GRAVEL (gravel is fmc and angular to rounded)	-	-	8.7	-	-	Sample unsuitable
BH1	-	3.50	D	Greyish brown gravelly SAND (gravel is fmc and angular to sub-rounded)	-	-	13	-	-	Sample unsuitable
BH1	-	4.50	D	Greyish brown SAND/GRAVEL (gravel is fmc and angular to sub-rounded)	-	-	10	-	-	Sample unsuitable
Predicted total free surface heave over depth of exploratory position 4.34 mm										
		Test Method In House Method K4 001, January 2012. Preparation in accordance with BS1377:1990 Part 5 These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory			K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: james@K4soils.com			Checked and Approved Initials K.P. Date: 22/02/2024		
Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)					Page 1 of 2					



		Summary of One-Dimensional Swell/Strain Tests								
Job No.	Project Name						Programme			
34702	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN						Samples received	17/01/2024		
							Schedule received	15/01/2024		
Project No.	Client						Project started	18/01/2024		
7527	William Hunt Consulting						Testing Started	19/02/2024		
Notes: Heave potential (Dd) expressed in mm and corrected by 0.1 mm to take account of disturbance during sample preparation Dd is calculated based on the difference in depth between samples. A shrinkage factor of 0.5 has been assumed										
Hole No.	Sample			Soil Description	Strain %	Corrected Dd mm	Moisture Content %	Bulk Density Mg/m3	Dry Density Mg/m3	Remarks
	Ref	Depth	Type							
BH2	-	0.50	D	Brown mottled grey slightly sandy slightly gravelly silty CLAY with occasional brick fragments (gravel is fmc and sub-angular to sub-rounded)	0.004	0.98	17	2.02	1.73	
BH2	-	1.50	D	Greenish grey mottled orangish brown slightly sandy silty CLAY with occasional roots and rootlets	0.008	3.68	22	2.09	1.71	
BH2	-	2.50	D	Grey clayey silty very gravelly SAND with occasional roots (gravel is fmc and sub-angular to sub-rounded)	0.001	0.62	22	2.11	1.73	
BH2	-	3.50	D	Greyish brown SAND/GRAVEL (gravel is fmc and angular to rounded)	-	-	9.4	-	-	Sample unsuitable
BH2	-	4.50	D	Greyish brown SAND/GRAVEL (gravel is fmc and angular to rounded)	-	-	13	-	-	Sample unsuitable
Predicted total free surface heave over depth of exploratory position 5.28 mm										
		Test Method In House Method K4 001, January 2012. Preparation in accordance with BS1377:1990 Part 5 These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory			K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU Tel: 01923 711 288 Email: james@K4soils.com			Checked and Approved Initials K.P. Date: 22/02/2024		
Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)										



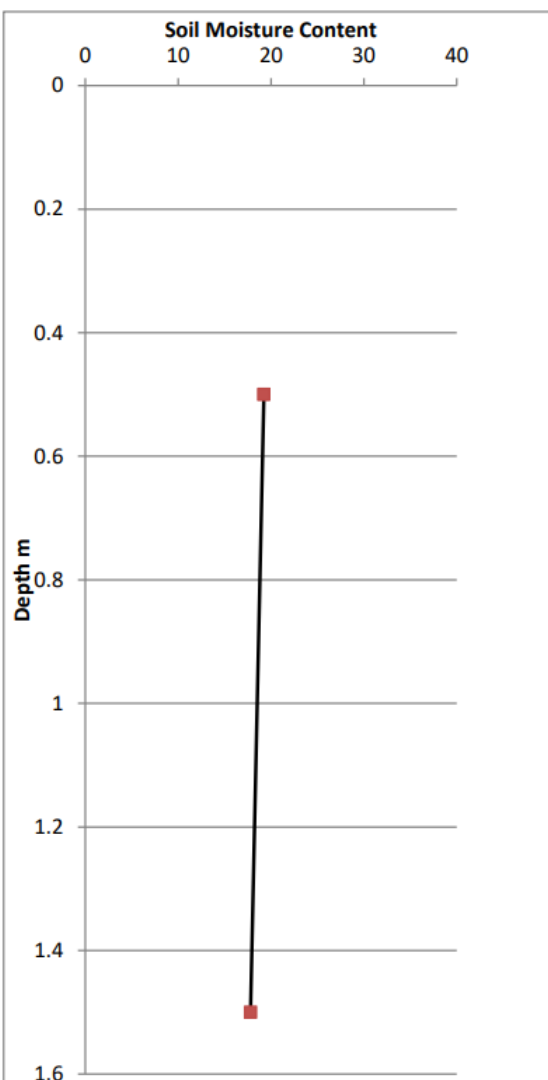
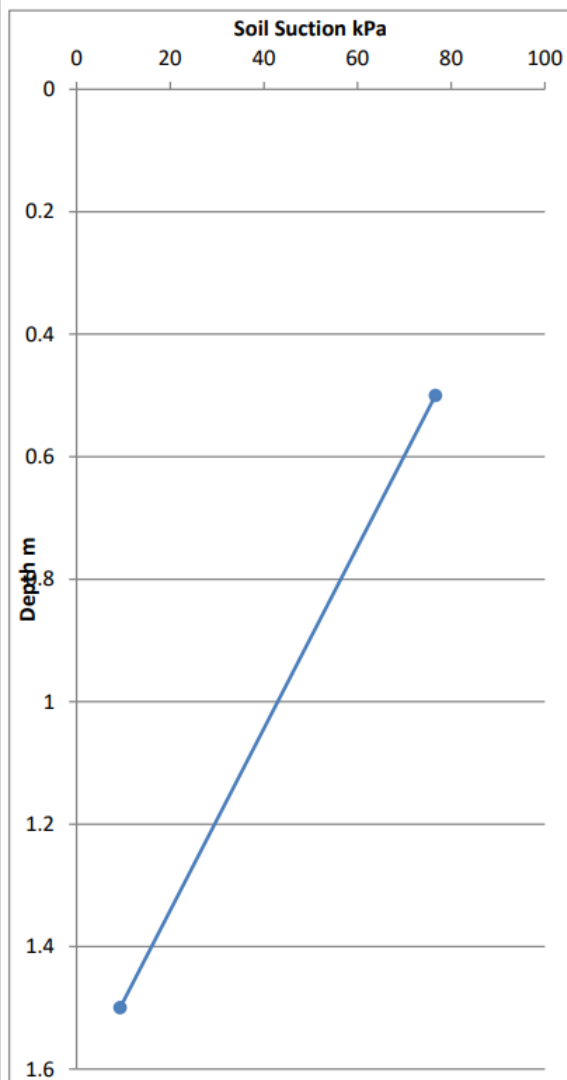


www.williamhuntconsulting.com



Summary of Filter Paper Suction Tests - Plots

Job No.	Project Name	Programme	
34702	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN	Samples received	17/01/2024
Project No.	Client	Schedule recieved	15/01/2024
7527	William Hunt Consulting	Project started	18/01/2024
		Testing Started	13/02/2024



Test Methods

BRE Information Paper IP 4/93. A method of determining the state of dessication in clay soil.

BS1377::Part 2 ; Clause 3.2: 1990 :Determination of Moisture Content Using the Oven Drying Method

K4 SOILS LABORATORY
Unit 8 Olds Close
Olds Approach Watford Herts WD18 9RU

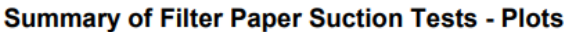
Tel: 01923 711 288
Email: james@K4soils.com

Checked and Approved

Initials K.P.

Date: 26/02/2024

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

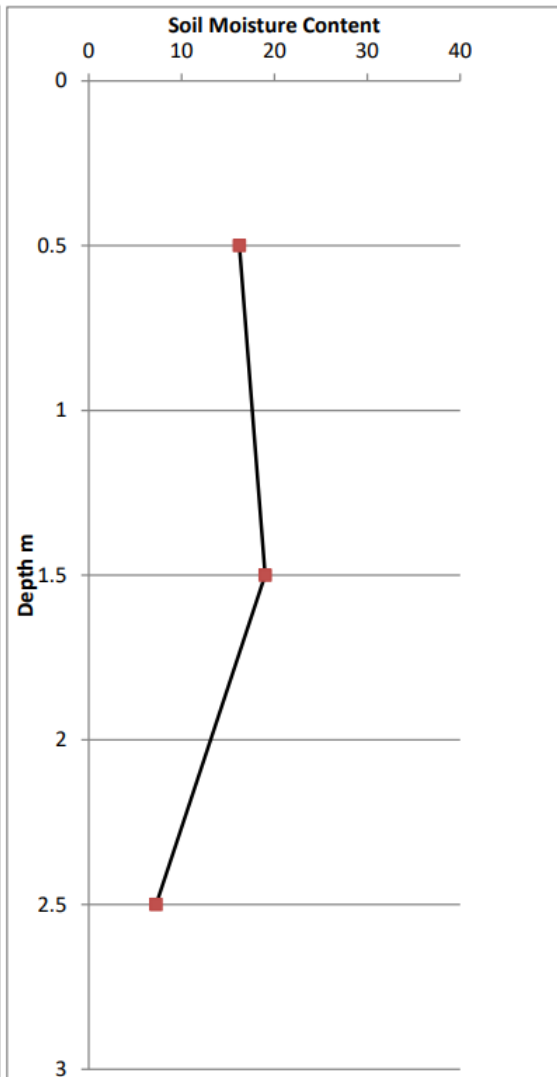
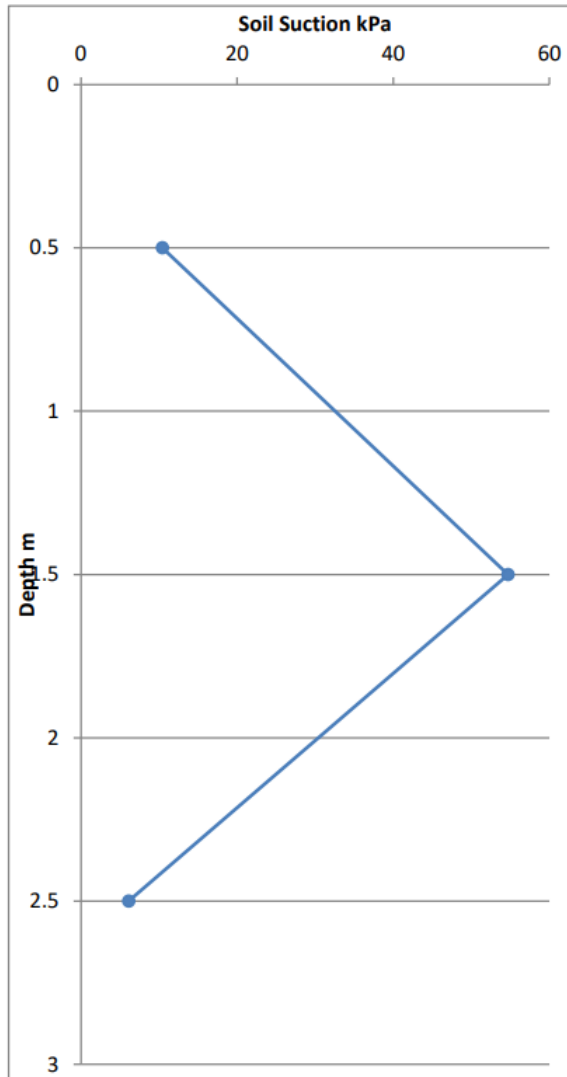


www.williamhuntconsulting.com



Summary of Filter Paper Suction Tests - Plots

Job No.	Project Name	Programme	
34702	South Lodge, Wellington Court, Spencers Wood, Berks RG7 1BN	Samples received	17/01/2024
Project No.	Client	Schedule recieved	15/01/2024
7527	William Hunt Consulting	Project started	18/01/2024
		Testing Started	13/02/2024



Test Methods

BRE Information Paper IP 4/93. A method of determining the state of dessication in clay soil.

BS1377::Part 2 ; Clause 3.2: 1990 :Determination of Moisture Content Using the Oven Drying Method

K4 SOILS LABORATORY
Unit 8 Olds Close
Olds Approach Watford Herts WD18 9RU

Tel: 01923 711 288
Email: james@K4soils.com

Checked and
Approved

Initials K.P.

Date: 26/02/2024

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)



Contact us

Need further information?

William Hunt Consulting

The Barn
Oxburgh
Fosse Way
Stretton on Dunsmore
Rugby
Warwickshire
CV23 9JF

Telephone. 02476 930 333

Email. info@williamhuntconsulting.com

www.williamhuntconsulting.com