SubsNetUK

SOIL ANALYSIS
for Subsidence Management Services

Greymartin, Backworth Lane, Newcastle Upon Tyne, NE27 0AL

Client:	Subsidence Management Services
Client Contact:	Ulrich Schubert
Claim Number:	102124124
Policy Holder:	Mrs Ellen Thomson
Report Date:	8 January 2019
Our Ref:	C14581S43357
Laboratory Ref:	L14696

Compiled By:

Checked By:

Date samples received:	10 December 2018
Moisture Content Test Date:	18 December 2018
Atterberg Limits Test Date:	7 January 2019
Oedometer Test Date:	4 January 2019

UKAS TESTING
9265

SubsNetuk

Notes relating to soils testing

Unless otherwise stated, all soils testing was undertaken at Environmental Services' soils laboratory at unit 10H Maybrook Business Park, B76 1AL.

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

SubsNetUK

Note

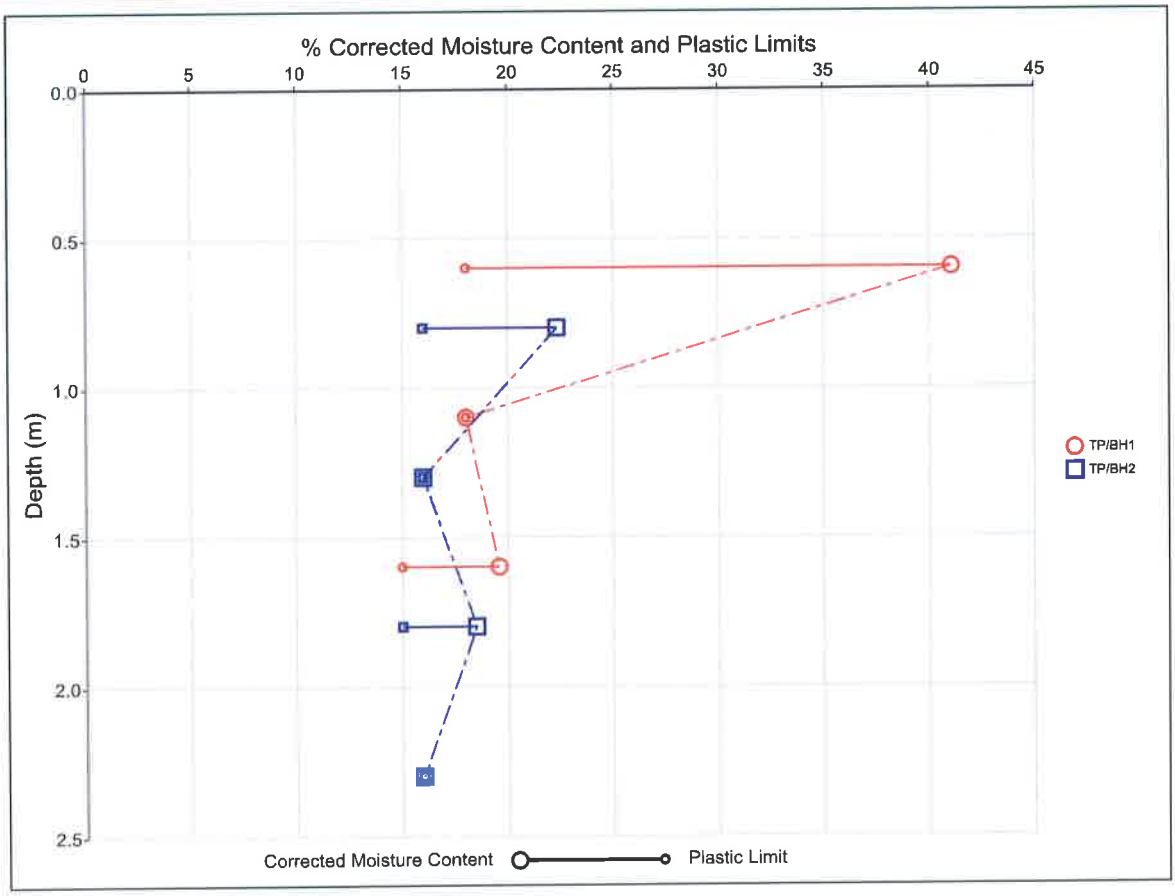
Where appropriate moisture contents have been corrected to demonstrate the equivalent moisture content following the sample being passed through a .425 mm sieve for comparison with the Liquid & Plastic Limit. Where this is not available, uncorrected moisture contents have been used in the graph on the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

Deviations to testing schedule:

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

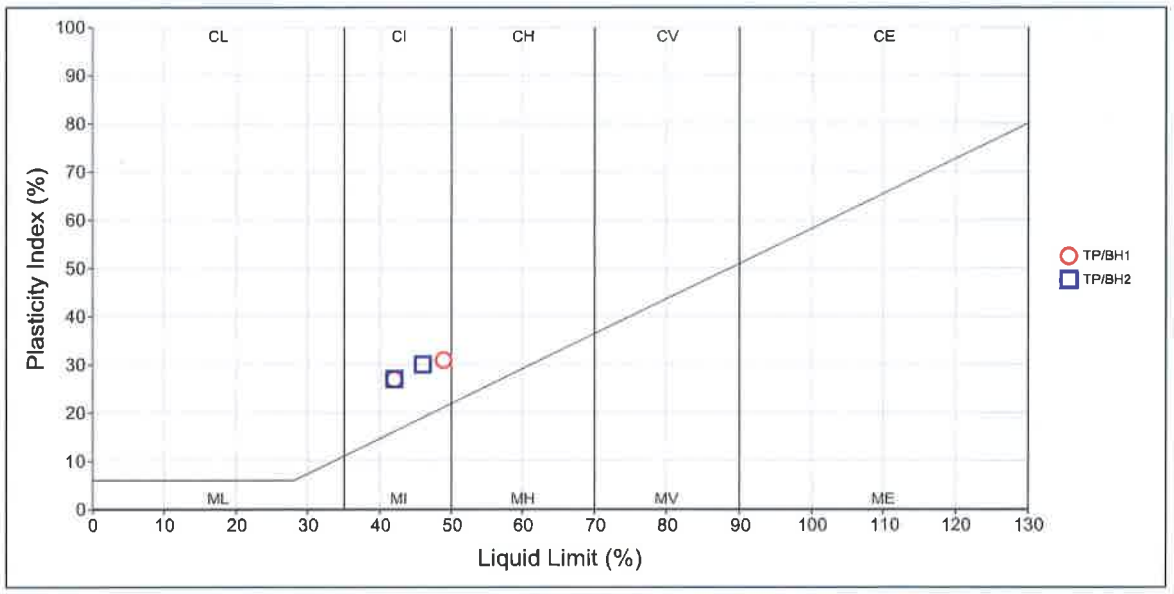
Lab Ref	Depth (m)	MC (%)	Corr MC (%)	LL (%)	PL (%)	PI (%)	% Passing .425mm
Samples from TP/BH1							
001	0.60	23	41	49	18	31	56
002	1.10	18					
003	1.60	19	20	42	15	27	97
Samples from TP/BH2							
004	0.80	21	22	46	16	30	94
005	1.30	16					
006	1.80	17	18	42	15	27	92
007	2.30	16					

Corrected Moisture Content and Plastic Limits Graph



Lab Ref	Depth (m)	Description	BS:5930	NHBC Chapter 4.2
Samples from TP/BH1				
001	0.60	Moist dark brown slightly gravelly slightly clayey ORGANIC MATERIAL with rare brick fragments. Gravel is fine and medium.	CI	Medium
002	1.10	Very stiff brown/orange-brown/grey-brown/dark brown slightly sandy slightly silty CLAY with rare gravel and brick fragments. Gravel is fine and medium.		
003	1.60	Firm to stiff brown/orange-brown/grey-brown/dark brown slightly silty CLAY with rare gravel, sand and brick fragments. Gravel is fine and medium.	CI	Medium
Samples from TP/BH2				
004	0.80	Firm to stiff brown/orange-brown/grey-brown/dark brown slightly silty CLAY with rare gravel, sand and brick fragments. Gravel is fine and medium.	CI	Medium
005	1.30	Stiff brown/orange-brown/grey-brown/dark brown slightly silty CLAY with rare gravel, sand and brick fragments. Gravel is fine and medium.		
006	1.80	Stiff brown/orange-brown/grey-brown/dark brown slightly silty CLAY with rare gravel, sand and brick fragments. Gravel is fine and medium.	CI	Medium
007	2.30	Stiff brown/orange-brown/grey-brown/dark brown silty CLAY with rare gravel, sand and brick fragments. Gravel is fine, medium and coarse.		

Plasticity Chart for Casagrande Classification



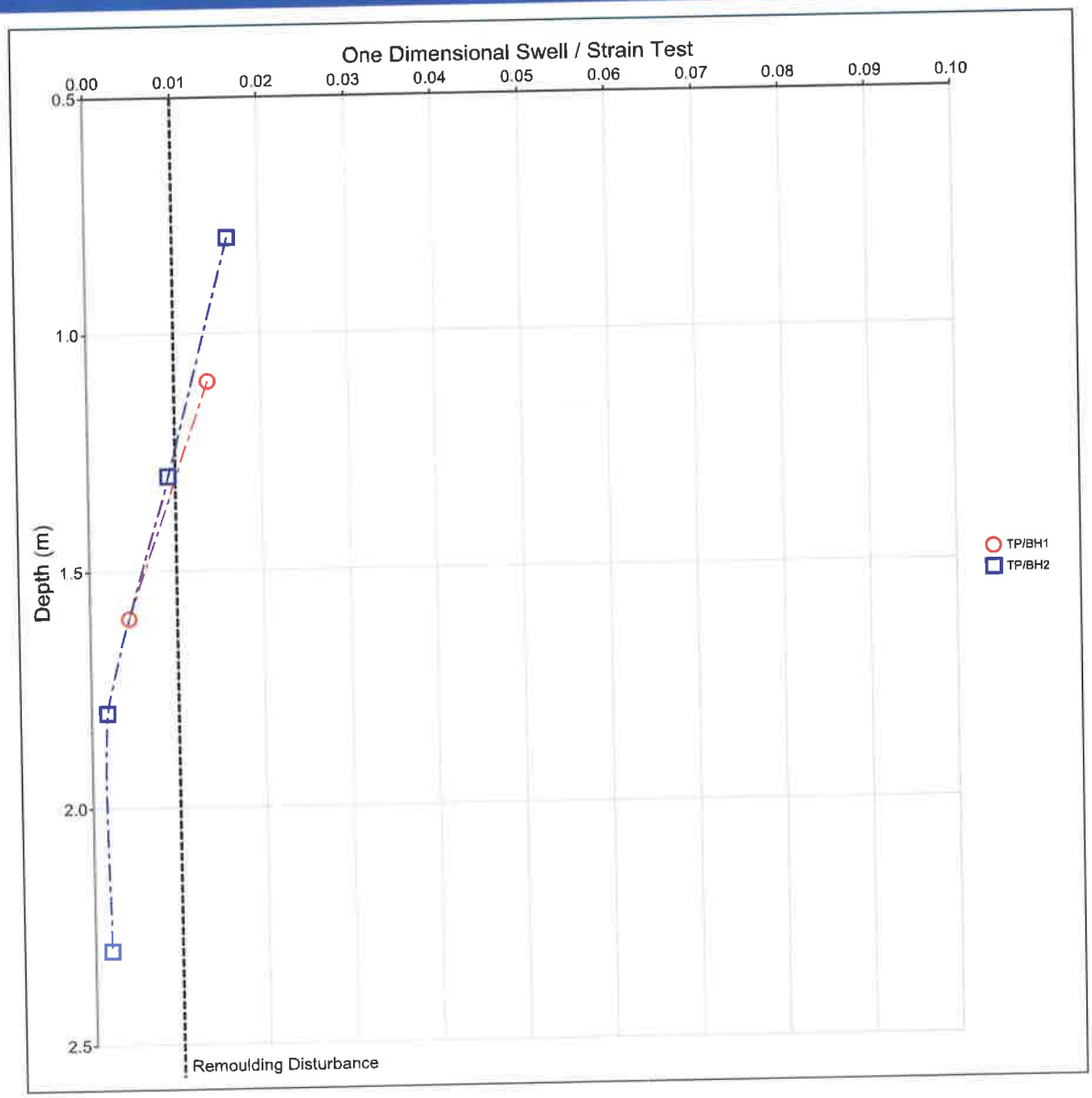
SubsNetUK

Summary of Oedometer Testing

Lab Ref	Depth (m)	Strain	Dd (mm)	Remarks
Samples from TP/BH1				
002	1.10	0.0140	7.7	
003	1.60	0.0045	1.1	
Samples from TP/BH2				
004	0.80	0.0164	6.6	
005	1.30	0.0092	2.3	
006	1.80	0.0019	0.5	
007	2.30	0.0020	0.5	

TP/BH1 Dd Total: 8.8mm
TP/BH2 Dd Total: 9.9mm

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.