

GroundTech Laboratories

Geotechnical Testing Facility

Slapton Hill Barn, Blakesley Road, Slapton, Towcester, Northants. NN12 8QD

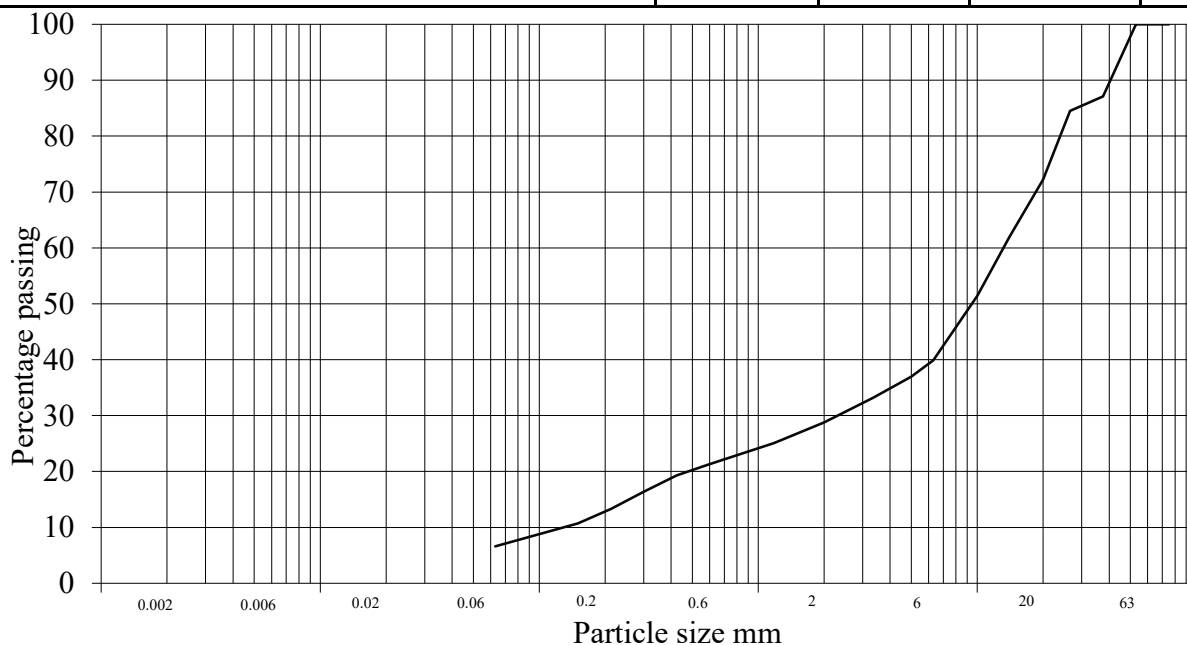
Telephone: 01327 860947/860060

Fax: 01327 860430

Email: groundtech@listersgeotechnics.co.uk

**Quality
Assured
ISO 9001**

		Test Method: BS 1377 : Part 2 : 1990 : 9.2			
		BS test sieve	Cumulative Passing - %	Hydrometer Particle Diameter	Cumulative Passing - %
Site:	Land Adjacent Park Lane, Charvil	75mm	100.00		
		63mm	100.00		
Test Location:	TP 08	50mm	100.00		
		37.5mm	87.10		
Sample Depth:	1.00m	26.5mm	84.50		
		20mm	72.20		
Hydrometer No.:		14mm	61.90		
		10mm	51.40		
SG Gs:		6.3mm	39.90		
		5mm	37.00		
Water Visc. (N):		3.5mm	33.20		
		2mm	28.80		
Dry Mass of Soil after pretreatment (g):		1.18mm	25.10		
		600µm	21.30		
		425µm	19.30		
		300µm	16.40		
		212µm	13.30		
		150µm	10.70		
		63µm	6.60		



CLAY	SILT			SAND			GRAVEL			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	
	7%			22%			71%			0%

PARTICLE SIZE DISTRIBUTION

Project Reference
25.08.005

Geotechnical Testing Facility

Slapton Hill Barn Blakesley Road Slapton Towcester Northamptonshire NN12 8QD

Telephone: 01327 860947/860060 Fax: 01327 860430

Test Location	Sample				Spec Ref.	SWC %	Intact Bulk Density Mg/m³	Intact Dry Density Mg/m³	CIRIA C574 Density Sclae
	Ref	Top	Base	Type					
BH 01	6	16.00		D	1	26	2.01	1.59	M
BH 02	11	18.00		D	1	26	2	1.58	M
Date 15/08/2025	SATURATION WATER CONTENT						Report No. 25.08.005		L: Low M: Medium H: High VH: Very High
Tested in accordance with BS1377 : Part 2 : 1990, clause 3.3 unless annotated otherwise.									

Unconsolidated Undrained Triaxial Compression Test without measurement of pore pressure - single specimen				Job Ref	25.08.005
				Borehole/Pit No.	BH 01
Site Name	Land Adjacent Park Lane, Charvil			Sample No.	
Specimen Description				Depth	4.60
Specimen Reference	1	Specimen Depth	m	Sample Type	U
Soil Description				KeyLAB ID	LST_2025081513
Test Method				Date of test	



Sample at Failure

Test Number
Length
Diameter
Bulk Density
Water Content
Dry Density

205.0	mm
100.0	mm
2.21	Mg/m3
27.7	%
1.73	Mg/m3

Rate of Strain
Cell Pressure

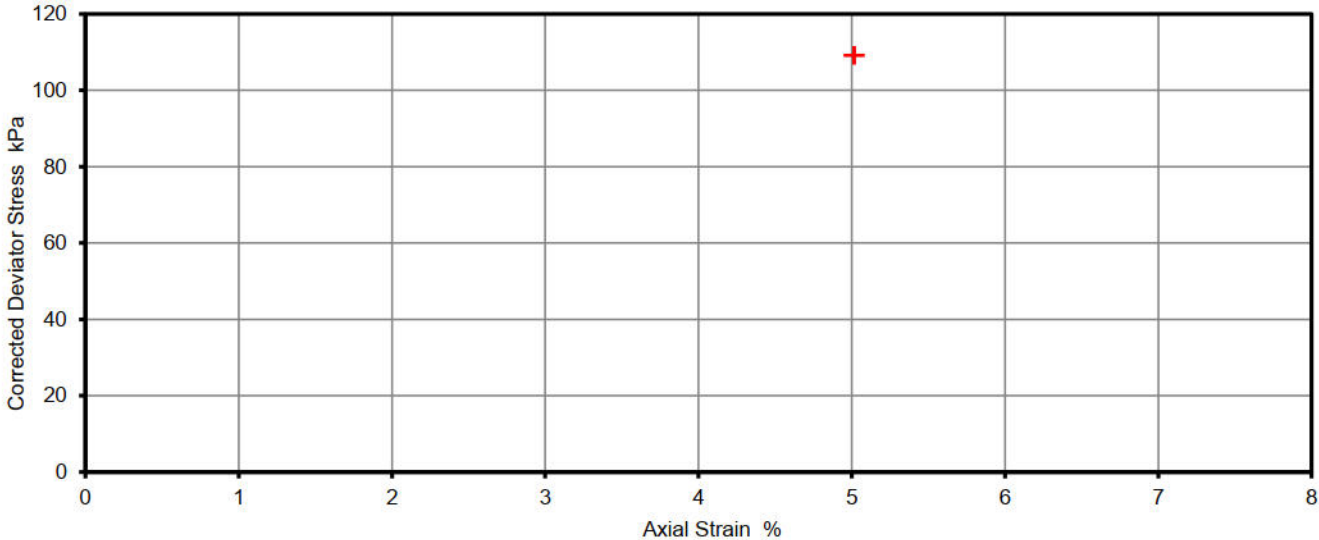
	%/min
92	kPa

At failure

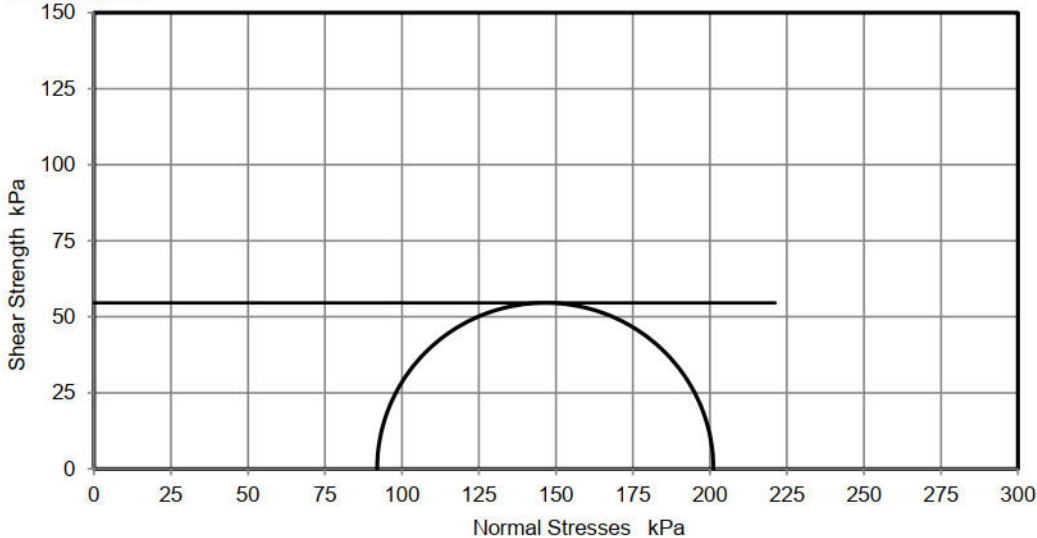
Axial Strain
Deviator Stress, ($\sigma_1 - \sigma_3$)f
Undrained Shear Strength, cu
Mode of Failure

5	%
109	kPa
55kPa	kPa $\frac{1}{2}(\sigma_1 - \sigma_3)$ f

Deviator Stress v Axial Strain



Mohr Circles



Deviator stress corrected for area change and membrane effects

Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks

Approved

Lloyd

Printed

19/08/2025 07:50

Lab Sheet Reference :

	Unconsolidated Undrained Triaxial Compression Test without measurement of pore pressure - single specimen			Job Ref	25.08.005
				Borehole/Pit No.	BH 01
Site Name	Land Adjacent Park Lane, Charvil			Sample No.	
Specimen Description				Depth	11.00
Specimen Reference	1	Specimen Depth	m	Sample Type	U
Soil Description				KeyLAB ID	LST_202508190
Test Method				Date of test	



Sample at Failure

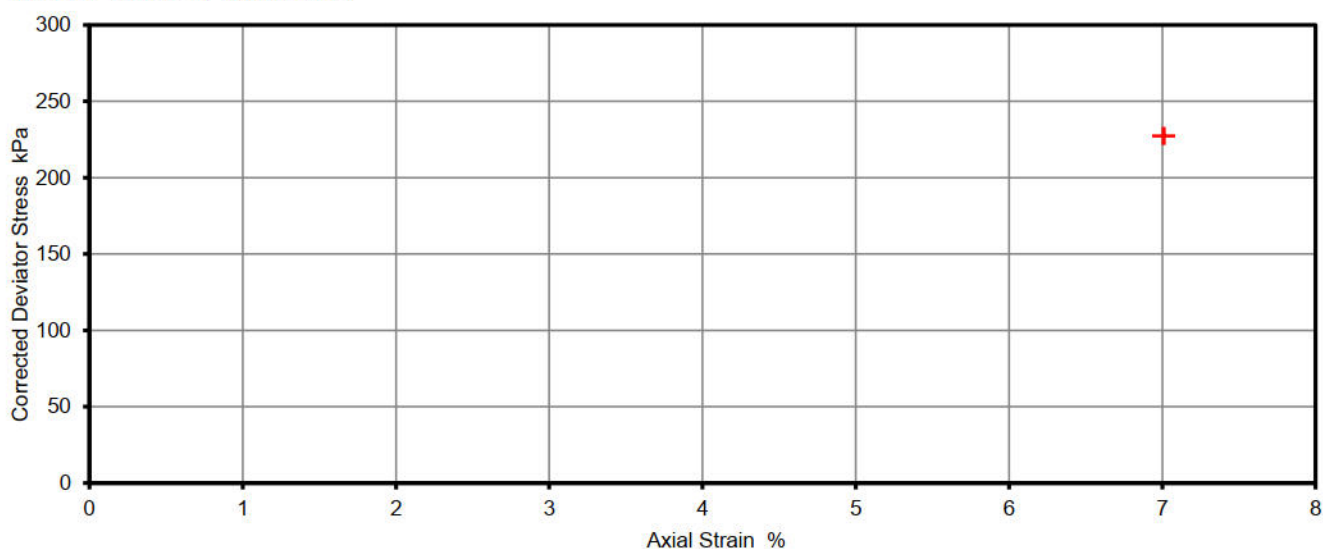
Test Number
Length
Diameter
Bulk Density
Water Content
Dry Density

205.0	mm
100.0	mm
2.22	Mg/m3
26.6	%
1.75	Mg/m3

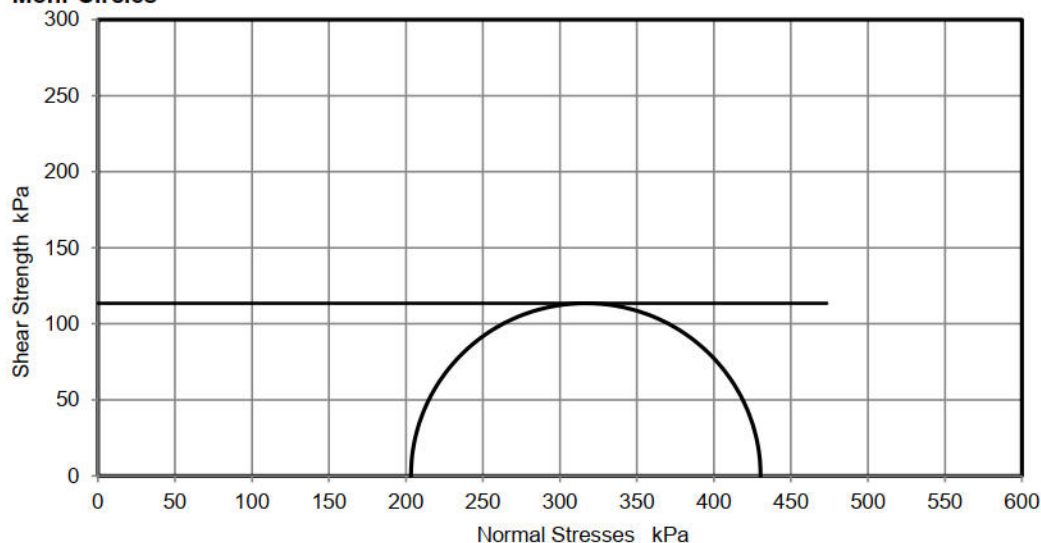
Rate of Strain
Cell Pressure
At failure Axial Strain
Deviator Stress, $(\sigma_1 - \sigma_3)_f$
Undrained Shear Strength, c_u
Mode of Failure

	%/min
203	kPa
7	%
227	kPa
114kPa	kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$

Deviator Stress v Axial Strain



Mohr Circles



Deviator stress corrected for area change and membrane effects

Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks

Approved

Lloyd

Printed

19/08/2025 07:50

Lab Sheet Reference :

Fig. No.

1

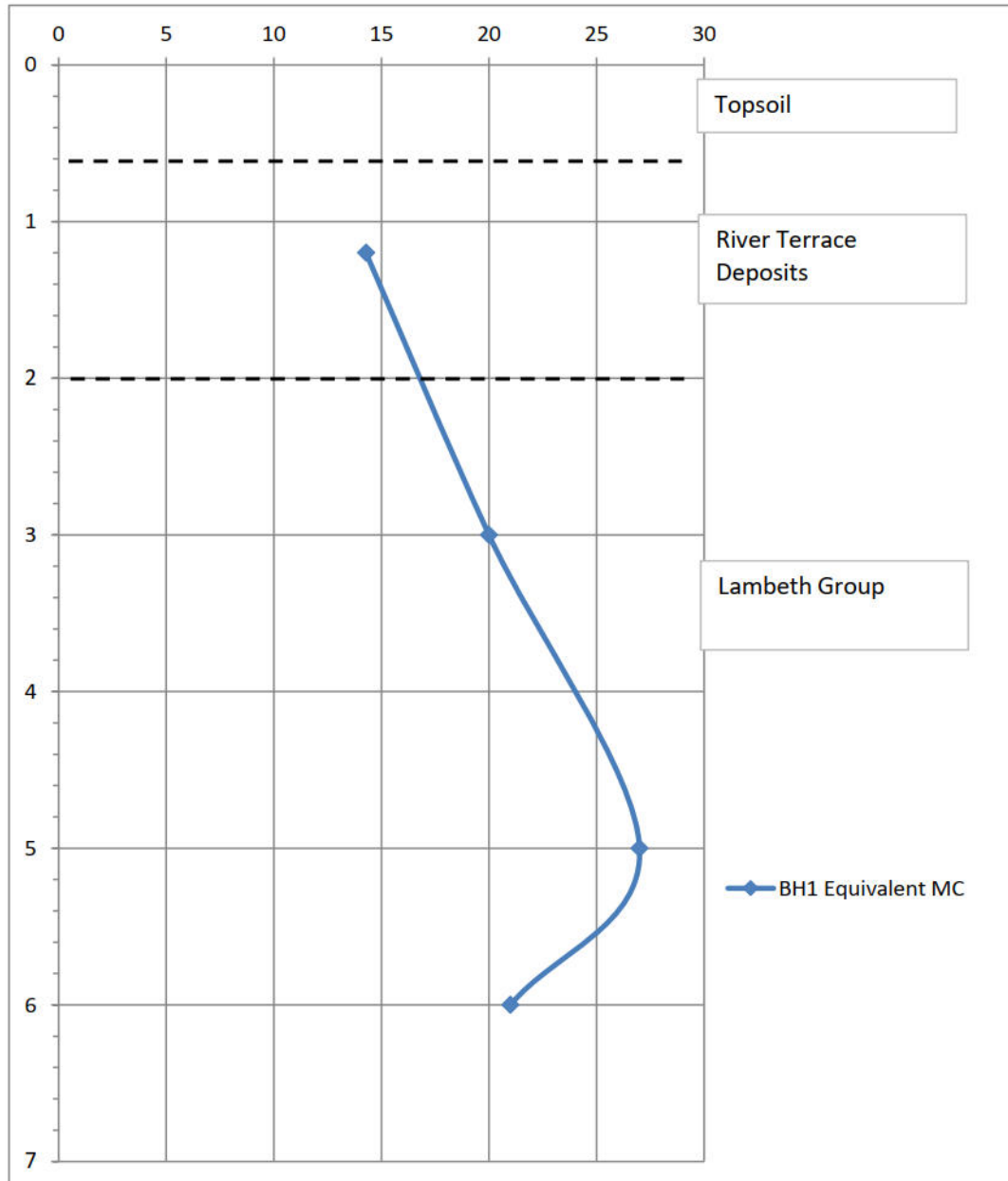
Sheet

2

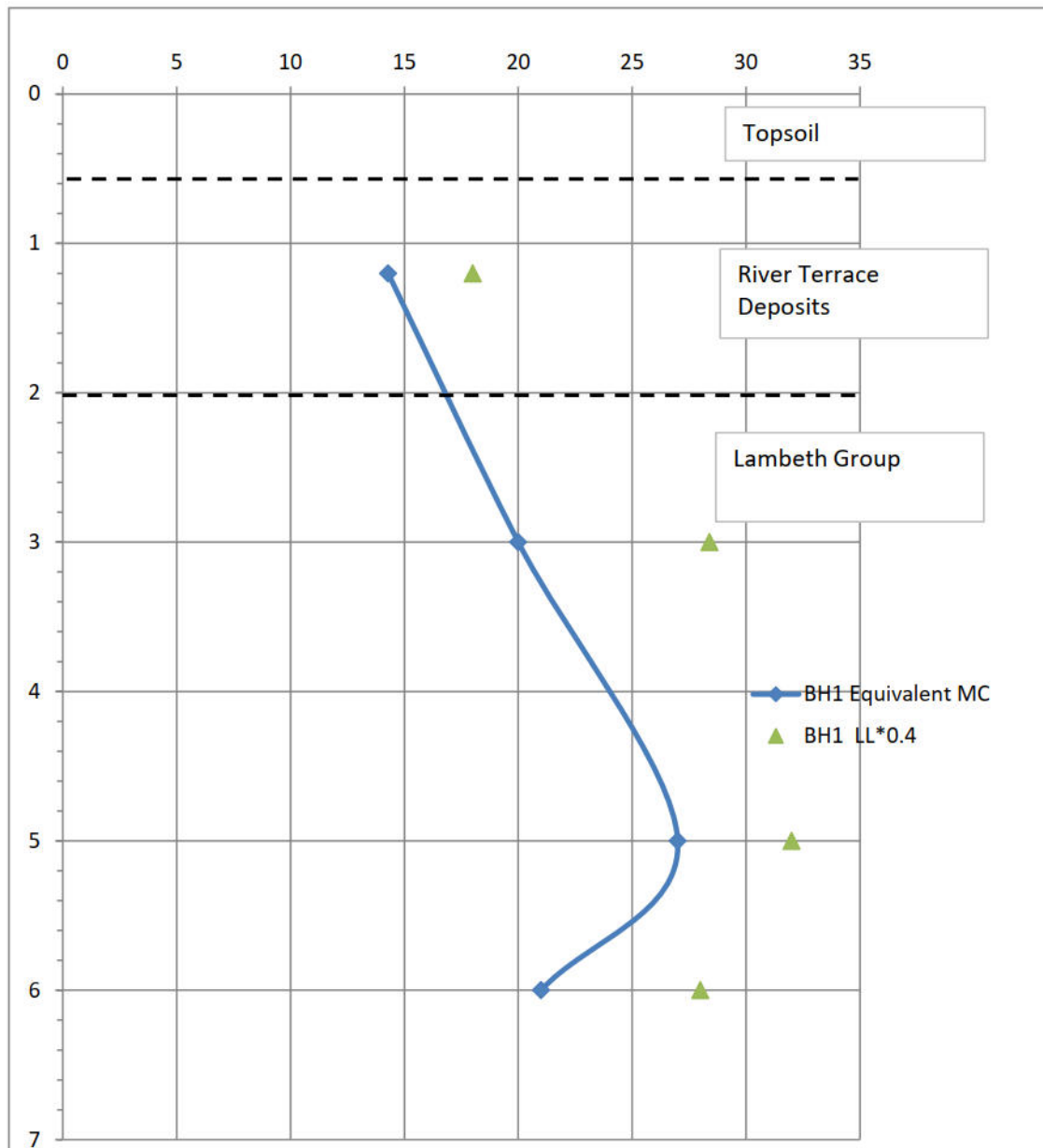


PROJECT NUMBER	,25-07-12
PROJECT NAME	Charvil
CLIENT	Bellway Homes
REPORT DATE	20/08/2025

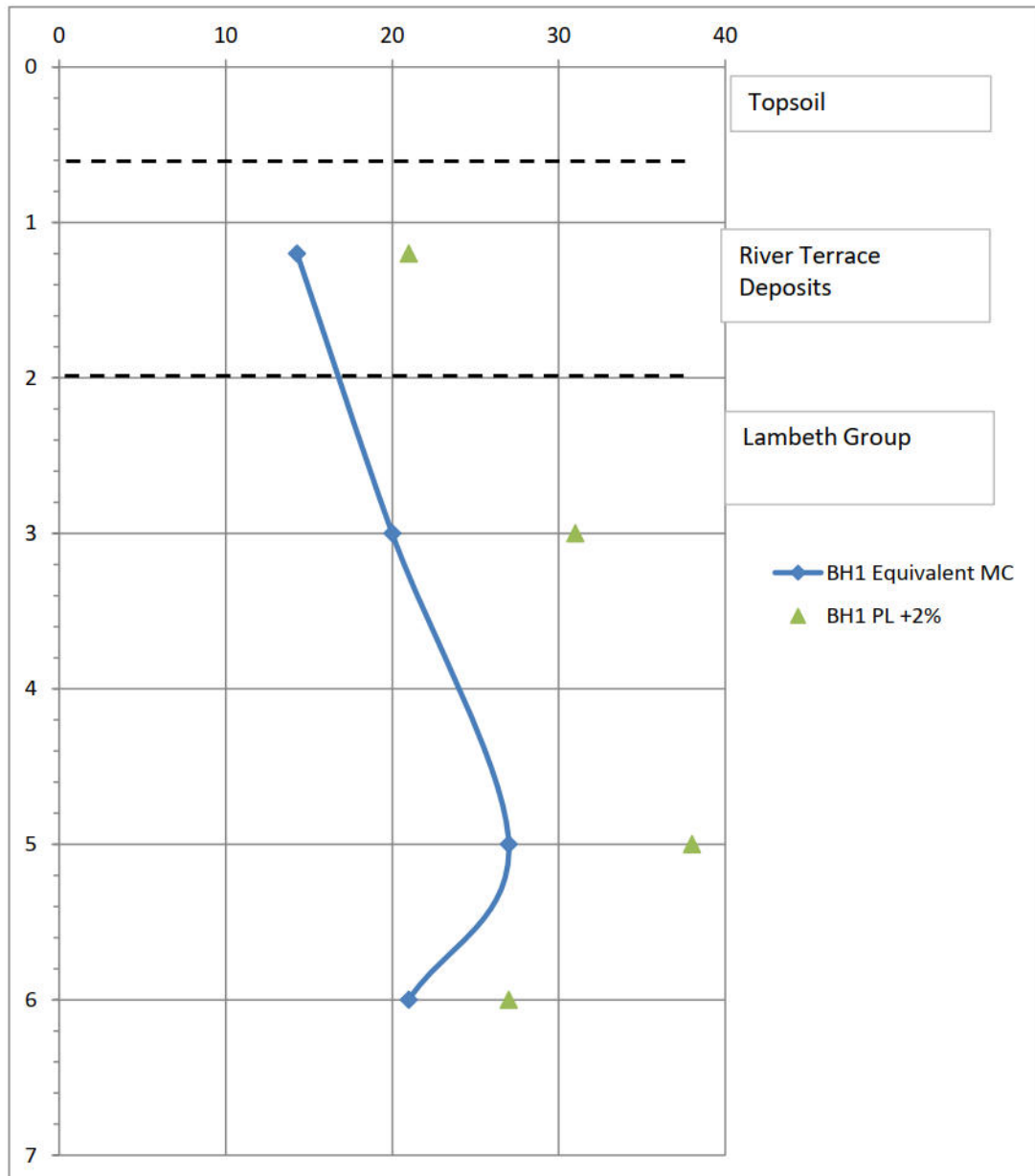
EQUIVALENT MOISTURE CONTENT VS. DEPTH



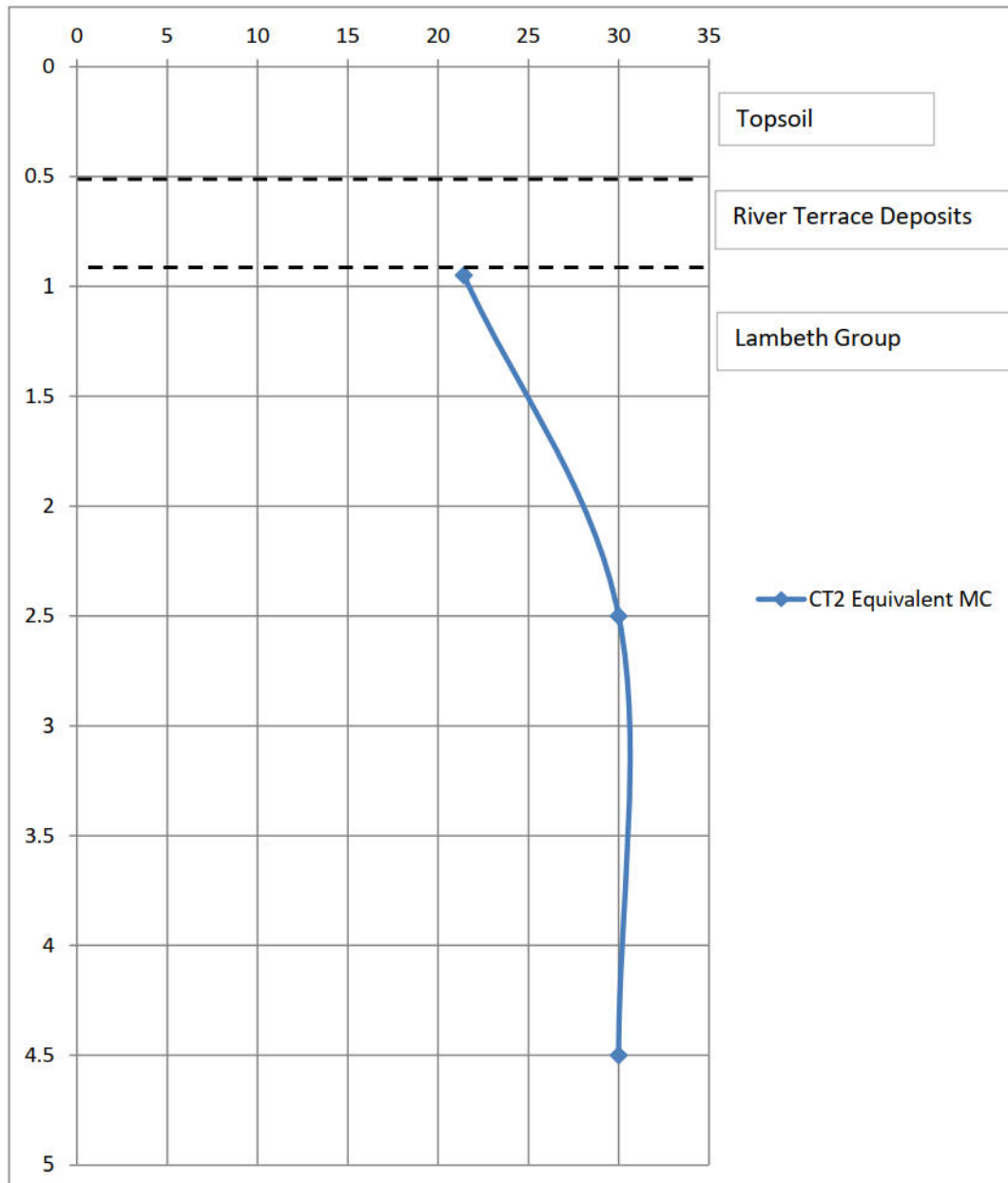
BH1 MC > LIQUID LIMIT*0.4 VS. DEPTH



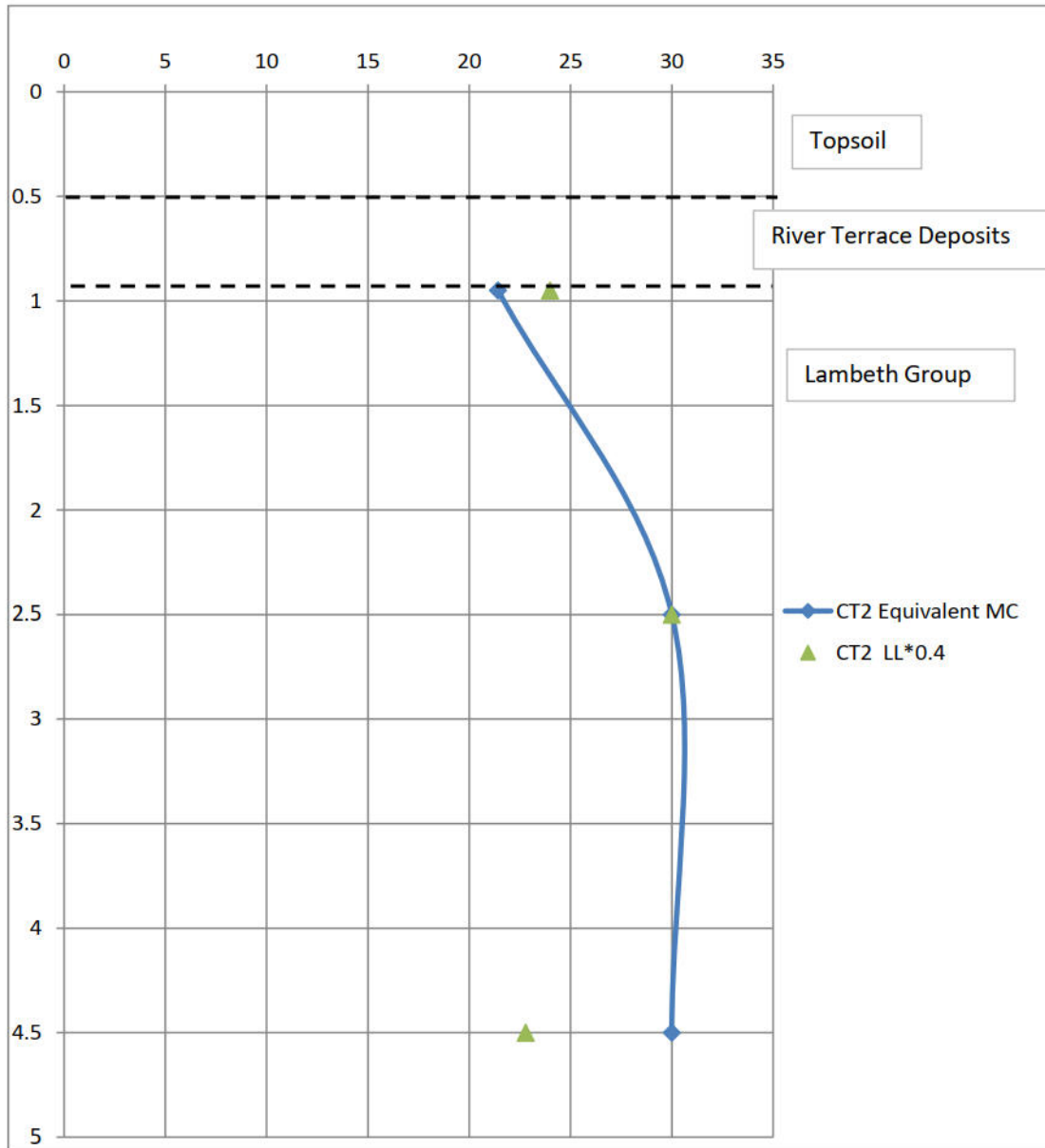
BH1 MC > PLASTIC LIMIT + 2 VS. DEPTH



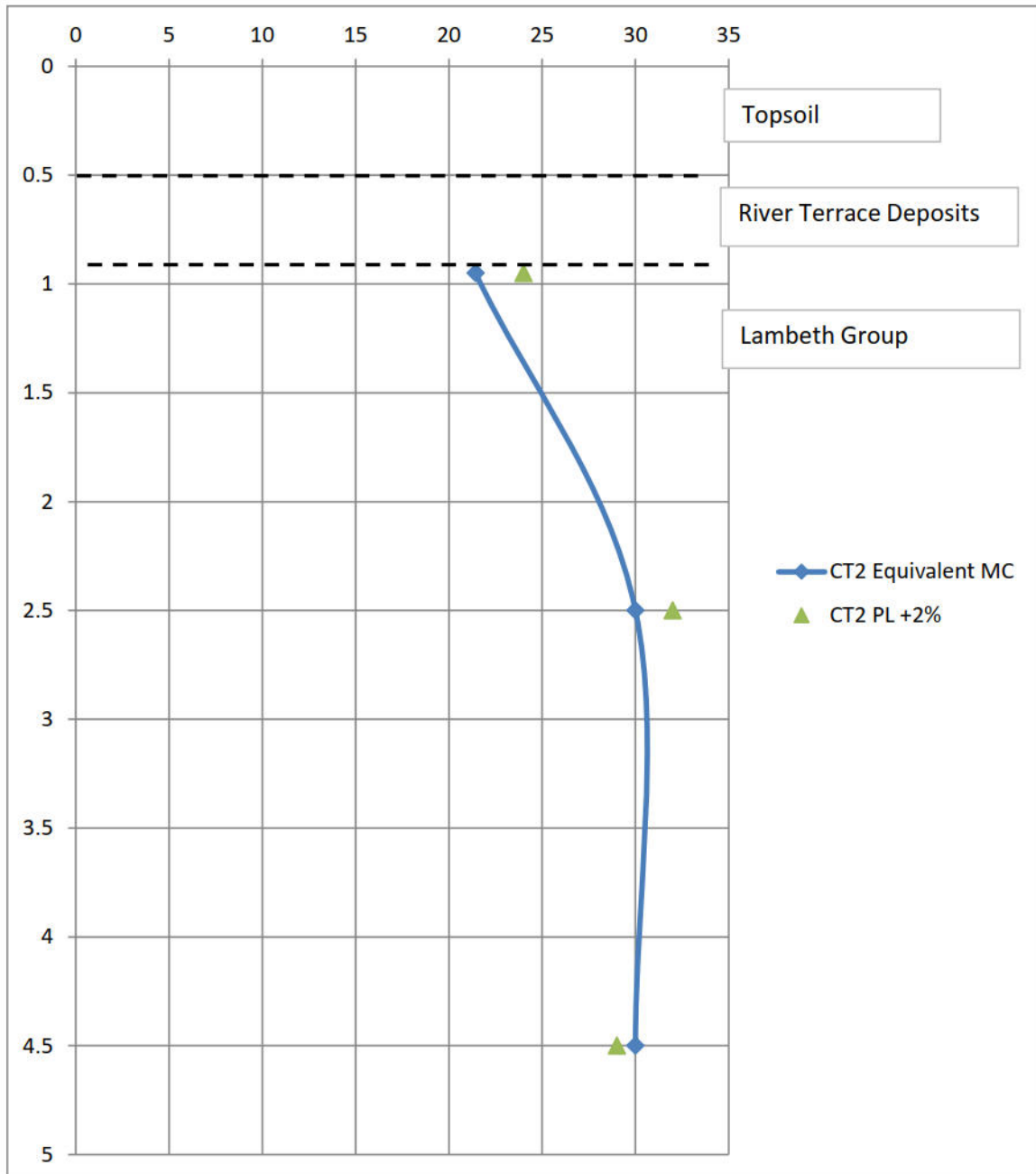
CT2 EQUIVALENT MOISTURE CONTENT VS. DEPTH



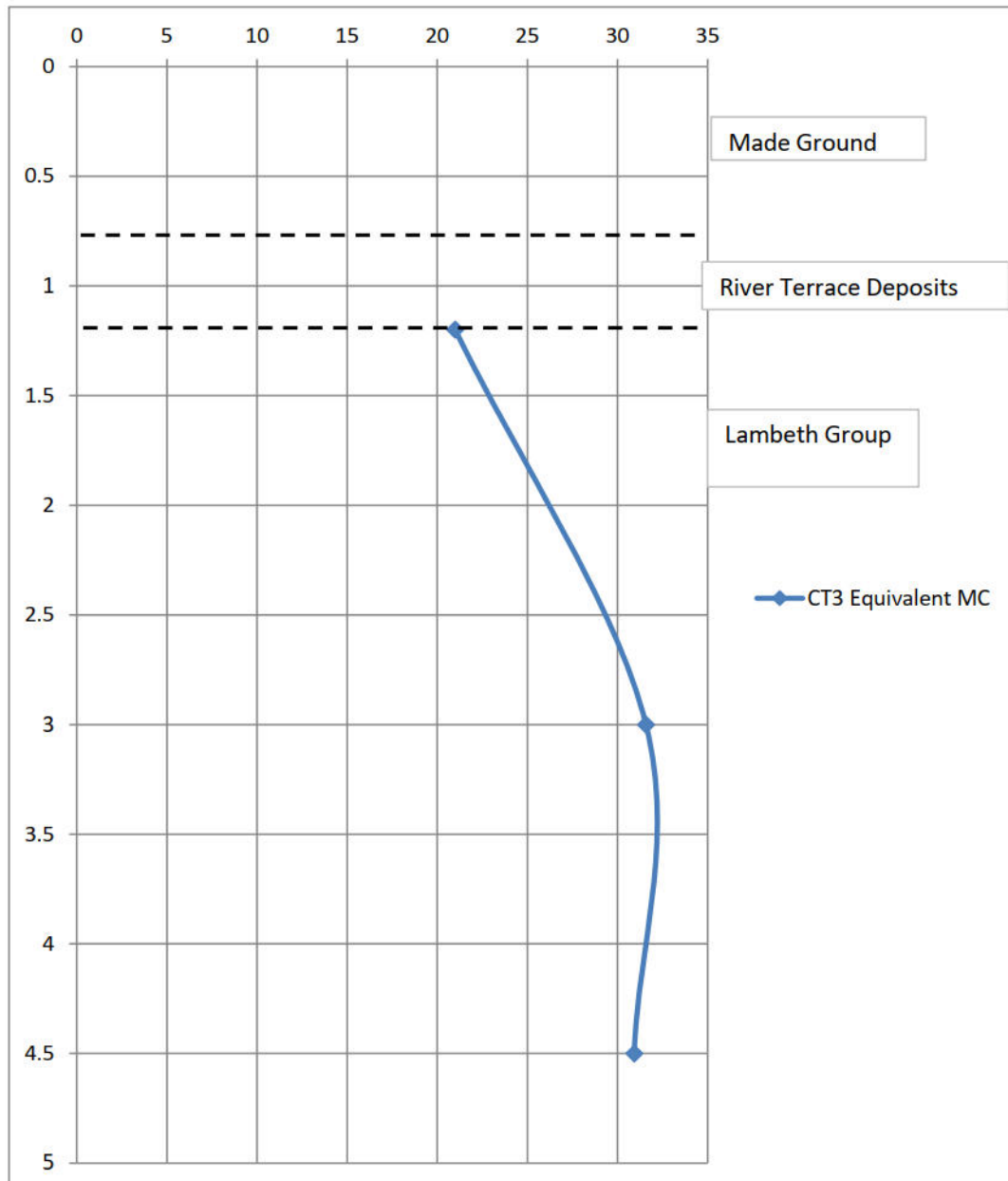
CT2 MC > LIQUID LIMIT*0.4 VS. DEPTH



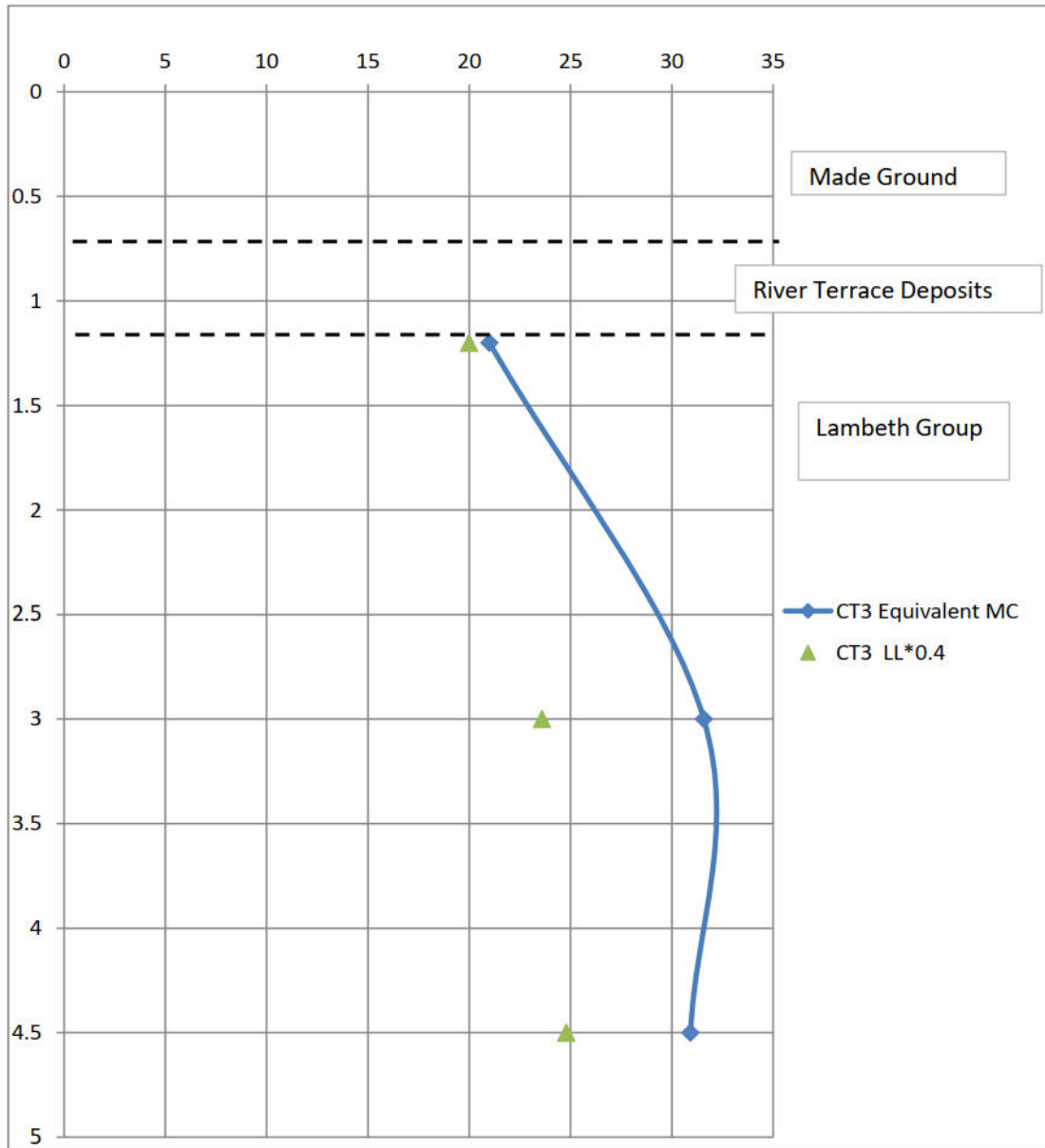
CT2 MC > PLASTIC LIMIT + 2 VS. DEPTH



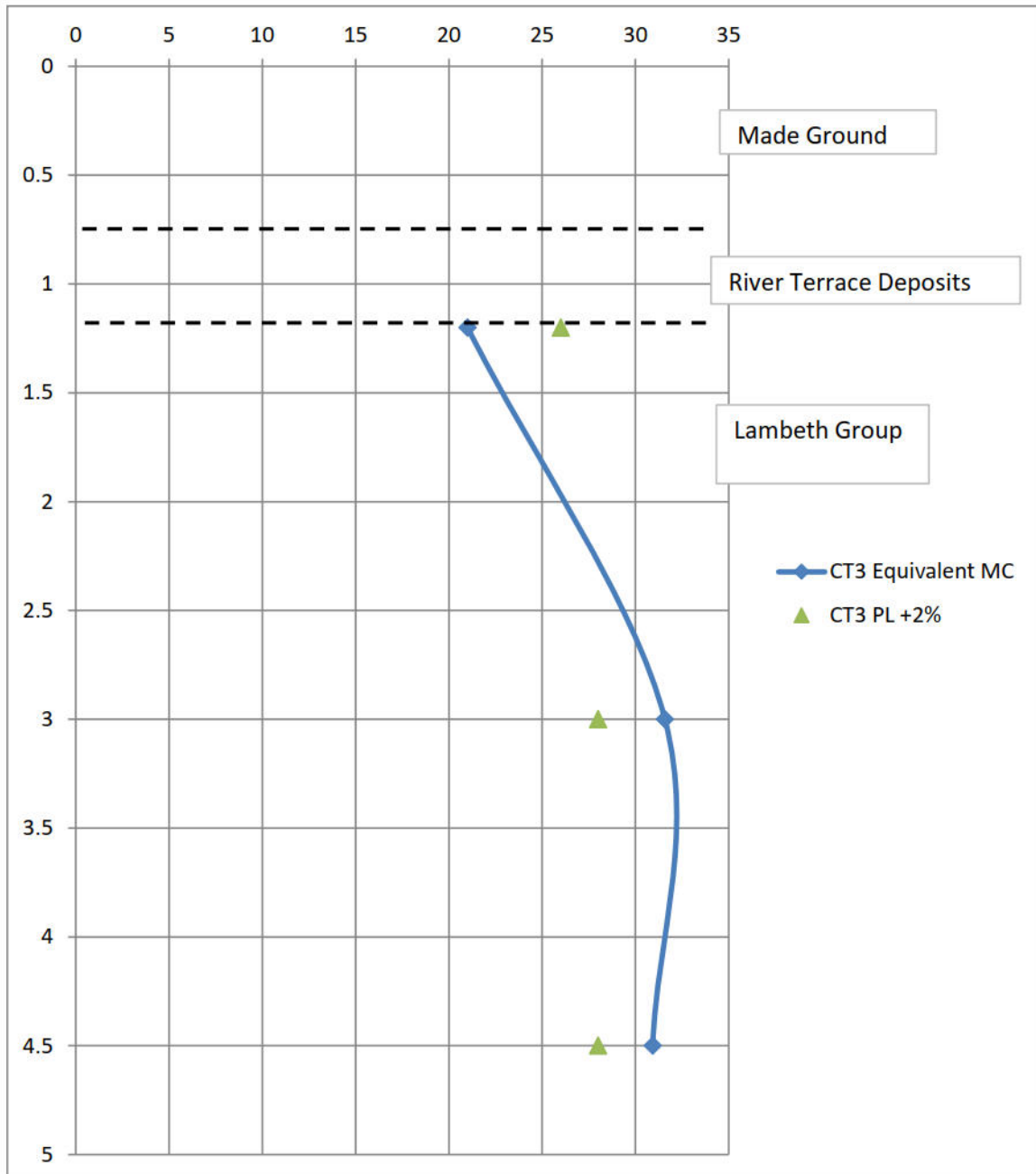
CT3 EQUIVALENT MOISTURE CONTENT VS. DEPTH



CT3 MC > LIQUID LIMIT*0.4 VS. DEPTH



CT3 MC > PLASTIC LIMIT + 2 VS. DEPTH





4161



7 - 11 Harding Street
Leicester
LE1 4DH

Geo-Integrity
4 Church Street
Buckingham
MK18 1QE

Analytical Test Report: L25/08170/GIN - 25-77089

Your Project Reference: **Land Adj. Park Lane, Charvil 25-07-12**

Your Order Number: Q24-00626/1 Samples Received / Instructed: 11/08/2025 / 11/08/2025

Report Issue Number: 1 Sample Tested: 11/08 to 20/08/2025

Samples Analysed: 20 sample(s) Report issued: 20/08/2025



James Gane
Analytical Services Manager
CTS

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report with the exception of the asbestos test portion which is held for 6 months unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30°C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Stone Content was determined in accordance with CTS method statement MS - CL - Sample Prep and refers to the percentage of stones retained on a 10mm BS test sieve.

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Asbestos

Please note: Where further analysis is required samples identified as containing asbestos are screened and tested on an as received basis. No correction is made for moisture content and other than the asbestos test(s) these results are not covered by our accreditation

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

This report shall not be reproduced except in full

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited, subUKAS - Subcontracted to a laboratory UKAS accredited for this test, subMCERTS - Subcontracted to a laboratory MCERTS accredited for this test

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

UKAS accreditation on waters only covers the Ground water and Surface water matrices

Date of Issue: 21.05.25

Issued by: J. Gane

Issue No: 4

Rev No: 27



4161



L25/08170/GIN - 25-77089

Project Reference - Land Adj. Park Lane, Charvil
25-07-12

Analytical Test Results - Solid

Lab Reference			566013	566014	566015	566016	566017	566018
Client Sample ID			-	-	-	-	-	-
Client Sample Location			TP2	TP2	TP13	TP13	CT1	TP1
Client Sample Type			-	-	-	-	-	-
Client Sample Number			-	-	-	-	-	-
Depth - Top (m)			0.50	2.50	0.20	2.80	0.10	0.20
Depth - Bottom (m)			0.50	2.50	0.20	2.80	0.70	0.20
Date of Sampling			06/08/2025	06/08/2025	07/08/2025	07/08/2025	06/08/2025	06/08/2025
Time of Sampling			-	-	-	-	-	-
Sample Matrix			Sand	Sand	Sand	Sand	Sand	Sand
Determinant	Units	Accreditation						
Arsenic	(mg/kg)	MCERTS	< 10	< 10	< 10	< 10	16	13
Cadmium	(mg/kg)	MCERTS	0.6	0.6	0.6	0.6	0.9	0.8
Chromium (Total)	(mg/kg)	UKAS	9.7	9.5	11	10	30	17
Copper	(mg/kg)	MCERTS	15	15	15	15	28	33
Lead	(mg/kg)	MCERTS	39	40	36	33	100	78
Mercury	(mg/kg)	UKAS	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Nickel	(mg/kg)	MCERTS	7.2	7.0	8.0	7.7	28	14
Selenium	(mg/kg)	u	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
Zinc	(mg/kg)	MCERTS	50	50	48	45	160	140
Chromium (Hexavalent)	(mg/kg)	u	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acenaphthene	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.20	0.23
Acenaphthylene	(mg/kg)	UKAS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.20	0.25
Anthracene	(mg/kg)	UKAS	< 0.02	< 0.02	< 0.02	< 0.02	0.22	0.60
Benzo (a) anthracene	(mg/kg)	MCERTS	0.04	0.04	0.03	0.03	0.59	1.8
Benzo (a) pyrene	(mg/kg)	MCERTS	0.05	0.04	0.04	0.03	0.70	2.3
Benzo (b) fluoranthene	(mg/kg)	MCERTS	0.05	0.05	0.05	0.04	0.72	2.6
Benzo (g, h, i) perylene	(mg/kg)	MCERTS	0.04	0.03	0.03	0.03	0.55	1.6
Benzo (k) fluoranthene	(mg/kg)	MCERTS	0.02	< 0.02	< 0.02	< 0.02	0.30	1.1
Chrysene	(mg/kg)	MCERTS	0.04	0.03	0.03	0.03	0.49	1.6
Dibenzo (a,h) anthracene	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.20	0.38
Fluoranthene	(mg/kg)	MCERTS	0.08	0.06	0.06	0.05	1.2	3.7
Fluorene	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.20	< 0.20
Indeno (1, 2, 3,-cd) pyrene	(mg/kg)	MCERTS	0.03	0.03	0.03	0.02	0.46	1.5
Naphthalene	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.20	< 0.20
Phenanthrene	(mg/kg)	MCERTS	0.02	0.02	< 0.02	< 0.02	0.45	1.2
Pyrene	(mg/kg)	MCERTS	0.08	0.06	0.06	0.04	1.0	3.4
Total PAH (Sum of USEPA 16)	(mg/kg)	UKAS	0.57	0.53	0.49	0.44	7.7	23
Asbestos	-	UKAS	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected