

### **Liquid and Plastic Limits**

i2 Analytical Ltd 7 Woodshots Meadow Croxley Green Business Park Watford Herts WD18 8YS



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: **BWB** Consulting Limited

Client Address:

Livery Place, 35 Livery Street Birmingham,

**B3 2PB** 

Contact: Jade Allen Site Name: Trowbridge

Site Address: Not Given Client Reference: LDQ2048

Job Number: 19-28029

Date Sampled: 31/01/2019 Date Received: 04/02/2019

Date Tested: 12/02/2019

Sampled By: Not Given

Depth Top [m]: 1.70

Depth Base [m]: 1.80

Sample Type: D

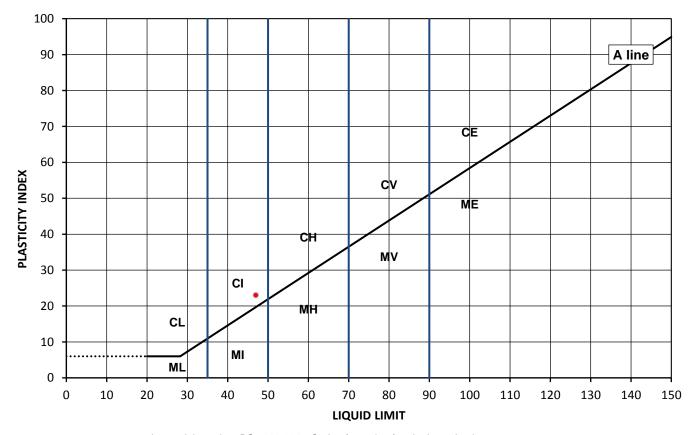
**Test Results** 

Laboratory Reference: 1150418 **DS01** Hole No.: Sample Reference:

Soil Description: Brownish grey slightly gravelly slightly sandy CLAY

Tested after >425um removed by hand Sample Preparation:

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
23	47	24	23	96



Legend, based on BS 5930:2015 Code of practice for site investigations

**Plasticity** Liquid Limit С Clay Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic 0 append to classification for organic material ( eg CHO )

Remarks:

Dariusz Piotrowski Approved:

PL Geotechnical Laboratory Manager

**Date Reported:** 20/02/2019

Signed:

Darren Berrill Geotechnical General Manager



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Client: BWB Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

B3 2PB

Date Received: 04/02/2019
Contact: Jade Allen Date Tested: 12/02/2019
Site Name: Trowbridge Sampled By: Not Given

Site Address: Not Given

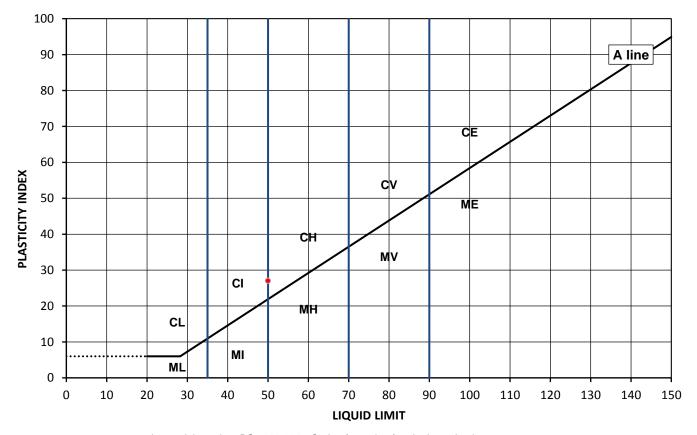
**Test Results** 

Laboratory Reference:1150419Depth Top [m]: 2.20Hole No.:DS01Depth Base [m]: 2.30Sample Reference:5Sample Type: D

Soil Description: Brown mottled grey slightly sandy CLAY

Sample Preparation: Tested in natural condition

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
31	50	23	27	100



Legend, based on BS 5930:2015 Code of practice for site investigations

**Plasticity** Liquid Limit С Clay Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic O append to classification for organic material ( eg CHO )

Remarks:

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Client: **BWB** Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

**B3 2PB** 

Contact: Jade Allen Site Name: Trowbridge

Site Address: Not Given Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client Reference: LDQ2048 Job Number: 19-28029 Date Sampled: 31/01/2019

Date Received: 04/02/2019 Date Tested: 12/02/2019

Sampled By: Not Given

Depth Top [m]: 3.00

Depth Base [m]: 3.10

Sample Type: D

**Test Results** 

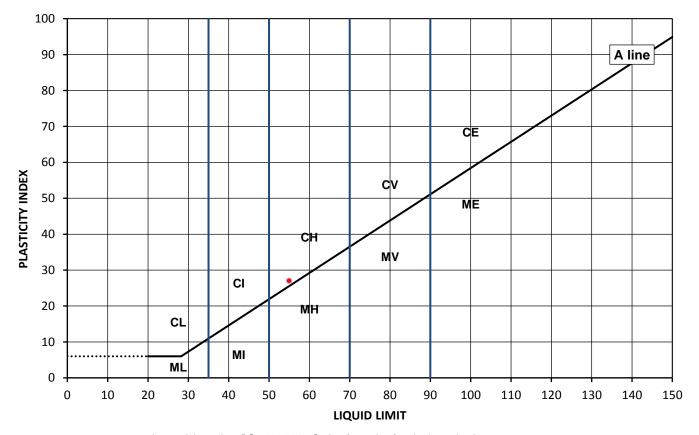
Laboratory Reference: 1150420 **DS02** Hole No.:

Sample Reference:

Soil Description: Brownish grey slightly sandy CLAY

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit	Plastic Limit	Plasticity Index [%]	% Passing 425µm BS Test Sieve
27	55	28	27	100



Legend, based on BS 5930:2015 Code of practice for site investigations

**Plasticity** Liquid Limit Clay С Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic 0 append to classification for organic material ( eg CHO )

Remarks:

Dariusz Piotrowski Approved:

PL Geotechnical Laboratory Manager

**Date Reported:** 20/02/2019

Signed:

Darren Berrill

Geotechnical General Manager



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i2 Analytical Ltd 7 Woodshots Meadow Croxley Green Business Park Watford Herts WD18 8YS

Client Reference: LDQ2048

Job Number: 19-28029

Date Sampled: 31/01/2019



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: BWB Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

**B3 2PB** 

Date Received: 04/02/2019
Contact: Jade Allen Date Tested: 12/02/2019
Site Name: Trowbridge Sampled By: Not Given

Site Address: Not Given

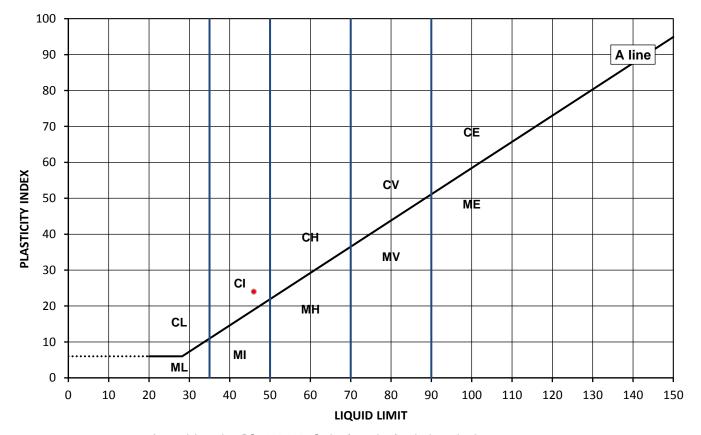
**Test Results** 

Laboratory Reference:1150421Depth Top [m]: 1.90Hole No.:DS03Depth Base [m]: 2.00Sample Reference:4Sample Type: D

Soil Description: Brownish grey slightly sandy CLAY

Sample Preparation: Tested in natural condition

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
22	46	22	24	100



Legend, based on BS 5930:2015 Code of practice for site investigations

Liquid Limit **Plasticity** С Clay Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic O append to classification for organic material ( eg CHO )

Remarks:

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PL Geotechnical Laboratory Manager

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Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: **BWB** Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

**B3 2PB** 

Contact: Jade Allen Site Name: Trowbridge

Site Address: Not Given

Job Number: 19-28029

Client Reference: LDQ2048

Date Sampled: 31/01/2019 Date Received: 04/02/2019 Date Tested: 12/02/2019

Sampled By: Not Given

**Test Results** Laboratory Reference: 1150422

**DS03** Hole No.:

Sample Reference:

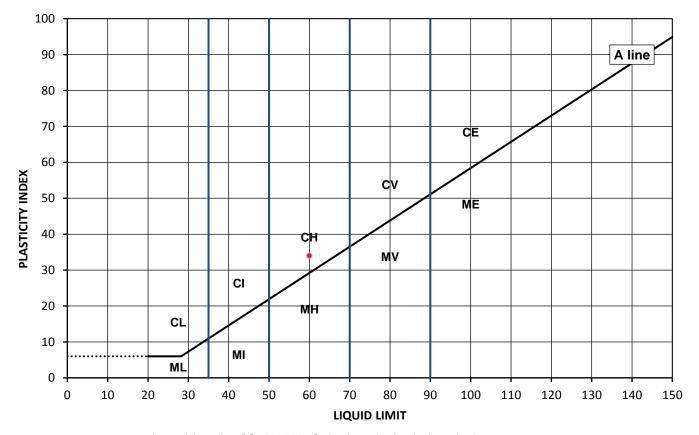
Soil Description: Greyish brown CLAY

Sample Preparation: Tested in natural condition

Depth Top [m]: 3.80	
Depth Base [m]: 3.90	

Sample Type: D

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
24	60	26	34	100



Legend, based on BS 5930:2015 Code of practice for site investigations

**Plasticity** Liquid Limit Clay С Low below 35 L Μ Silt Medium 35 to 50 1 Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic 0 append to classification for organic material ( eg CHO )

Remarks:

Dariusz Piotrowski Approved:

PL Geotechnical Laboratory Manager

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Geotechnical General Manager



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Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: **BWB** Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

**B3 2PB** 

Contact: Jade Allen Site Name: Trowbridge

Site Address: Not Given

Client Reference: LDQ2048

Job Number: 19-28029 Date Sampled: 31/01/2019

Date Received: 04/02/2019

Date Tested: 12/02/2019

Sampled By: Not Given

**Test Results** 

Laboratory Reference: 1150423 **DS04** Hole No.: Sample Reference:

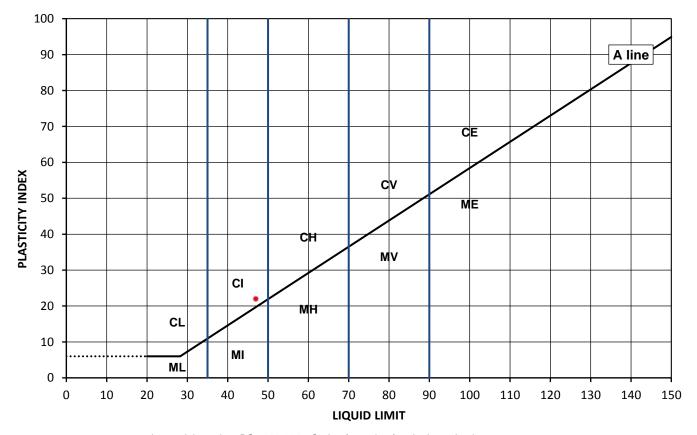
Soil Description: Brownish grey slightly gravelly slightly sandy CLAY

Tested after >425um removed by hand Sample Preparation:

Depth Top [m]: 1.50	
Depth Base [m]: 1.60	

Sample Type: D

ceived Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
23	47	25	22	



Legend, based on BS 5930:2015 Code of practice for site investigations

**Plasticity** Liquid Limit С Clay Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

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Client Reference: LDQ2048

Job Number: 19-28029

Date Sampled: 31/01/2019



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: BWB Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

B3 2PB

Date Received: 04/02/2019
Contact: Jade Allen Date Tested: 12/02/2019
Site Name: Trowbridge Sampled By: Not Given

Site Address: Not Given

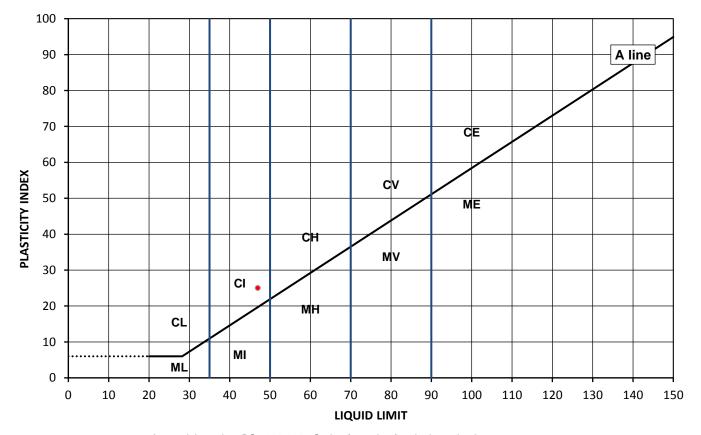
**Test Results** 

Laboratory Reference:1150424Depth Top [m]: 2.90Hole No.:DS05Depth Base [m]: 3.00Sample Reference:4Sample Type: D

Soil Description: Brownish grey slightly sandy CLAY

Sample Preparation: Tested in natural condition

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
25	47	22	25	100



Legend, based on BS 5930:2015 Code of practice for site investigations

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Organic O append to classification for organic material ( eg CHO )

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Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: BWB Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

B3 2PB

Date Received: 04/02/2019
Contact: Jade Allen Date Tested: 12/02/2019
Site Name: Trowbridge Sampled By: Not Given

Site Address: Not Given

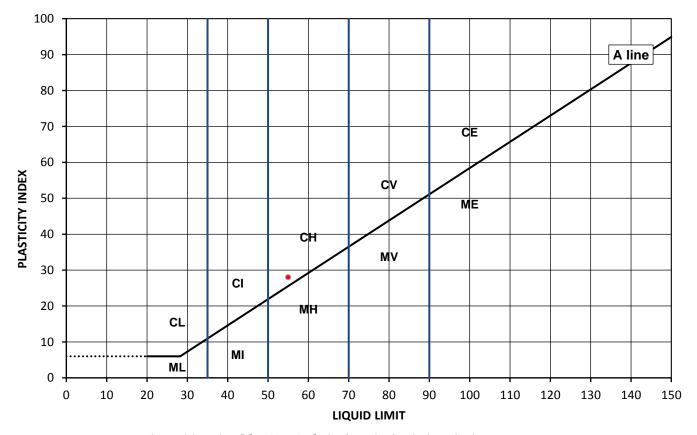
**Test Results** 

Laboratory Reference:1150425Depth Top [m]: 3.60Hole No.:DS05Depth Base [m]: 3.80Sample Reference:5Sample Type: D

Soil Description: Brownish grey slightly sandy CLAY

Sample Preparation: Tested in natural condition

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
27	55	27	28	100



Legend, based on BS 5930:2015 Code of practice for site investigations

**Plasticity** Liquid Limit С Clay Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic O append to classification for organic material ( eg CHO )

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Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: **BWB** Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

**B3 2PB** 

Contact: Jade Allen Site Name: Trowbridge

Site Address: Not Given Client Reference: LDQ2048

Job Number: 19-28029

Date Sampled: 31/01/2019

Date Received: 04/02/2019 Date Tested: 12/02/2019

Sampled By: Not Given

Depth Top [m]: 1.50

Depth Base [m]: 1.60

Sample Type: D

**Test Results** Laboratory Reference: 1150426

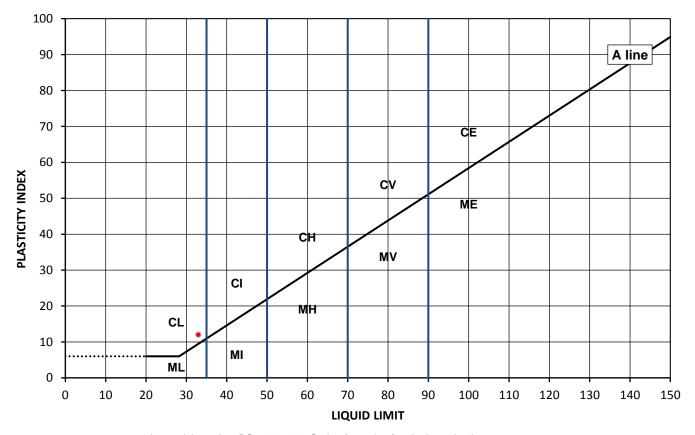
**DS06** Hole No.:

Sample Reference:

Soil Description: Yellowish brown very gravelly very sandy CLAY

Sample Preparation: Tested after washing to remove >425um

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
11	33	21	12	45



Legend, based on BS 5930:2015 Code of practice for site investigations

**Plasticity** Liquid Limit С Clay Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic 0 append to classification for organic material ( eg CHO )

Remarks:

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Client Reference: LDQ2048

Job Number: 19-28029

Date Sampled: 31/01/2019

Date Received: 04/02/2019 Date Tested: 12/02/2019

Sampled By: Not Given



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: BWB Consulting Limited

Client Address: Livery Place, 35 Livery Street Birmingham,

B3 2PB

Contact: Jade Allen
Site Name: Trowbridge

Site Address: Not Given

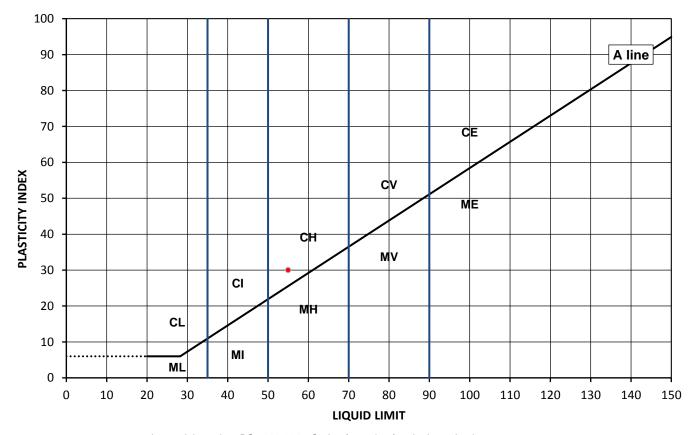
**Test Results** 

Laboratory Reference:1150427Depth Top [m]: 3.50Hole No.:DS06Depth Base [m]: 3.60Sample Reference:4Sample Type: D

Soil Description: Brownish grey slightly sandy CLAY

Sample Preparation: Tested in natural condition

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [%]	[%]	[%]	[%]	BS Test Sieve
26	55	25	30	100



Legend, based on BS 5930:2015 Code of practice for site investigations

Liquid Limit **Plasticity** С Clay Low below 35 L Μ Silt Medium 35 to 50 ı Н High 50 to 70 Very high 70 to 90 Ε Extremely high exceeding 90

Organic O append to classification for organic material ( eg CHO )

Remarks:

Approved: Dariusz Piotrowski

PL Geotechnical Laboratory Manager

**Date Reported:** 20/02/2019

Signed:

Darren Berrill Geotechnical General Manager





**Summary of Classification Test Results** 

i2 Analytical Ltd 7 Woodshots Meadow Croxley Green Business Park Watford Herts WD18 8YS



Client:

Contact:

Client Address:

**BWB** Consulting Limited

Tested in Accordance with:

MC by BS 1377-2: 1990: Clause 3.2; Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990: Clause 8.2

Livery Place, 35 Livery Street Birmingham, B3 2PB

Jade Allen

Trowbridge Site Name: Site Address: Not Given

Client Reference: LDQ2048 Job Number: 19-28029 Date Sampled: 31/01/2019 Date Received: 04/02/2019 Date Tested: 12/02/2019

Sampled By: Not Given

#### **Test results**

Laboratory Reference	Hole No.	Sample							Atterberg#				Density					
		Reference	Тор	Depth Base Type	Description	Remarks	MC#	% Passing 425um	ιι	PL	PI	bulk	PD	Total Porosity				
			m	m				%	%	%	%	%	Mg/m3	Mg/m3	%			
1150418	DS01	4	1.70	1.80	D	Brownish grey slightly gravelly slightly sandy CLAY	Atterberg 1 Point	23	96	47	24	23						
1150419	DS01	5	2.20	2.30	D	Brown mottled grey slightly sandy CLAY	Atterberg 1 Point	31	100	50	23	27						
1150420	DS02	5	3.00	3.10	D	Brownish grey slightly sandy CLAY	Atterberg 1 Point	27	100	55	28	27						
1150421	DS03	4	1.90	2.00	D	Brownish grey slightly sandy CLAY	Atterberg 1 Point	22	100	46	22	24						
1150422	DS03	5	3.80	3.90	D	Greyish brown CLAY	Atterberg 1 Point	24	100	60	26	34						
1150423	DS04	4	1.50	1.60	D	Brownish grey slightly gravelly slightly sandy CLAY	Atterberg 1 Point	23	99	47	25	22						
1150424	DS05	4	2.90	3.00	D	Brownish grey slightly sandy CLAY	Atterberg 1 Point	25	100	47	22	25						
1150425	DS05	5	3.60	3.80	D	Brownish grey slightly sandy CLAY	Atterberg 1 Point	27	100	55	27	28						
1150426	DS06	2	1.50	1.60	D	Yellowish brown very gravelly very sandy CLAY	Atterberg 1 Point	11	45	33	21	12					_	
1150427	DS06	4	3.50	3.60	D	Brownish grey slightly sandy CLAY	Atterberg 1 Point	26	100	55	25	30						

Note: # UKAS accredited; NP - Non plastic

Comments:

Approved: Dariusz Piotrowski

PL Geotechnical Laboratory Manager

20/02/2019 Date Reported:

Signed:

Darren Berrill

Geotechnical General Manager

GF 234.5

