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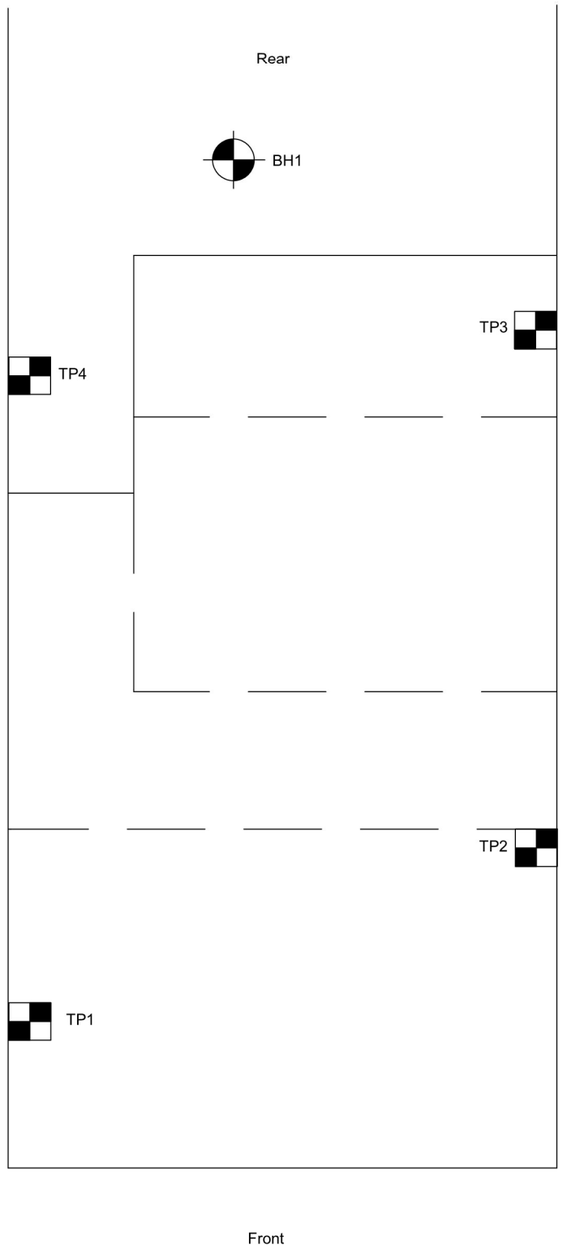
Web: www.fastrackgroup.co.uk

Appendix No: 1
FSI Ref: 27798

SITE PLAN

Property Address: 161 Arlington Road, Camden, London, NW1 7ET
Client Claim Ref: N/A **Survey date:** 12/02/2024 **Operative:** SE1



Scale:	Drawn by:	Key:
NTS	TL	Trial Pit, Borehole, Manholes, Rain Water Pipe, Soil & Vent Pipe, Surface Water Gully, Foul Water Gully, Shrub, Tree (Conifer), Tree (Deciduous)

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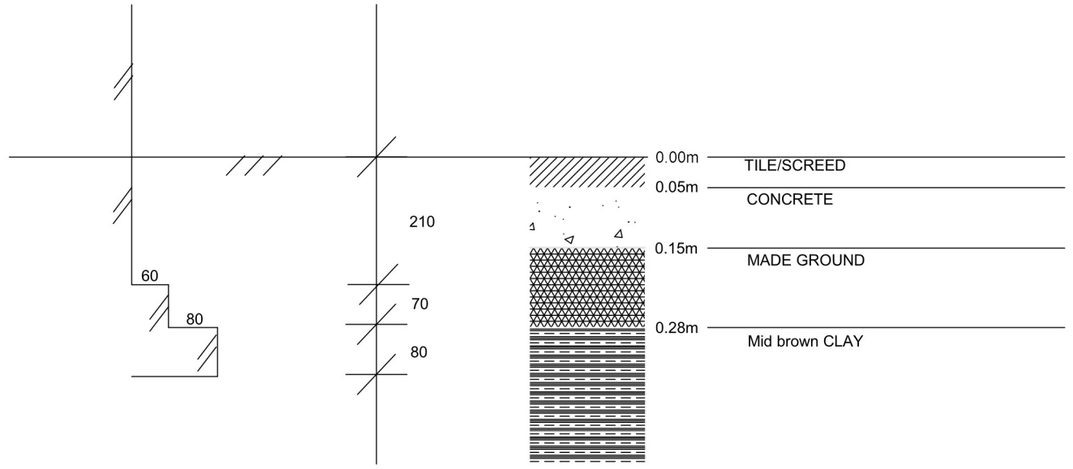
Appendix No: 2
FSI Ref: 27798

TRIAL PIT 1

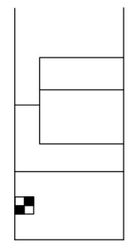
Property Address: 161 Arlington Road, Camden, London, NW1 7ET
Client Claim Ref: N/A **Survey date:** 12/02/2024 **Operative:** SE1



D1 @ F.L. (0.42m)
Founding strata: Mid brown CLAY

D= small disturbed sample, B= large bulk sample, U= undisturbed sample, MP= mackintosh proble blow counts, V= shear vane reading (kPa)

Trial Pit Location:



Drawn by: TL

Scale: 1:10

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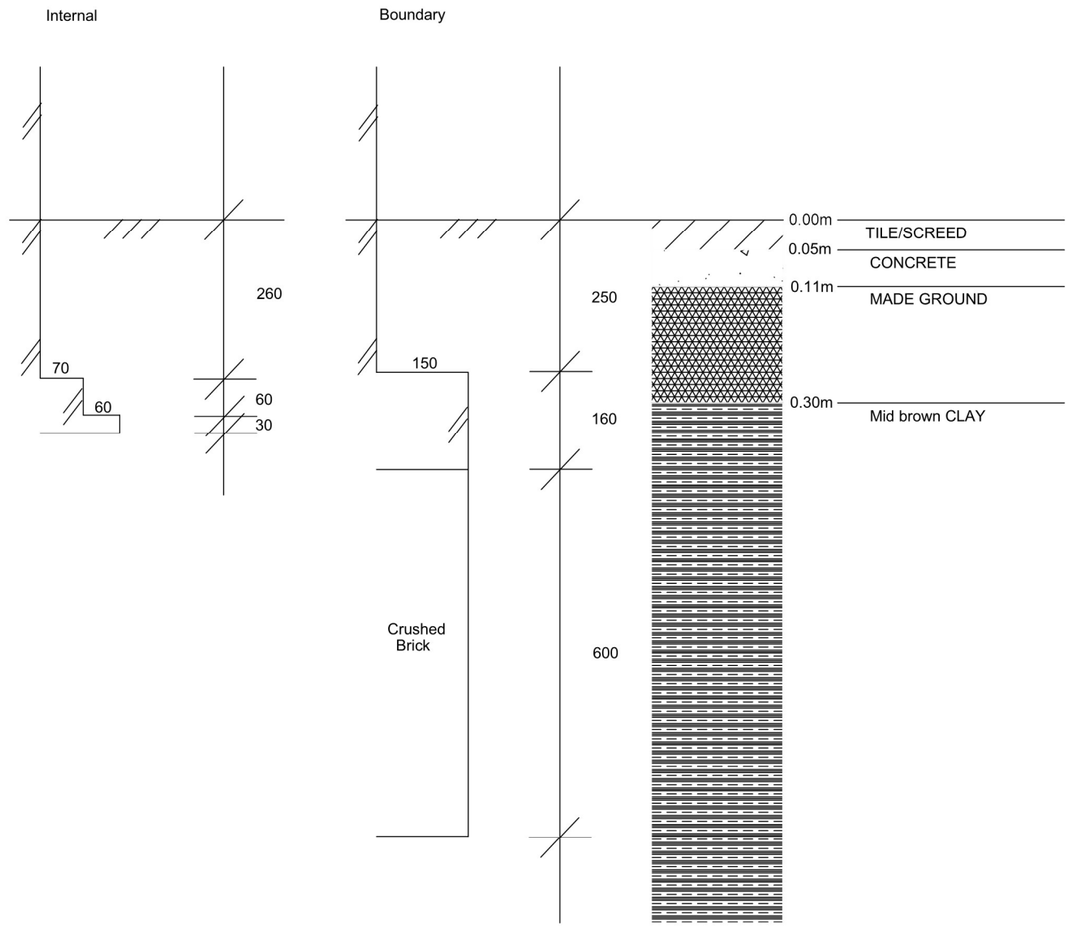
Appendix No: 2
FSI Ref: 27998

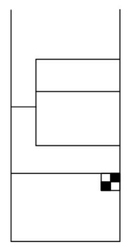
TRIAL PIT 2

Property Address: 161 Arlington Road, Camden, London, NW1 7ET
Client Claim Ref: N/A **Survey date:**12/02/2024 **Operative:** SE1



D1 @ F.L. (1.01m)
Founding strata: Mid brown CLAY

Trial Pit Location:



Drawn by: TL

Scale: 1:10

D= small disturbed sample, B= large bulk sample, U= undisturbed sample,
MP= mackintosh proble blow counts, V= shear vane reading (kPa)

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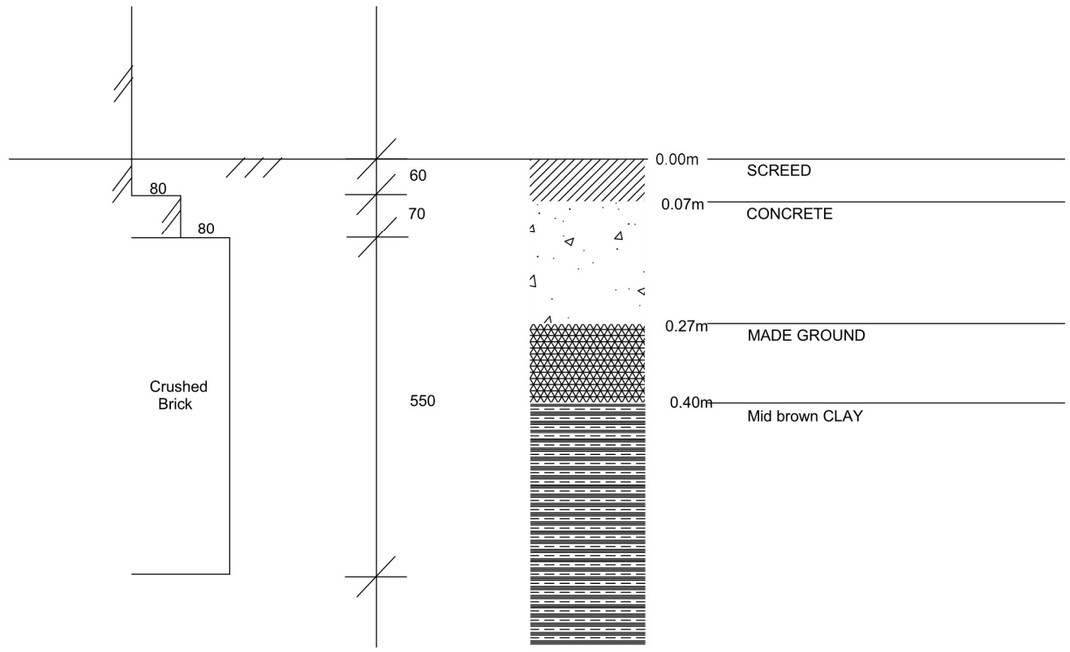
Appendix No: 2
FSI Ref: 27798

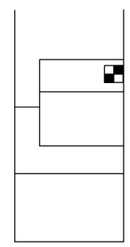
TRIAL PIT 3

Property Address: 161 Arlington Road, Camden, London, NW1 7ET
Client Claim Ref: N/A **Survey date:**12/02/2024 **Operative:** SE1



D1 @ F.L. (0.68m)
Founding strata: Mid brown CLAY

Trial Pit Location:



Drawn by: TL

Scale: 1:10

D= small disturbed sample, B= large bulk sample, U= undisturbed sample,
MP= mackintosh proble blow counts, V= shear vane reading (kPa)

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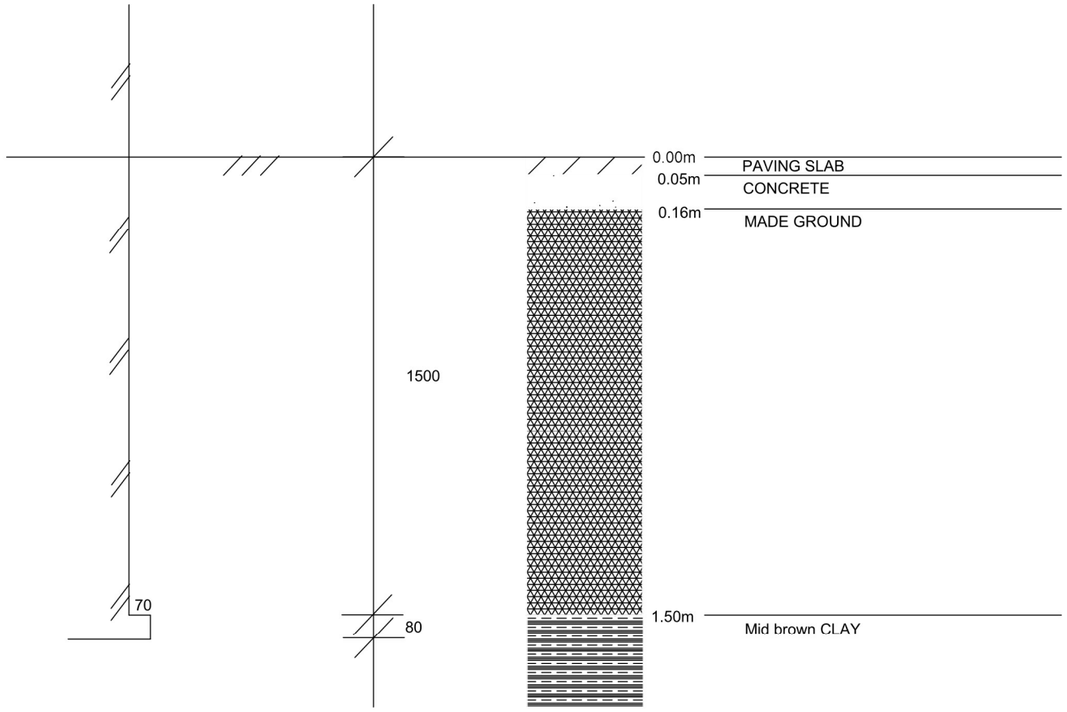
Appendix No: 2
FSI Ref: 27798

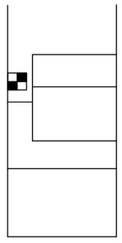
TRIAL PIT 4

Property Address: 161 Arlington Road, Camden, London, NW1 7ET
Client Claim Ref: N/A **Survey date:**12/02/2024 **Operative:** SE1



D1 @ F.L. (1.58m)
Founding strata: Mid brown CLAY

Trial Pit Location:



Drawn by: TL

Scale: 1:20

D= small disturbed sample, B= large bulk sample, U= undisturbed sample, MP= mackintosh proble blow counts, V= shear vane reading (kPa)

FASTRACK
Fastrack Site Investigations Ltd
Unit 9, Tyndales Farm
Southend Road
Maldon CM9 6TQ

Borehole Log

Borehole No. **BH1** Sheet 1 of 1

Project Name:	161 Arlington Road	Project No. 27798	Site Date:
Location:	161 Arlington Road, Camden, London, NW1 7ET		
Client:	Fourwalls London Construction Ltd		

Hole Type: BH
Scale: 1:27
Logged By: SE1

Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Legend	Stratum Description
				0.12		TOPSOIL
						MADE GROUND
	0.50	D	V (kPa) = 38 V (kPa) = 38	0.45		Mid brown CLAY
	1.00	D	V (kPa) = 60 V (kPa) = 62			
	1.50	D	V (kPa) = 76 V (kPa) = 80			
	2.00	D	V (kPa) = 100 V (kPa) = 104	2.20		Mid brown sandy CLAY
						2.40m - Mid brown CLAY begins to show grey mottling.
	2.50	D	V (kPa) = 124 V (kPa) = 130			
	3.00	D	V (kPa) = 138 V (kPa) = 140			
	3.50	D	V (kPa) = 140			
	4.00	D	V (kPa) = 140			
	4.50	D	V (kPa) = 140			
▼						*4.90m - Standing water*
	5.00	D	V (kPa) = 140	5.00		End of Borehole at 5.000m

Key: D - Disturbed Sample V - Insitu Vane Test MP - Mackintosh Probe Test

Remarks: Borehole closed at 5.00m upon completion.
No roots observed.

AGS

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Appendix No: 3
FSI Ref: 27798

LABORATORY RESULTS

Property Address: 161 Arlington Road, Camden, London, NW1 7ET

SAMPLE DETAILS

Investigation date:	**12/02/2024**
Sample details:	**Bags as received**
Samples received:	**13/02/2024**
Schedule recieved:	**13/02/2024**
Samples tested:	**14/02/2024-19/02/2024**
Results reported:	**19/02/2024**

ANALYSIS REQUESTED

Moisture Content	☑	PSD	☑
Liquid Limit	☑	Soil Suction	☐
Plastic Limit	☑	Shear Strength	☐
Plasticity Index	☑	Contamination	☐
Root ID	☐	Root/Tree DNA	☐
		No roots found	

TEST DETAILS

General

Sample descriptions were written in accordance with BS 5930:1999.

Samples were prepared in accordance with BS 1377: Part 1: 1990, section 7

Samples from this contract will be retained for 1 calender month following the issue of this report unless otherwise notified

Written approval is required from Fastrack Site Investigations Limited to reproduce report in full. The results shown within this report only relate to the samples tested

Moisture Content

Samples were tested in accordance with BS 1377: Part 2: 1990, section 3.2 (Oven drying method)

In accordance with Note 1 to paragraph 3.2.4 of BS 1377 Part 2 1990; these moisture contents have been corrected to give the equivalent moisture content of the fraction passing the 425µm sieve, to enable comparison with the liquid & plastic limits. (If condition of test is 'natural' the retained percentage is an estimated value, if condition is 'washed' the percentage is a measured value).

Samples are dried at 105-110°C unless otherwise stated.

Atterberg Limits

Samples were tested in accordance with BS 1377: Part 2: 1990, section 4.3 (4 drop LL), 4.4 (1 drop LL), 5.3 (PL) and 5.4 (PI)
Test results on samples with a sand content, may show less accurate results. If condition of test is 'washed' results relate to the fraction passing the 425µm sieve only.

* *Driscoll's rules deem the soil to be desicated where the moisture content is less than the value calculated using driscoll's rule 1 and/or 2*

Particle Size Distribution

Samples were tested in accordance with BS 1377: Part 2: 1990 section 9.2 (Wet sieving method)

Undrained Shear Stength

Samples were prepared in accordance with BS 1377: Part 7: 1990 section 8.3 and testing in accordance with BS 1377: Part 7: 1990: section 8.4 (undrained shear strength in triaxial compression without measurement of pore pressure (UU))

Soil Suction

Samples were prepared and tested based on the BRE digest No:IP4/93 (Corrected). 'A method of determining the state of desiccation in clay soils.' (Filter paper method).

Test results on samples with a sand or silt content, may show less accurate results. Deviation to standard procedure - Polythene bags are not used from weighing filter papers.

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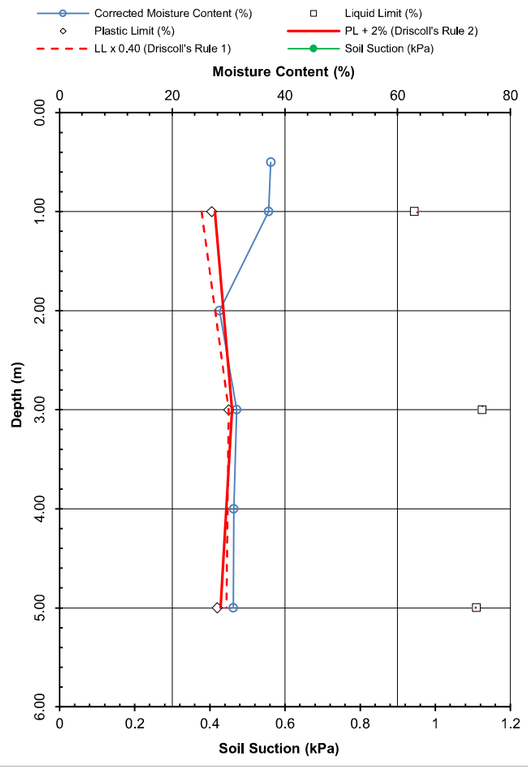
Appendix No: 3
FSI Ref: 27798

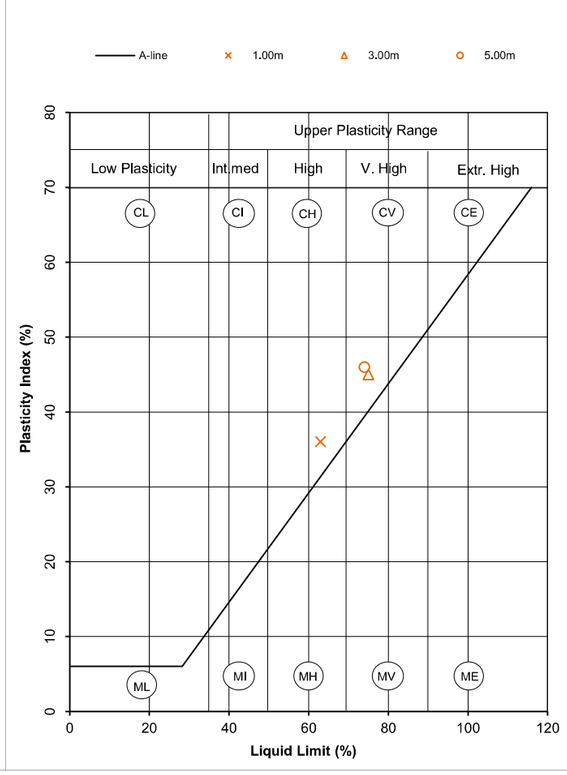
LABORATORY RESULTS

Property Address: 161 Arlington Road, Camden, London, NW1 7ET
Client Claim Ref: 0

BOREHOLE 1

Depth (m)	MC (%)	Corr. MC (%)	LL (%)	PL	PI (%)	Class	% Retained (425µm)	Soil Suction (kPa)	Condition of test	Soil Description
0.50	37.5	37.5					0		Natural	Brown silty CLAY
1.00	35	37.12	63	27	36	CH	5.72		Natural	Brown silty CLAY containing grey and orange mottle and gravel
2.00	28.4	28.4					0		Natural	Brown silty CLAY containing grey and orange mottle
3.00	31.4	31.4	75	30	45	CV	0		Natural	Brown silty CLAY containing grey mottle
4.00	30.9	30.9					0		Natural	Brown silty CLAY containing grey mottle
5.00	30.8	30.8	74	28	46	CV	0		Natural	Brown silty CLAY containing grey mottle and gypsum





Comments: Samples dried in 75° due to the presence of gypsum

Reported by: Issy Acerbis

Checked by: Jade McLellan

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Ponswood Industrial Estate
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TN38 9BY
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2683

Certificate of Analysis

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 24-52393

Issue: 1

Date of Issue: 21/02/2024

Contact: Martin Rush

Customer Details: Fastrack Site Investigations Ltd
197-199 High Street
Maldon
EssexCM9 5BU

Quotation No: Q24-04367

Order No: 5000/27798

Customer Reference: 27798

Date Received: 16/02/2024

Date Approved: 21/02/2024

Details: 161 Arlington Road, Camden, London, WW1 7ET

Approved by:

Tim Reeve, Technical Coordinator

Sample Summary

Report No.: 24-52393, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
353075	BH1 D2 1.00	12/02/2024	16/02/2024	Silty clayey loam	
353076	BH1 D4 2.50	12/02/2024	16/02/2024	Silty clayey loam	

Results Summary

Report No.: 24-52393, issue number 1

			ELAB Reference	353075	353076
			Customer Reference	D2	D4
			Sample ID		
			Sample Type	SOIL	SOIL
			Sample Location	BH1	BH1
			Sample Depth (m)	1.00	2.50
			Sampling Date	12/02/2024	12/02/2024
Determinand	**Codes**	**Units**	**LOD**		
Soil sample preparation parameters					
Moisture Content	N	%	0.1	25.1	20.5
Material removed	N	%	0.1	< 0.1	< 0.1
Description of Inert material removed	N		0	None	None
Anions					
Water Soluble Sulphate	M	g/l	0.02	0.04	2.01
Miscellaneous					
pH	M	pH units	0.1	9.8	8.9

Method Summary

Report No.: 24-52393, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
pH	M	Air dried sample	19/02/2024	113	Electromeric
Water soluble anions	M	Air dried sample	19/02/2024	172	Ion Chromatography

Report Information

Report No.: 24-52393, issue number 1

Key	
U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"
LOD	LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.
	Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed.
	ELAB are unable to provide an interpretation or opinion on the content of this report.
	The results relate only to the sample received.
	PCB congener results may include any coeluting PCBs
	Uncertainty of measurement for the determinands tested are available upon request
	Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month
All water samples will be retained for 7 days following the date of the test report
Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

End of Report

APPENDIX F: UNDERPINNING METHODOLOGY

COCHRANE CONSTRUCTION CONSULTANTS

GENERAL UNDERPINNING SPECIFICATION NOTES

1. The existing walls at basement level are assumed, based on historic London Building Acts, to be440mm thick with projecting brick corbels as foundation.
2. The existing walls to the main house shall be underpinned in mass concrete. The underpins shall transfer the vertical loads from the walls over to ground. Due to the shallow nature of the pins is minimal lateral earth loading on the pin.
3. Grade of concrete shall be C35 with minimum cement content 300kg/m^3, maximum free water to cement ratio 0.60, slump 100mm.
4. Underpinning bases shall be excavated such that:
    - the stem width of the pin is to match the thickness of the existing wall over.
    - The base width of the pin is to match the width of the existing footing over.
    - the length of the pin should not exceed 1000mm unless agreed with the engineer.
5. The sequence of the underpinning shall be such that any given underpin will be completed, dry-packed and a minimum period of 48 hours lapsed before an adjacent excavation commenced to form another underpin.
6. In the event that the existing foundations to the wall are found to be unstable, sacrificial steel jacks shall be installed underneath the foundation to prop the bottom few courses of bricks. These steel jacks shall be left in place and shall be incorporated into the concrete stem.
7. In the event that the ground is unstable, lateral propping shall be provided as required to the rear of the excavation and to the sides of the excavated working trench.
    - The earth faces of the excavation shall be propped using trench sheeting or cementitous back boards and propped as appropriate.
    - Non shrink cementitious grout will be poured behind the backshutter to fill up the voids behind the back – shutters.
8. The excavation for any underpin section shall be dug and the concrete to the pin poured within one day. Excavation should not be commenced if concrete cannot be poured in the same day.
9. The underside of the existing foundations within the underpin excavation should be brushed clean of all loose dirt and debris prior to pouring the concrete. The concrete to the pin shall be poured up to a level within 50 – 75mm of the underside of the foundations.
10. Sacrificial cementitous backshutters shall be used to the rear face of the excavation (i.e. underneath the wall) as instructed.
11. On the following day, the gap between the concrete and the underside of the existing foundation shall be drypacked with C35 concrete using 5 – 10mm coarse aggregate and “Combex 100” expanding admixture by Fosroc UK Ltd in accordance with their instructions.
12. Once the drypack has gained sufficient strength, any protrusions of the footings into our site shall be carefully trimmed back using hand tools to avoid causing any damage to the foundation. The protrusions shall be trimmed back to be flush in-line with the face of the wall above.
13. A minimum of 48 hours shall be allowed before adjacent sections are excavated to form a new underpin.
14. Adjacent underpins shall be connected using T12 dowel bars 600mm long, 300mm embedment each side, at 300mm vertical centres.