

# SOIL ANALYSIS

## for Subsidence Management Services

**54 Hillway, London, N6 6EP**

Client: Subsidence Management Services  
Client Contact: Kevin Phillips  
Claim Number: [REDACTED]  
Policy Holder: Mr and Mrs Phillip and Monica Sanders  
Report Date: 29 March 2019  
Our Ref: [REDACTED]  
Laboratory Ref: [REDACTED]

Compiled By: [REDACTED]  
Checked By: [REDACTED]

Date samples received: 7 February 2019  
Moisture Content Test Date: 20 February 2019  
Atterberg Limits Test Date: 27 March 2019  
Oedometer Test Date: 27 March 2019



#### Notes relating to soils testing

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

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

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**

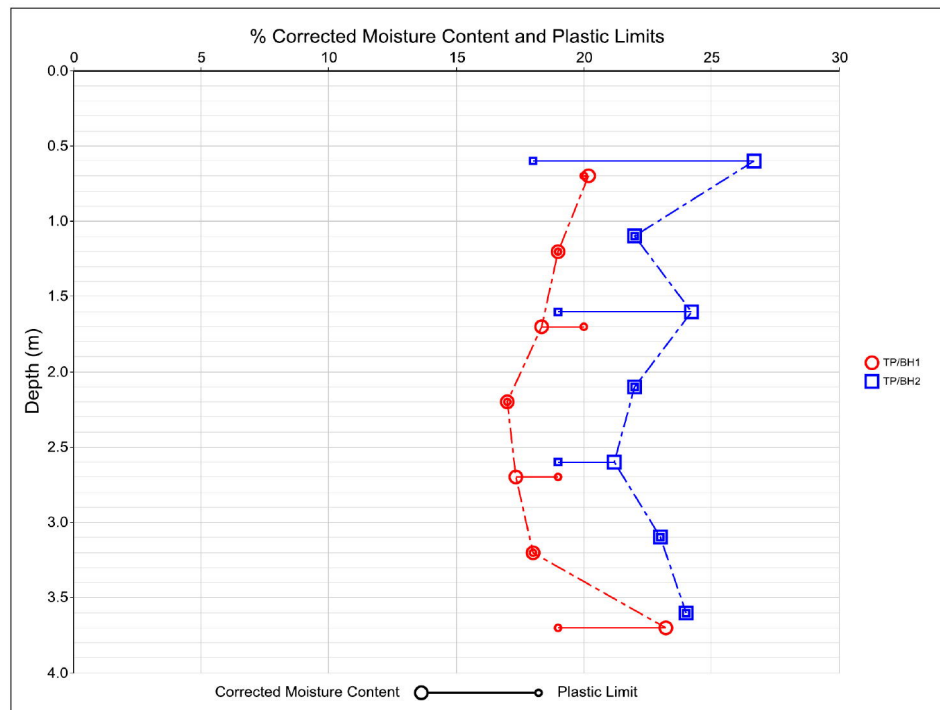
Where appropriate moisture contents have been corrected to demonstrate the equivalent moisture content following the sample being passed through a .425 mm sieve for comparison with the Liquid & Plastic Limit. Where this is not available, uncorrected moisture contents have been used in the graph on the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

**Deviations to testing schedule:**

All testing has been undertaken in line with the soils testing schedule provided

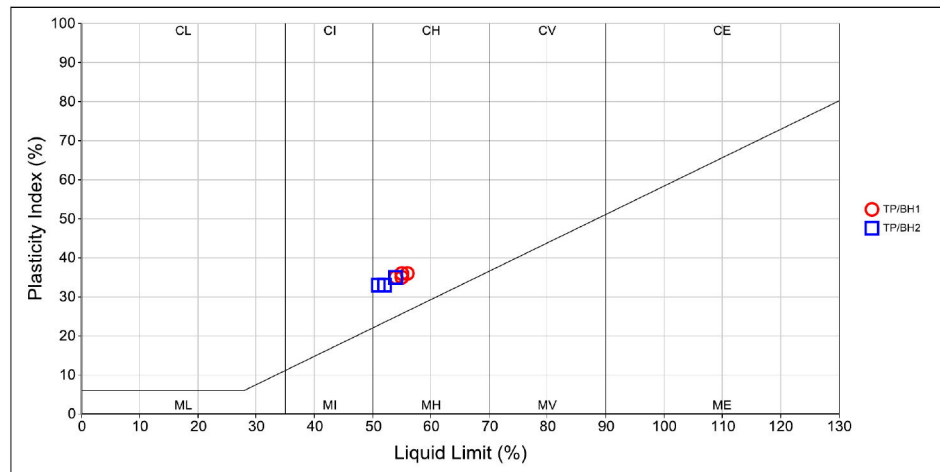
Lab Ref	Depth (m)	MC (%)	Corr MC (%)	LL (%)	PL (%)	PI (%)	% Passing .425mm
<b>Samples from TP/BH1</b>							
001	0.70	20	20	56	20	36	99
002	1.20	19					
003	1.70	18	18	55	20	35	98
004	2.20	17					
005	2.70	17	17	54	19	35	98
006	3.20	18					
007	3.70	23	23	55	19	36	99
<b>Samples from TP/BH2</b>							
008	0.60	20	27	51	18	33	75
009	1.10	22					
010	1.60	24	24	54	19	35	99
011	2.10	22					
012	2.60	21	21	52	19	33	99
013	3.10	23					
014	3.60	24					

**Corrected Moisture Content and Plastic Limits Graph**



Lab Ref	Depth (m)	Description	BS:5930	NHBC Chapter 4.2
Samples from TP/BH1				
001	0.70	Firm to stiff brown slightly sandy CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.	CH	Medium
002	1.20	Firm to stiff brown slightly sandy slightly silty CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.		
003	1.70	Firm to stiff brown slightly sandy slightly silty CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.	CH	Medium
004	2.20	Firm to stiff brown slightly sandy slightly silty CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.		
005	2.70	Firm to stiff brown slightly sandy slightly silty CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.	CH	Medium
006	3.20	Firm to stiff brown slightly sandy slightly silty CLAY with rare gravel and charcoal. Gravel is fine and medium.		
007	3.70	Soft to firm brown slightly sandy slightly silty CLAY with rare gravel and charcoal. Gravel is fine	CH	Medium
Samples from TP/BH2				
008	0.60	Soft to firm brown slightly sandy slightly gravelly slightly silty CLAY with rare charcoal. Gravel is fine, medium and coarse.	CH	Medium
009	1.10	Soft to firm brown slightly sandy slightly gravelly slightly silty CLAY with rare charcoal. Gravel is fine, medium and coarse.		
010	1.60	Soft to firm brown slightly sandy CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.	CH	Medium
011	2.10	Soft to firm brown slightly sandy CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.		
012	2.60	Soft to firm brown slightly sandy slightly gravelly CLAY with rare charcoal. Gravel is fine, medium and coarse.	CH	Medium
013	3.10	Soft to firm brown slightly sandy CLAY with rare gravel and charcoal. Gravel is fine, medium and coarse.		
014	3.60	Soft to firm brown slightly sandy CLAY with rare gravel and charcoal. Gravel is fine and medium.		

Plasticity Chart for Casagrande Classification



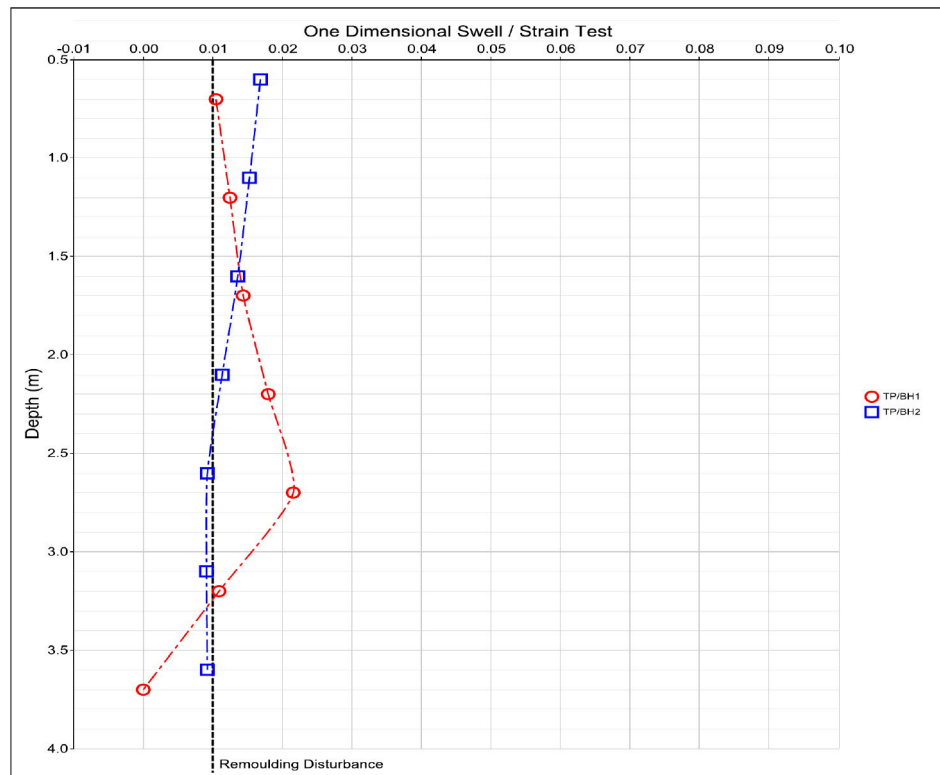
## Summary of Oedometer Testing

Lab Ref	Depth (m)	Strain	Dd (mm)	Remarks
Samples from TP/BH1				
001	0.70	0.0105	3.7	
002	1.20	0.0125	3.1	
003	1.70	0.0144	3.6	
004	2.20	0.0181	4.5	
005	2.70	0.0216	5.4	
006	3.20	0.0109	2.7	
007	3.70	0.0000	0.0	
Samples from TP/BH2				
008	0.60	0.0169	5.1	
009	1.10	0.0153	3.8	
010	1.60	0.0136	3.4	
011	2.10	0.0114	2.8	
012	2.60	0.0092	2.3	
013	3.10	0.0092	2.3	
014	3.60	0.0093	2.3	

TP/BH1 Dd Total: 23.1mm

TP/BH2 Dd Total: 22.1mm

## Oedometer Strain



**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.