
APPENDIX J

Geotechnical Test Results

Appendix J(1)

Geotechnical Test Results GRM (2015) Investigation



0320



Nicholls Colton Analytical

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website: www.nicholls-colton.co.uk

TEST REPORT**BS 1377 PLASTICITY INDEX AND MOISTURE CONTENT****Harpur Hill**

Report no. L15/0587/GRM/002			
Order reference: P6222	Date of receipt: 25/03/2015	Date of testing: 03 to 07/04/2015	Date of issue: 08/04/2015

NCA Sample reference	Client sample reference	Sample type	Depth (m)	Sample description	Fines passing 425µm (%)	Liquid limit (%)	Plastic limit (%)	Plasticity index (%)	Moisture content (%)
15-8016	TP03	Disturbed	0.7	Light brown clay.	100	81	34	47	45
15-8017	TP06	Disturbed	0.8	Brown clay.	100	55	25	30	34
15-8018	TP08	Disturbed	1.2	Brown clay.	100	67	26	41	40
15-8019	TP13	Disturbed	0.5	Light brown silty clay.	100	39	26	13	28
15-8020	TP18	Disturbed	0.5	Brown clay.	100	45	26	19	32
15-8021	TP22	Disturbed	1.2	Brown/grey clay.	100	57	26	31	29
15-8022	TP23	Disturbed	0.9	Brown clay.	100	44	18	26	28

NOTES:

1. Sample preparation was in accordance with BS 1377 : Part 1 : 1990.
2. Plasticity index testing was in accordance with BS 1377 : Part 2 : 1990 Clauses 3, 4.4 (one-point) & 5.
3. Moisture content testing was in accordance with BS 1377 : Part 2 : 1990 Clause 3.2.3.1.
4. The material was prepared from its natural state.
5. Some information required by BS 1377 : Part 1 : 1990 Clause 9 is not included in the report. The information will be provided if requested.

.....
J. Gane
Manager – Data Logistics
Nicholls Colton Analytical

RT - 1377 Plasticity Index & Moisture Content, Page 1 of 1, Issued by LH 12.11.10
G:\Nicholls Colton Testing\TestData\WordDocuments\Reports\New templates\RT 1377 PI & MC.doc

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First Avenue
Centrum 100
Burton Upon Trent
Staffordshire
DE14 2WH

Appendix J(2)

Geotechnical Test Results ALM (2017) Investigation

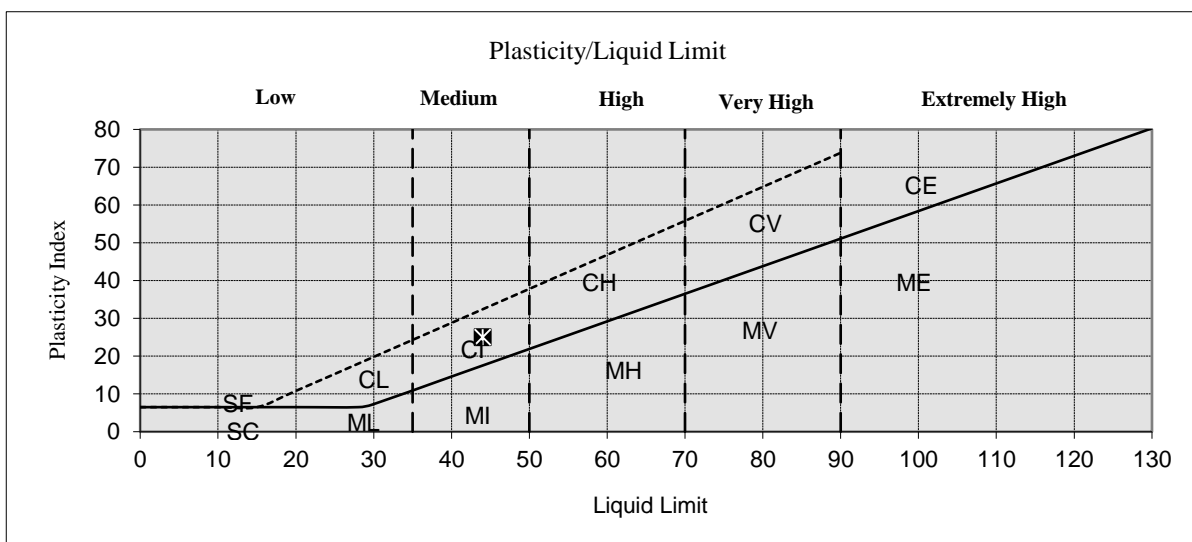


LABORATORY TEST REPORT

LIQUID & PLASTIC LIMIT TESTS BS 1377: Part 2: 1990 Cl 4.4,5.3

Site Ref.:	Burlow Road, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Sample Ref.:	TPA 108 0.6m
		Date Received:	04/09/2017
		Date Tested:	21/09/2017
Originator:	Keith	Date Reported:	26/09/2017

Sampling Certificate	Yes
Sampled By	Client
Sample Type	Bulk
Sample Preparation Method	As Received
MATERIAL	Light Brown silty clay
Retained 425 micron (%)	0
Natural Moisture Content (%)	25
Liquid Limit (single point)(%)	44
Plastic Limit (%)	19
Plasticity Index	25



K. Monks

Approved Signature

James Fisher Testing Services Ltd

■ Karl Monks, Acting Lab Team Leader

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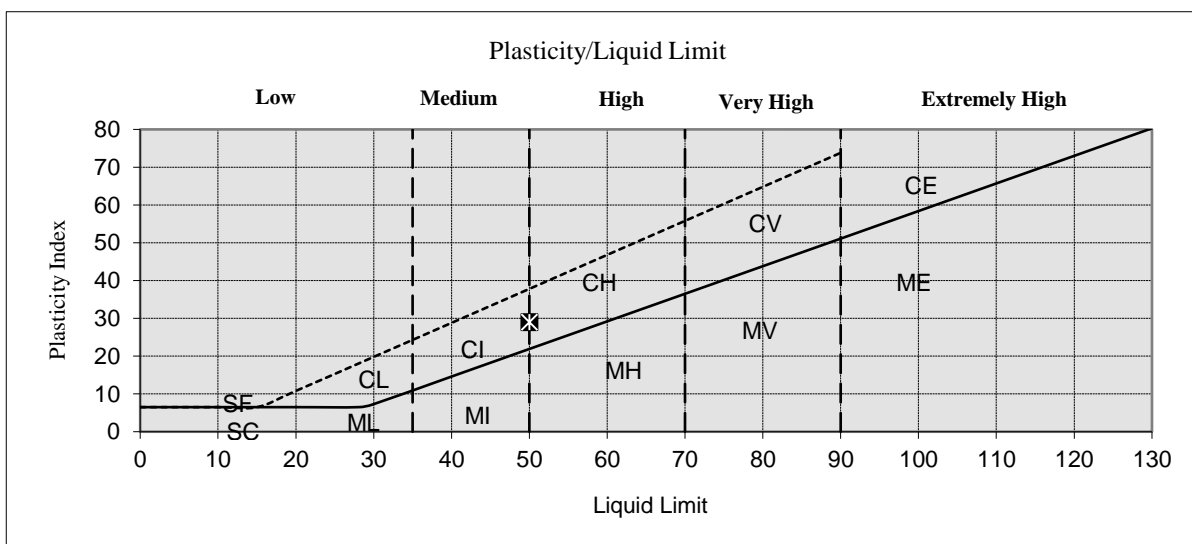


LABORATORY TEST REPORT

LIQUID & PLASTIC LIMIT TESTS BS 1377: Part 2: 1990 Cl 4.4,5.3

Site Ref.:	Burlow Road, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Sample Ref.:	TPA 108 1.0m
		Date Received:	04/09/2017
		Date Tested:	21/09/2017
Originator:	Keith	Date Reported:	26/09/2017

Sampling Certificate	Yes
Sampled By	Client
Sample Type	Bulk
Sample Preparation Method	As Received
MATERIAL	Yellow Clay
Retained 425 micron (%)	0.2
Natural Moisture Content (%)	25
Liquid Limit (single point)(%)	50
Plastic Limit (%)	21
Plasticity Index	29



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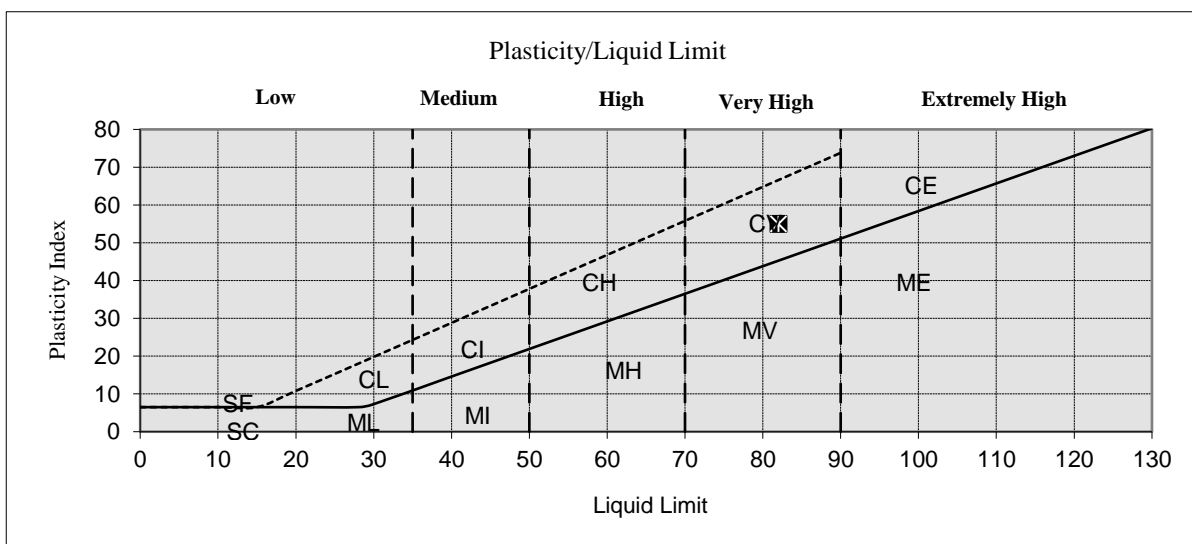


LABORATORY TEST REPORT

LIQUID & PLASTIC LIMIT TESTS BS 1377: Part 2: 1990 Cl 4.4,5.3

Site Ref.:	Burlow Road, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Sample Ref.:	TPA 127 0.70m
		Date Received:	04/09/2017
		Date Tested:	21/09/2017
Originator:	Keith	Date Reported:	26/09/2017

Sampling Certificate	Yes
Sampled By	Client
Sample Type	Bulk
Sample Preparation Method	As Received
MATERIAL	Yellow Brown mottled Clay
Retained 425 micron (%)	2.2
Natural Moisture Content (%)	43
Liquid Limit (single point)(%)	82
Plastic Limit (%)	27
Plasticity Index	55



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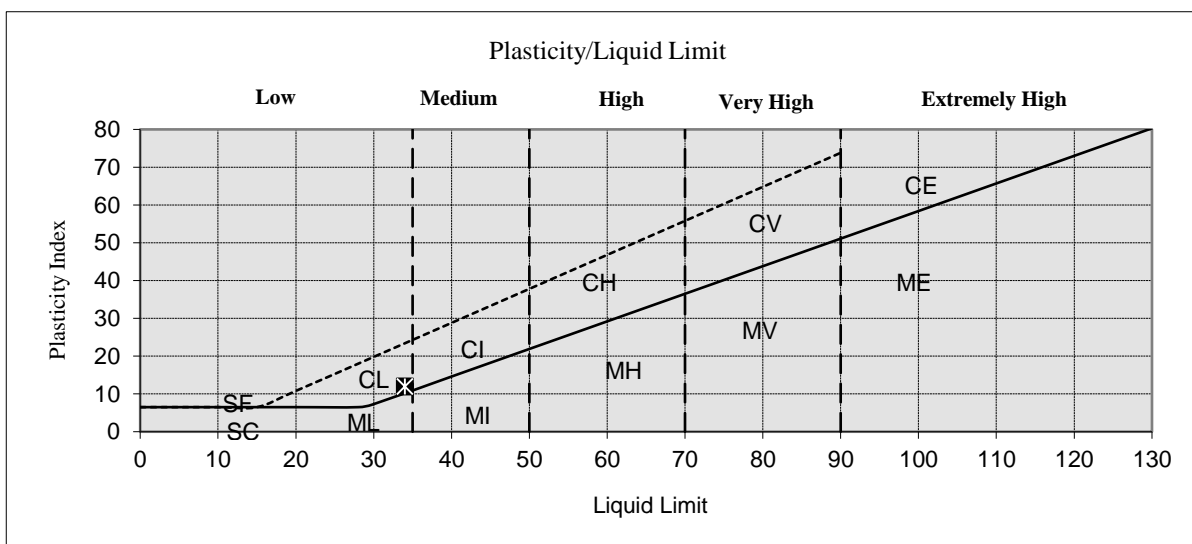


LABORATORY TEST REPORT

LIQUID & PLASTIC LIMIT TESTS BS 1377: Part 2: 1990 Cl 4.4,5.3

Site Ref.:	Burlow Road, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Sample Ref.:	TPA 209 0.6m
		Date Received:	04/09/2017
		Date Tested:	21/09/2017
Originator:	Keith	Date Reported:	26/09/2017

Sampling Certificate	Yes
Sampled By	Client
Sample Type	Bulk
Sample Preparation Method	As Received
MATERIAL	Brown clayey silt
Retained 425 micron (%)	0.7
Natural Moisture Content (%)	26
Liquid Limit (single point)(%)	34
Plastic Limit (%)	22
Plasticity Index	12



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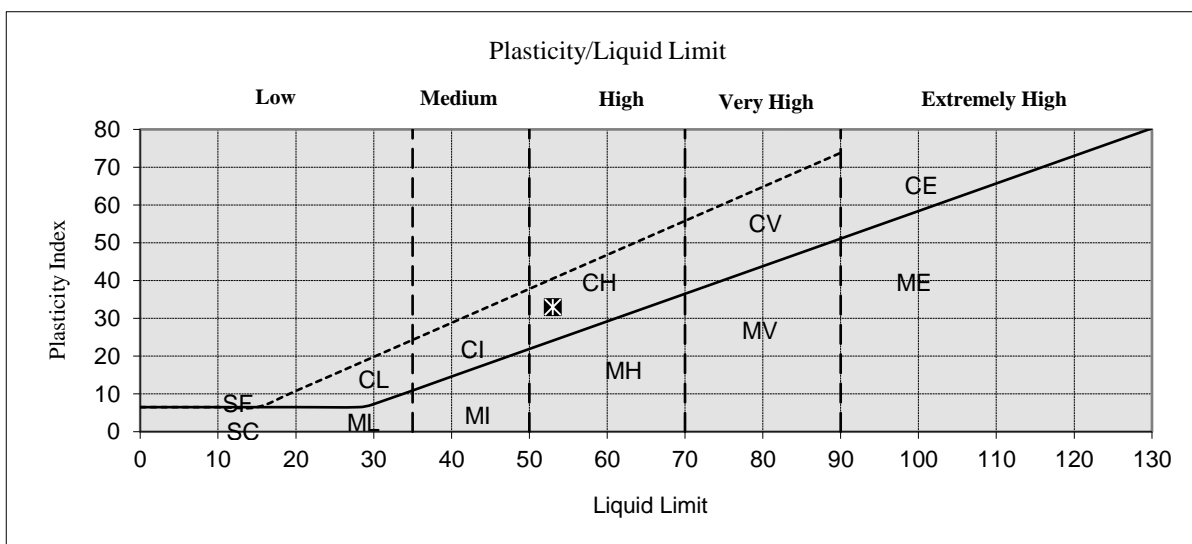




LABORATORY TEST REPORT
LIQUID & PLASTIC LIMIT TESTS BS 1377: Part 2: 1990 Cl 4.4,5.3

Site Ref.:	Burlow Road, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Sample Ref.:	TPA 209 1.4m
		Date Received:	04/09/2017
		Date Tested:	21/09/2017
Originator:	Keith	Date Reported:	26/09/2017

Sampling Certificate	Yes
Sampled By	Client
Sample Type	Bulk
Sample Preparation Method	As Received
MATERIAL	Yellow Brown Clay
Retained 425 micron (%)	4.2
Natural Moisture Content (%)	30
Liquid Limit (single point)(%)	53
Plastic Limit (%)	20
Plasticity Index	33



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MOISTURE CONTENT BS 1377 : Part 2 : 1990 Oven Drying Method cl 3.2

Site:	Burrow Road, buxton- Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Date Received:	04/09/2017
		Date Tested:	14/09/2017
		Date Reported:	26/09/2017
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Sampled By: Client **Sample Type:** Bulk
Sampling Cert.: No **Location:** TPA 106
Date Sampled: 04/09/2017
Supplier/Source: Site Won
Material Type: Silty Clay **Visual Description:** Brown Silty clay/silt
Moisture Content (%): 32

Tested in accordance with BS 1377: Part 2: 1990
Sample preparation by cone and quarter

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LABORATORY TEST REPORT

MOISTURE CONTENT BS 1377 : Part 2 : 1990 Oven Drying Method cl 3.2

Site:	Burrow Road, buxton- Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Date Received:	04/09/2017
		Date Tested:	14/09/2017
		Date Reported:	26/09/2017
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Sampled By: Client **Sample Type:** Bulk
Sampling Cert.: No **Location:** TPA 111
Date Sampled: 04/09/2017
Supplier/Source: Site Won
Material Type: Silty Clay **Visual Description:** Brown Silty clay/silt
Moisture Content (%): 29

Tested in accordance with BS 1377: Part 2: 1990
Sample preparation by cone and quarter

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MOISTURE CONTENT BS 1377 : Part 2 : 1990 Oven Drying Method cl 3.2

Site:	Burrow Road, buxton- Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Date Received:	04/09/2017
		Date Tested:	14/09/2017
		Date Reported:	26/09/2017
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Sampled By: Client *Sample Type:* Bulk
Sampling Cert.: No *Location:* TPA 125
Date Sampled: 04/09/2017
Supplier/Source: Site Won
Material Type: Silty Clay *Visual Description:* Brown Silty clay/silt
Moisture Content (%): 20

Tested in accordance with BS 1377: Part 2: 1990
Sample preparation by cone and quarter

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MOISTURE CONTENT BS 1377 : Part 2 : 1990 Oven Drying Method cl 3.2

Site:	Burrow Road, buxton- Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	SA30922
		Date Received:	04/09/2017
		Date Tested:	14/09/2017
		Date Reported:	26/09/2017
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Sampled By: Client *Sample Type:* Bulk
Sampling Cert.: No *Location:* TPA 127
Date Sampled: 04/09/2017
Supplier/Source: Site Won
Material Type: Silty Clay *Visual Description:* Brown Silty clay/silt
Moisture Content (%): 23

Tested in accordance with BS 1377: Part 2: 1990
Sample preparation by cone and quarter

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DETERMINATION OF PARTICLE DENSITY BS 1377 : Part 2 : 1990

Project :	Burlow Road, Buxton - Site B	Lab Ref No:	SA30922
Client :	ALM Consult	Date Received:	04/09/2017
		Date Tested:	19/09/2017
		Date Reported:	26/09/2017
		Material Type:	Silt
Originator:	Keith	Sampling Certificate:	Yes

Sample Reference	Material Type	Particle Density (Mg/m ³)
TPA 106	Silt	2.59
TPA 111	Silt	2.59
TPA 125	Silt	2.63
TPA 127	Silt	2.62

Tested in accordance with BS 1377: Part 2: 1990

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LABORATORY TEST REPORT

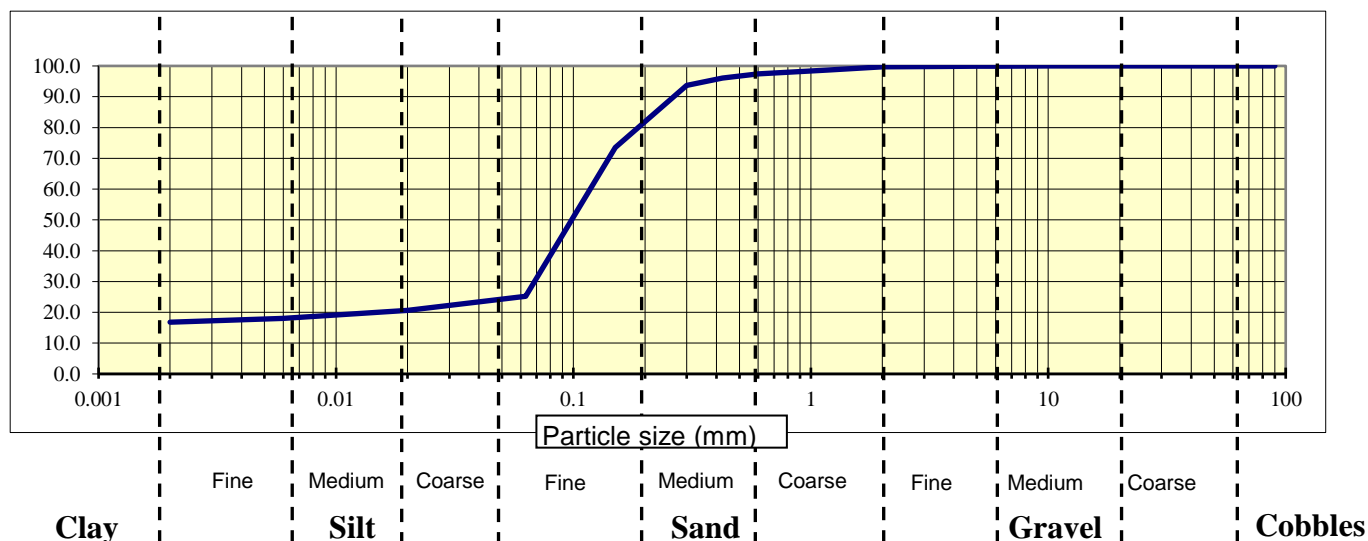
Determination of Particle Size Distribution - BS 1377 : Part 2 : 1990

Site:	Burlow Rd, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	30922
		Date Received:	04/09/2017
		Date Tested:	20/09/2017
		Date Reported:	27/09/2017
Originator:	Keith		

Client Ref.: TPA 106

Description: Light Brown Silty CLAY

BS Sieve Size	% Passing	Specification
125.0mm	100	
90.0mm	100	
75.0mm	100	
37.5mm	100	
28.0mm	100	
20.0mm	100	
14.0mm	100	
10.0mm	100	
6.3mm	100	
5.00mm	100	
3.35mm	100	
2.00mm	100	
1.18mm	99	
0.600mm	97	
0.425mm	96	
0.300mm	94	
0.150mm	74	
0.063mm	25.2	
0.02mm	20.6	
0.006mm	18.0	
0.002mm	16.8	



Tested in accordance with BS 1377: Part 2 : 1990 Clause 9.2 and 9.5

Sedimentation by Hydrometer, clause 9.5 - not UKAS Accredited

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LABORATORY TEST REPORT

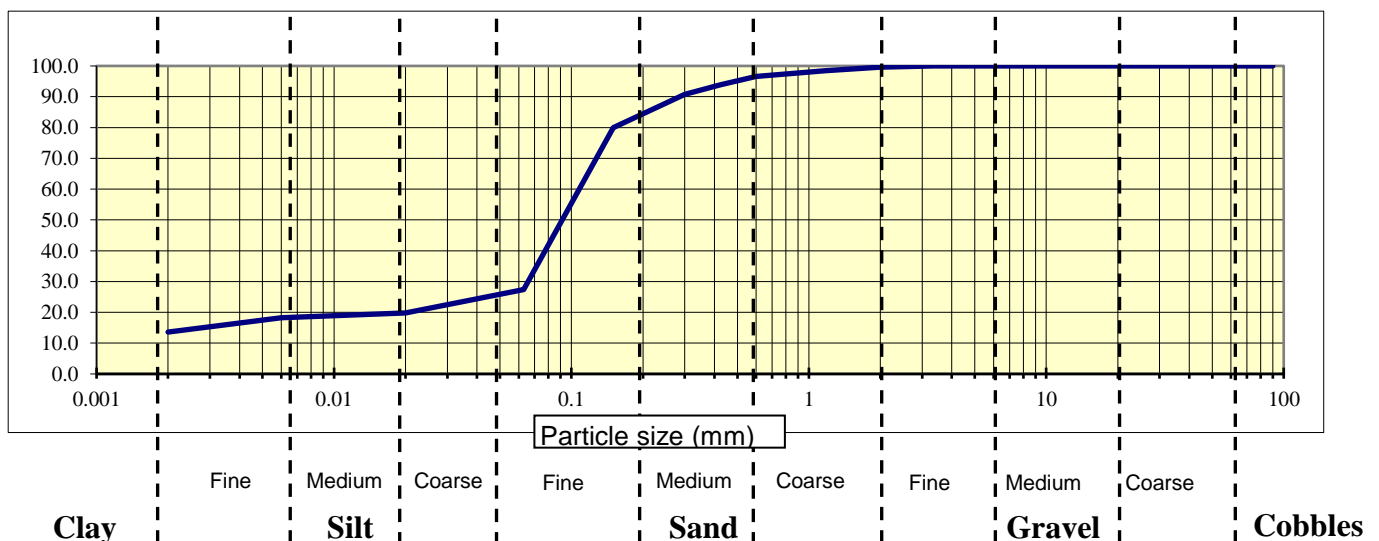
Determination of Particle Size Distribution - BS 1377 : Part 2 : 1990

Site:	Burlow Rd, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	30922
		Date Received:	04/09/2017
		Date Tested:	20/09/2017
		Date Reported:	27/09/2017
Originator:	Keith		

Client Ref.: TPA 111

Description: Light Brown Silty CLAY

BS Sieve Size	% Passing	Specification
125.0mm	100	
90.0mm	100	
75.0mm	100	
37.5mm	100	
28.0mm	100	
20.0mm	100	
14.0mm	100	
10.0mm	100	
6.3mm	100	
5.00mm	100	
3.35mm	100	
2.00mm	100	
1.18mm	99	
0.600mm	97	
0.425mm	94	
0.300mm	91	
0.150mm	80	
0.063mm	27.4	
0.02mm	19.8	
0.006mm	18.3	
0.002mm	13.6	



Tested in accordance with BS 1377: Part 2 : 1990 Clause 9.2 and 9.5

Sedimentation by Hydrometer, clause 9.5 - not UKAS Accredited

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LABORATORY TEST REPORT

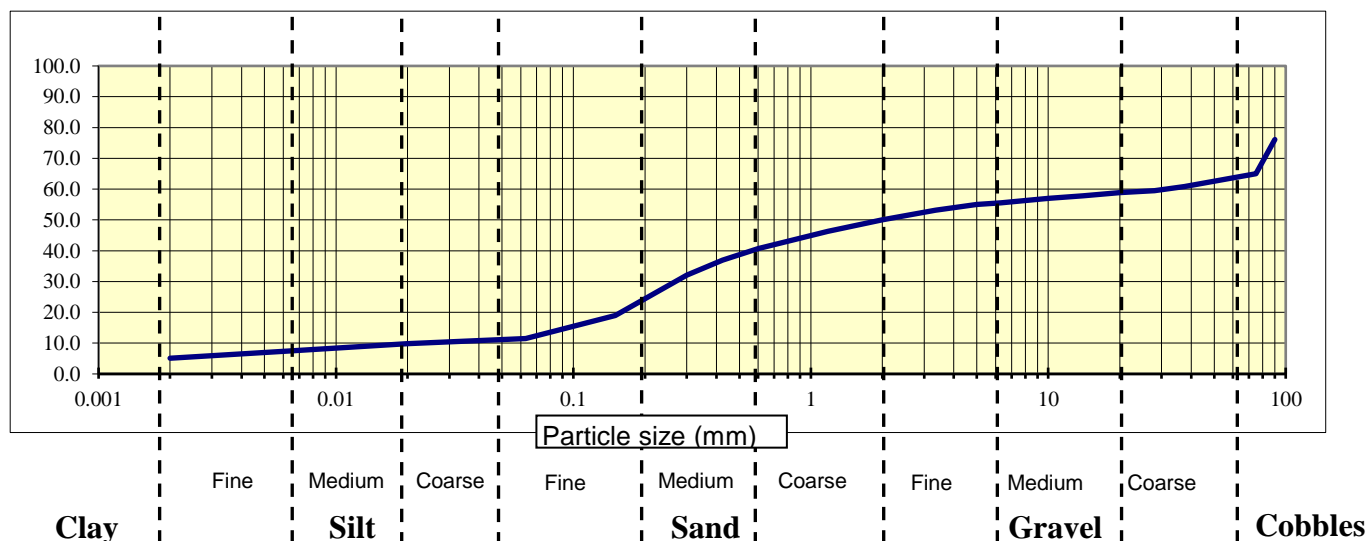
Determination of Particle Size Distribution - BS 1377 : Part 2 : 1990

Site:	Burlow Rd, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	30922
		Date Received:	04/09/2017
		Date Tested:	20/09/2017
		Date Reported:	27/09/2017
Originator:	Keith		

Client Ref.: TPA 125

Description: Yellow Light Brown Silty CLAY

BS Sieve Size	% Passing	Specification
125.0mm	76	
90.0mm	76	
75.0mm	65	
37.5mm	61	
28.0mm	59	
20.0mm	59	
14.0mm	58	
10.0mm	57	
6.3mm	56	
5.00mm	55	
3.35mm	53	
2.00mm	50	
1.18mm	46	
0.600mm	41	
0.425mm	37	
0.300mm	32	
0.150mm	19	
0.063mm	11.5	
0.02mm	9.8	
0.006mm	7.3	
0.002mm	5.1	



Tested in accordance with BS 1377: Part 2 : 1990 Clause 9.2 and 9.5

Sedimentation by Hydrometer, clause 9.5 - not UKAS Accredited

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■ Karl Monks, Acting Lab Team Leader

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LABORATORY TEST REPORT

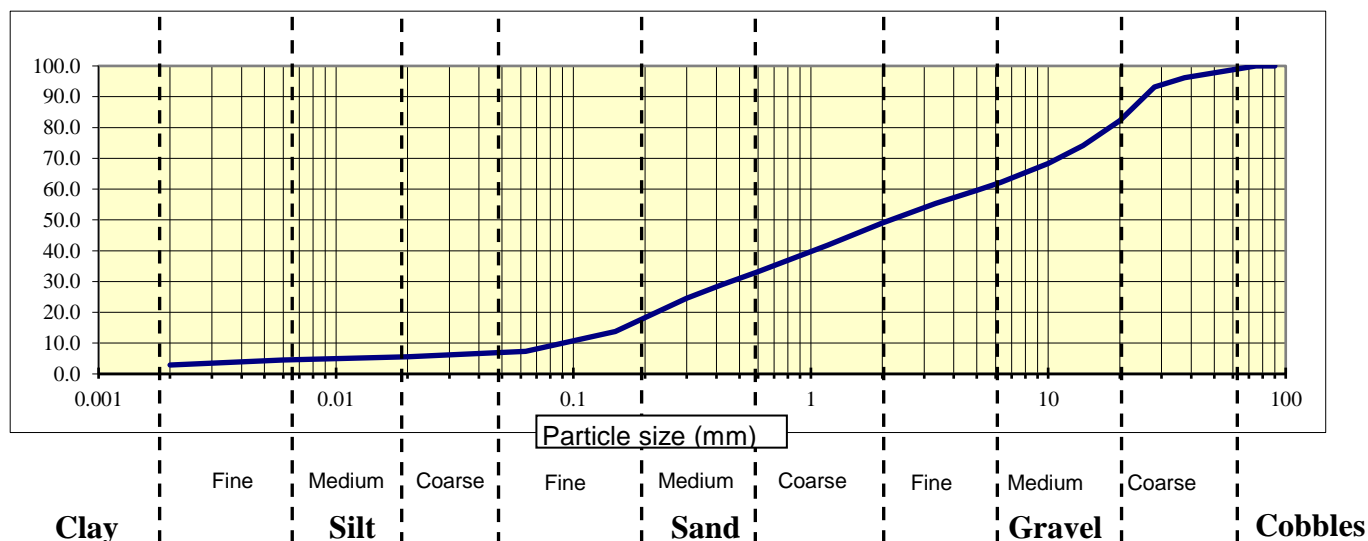
Determination of Particle Size Distribution - BS 1377 : Part 2 : 1990

Site:	Burlow Rd, Buxton - Site A	Job No.:	26438
Client:	ALM Consult	Lab Ref No.:	30922
		Date Received:	04/09/2017
		Date Tested:	20/09/2017
		Date Reported:	27/09/2017
Originator:	Keith		

Client Ref.: TPA 127

Description: Brown silt and gravel

BS Sieve Size	% Passing	Specification
125.0mm	100	
90.0mm	100	
75.0mm	100	
37.5mm	96	
28.0mm	93	
20.0mm	82	
14.0mm	74	
10.0mm	68	
6.3mm	62	
5.00mm	60	
3.35mm	55	
2.00mm	49	
1.18mm	42	
0.600mm	33	
0.425mm	29	
0.300mm	25	
0.150mm	14	
0.063mm	7.3	
0.02mm	5.6	
0.006mm	4.5	
0.002mm	2.9	



Tested in accordance with BS 1377: Part 2 : 1990 Clause 9.2 and 9.5

Sedimentation by Hydrometer, clause 9.5 - not UKAS Accredited

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DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	Burlow Road, Buxton - Site A	Lab Ref No.:	SA30922
Client:	ALM Consult	Date Received:	04/09/2017
		Date Tested:	25/09/2017
		Date Reported:	27/09/2017
		Material:	Brown Mottled Clay
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Client Sample Ref : TPA 106
Supplier: Not Stated
Location: TPA 106

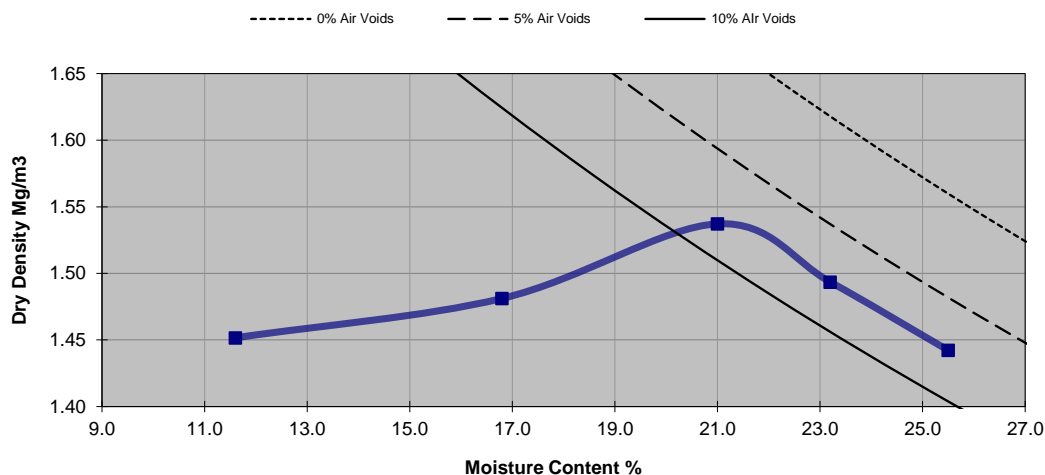
Sample Type : Bulk
Description : Brown Mottled Clay

Date sampled : 04/09/2017
Sampling Cert : Yes

Comments :

Rammer used :	2.5	No of layers:	3
No of sub samples :	5	% retained on 37.5mm sieve	0.0
Mould Size:	1L	% retained on 20mm sieve	0.0

Bulk Density: Mg/m³	1.62	1.73	1.86	1.84	1.81
Moisture Content: %	11.6	16.8	21.0	23.2	25.5
Dry Density: Mg/m³	1.45	1.48	1.54	1.49	1.44



Maximum Dry Density (Mg/m³)
Optimum Moisture Content (%)

1.54
21

Tested in accordance with BS 1377: Part 4:1990
Particle Density (Mg/m³) - 2.59 Determined

K. Monks

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James Fisher Testing Services Ltd
■ Karl Monks, Team Leader

R05 R2 WTN





DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	Burlow Road, Buxton - Site A	Lab Ref No.:	SA30922
Client:	ALM Consult	Date Received:	04/09/2017
		Date Tested:	25/09/2017
		Date Reported:	27/09/2017
		Material:	Brown Clay
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Client Sample Ref : TPA 111
Supplier: Not Stated
Location: TPA 111

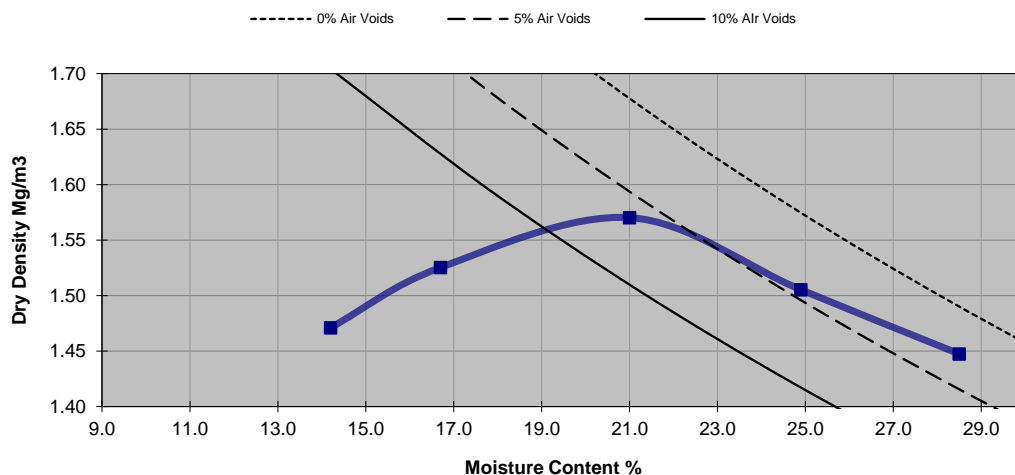
Sample Type : Bulk
Description : Brown Clay/ Silt

Date sampled : 04/09/2017
Sampling Cert : Yes

Comments :

Rammer used :	2.5	No of layers:	3
No of sub samples :	5	% retained on 37.5mm sieve	0.0
Mould Size:	1L	% retained on 20mm sieve	0.0

Bulk Density: Mg/m³	1.68	1.78	1.90	1.88	1.86
Moisture Content: %	14.2	16.7	21.0	24.9	28.5
Dry Density: Mg/m³	1.47	1.53	1.57	1.51	1.45



Maximum Dry Density (Mg/m³)
Optimum Moisture Content (%)

1.57
21

Tested in accordance with BS 1377: Part 4:1990
Particle Density (Mg/m³) - 2.59 Determined

K. Monks
Approved Signature
James Fisher Testing Services Ltd
■ Karl Monks, Team Leader

R05 R2 WTN





DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	Burlow Road, Buxton - Site A	Lab Ref No.:	SA30922
Client:	ALM Consult	Date Received:	04/09/2017
		Date Tested:	25/09/2017
		Date Reported:	28/09/2017
		Material:	Brown Clay
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Client Sample Ref : TPA 125
Supplier: Not Stated
Location: TPA 125

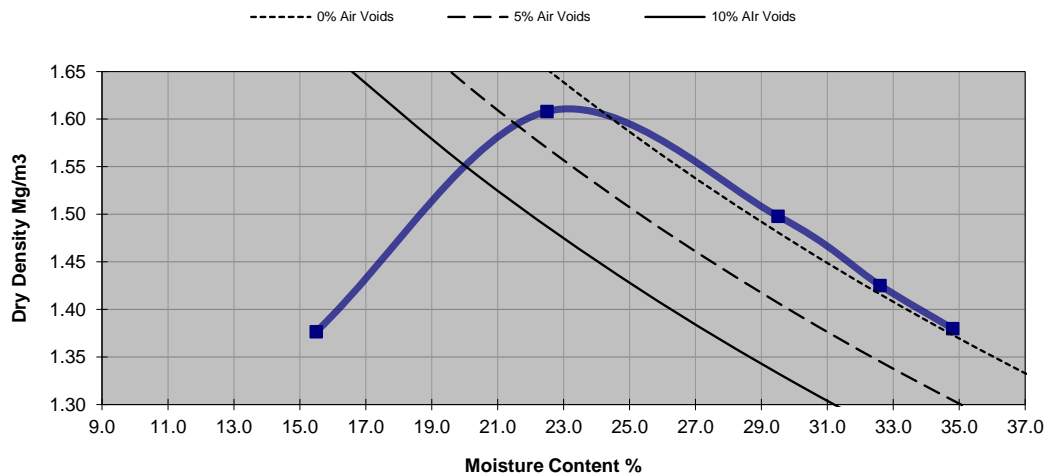
Sample Type : Bulk
Description : Yellow and Brown Silty Clay

Date sampled : 04/09/2017
Sampling Cert : Yes

Comments :

Rammer used :	2.5	No of layers:	3
No of sub samples :	5	% retained on 37.5mm sieve	19.6
Mould Size:	1L	% retained on 20mm sieve	0.9

Bulk Density: Mg/m³	1.59	1.97	1.94	1.89	1.86
Moisture Content: %	15.5	22.5	29.5	32.6	34.8
Dry Density: Mg/m³	1.38	1.61	1.50	1.43	1.38



Maximum Dry Density (Mg/m³)
Optimum Moisture Content (%)

1.61
23

Tested in accordance with BS 1377: Part 4:1990
Particle Density (Mg/m³) - 2.63 Determined

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James Fisher Testing Services Ltd
■ Karl Monks, Team Leader

R05 R2 WTN



DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	Burlow Road, Buxton - Site A	Lab Ref No.:	SA30922
Client:	ALM Consult	Date Received:	04/09/2017
		Date Tested:	25/09/2017
		Date Reported:	28/09/2017
		Material:	Brown Clay
Originator:	Keith	Specification:	SHW Series 600: Table 6/2

Client Sample Ref : TPA 127
Supplier: Not Stated
Location: TPA 127

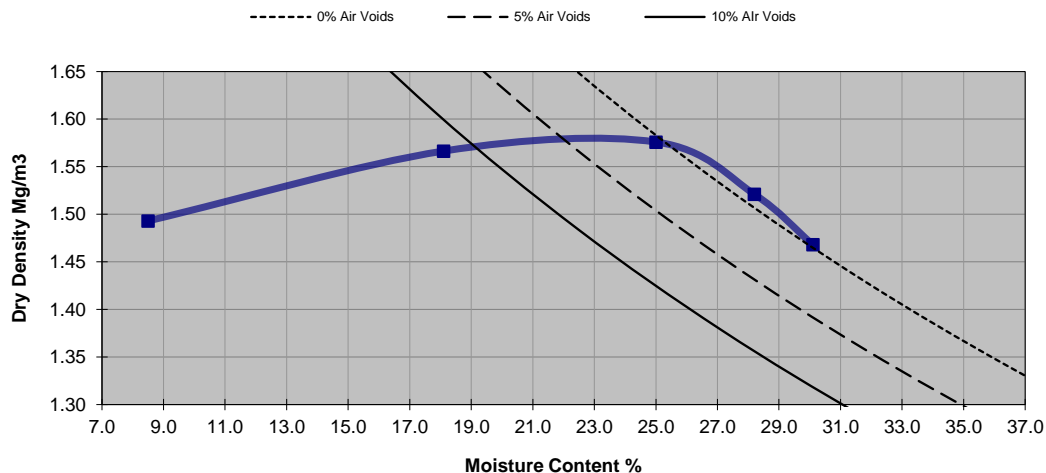
Sample Type : Bulk
Description : Yellow and Brown Sand & Gravel

Date sampled : 04/09/2017
Sampling Cert : Yes

Comments :

Rammer used :	2.5	No of layers:	3
No of sub samples :	5	% retained on 37.5mm sieve	2.7
Mould Size:	1L	% retained on 20mm sieve	4.7

Bulk Density: Mg/m³	1.62	1.85	1.97	1.95	1.91
Moisture Content: %	8.5	18.1	25.0	28.2	30.1
Dry Density: Mg/m³	1.49	1.57	1.58	1.52	1.47



Maximum Dry Density (Mg/m³)
Optimum Moisture Content (%)

1.58
25

Tested in accordance with BS 1377: Part 4:1990
Particle Density (Mg/m³) - 2.62 Determined

K. Monks

Approved Signature
James Fisher Testing Services Ltd
■ Karl Monks, Team Leader

R05 R2 WTN



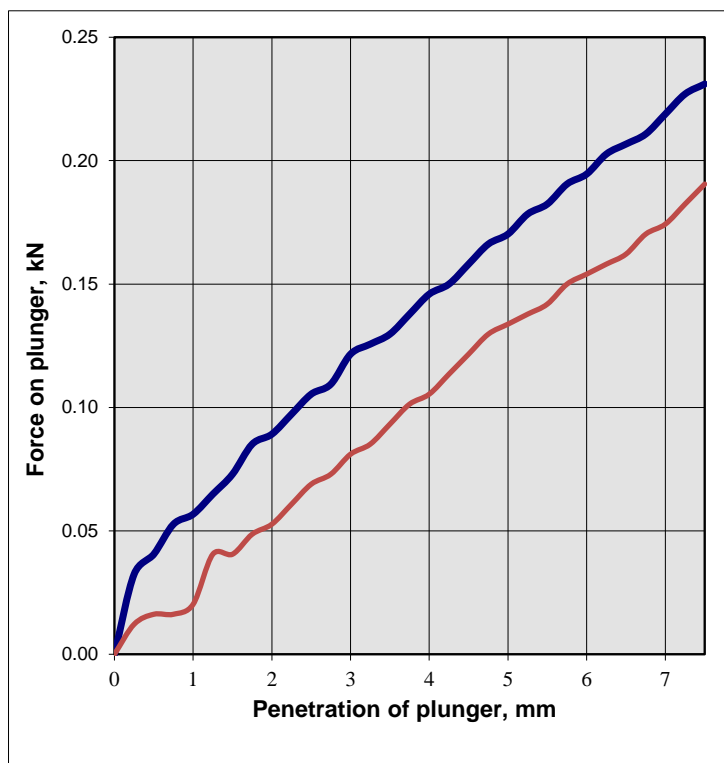


LABORATORY TEST REPORT

DETERMINATION OF CALIFORNIA BEARING RATIO - BS 1377 : Part 4 : 1990

Project :	Burlow Road, Buxton - Site A	Job No.	26438
Client :	ALM Consult	Lab Ref No	SA30922
		Date Received	04/09/2017
		Date Tested	20/09/2017
		Date Reported	28/09/2017
Originator :	Keith		

Location : TPA111



Type of Reaction Load
Load Frame
Technician(s)
Shauna O'Hara
Mass of Surcharge Weights
10Kg
Overburden Pressure
3.9kPa
Material Type
Brown Silt
Density (Mg/m³)
1.89
Max Particle Size Under Test
Area (mm)
<20
Swell (mm)
3
2
1
0
Days Soaked
0
1
2
3
4
5
6
7
Final Swell (mm):
N/A

Penetration (mm)	Force (kN)	Standard Force (kN)	Top CBR (%)
2.5	0.11	13.2	0.8
5.0	0.17	20.0	0.9

Penetration (mm)	Force (kN)	Standard Force (kN)	Bottom CBR (%)
2.5	0.07	13.2	0.5
5.0	0.13	20.0	0.7
Moisture content : 28%		Mean Insitu CBR value : 0.7 %	

Moisture content determined in accordance with BS 1377 : Part 2 : 1990 - oven drying method

CBR determined in accordance with BS 1377 : Part 4 : 1990

K. Monks

Approved Signature

James Fisher Testing Services Ltd

☐ Karl Monks, Acting Lab Team Leader

R70 R2 WTN

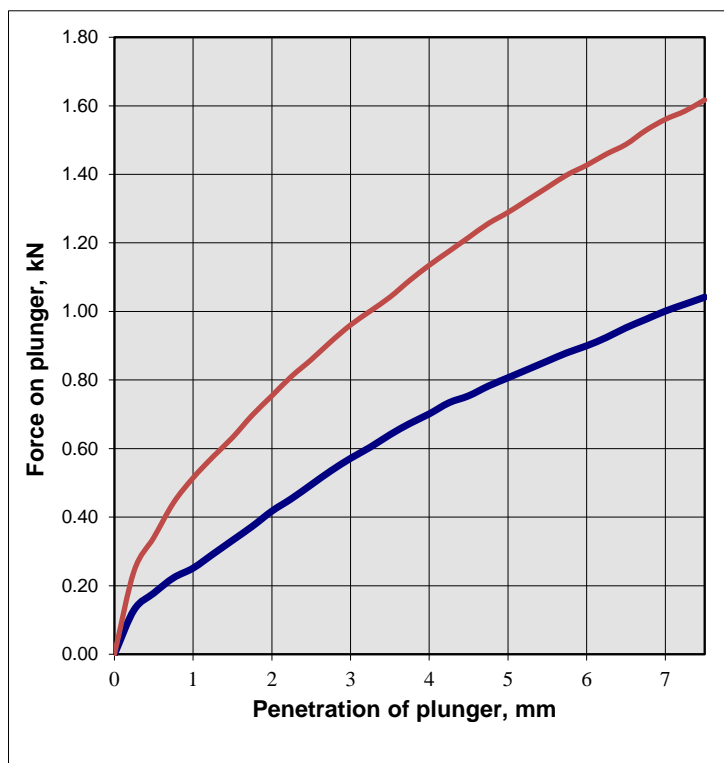
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LABORATORY TEST REPORT
DETERMINATION OF CALIFORNIA BEARING RATIO - BS 1377 : Part 4 : 1990

Project :	Burlow Road, Buxton - Site A	Job No.	26438
Client :	ALM Consult	Lab Ref No	SA30922
		Date Received	04/09/2017
		Date Tested	20/09/2017
		Date Reported	28/09/2017
Originator :	Keith		

Location : TPA 127



Type of Reaction Load
Load Frame
Technician(s)
Shauna O'Hara
Mass of Surcharge Weights
10Kg
Overburden Pressure
3.9kPa
Material Type
Yellow/Brown Silt, Gravel lumps of grey clay
Density (Mg/m³)
1.95
Max Particle Size Under Test
Area (mm)
<20
Swell (mm)
3
2
1
0
Days Soaked
0
1
2
3
4
5
6
7
Final Swell (mm):
N/A

Penetration (mm)	Force (kN)	Standard Force (kN)	Top CBR (%)
2.5	0.49	13.2	3.7
5.0	0.81	20.0	4.0

Penetration (mm)	Force (kN)	Standard Force (kN)	Bottom CBR (%)
2.5	0.86	13.2	6.5
5.0	1.29	20.0	6.4
Moisture content : 26%		Mean Insitu CBR value : 5.2%	

Moisture content determined in accordance with BS 1377 : Part 2 : 1990 - oven drying method

CBR determined in accordance with BS 1377 : Part 4 : 1990

K. Monks
Approved Signature

James Fisher Testing Services Ltd

☐ Karl Monks, Acting Lab Team Leader

R70 R2 WTN

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Appendix J(3)

In-Situ Soakaway Test Results ALM (2017) Investigation

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client: **Barratt Homes Manchester**
 Job Name: **Burlow Road, Buxton - SITE A**
 Job No.: **30156**



Trial Pit No.	SA-A1
Test No.	1

Time	Elapsed Time (min)	Depth to water from ground level	
		(m)	(mm)
	0	0.38	380
	1	0.49	490
	2	0.57	570
	3	0.65	650
	4	0.73	730
	5	0.79	790
	10	1.05	1050
	12	1.15	1150
	14	1.22	1220
	16	1.29	1290
	18	1.35	1350
	20	1.41	1410
	22	1.47	1470
	24	1.55	1550
	26	1.60	1600

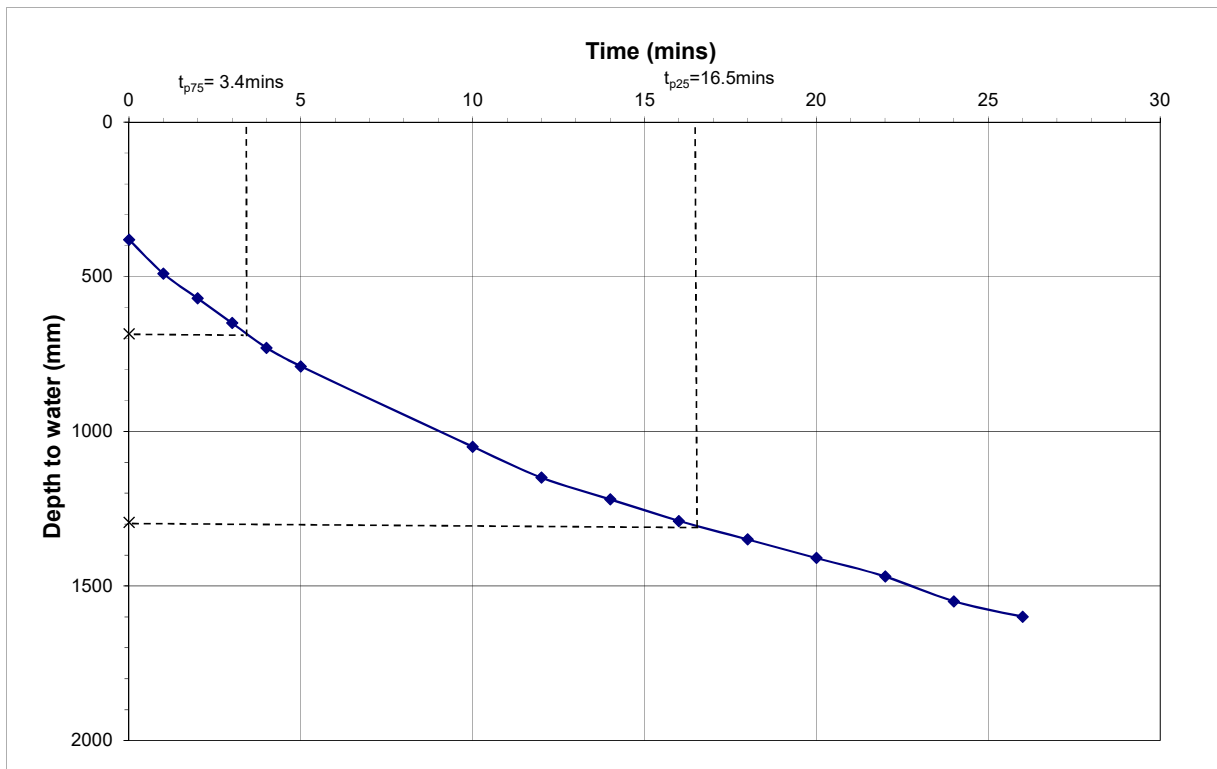
SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.00	2000
Width	=	0.77	770
Depth	=	1.60	1600

Effective Depth (empty)		mm	m
75%	=	1295.00	1.295
50%	=	990.00	0.99
25%	=	685.00	0.685

Depth at start of test (mm)	=	380
Depth at end of test (mm)	=	1600

Base area of pit	=	1.54
a_{p50} - 50% internal surface area inc. base	=	4.9194
V_{p75-25} - Volume 75 - 25%	=	0.9394

Read from the graph:		
t_{p75} (min)	=	3.4
t_{p25} (min)	=	16.5



Soil infiltration rate, f , (m/s) =	<u>2.43E-04</u>	(normal test)
Soil infiltration rate, f , (m/s) =	<u>7.29E-05</u>	(pit filled with stone)

SOIL INFILTRATION RATE IN ACCORDANCE WITH BRE DIGEST 365: 1991

Client: **Barratt Homes Manchester**
 Job Name: **Burlow Road, Buxton - SITE A**
 Job No.: **30156**



Trial Pit No.	SA-A1
Test No.	2

Time	Elapsed Time	Depth to water from ground level	
	(min)	(m)	(mm)
	0	0.35	350
	1	0.45	450
	2	0.54	540
	3	0.63	630
	4	0.71	710
	5	0.79	790
	6	0.87	870
	7	0.95	950
	8	1.02	1020
	10	1.15	1150
	12	1.28	1280
	14	1.40	1400
	16	1.50	1500
	18	1.60	1600

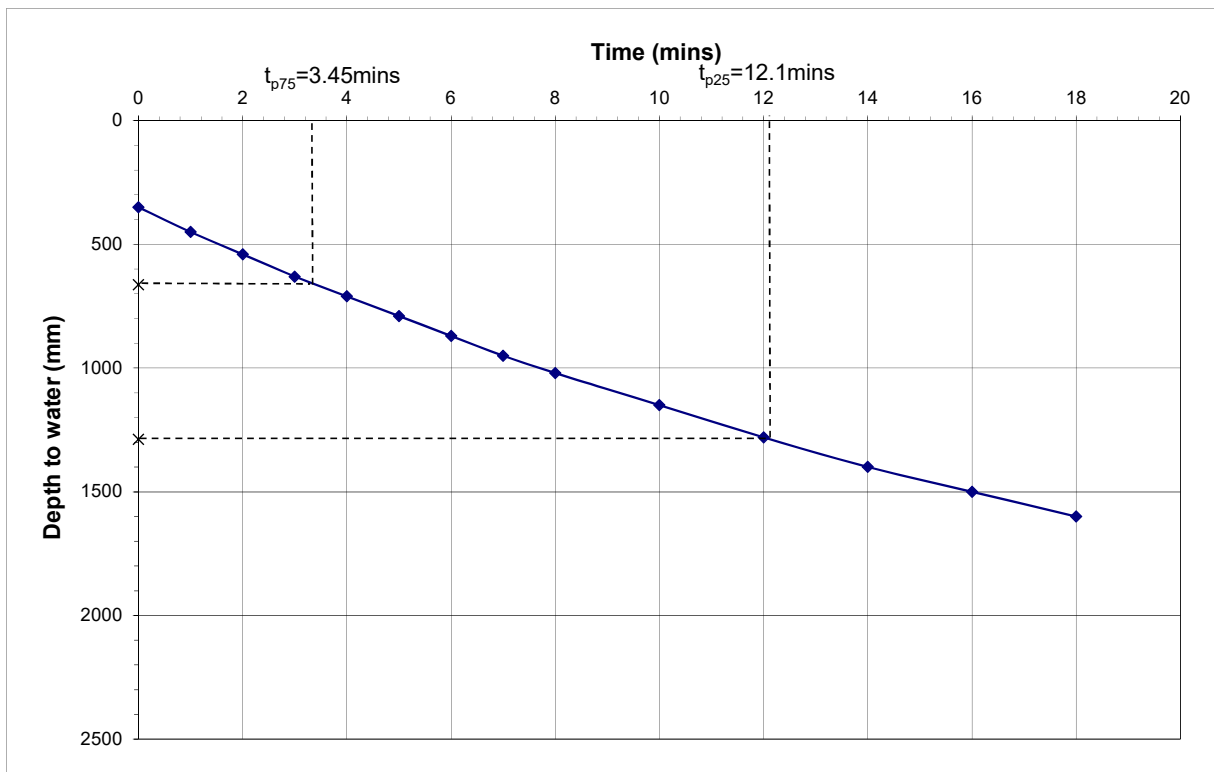
SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.00	2000
Width	=	0.77	770
Depth	=	1.60	1600

Effective depth (empty)		mm	m
75%	=	1287.50	1.2875
50%	=	975.00	0.975
25%	=	662.50	0.6625

Depth at start of test (mm)	=	350
Depth at end of test (mm)	=	1600

Base area of pit	=	1.54
a_{p50} - 50% internal surface area inc. base	=	5.0025
V_{p75-25} - Volume 75 - 25%	=	0.9625

Read from the graph:		
t_{p75} (min)	=	3.45
t_{p25} (min)	=	12.1



Soil infiltration rate, f , (m/s) =	<u>3.71E-04</u>	(normal test)
Soil infiltration rate, f , (m/s) =	<u>1.11E-04</u>	(pit filled with stone)

Trial Pit No.	SA-A2
Test No.	1

Client:	Barratt Homes Manchester
Job Name:	Burlow Road, Buxton - SITE A
Job No.:	30156



Trial Pit No.	SA-A2
Test No.	2

[illegible]

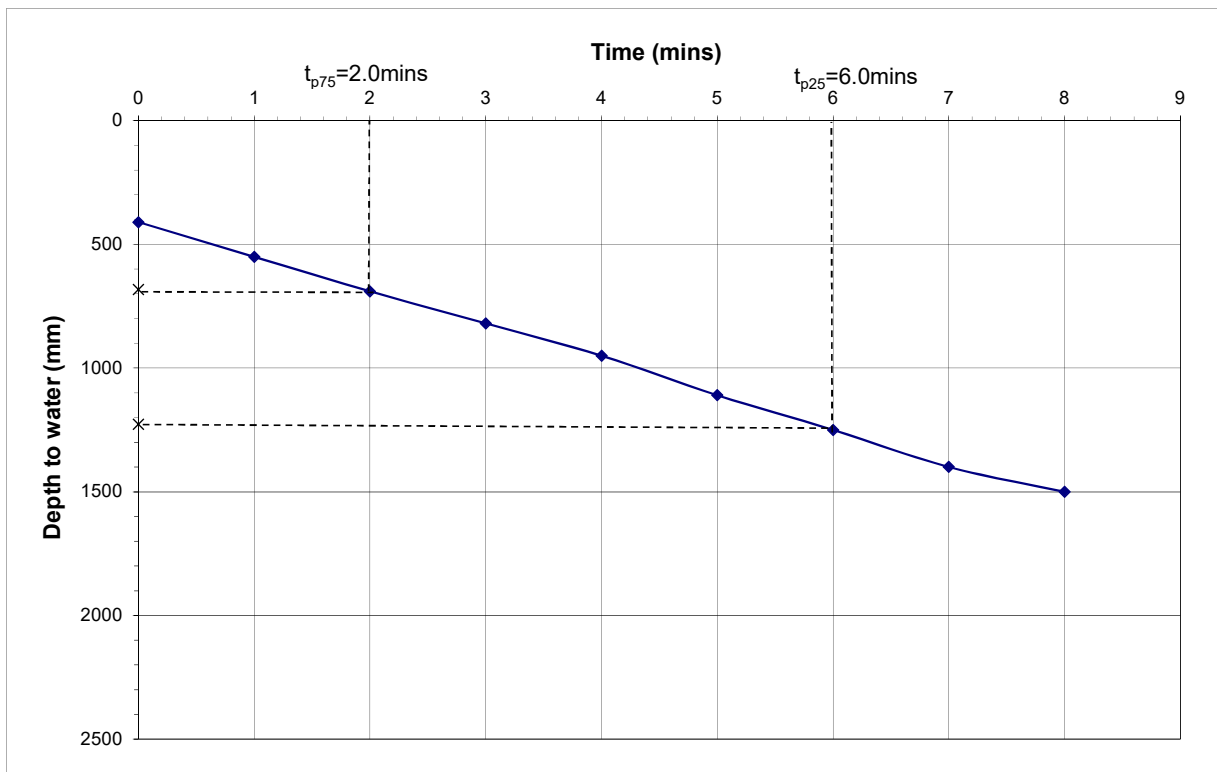
SOAKAWAY TRIAL PIT			
Dimensions		(m)	(mm)
Length	=	2.10	2100
Width	=	0.65	650
Depth	=	1.50	1500

Effective depth (empty)	mm	m
75% =	1227.50	1.2275
50% =	955.00	0.955
25% =	682.50	0.9825

Depth at start of test (mm)	=	410
Depth at end of test (mm)	=	1500

Base area of pit	=	1.365
a_{p50} - 50% internal surface area inc. base	=	2.7125
V_{p75-25} - Volume 75 - 25%	=	0.334425

Read from the graph:		
$t_{p\ 75}$ (min)	=	2
$t_{p\ 25}$ (min)	=	6



Soil infiltration rate, f , (m/s) =	5.14E-04	(normal test)
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Soil infiltration rate, f , (m/s) = 1.54E-04 (pit filled with stone)