

SOIL ANALYSIS

for Subsidence Management Services

9 Regents Park Terrace, London, NW1 7EE

Client: Subsidence Management Services

Client Contact: Martel Hawkins



Report Date: 28 May 2019



Date samples received: 27 March 2019

Moisture Content Test Date: 15 April 2019

Atterberg Limits Test Date: 15 May 2019

Notes relating to soils testing

Unless otherwise stated, all soils testing was undertaken at Environmental Services' soils laboratory

Soil samples have been prepared in accordance with BS1377:Part 1: 2016 Section 7

Descriptions of soil samples within the laboratory have been undertaken generally in accordance with BS5930:2015. Descriptions of soil samples fall outside of the scope of UKAS accreditation and have been shortened to remove tertiary components for ease of reference.

Following the issue of this soil analysis report, samples will be retained for 1 month should additional testing, or referencing, be required. It should be noted that any tests undertaken on soils retained subsequent to the issue of this report may not give an accurate indication of the in-situ conditions of the sample.

Natural Moisture Content Tests are undertaken in accordance with ISO 17892:Part 1:2014

The Liquid Limit test is undertaken in accordance with BS1377:Part 2:1990 Section 4.4

The Plastic Limit test and the determination of the Plasticity Index is undertaken in accordance with BS1377:Part 2:1990 Section 5

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Note

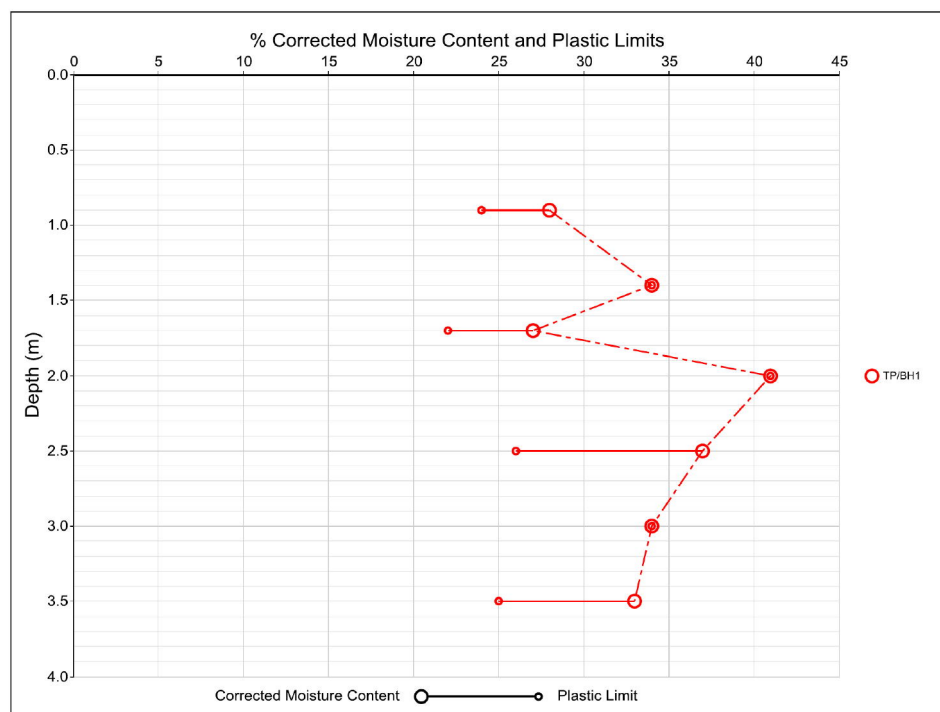
Where appropriate moisture contents have been corrected to demonstrate the equivalent moisture content following the sample being passed through a .425 mm sieve for comparison with the Liquid & Plastic Limit. Where this is not available, uncorrected moisture contents have been used in the graph on the following page.

Deviations to testing schedule:

All samples were scheduled for oedometer testing but all samples were too soft for preparation and testing was abandoned

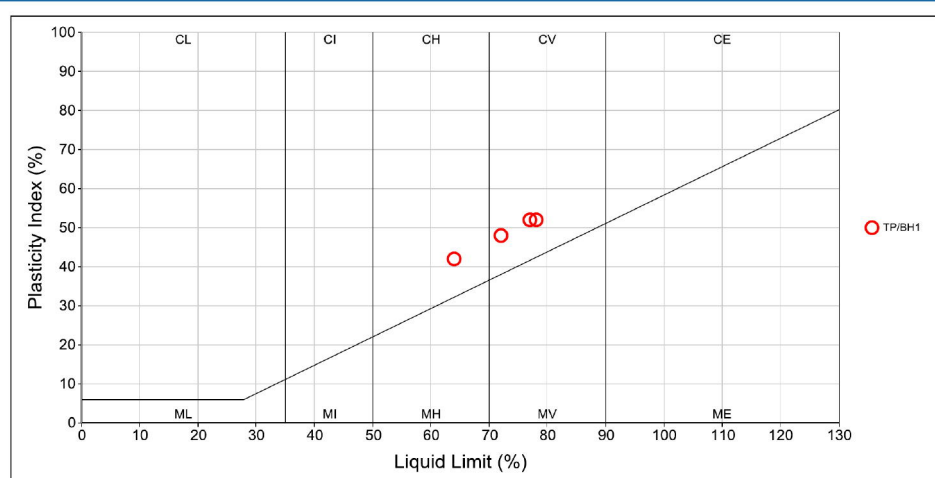
Lab Ref	Depth (m)	MC (%)	Corr MC (%)	LL (%)	PL (%)	PI (%)	% Passing .425mm
Samples from TP/BH1							
001	0.90	28	28	72	24	48	100
002	1.40	34					
003	1.70	27	27	64	22	42	100
004	2.00	41					
005	2.50	37	37	78	26	52	100
006	3.00	34					
007	3.50	33	33	77	25	52	100

Corrected Moisture Content and Plastic Limits Graph



Lab Ref	Depth (m)	Description	BS:5930	NHBC Chapter 4.2
Samples from TP/BH1				
001	0.90	Soft to firm brown/grey/dark grey mottled CLAY	CV	High
002	1.40	Soft brown/olive-brown/dark grey veined CLAY		
003	1.70	Soft brown/olive-brown/dark grey veined CLAY	CH	High
004	2.00	Soft brown/olive-brown/dark grey veined CLAY		
005	2.50	Soft to firm brown/olive-brown/grey veined CLAY	CV	High
006	3.00	Soft to firm brown/olive-brown/grey veined CLAY		
007	3.50	Soft to firm brown/olive-brown/grey veined CLAY	CV	High

Plasticity Chart for Casagrande Classification



References and Interpretation

The following provides a brief interpretation of the test results by comparison of the results to published classifications. The Atterberg Limit test may be used to classify the plasticity of soils; the plasticity classes defined in BS5930:1999 "Code of Practice for Site Investigations" are as follows.

CL (ML)	CLAY and CLAY/SILT of Low plasticity
CI (MI)	CLAY and CLAY/SILT of Intermediate plasticity
CH (MH)	CLAY and CLAY/SILT of High plasticity
CV (MV)	CLAY and CLAY/SILT of Very High plasticity
CE (ME)	CLAY and CLAY/SILT of Extremely High plasticity
O	The letter O is added to prefixes to symbolise a significant proportion of organic matter.
NP	Non-plastic

The Plasticity Index (PI) Result obtained from the Atterberg Limit tests may also be used to classify the potential for volume change of fine soils, in accordance with the National House Building Council's standards - Chapter 4.2 (2003) "Building Near Trees", as summarised below.

Modified PI < 10	Non Classified.
Modified PI = 10 to <20	Low volume change potential.
Modified PI = 20 to <40	Medium volume change potential.
Modified PI = 40 or greater	High volume change potential.

The 2003 edition of Chapter 4.2 also permits use of the Plasticity Index without modification. The classifications for this are grouped by soil type (soils with similar visual soils description and using unmodified Plasticity Indices.