Factual Ground Investigation Report

Parkside, One Horton Heath, Eastleigh

Stantec

Prepared for:
Eastleigh Borough Council

Prepared by:
Lily Cherry

Date:
19 September 2025

Project/File:
STA-ZZ-XX-RP-G-0001

Stantec UK Limited

Document control sheet

Issued by	**Stantec Hydrock Limited** Third Floor, White Building 1-4 Cumberland Place Southampton SO15 2NP UNITED KINGDOM stantec.com	+44 (0) 2382 140907 stantec.com
Client	Eastleigh Borough Council	
Project name	Northern Areas of One Horton Heath	
Title	Factual Ground Investigation Report	
Doc ref	STA-ZZ-XX-RP-G-0001	
Project number	332612639	
Status	S2	
Date	19 September 2025	

Document production record

Issue number	P01	Name
Prepared by		Lily Cherry BSc (Hons) FGS
Checked by		Helen Gardiner MSci CEnv MIEnvSc David Meredith MSc BSc FGS
Approved by		Anthony Elkins

Document revision record

Issue number	Status	Date	Revision details
P01	S2	19/09/2025	First issue

Stantec Hydrock Limited has prepared this report in accordance with the instructions of the above named client for their sole and specific use. Any third parties who may use the information contained herein do so at their own risk.

Table of Contents

Document control sheet ..... **i**
1 Introduction **1**
1.1 Terms of reference 1
1.2 Objectives 1
1.3 Scope 1
1.4 Regulatory context and guidance 2

2 Ground investigations **3**
2.1 Site works 3
2.2 Geo-environmental testing 4
2.2.1 Sampling strategy and protocols 4
2.2.2 Geo-environmental monitoring 4
2.3 Geotechnical testing 4
2.3.1 Geotechnical laboratory testing 4
2.4 Constraints & Changes 5

3 Ground investigation records and data **6**
3.1 Physical ground conditions 6
3.1.1 Summary of strata encountered 6
3.1.2 Surface covering 6
3.1.3 Topsoil 6
3.1.4 Wittering Formation 7
3.2 Groundwater 7
3.2.1 Groundwater observations and levels 7
3.2.2 Infiltration tests 8
3.2.3 Variable head tests 9
3.2.4 Groundwater summary 10
3.3 Ground gases (carbon dioxide and methane) 10
3.4 Geotechnical data 11
3.4.1 Introduction 11
3.4.2 Plasticity 11
3.4.3 Particle size distribution 11
3.4.4 Soil strength 11
3.4.5 Relative density 12
3.4.6 Compaction and moisture content 12
3.4.7 Water Content 13
3.4.8 BRE (Special Digest 1) SD1 testing 13

4 Uncertainties and limitations **14**
4.1 Site-specific comments 14
4.2 General comments 14

5 References **16**

List of Tables

Table 2.1: Summary of site works 3
Table 2.2: Summary of monitoring installations 4
Table 2.3: Summary of sample numbers for geotechnical tests 4
Table 3.1: Strata encountered 6
Table 3.2: Groundwater occurrence 8
Table 3.3: Groundwater level data summary 8
Table 3.4: Infiltration test results 9
Table 3.5: Variable Head test results (Kent Method) 9
Table 3.6: Variable Head test results (BS EN ISO 22282) 10

Table 3.7: Range of ground gas data 10
Table 3.8: Plasticity Index 11
Table 3.9: PSD results summary 11
Table 3.10: Soil strength results 11
Table 3.11: Relative density results and derived values 12
Table 3.12: Compaction study results 12
Table 3.13: Undrained Shear Strength (Hand Shear Vane at Compaction Point) 12
Table 3.14: Water Content 13

List of Appendices

Appendix A Drawings
Appendix B Exploratory hole logs and photographs
Appendix C Geotechnical test results
Appendix D Site monitoring data

1 Introduction

1.1 Terms of reference

In June 2025, Stantec were commissioned by Eastleigh Borough Council, (the Client) to undertake a ground investigation to provide information on ground and groundwater conditions for a proposed residential development at Horton Heath, Hampshire. The site is located along Fir Tree Lane, within Eastleigh Borough, known as the Northern Areas of One Horton Heath.

The site currently comprises a series of open fields labelled 'The Homestal', 'The Folds' and 'The Holme' bounded by fences, mature trees and hedgerows. Fir Tree Lane crosses the site running east to west, with 'The Holmestal' and 'The Folds' located to the north of Fir Tree Lane and 'The Holme' to the south. These areas are shown on the exploratory hole location plan (ref: 332612639 Figure 2 P01) presented in Appendix A.

Stantec understands that the proposed development is to comprise of residential development. A proposed development layout (One Horton Heath Indicative Masterplan, ref: 29607A/1000A Revision C January 2023), is presented in Appendix A.

The investigation works have been undertaken in accordance with Stantec's specification referenced (332612639-SP-3501-V00) and the Client's instructions to proceed as a variation to Stantec's existing appointment.

1.2 Objectives

The works have been commissioned to confirm the ground and groundwater conditions to assist with the design of the development.

The objectives of the ground investigation are:

- to confirm the presence and depth of any shallow groundwater in the near surface soils;
- to confirm the infiltration potential of the near surface soils and groundwater levels; and
- to confirm the ground conditions to determine geotechnical parameters.

1.3 Scope

The original scope of the ground investigation comprised of:

- the excavation of approximately 15 no. trial pits to depths of 3.5m bgl with the recovery of soils sample for geotechnical analysis at selected locations across the sites;
- infiltration testing in 4 no. selected trial pit locations in general accordance with BRE 365;
- the sinking of 4 no. boreholes to a maximum depth of 6.0m bgl with standard penetration testing, the recovery of Class 1 soil samples, and in-situ permeability tests during drilling;
- the installation of a groundwater monitoring well at each borehole location required to monitor groundwater levels (including protective fencing around each monitoring well;
- geotechnical testing on selected soil samples to determine geotechnical parameters; and

- groundwater monitoring on a monthly basis for 8 months to include monitoring extending over the winter period.

This report provides factual information and data from the ground investigation and does not include geotechnical assessment.

1.4 Regulatory context and guidance

The investigation work has been carried out in general compliance with recognised good practice, including (but not limited to) BS 5930:2015+A1:2020, BS 10175:2011+A2:2017 and the AGS (2006) 'Good Practice Guidelines for Site Investigations'.

The geotechnical aspects of this report are prepared in general accordance with BS EN 1997-1+A1: 2013, BS EN 1997-2:2007 and BS 8004:2015+A1:2020. This report constitutes a factual Ground Investigation Report (GIR) as described in Part 2 of Eurocode 7 (BS EN 1997-2) (EC7). However, it is not intended to fulfil the requirements of a Geotechnical Design Report (GDR) as specified in EC7 and does not include geotechnical data interpretation.

Where relevant the relevant requirements of the current edition of NHBC Standards have also been applied.

Throughout the report the term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements). The term 'geoenvironmental' is used to describe aspects relating to ground-related environmental issues (such as potential contamination). However, it should be appreciated that this is an integrated investigation, and these two main aspects are inter-related. Designers should take all aspects of the investigation into account.

2 Ground investigations

2.1 Site works

The fieldwork took place between 21st July and 25th July 2025. The ground investigation locations were surveyed in using a Total Station GPS survey instrument and are shown on the Exploratory Hole Location Plan (Stantec Drawing 332612639 Figure 2 P01) in Appendix A. They are also summarised in Table 2.1.

The logs, including details of ground conditions, soil sampling, in situ testing and any installations, are also presented in Appendix B. The weather conditions during the Stantec fieldwork and for the previous week were sunny, warm with some rain spells.

Table 2.1: Summary of site works

Activity	Method	No.	Name	Depth Range (m bgl)	In situ tests	Rationale
Drilling, Pitting and Probing						
Boreholes	Cable percussive	4	BH01-BH04	6.45 - 6.50	SPT UT100	• To confirm ground conditions and presence and depth of groundwater. • To collect soil samples to determine geotechnical parameters. • Install groundwater monitoring wells.
Trial pits	Machine (JCB 3X)	14	TP01 – TP15	1.50 – 3.50	Hand shear vane (HSV)	• To confirm ground conditions and presence and depth of groundwater. • To collect soil samples to determine geotechnical parameters.
Other in situ testing or monitoring						
Infiltration	BRE 365	4	TP05A, TP12, TP13, TP15	1.50		• To confirm infiltration potential of the near surface soils.

Wells for monitoring groundwater levels were installed in all boreholes. A summary of the monitoring well installations is presented in Table 2.2. Installation details were provided by Stantec Transport & Infrastructure during the ground investigation.

Table 2.2: Summary of monitoring installations

Location	Ground level (m OD)	Standpipe / piezometer diameter	Screen top and base depth (m bgl)	Screen top and base elevation (m OD)	Strata targeted
BH01	24.35	50	1.50 – 6.00	22.85 – 18.35	Wittering Formation
BH02	22.50	50	1.00 – 6.00	21.50 – 16.50	
BH03	19.55	50	1.50 – 6.00	18.05 – 13.55	
BH04	26.63	50	1.50 – 6.00	25.13 – 20.63	

2.2 Geo-environmental testing

2.2.1 Sampling strategy and protocols

We understand that the exploratory hole positions were determined by reference to the site conditions encountered during previous phases of ground investigations in the south of site (The Holme) and to the far north of 'The Holmestal'. Locations were placed to fill in data gaps across 'The Holmestal' and 'The Folds' as previous investigations predominantly targeted 'The Holme'.

No specific features were identified as requiring targeted investigation and a reasonably even spacing was used. Locations of the cable percussion boreholes (BH01-BH04) were noted to be undertaken within the footprint of proposed attenuation ponds. No other specific sampling statistics or grid were utilised in this instance.

Samples were taken, stored and transported in general accordance with BS 10175:2011+A2:2017.

2.2.2 Geo-environmental monitoring

Gas and groundwater monitoring boreholes have been monitored on two occasions to date. The results are presented in Appendix D. Monitoring is ongoing with a further six visits over the next six months proposed and this report will be updated on completion of the monitoring.

2.3 Geotechnical testing

2.3.1 Geotechnical laboratory testing

The geotechnical tests scheduled by Stantec are summarised in Table 2.3 and the test certificates are provided in Appendix C. Wherever possible, UKAS accredited procedures have been used.

Table 2.3: Summary of sample numbers for geotechnical tests

Test	Wittering Formation
Moisture content	21
Atterberg limits (4 Point)	15
Particle size distribution (wet sieve)	9
Particle size distribution (sedimentation)	5

Test	Wittering Formation
Sulfate and aggressive chemical environment classification for buried concrete classification (BRE SD1 Suite B)	6
Single stage undrained triaxial compressive strength	6
Optimum Moisture Content / Maximum Dry Density Relationship (2.5kg rammer)	4
Optimum Moisture Content / Maximum Dry Density Relationship (4.5kg rammer)	4
Hand Shear Vane as at received and Optimum moisture compaction points	8

2.4 Constraints & Changes

One borehole (BH04) was required to be relocated approximately 50m into the Folds field, due to the original proposed area being inaccessible with vegetation, mature trees, ditches and barbed wire fencing.

3 Ground investigation records and data

3.1 Physical ground conditions

3.1.1 Summary of strata encountered

The following presents a summary of the properties of the ground and groundwater conditions encountered, based on field observations, interpretation of the field data and laboratory test results, taking into account drilling, excavation and sampling methods, transport, handling and specimen preparation.

All relevant data from the Stantec investigation are used from this point forward.

Details of the Stantec ground investigation works are provided in the logs in Appendix B. A summary of the ground encountered in the investigation is presented in Table 3.1 and the individual strata are described in the sections below.

Table 3.1: Strata encountered

Stratum	Depth to top (m bgl)	Depth to base (m bgl)	Thickness (m) (range)	Thickness (m) (average)
Topsoil	0	0.30 - 1.10	0.30 – 1.10	0.63
Wittering Formation	0.30 – 1.10	>1.50 - >6.50	-	-
>base of stratum not proven				

3.1.2 Surface covering

The following surface cover was identified during the field reconnaissance and the fieldworks:

- Concrete hardstanding within the southeastern area of the Holme, covering approximately 1% of the site;
- Maize crop within the Folds and the western field of The Holme, covering approximately 50% of the site; and
- Grass and other vegetation within the Holmestal, northeast area of the Folds and southeastern area of the Holme, covering approximately 49% of the site.

3.1.3 Topsoil

Topsoil was encountered below grass and maize crops between 0.30m and 1.10m bgl, with an average thickness of 0.63m. The topsoil comprised brown fine to coarse sand with rare to frequent rootlets and rare fine to coarse subangular and rounded flint gravels and soft to firm light brown sandy clay. Rare redbrick gravels were noted within TP06.

It should be noted the material described as topsoil in the crop growing areas is likely to have undergone a degree of anthropogenic disturbance due to ploughing.

For the purposes of this report, topsoil is defined as the upper layer of an in situ soil profile, usually darker in colour and more fertile than the layer below (subsoil), which is a product of natural chemical,

physical, biological and environmental processes, but does not imply compliance with BS 3882:2015. Reuse of topsoil as a growing medium at the site should be determined by the landscape architect or the landscape Contractors.

3.1.4 Wittering Formation

The Wittering Formation was encountered underlying the topsoil across all locations of the site from 0.30 and 1.10m to a maximum depth of 6.50m bgl. The base of the stratum was unproven. During the investigation the material was noted to be very variable in principal soil type, colour and consistency. The stratum can be split up into two principal soil types being cohesive or granular in nature.

Stantec expects that the colour change from and orange brown to a grey and blue grey with depth likely represents a transitional weathering profile within the Wittering Formation.

Cohesive material

The cohesive materials were encountered within sixteen out of eighteen of the exploratory hole locations. This ranged from 0.40m and 1.35m at the top to 1.0m and 3.80m bgl at the base with an average thickness 2.27m thick. This was generally described as:

- Soft to firm orange brown mottled grey brown sandy clay with rare to occasional flint gravels (weathered); and
- Firm dark greyish brown sandy clay (unweathered).

Granular material

The granular materials were encountered within eleven out of eighteen of the exploratory hole locations. This ranged from 0.30m and 3.80m bgl at the top to 1.35m and 5.30m bgl with an average thickness of 1.90m thick. This was described as:

- Orange brown / grey brown slightly clayey to clayey sand (weathered);
- Yellow brown mottled orange / orange sand (weathered);
- Dark grey clayey sand (unweathered); and
- Dark blue grey sand with petrified wood gravels (unweathered).

3.2 Groundwater

3.2.1 Groundwater observations and levels

Groundwater encountered during the investigation is listed in Table 3.2. A groundwater observation represents the depth at which groundwater was first observed and is likely to be deeper than the actual water table level at that location.

Table 3.2: Groundwater occurrence

Stratum	Date	Location	Fieldwork		Comment
			Groundwater observation (m bgl)	Rose to after 20 mins (m bgl)	
Wittering Formation	23/07/2025	BH03	3.5	2.0	Moderate inflow.
	24/07/2025	BH04	3	2.8	Slow inflow.
	23/07/2025	TP01	3.5	-	Slow water seepage.
	23/07/2025	TP02	2.8	-	Slow water seepage.
	22/07/2025	TP05	1.9	-	Moderate water seepage.
	24/07/2025	TP07	3.5	-	Slow water seepage.
	24/07/2025	TP08	3.0 & 3.5	-	Slow seepage at 3.0m and fast water seepage at 3.5m.
	24/07/2025	TP10	3.50	-	Moderate water seepage.
	22/07/2025	TP14	3.10	-	Fast water seepage, trial pit walls collapsing, very unstable.

Two return visits have been undertaken to monitor the groundwater levels post-fieldwork. This has been summarised in Table 3.3 below. Additional monitoring rounds are due to be completed, and the report will be updated with the results.

Table 3.3: Groundwater level data summary

Stratum	Date range	Location	Post-fieldwork monitoring	
			Depth to groundwater (range) (m bgl)	Groundwater elevation (range) (m AOD)
Wittering Formation	07/08/2025	BH01	2.12	22.23
		BH02	3.57	18.93
		BH03	1.34	18.21
		BH04	0.98	25.65
	11/09/2025	BH01	2.30	22.05
		BH02	3.72	18.78
		BH03	1.27	18.28
		BH04	0.75	25.88

3.2.2 Infiltration tests

The results of the infiltration testing undertaken are summarised in Table 3.4. The results sheets are presented in Appendix D.

Testing was carried out in accordance with Stantec's 1-day assessment methodology. This is in general accordance with BRE Digest 365 (BRE DG 2016) where infiltration rates allow three test runs during a working day (or where there is no infiltration), but where low infiltration rates were encountered the available time may not have been sufficient to fully comply with the BRE test method (i.e. three runs of the test).

Table 3.4: Infiltration test results

Stratum	Location	Depth to base of pit (m bgl)	Infiltration rate (m/s)			
			Run 1	Run 2	Run 3	Comment
Wittering Formation	TP05A	1.50	8.84×10^{-7}*	-	-	25 hours
	TP12	1.35	Testing terminated**			4.5 hours
	TP13	1.27	3.52×10^{-6}*	-	-	4 hours
	TP15	1.46	Testing terminated**			3 hours

*Where less than three tests were possible in a particular location the results provided should be considered indicative only and should not be used for design purposes.

**Testing terminated due to slow infiltration rate and not reaching the required 75% water loss.

3.2.3 Variable head tests

The results of the deep borehole falling head and rising head tests undertaken in BH01, BH02, BH03 and BH04 are summarised in Table 3.5 and Table 3.6. Data sheets for the compliant testing only undertaken in BH03 and BH04 are presented in Appendix D.

An in-house methodology based on the Kent County Council Soakaway Guide (2000) has been used for BH01 and BH02 tests as presented within Table 3.5. This is due to the unsaturated nature of the boreholes prior to the testing and as such the use of the conventional variable head testing methodologies in accordance with BS EN ISO 22282 is not applicable.

However, BH03 and BH04 were carried out beneath the groundwater table and as such within the saturated zone therefore the tests are regarded as compliant to BS EN ISO 22282, as presented in Table 3.6.

Within BH03 the rising head test was carried out immediately after installation of the standpipe. Subsequent monitoring suggests that the post installation groundwater level had not returned to its long-term equilibrium level and as such no result for this test has been calculated.

Within BH04 the groundwater level from the first round of monitoring was used for calculation purposes as again the level taken at the time of the test is not representative of the equilibrium level.

Data sheets for the compliant testing only undertaken in BH03 and BH04 are presented in Appendix D.

Table 3.5: Borehole Infiltration Testing (Kent Method)

Stratum	Borehole No.	Base of test (m bgl)	Driving Head Range (m)	Infiltration Rate (l/s)	Soakage ($l/m^2/s$)	Comment
Wittering Formation	BH01	5	1	0	0	Test terminated due to minimal infiltration within 1 hour test.
	BH02 - Test 1	5	1	0.0 – 0.002	0.0 – 0.01	Test terminated due to minimal infiltration within 1 hour test.
	BH02 - Test 2	5	1	0.0 – 0.006	0.0 – 0.03	Test terminated due to minimal infiltration within 1 hour test.

Table 3.6: Variable Head test results (BS EN ISO 22282)

Stratum	Borehole No.	Depth to groundwater pre-testing[a] (m bgl)	Base of test (m bgl)	Length of test zone (m)	Hydraulic Conductivity (k) (m/s)	Comment
Wittering Formation	BH03	1.34	6	4.66	-	Rising head test – Water level did not return to stable groundwater level.
	BH04	0.98	5	3.80	1.19 X 10^{-6}	Stable groundwater level taken from 1st monitoring round.

a) *Borehole pumped to base depth to allow for test to proceed. Depth to groundwater pre test assumed to represent stable groundwater level – See comment for level utilised for BH04.*

3.2.4 Groundwater summary

In general, shallow groundwater was encountered within the Wittering Formation and indicates there is a shallow groundwater body.

Within the Wittering Formation, infiltration rates could not be calculated within TP12 and TP15 due to the water depths within the trial pits not reaching the required 75% drainage target.

An infiltration rate of 8.8 X 10^{-7} m/s was recorded in TP05A and 3.52 X 10^{-6} m/s within TP13. Borehole variable head tests predominantly produced no infiltration rates, with the exception of BH04 which produced a hydraulic conductivity of 1.19 x 10^{-6}.

3.3 Ground gases (carbon dioxide and methane)

Records from the gas monitoring boreholes are presented in Appendix D and summarised in Table 3.7.

To date two monitoring visits have been undertaken, with a further 6 visits to be undertaken as part of the current commission. Atmospheric pressures recorded during these two visits ranged from 1000 to 1013.

Table 3.7: Range of ground gas data

Stratum	Location	Methane (%)	Carbon dioxide (%)	Oxygen (%)	Steady flow rate (l/hr)	Comment
Wittering Formation	BH01	0<LOD[b]	0.1 – 4.0	17.5 – 20.5	0<LOD[b]	CO, HS2 recorded 0ppm in all wells.
	BH02	0<LOD[b]	0.3 – 3.6	17.5 – 19.3	0<LOD[b]	
	BH03[a]	0<LOD[b]	0.2 – 0.5	19.3 – 20.0	0<LOD[b]	
	BH04[a]	0<LOD[b]	0 – 0.5	19.9 – 20.5	0<LOD[b]	

a) *Response zone of pipe flooded*

b) *LOD = Limit of Detection*

3.4 Geotechnical data

3.4.1 Introduction

Laboratory test results are contained in Appendix C with in situ test results shown on the relevant exploratory hole log or datasheet in Appendix B. The following sections summarise the main findings.

3.4.2 Plasticity

The results of plasticity index tests on samples of soil are summarised in Table 3.8.

Table 3.8: Plasticity Index

Stratum	No. of tests	Plasticity Index		
		Min.	Max.	Av.
Wittering Formation (cohesive)	16	16	42	27

3.4.3 Particle size distribution

Particle Size Distribution test (PSDs) results are summarised in Table 3.9 and summary descriptions and PSD plots of the material analysed are presented in Appendix C.

Table 3.9: PSD results summary

Stratum	No. of tests	Fines <0.063mm	Clay %	Silt %	Sand %	Gravel %
Wittering Formation (granular)	3	17 - 30	5	7	69 - 88	0 - 1
Wittering Formation (cohesive)	6	33 - 49	21 - 37	32 - 61	18 - 67	0 - 1

3.4.4 Soil strength

Table 3.10 summarises information pertaining to the shear strength of the soils according to geological stratum. Factual results are summarised for laboratory tests, field tests (e.g. hand shear vane) and uncorrected Standard Penetration Tests (SPT N_{60}). Where the SPT N_{60} is used to infer shear strength by published correlation, this is also tabulated.

Table 3.10: Soil strength results

Stratum	No. of tests	SPT N_{60} (N-value) (range)	Blow Count	c_u (kPa)	Method
Wittering Formation (cohesive)	8	5 - 23	-	23 – 104[a]	SPT – cable percussion.
	8	-	34 - 100	-	UT100
	10	-	-	14 - 74	Hand shear vane
	6	-	-	45- 295	Laboratory triaxial test

a) *After Stroud (1989) and a preliminary F1 value of 4.5*

3.4.5 Relative density

Table 3.11 summarises information pertaining to the relative density of the granular soils according to geological stratum. Factual results are summarised for laboratory tests, field tests (e.g. SPT, CPT, dynamic probe correlation).

Table 3.11: Relative density results and derived values

Stratum	No. of tests	SPT N_{60} (N-value) (Range)	Density	Method
Wittering Formation (granular)	3	14 - 41	Medium dense to dense	SPT – cable percussion (Peck et. al. (1967).

3.4.6 Compaction and moisture content

Table 3.12 and Table 3.13 presents a summary of the moisture content tests and compaction studies undertaken at the site.

Table 3.12: Compaction study results

Stratum	No. tests	Method	Natural moisture content (%) (range)	Optimum Water Content (%) (range)	Particle density (Mg/m^3) (range)	Maximum dry density (Mg/m^3) (range)
Wittering Formation (granular)	1	2.5kg Rammer	15.1	13	2.47	1.79
	1	4.5kg Rammer	15.1	12	2.47	1.88
Wittering Formation (cohesive)	3	2.5kg Rammer	17.7 - 26.5	15 - 18	2.57 – 2.64	1.68 – 1.82
	3	4.5kg Rammer	18.8 - 26.5	13 - 15	2.57 – 2.64	1.82 - 1.92

Table 3.13: Undrained Shear Strength (Hand Shear Vane at Compaction Point)

Stratum	Sample	Depth (m bgl)	As Received Water Content (%)	Optimum Water Content (%)	Undrained Shear Strength (C_u) at Optimum Water Content (%) – Light Compaction (2.5kg)	Undrained Shear Strength (C_u) at Optimum Water Content (%) – Heavy Compaction (4.5kg)
Wittering Formation (cohesive)	TP01	1.0	20.7	16	130	130
	TP04	1.0	18.2	18	UTP[a]	UTP[a]

a) *UTP – Unable to penetrate*

3.4.7 Water Content

Table 3.14 presents a summary of the water content tests undertaken at the site.

Table 3.14: Water Content

Stratum	No. tests	Water Content (%)
Wittering Formation (granular)	4	10.3 - 27
Wittering Formation (cohesive)	18	13.9 – 30.2

3.4.8 BRE (Special Digest 1) SD1 testing

Six ICC BRE SD1 Suite B tests were undertaken within the Wittering Formation. The results are presented in Appendix C.

4 Uncertainties and limitations

4.1 Site-specific comments

The gas and groundwater monitoring programme undertaken to date and included in this report is not yet completed. Monitoring is ongoing and the conclusions of this report will be updated following its completion.

4.2 General comments

Stantec Hydrock Limited (Stantec) has prepared this report in accordance with the instructions of Eastleigh Borough Council (the Client), under the terms of appointment for Stantec, for the sole and specific use of the Client and parties commissioned by them to undertake work where reliance is placed on this report. Any third parties who use the information contained herein do so at their own risk. Stantec shall not be responsible for any use of the report or its contents for any purpose other than that for which it was prepared or for use of the report by any parties not defined in Stantec's appointment.

This report details the findings of work carried out in July 2025. The report has been prepared by Stantec on the basis of available information obtained during the study period. Although every reasonable effort has been made to gather all relevant information, not all potential environmental constraints or liabilities associated with the site may have been revealed.

Stantec has used reasonable skill, care and diligence in the design of the investigation of the site and in its interpretation of the information obtained. The inherent variation of ground conditions allows only definition of the actual conditions at the locations and depths of trial pits and boreholes at the time of the investigation. At intermediate locations, conditions can only be inferred.

Groundwater data are only representative of the dates on which they were obtained and both levels and quality may vary.

Unless otherwise stated, the recommendations in this report assume that ground levels will remain as existing. If there is to be any re-profiling (e.g. to create development platforms or for flood alleviation) then the recommendations may not apply.

Information provided by third parties has been used in good faith and is taken at face value; however, Stantec cannot guarantee its accuracy or completeness.

Where the existing report(s) prepared by others have been provided by the Client, it is assumed that these have been either commissioned by the Client, or can be assigned to the Client, and can be relied upon by Stantec. Should this not be the case Stantec should be informed immediately as additional work may be required. Stantec is not responsible for any factual errors or omissions in the supplied data, or for the opinions and recommendations of others. It is possible that the conditions described may have since changed through natural processes or later activities.

The work has been carried out in general accordance with recognised best practice. Unless otherwise stated, no assessment has been made for the presence of radioactive substances or unexploded ordnance.

Please note that notwithstanding any site observations concerning the presence or otherwise of archaeological sites, asbestos-containing materials or invasive weeds, this report does not constitute a formal survey of these potential constraints and specialist advice should be sought.

Any site boundary line depicted on plans does not imply legal ownership of land.

5 References

ASSOCIATION OF GROUND INVESTIGATION SPECIALISTS. 2006. Guidelines for Good Practice in Site Investigation. Issue 2. AGS, Beckenham.

BRE. 2016. Soakaway design. BRE DG 365. BRE, Garston.

BRE. 2005. Concrete in aggressive ground. BRE Special Digest 1, 3rd Edition. BRE, Garston.

BRITISH STANDARDS INSTITUTION. 2004+A1 2013. Eurocode 7 – Geotechnical design - Part 1: General rules. BS EN 1997-1+A1. Incorporating Corrigendum February 2009. BSI, London.

BRITISH STANDARDS INSTITUTION. 2007. Eurocode 7 – Geotechnical design - Part 2: Geotechnical investigation and testing. BS EN 1997-2. BSI, London.

BRITISH STANDARDS INSTITUTION. 2010. Code of practice for earthworks. BS 6031 Incorporating Corrigendum No.1:2010. BSI, London.

BRITISH STANDARDS INSTITUTION. 2017. Code of Practice for Investigation of Potentially Contaminated sites. BS 10175 Incorporating Amendment No. 2:2017. BSI, London.

BRITISH STANDARDS INSTITUTION. 2012. Trees in relation to design, demolition and construction – Recommendations. BS 5837. BSI, London.

BRITISH STANDARDS INSTITUTION. 2015+A!:2020. Code of Practice for Foundations. BS 8004. BSI, London.

BRITISH STANDARDS INSTITUTION. 2020. Code of practice for ground investigations. BS 5930+A1 2020, BSI, London.

BRITISH STANDARDS INSTITUTION. 2019. Concrete – complementary British Standard to BS EN 206-1 – Part 1: Method of specifying and guidance to the specifier. BS 8500-1+A2 2019. BSI, London.

BRITISH STANDARDS INSTITUTION. 2020. Soil Quality – Conceptual Site Models for potentially contaminated sites. BS EN ISO 21365:2020

BRITISH STANDARDS INSTITUTION. 2021. Soil and waste – Guidance on the selection and application of screening methods. BS EN ISO 12404:2021

ENVIRONMENT AGENCY. 2025. Land Contamination: Risk Management (LCRM). The Environment Agency.

HATANAKA, M, UCHIDA, A, KAKURAI, M, and AOKI, M. 1980. A consideration on the relationship between SPT N-value and internal friction angle of sandy soils. Journal of Structural and Construction Engineering (Transactions of AIJ). 63. 125-129. 10.3130/aijs.63.125_2.

HEALTH and SAFETY EXECUTIVE. December 2005. Construction Information Sheet 47: Inspections and Reports (CIS 47 (Rev 1)). HSE.



HEALTH and SAFETY EXECUTIVE. 2014. HSG47 - Avoiding danger from underground services (Third edition). HSE.

HIGHWAYS AGENCY. 2009. Design Guidance for Road Pavement Foundations (Draft HD25). Interim Advice Note 73/06. Rev 1. Highway Agency, London.

HIGHWAYS AGENCY. 2014. Manual of Contract Documents for Highway Works, Specification for Highway Works: Volume 1, Amendment August 2014. Highway Agency, London.

THE HIGHWAYS AGENCY. 2000. Design Manual, Road and Bridges: CS 641 - Managing the maintenance of highway geotechnical assets. CS 641 Rev 0. Highway Agency, London.

MINISTRY OF HOUSING, COMMUNITIES and LOCAL GOVERNMENT (MHCLG). Internet published Planning practice guidance https://www.gov.uk/government/collections/planning-practice-guidance. MHCLG. London

MINISTRY OF HOUSING, COMMUNITIES and LOCAL GOVERNMENT. December 2023. National Planning Policy Framework.

NHBC. 2024. NHBC Standards. NHBC, Milton Keynes. https://nhbc-standards.co.uk/

PECK, R.B., HANSON, W.E., AND THORNBURN, T.H., Foundation Engineering, 2nd Edn, John Wiley, New York, 1967, p.310.

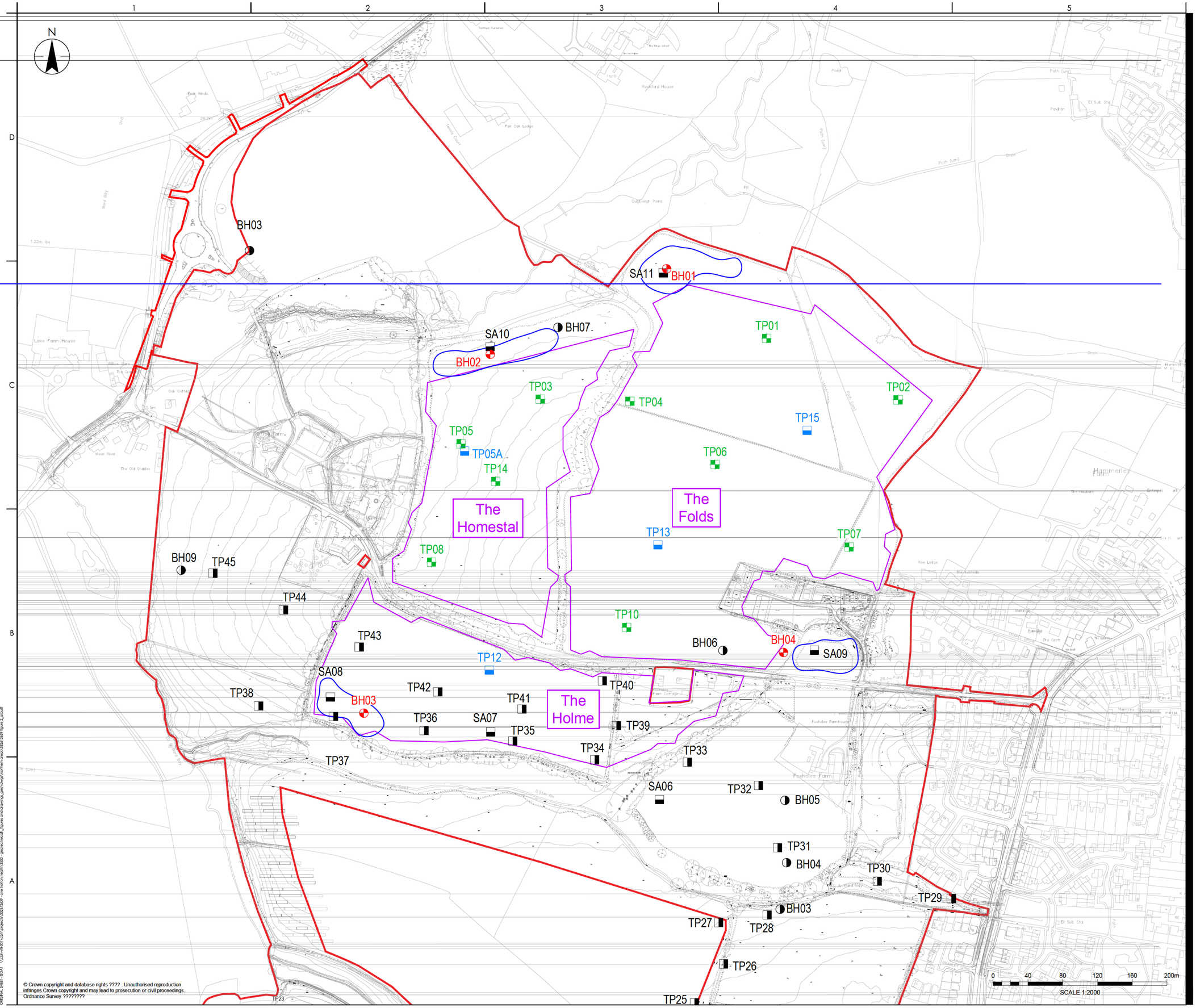
STONE, K., MURRAY, A., COOKE, S., FORAN, J. and GOODERHAM, L. 2009. Unexploded ordnance (UXO), a guide to the construction industry. CIRIA Report C681. Contaminated Land: Applications in Real Environments, London.

STROUD, M. A. 1975. The standard penetration test in insensitive clays and soft rocks. Proceedings of the European Symposium on penetration testing, 2, 367-375.

WATER UK HBF. January 2014. Contaminated Land Assessment Guidance. Water UK and the Home Builders Federation.

Appendices

Appendix A Drawings



© Crown copyright and database rights ???? . Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Ordnance Survey ????????

Plotted: 17/09/2025 09:17:04:23 PM By: Cotton, David
c:\data_active_projects\332612639_one horton heath\3000 - geotechnical\A_figures and drawings_gen\v3\dwgs\northern area\332612639 figure 2_v3.dwt

Stantec

Stantec UK Limited

PICK YOUR OFFICE

Tel.
www.stantec.com/uk

Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing. Any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorised by Stantec is forbidden.

Notes

Key

- Site Boundary
- Parcel Development Platform
- Proposed Pond
- Borehole Location
- Trial Pit Location
- Trial Pit with Infiltration Test
- Historical Borehole
- Historical Trial Pit
- Historical Soakaway

P01 FIRST ISSUE	davco	LC	LC	2025.09.17
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Issue Status

For Information

This document is suitable only for the purpose noted above.
Use of this document for any other purpose is not permitted.

Client/Project Logo

Client/Project

Eastleigh Borough Council

One Horton Heath

Title

Exploratory Hole Location Plan

Project No.	A1 Scale
332612639	1:2000
Revision	Figure No.
P01	Figure 2

Eastleigh Borough Council

Key

- Residential
- Non-residential
- Local Centre
- Primary School
- Link Road
- Secondary Road
- Bridleway

N

0 25 50 75 100 200m

Scale 1:2500

Revision C

January 2023 **29607A/1000A**

One Horton Heath Indicative Masterplan

CLAGUE ARCHITECTS

Appendix B Exploratory hole logs and photographs

Stantec	Project: Parkside, One Horton Heath	Borehole No BH01 Page No. 1 of 1

Method: Cable Percussion	Date(s): 23/07/2025 - 24/07/2025	Logged By: CR	Drilled By: BH Drilling
Client: Eastleigh Borough Council	Co-ords: 448934.17, 117762.56	Checked By: DM	Flush:
Stantec Project No: 332612639	Ground Level: 23.45m OD		Scale: 1:50

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Depth (m)	Type	Results							
				Soft to firm light brown slightly sandy CLAY. (TOPSOIL)		(0.90)			
0.90 - 1.00	D				0.90		22.55		
1.20	SPT	N=10 (1,1,2,2,3,3)		Soft becoming firm orangish brown mottled brown sandy CLAY with occasional greyish brown sand lenses. (WITTERING FORMATION - COHESIVE)	1	(0.30)			
1.20 - 1.65	D			Very soft orangish brown very sandy SILT. (WITTERING FORMATION - COHESIVE)	1.20	(0.45)	22.25		
				Soft becoming firm orangish brown mottled grey sandy CLAY. (WITTERING FORMATION - COHESIVE)	1.65		21.80		
2.00 - 2.45	U				2				
2.00 - 2.45	UT100	(47,100%)				(1.35)			
2.45 - 2.50	D								
3.00	SPT	N=14 (2,2,3,3,3,5)			3.00		20.45		
3.00 - 3.45	D			Firm greyish brown sandy CLAY. (WITTERING FORMATION - COHESIVE)	3				
3.30	D								
3.30 - 3.40	D								
4.00 - 4.45	U				4				
4.00 - 4.45	UT100	(64,100%)				(3.45)			
4.45 - 4.50	D								
5.00	SPT	N=16 (2,2,3,4,4,5)			5				
5.00 - 5.45	D								
6.00 - 6.45	UT100	(72,0%)			6				
					6.45		17.00		
				End of Borehole at 6.45m					
					7				
					8				
					9				
					10				

Progress and Observations

Rig	Date	Time	Borehole Depth (m)	Casing Depth (m)	Casing Diam.(mm)	Water Depth (m)	Flush Type	Returns (colour)
	23/07	1500	0.00	0.00				
	23/07	1710	1.20	0.00				
	24/07	0800	1.20	0.00				
	24/07	1230	6.00	1.20		5.90		

Chiselling

From (m)	To (m)	Duration (HH:MM)

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Drilled to 6m bgl. 3. No water encountered during drilling. 4. Monitoring pipe installed - Response zone 1.50m to 6.0m bgl.

Logged in general accordance with BS5930:2015

Stantec	Project: Parkside, One Horton Heath	Borehole No BH02 Page No. 1 of 1

Method: Cable Percussion	Date(s): 21/07/2025 - 28/07/2025	Logged By: CR	Drilled By: BH Drilling
Client: Eastleigh Borough Council	Co-ords: 448731.39, 117664.34	Checked By: DM	Flush:
Stantec Project No: 332612639	Ground Level: 22.50m OD		Scale: 1:50

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Depth (m)	Type	Results							
				Soft to firm light brown slightly sandy CLAY. (TOPSOIL)		(1.00)			
0.90 - 1.00	D				1.00		21.50		
1.20	SPT	N=5 (1,1,1,1,1,2)		Very soft becoming firm orangish brown mottled blueish grey sandy CLAY with rare pockets of orangish brown fine sand. (WITTERING FORMATION - COHESIVE)					
1.20 - 1.65	D								
2.00 - 2.45	U								
2.00 - 2.45	UT100	(34,100%)							
2.45 - 2.50	D					(2.90)			
3.00	SPT	N=9 (1,1,2,2,2,3)							
3.00 - 3.45	D								
3.90 - 4.00	D				3.90		18.60		
4.00 - 4.45	U			Firm friable greyish brown sandy CLAY. (WITTERING FORMATION - COHESIVE)					
4.00 - 4.45	UT100	(40,100%)							
4.45 - 4.50	D								
5.00	SPT	N=23 (2,3,4,6,6,7)				(2.60)			
5.00 - 5.45	D								
6.00 - 6.45	U								
6.00 - 6.45	UT100	(100,75%)							
6.45 - 6.50	D				6.50		16.00		
				End of Borehole at 6.50m					

Progress and Observations

Rig	Date	Time	Borehole Depth (m)	Casing Depth (m)	Casing Diam.(mm)	Water Depth (m)	Flush Type	Returns (colour)
	21/07	0800	0.00	0.00				
	21/07	1630	2.50	1.20				
	22/07	0800	2.50	1.20				
	22/07	1435	6.00	1.20				
	28/07	2130	6.00	1.20				
	28/07	2138	6.00	1.20				

Chiselling

From (m)	To (m)	Duration (HH:MM)

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Drilled to 6m bgl. 3. No water encountered during drilling. 4. Monitoring pipe installed - Response zone 1.00m to 6.0m bgl.

Logged in general accordance with BS5930:2015

Stantec	Project: Parkside, One Horton Heath	Borehole No BH03 Page No. 1 of 1

Method: Cable Percussion	Date(s): 22/07/2025 - 23/07/2025	Logged By: CR	Drilled By: BH Drilling
Client: Eastleigh Borough Council	Co-ords: 448586.07, 117251.79	Checked By: DM	Flush:
Stantec Project No: 332612639	Ground Level: 19.55m OD		Scale: 1:50

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Depth (m)	Type	Results							
				Loose to medium dense light brown SAND. (TOPSOIL)		(1.10)			
1.00 - 1.10	D				1.10		18.45		
1.20	SPT	N=6 (1,1,1,1,2,2)		Very soft becoming firm orangish brown mottled greyish brown sandy CLAY. (WITTERING FORMATION - COHESIVE)					
1.20 - 1.65	D								
2.00 - 2.45	U					(1.80)			
2.00 - 2.45	UT100	(51,100%)							
2.45 - 2.50	D				2.90		16.65		
3.00	SPT	N=41 (9,13,13,9,9,10)		Loose to medium dense orangish brown mottled light grey slightly clayey SAND with occasional pockets of clay. (WITTERING FORMATION - GRANULAR)	3.00	(0.10)	16.55		
3.00 - 3.45	D			Loose becoming medium dense dark greyish brown slightly clayey SAND with occasional pockets of blueish grey clay. (WITTERING FORMATION - GRANULAR)					
3.00 - 3.50	B								
4.00	SPT	N=14 (3,3,3,3,3,5)				(2.30)			
4.00 - 4.45	D								
5.00	SPT	N=15 (2,2,3,3,4,5)			5.30		14.25		
5.00 - 5.45	D			Firm dark greyish brown sandy CLAY. (WITTERING FORMATION - COHESIVE)					
6.00	SPT	N=19 (2,3,3,4,6,6)				(1.15)			
6.00 - 6.45	D				6.45		13.10		
				End of Borehole at 6.45m					

Progress and Observations

Rig	Date	Time	Borehole Depth (m)	Casing Depth (m)	Casing Diam.(mm)	Water Depth (m)	Flush Type	Returns (colour)
	22/07	1435	0.00	0.00				
	22/07	1630	0.00	0.00				
	23/07	0800	0.00	0.00				
	23/07	1500	6.00	5.70				

Chiselling

From (m)	To (m)	Duration (HH:MM)

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Water strike encountered at 3.50m bgl. 3. Drilled to 6m bgl. 4. Monitoring pipe installed - Response zone 1.50m to 6.0m bgl.

Logged in general accordance with BS5930:2015

Stantec	Project: Parkside, One Horton Heath	Borehole No BH04 Page No. 1 of 1

Method: Cable Percussion	Date(s): 24/07/2025 - 28/07/2025	Logged By: CR	Drilled By: BH Drilling
Client: Eastleigh Borough Council	Co-ords: 449068.53, 117321.56	Checked By: DM	Flush:
Stantec Project No: 332612639	Ground Level: 26.63m OD		Scale: 1:50

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend	Instrumentation / Backfill
Depth (m)	Type	Results							
				Loose to medium dense light brown slightly sandy CLAY. (TOPSOIL)		(0.90)			
0.90 - 1.00	D				0.90		25.73		
1.20	SPT	N=5 (1,1,1,1,1,2)		Soft blueish grey mottled orangish brown very sandy CLAY. (WITTERING FORMATION - COHESIVE)					
1.20 - 1.65	D					(1.70)			
2.00 - 2.45	U								
2.00 - 2.45	UT100	(37,100%)							
2.45 - 2.50	D								
2.60 - 2.70	D				2.60		24.03		
				Soft becoming firm light mottled blueish grey sandy CLAY with occasional pockets of fine sand. (WITTERING FORMATION - COHESIVE)					
3.00	SPT	N=21 (2,2,3,5,6,7)				(1.20)			
3.00 - 3.45	D				3.80		22.83		
				Loose to medium dense dark grey slightly clayey fine and medium SAND. (WITTERING FORMATION - GRANULAR)					
4.00	SPT	N=50 (7,10,11,13,13,13)							
4.00 - 4.45	D								
4.00 - 4.50	B								
5.00	SPT	N=50 (6,8,12,12,15,11)				(2.65)			
5.00 - 5.45	D								
6.00	SPT	N=14 (2,2,2,3,4,5)		*... At 6.00m bgl: becoming very clayey.*					
6.00 - 6.45	D				6.45		20.18		
				End of Borehole at 6.45m					

Progress and Observations

Rig	Date	Time	Borehole Depth (m)	Casing Depth (m)	Casing Diam.(mm)	Water Depth (m)	Flush Type	Returns (colour)
	24/07	1230	0.00	0.00				
	24/07	1419	6.00	0.00		1.20		
	25/07	1420	6.00	0.00		1.20		
	28/07	1320	6.00	0.00		1.20		
	28/07	1426	6.00	0.00		1.20		

Chiselling

From (m)	To (m)	Duration (HH:MM)

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Water strike encountered at 3.0m bgl. 3. Drilled to 6m bgl. 4. Monitoring pipe installed - Response zone 1.50m to 6.0m bgl..

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP01
Page No. 1 of 1

Method: Trial Pit	Date(s): 23/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 449049.14, 117682.58	Stability: Stable	Dimensions: 2.30m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 24.70m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Brown fine to coarse SAND with occasional rootlets. (TOPSOIL)	0.30	(0.30)	24.40	
				Brown fine to coarse SAND. (TOPSOIL)	0.60	(0.30)	24.10	
1.00	B			Firm orange brown very sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)				
1.00	D				1			
					1.90	(1.30)	22.80	
2.00	B			Soft orange brown mottled grey brown very sandy CLAY with occasional fine to coarse subangular flint.				
2.00	D				2			
				(WITTERING FORMATION - COHESIVE)				
						(1.60)		
3.00	B				3			
3.00	D							
				Base of Excavation at 3.50m	3.50		21.20	
					4			
					5			

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Excavated to 3.50m bgl. 3. Hand Shear Vanes completed in cohesive material only. 4. Slow water seepage encountered at 3.50m bgl. 5. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP02
Page No. 1 of 1

Method: Trial Pit	Date(s): 23/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 449200.26, 117611.93	Stability: Stable	Dimensions: 2.40m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 25.34m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Grass over brown fine to coarse SAND with rare fine to coarse subangular flint gravel. (TOPSOIL)	0.20	(0.20)	25.14	
0.30	ES			Brown clayey fine to coarse SAND. (TOPSOIL)	0.70	(0.50)	24.64	
1.00	B			Firm orange brown mottled grey brown sandy CLAY with rare fine to coarse subangular flint gravels. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	1.10	(0.40)	24.24	
1.00	D							
1.50	B			Firm orange brown sandy CLAY with frequent rounded to angular fine to coarse flint gravels. (WITTERING FORMATION - COHESIVE)	1.80	(0.70)	23.54	
1.50	D							
1.50	HSV	40/56/55kPa						
2.00	B			Stiff brown mottled blue grey slightly sandy CLAY with rare subangular medium and coarse flint gravels. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	2.80	(1.00)	22.54	
2.00	D							
2.00	HSV	74/68/64kPa						
3.00	LB			Orange brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	3.50	(0.70)	21.84	
				Base of Excavation at 3.50m				

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Excavated to 3.50m bgl. 3. Hand Shear Vanes completed in cohesive material only. 4. Slow water seepage encountered at 2.80m bgl on northwest face of trial pit. 5. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP03
Page No. 1 of 1

Method: Trial Pit	Date(s): 24/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448788.94, 117612.69	Stability: Stable	Dimensions: 2.20m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 24.68m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Grass over brown fine to coarse SAND with occasional rootlets and rare subangular and rounded flint gravels. (TOPSOIL)	0.10	(0.10)	24.58	
0.30	ES			Brown slightly clayey fine to coarse SAND. (TOPSOIL)	0.50	(0.40)	24.18	
0.60	ES			Firm orange brown mottled grey brown very sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)				
1.00 1.00	B D				1	(1.10)		
					1.60		23.08	
				Soft orange brown sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)				
2.00 2.00	D HSV	20/14/14kPa			2	(0.90)		
2.50	HSV	50/54/48kPa			2.50		22.18	
				Firm becoming stiff orange brown mottled grey brown sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)				
3.00 3.00	D HSV	64/62/62kPa			3	(1.00)		
3.50	HSV	56/56/66kPa			3.50		21.18	
				Base of Excavation at 3.50m				
					4			
					5			

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 3.50m bgl. 4. No water encountered. 5. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP04
Page No. 1 of 1

Method: Trial Pit	Date(s): 24/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448891.95, 117610.28	Stability: Stable	Dimensions: 2.50m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 25.98m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Brown fine to coarse SAND with frequent rootlets. (TOPSOIL)	0.40	(0.40)	25.58	
				Brown fine to coarse SAND with rare rootlets and rare subangular fine and medium flint gravel. (TOPSOIL)	0.60	(0.20)	25.38	
1.00 1.00 1.00	B D ES			Firm reddish brown very sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	1.40	(0.80)	24.58	
2.00 2.00	B D			Soft grey brown and orange brown sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)				
2.50	HSV	52/52/54kPa		*... From 2.50m bgl: Becoming stiff.*	3.00	(1.60)	22.98	
3.00 3.00 3.00	B D HSV	62/68/66kPa		Stiff grey brown mottled orange brown sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	3.50	(0.50)	22.48	
3.50	HSV	44/46/56kPa		Base of Excavation at 3.50m				

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Excavated to 3.50m bgl. 3. Hand Shear Vanes completed in cohesive material only. 4. No water encountered. 4. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP05
Page No. 1 of 1

Method: Trial Pit	Date(s): 22/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448697.76, 117561.45	Stability: Stable	Dimensions: 2.30m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 22.94m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Grass over brown fine to coarse SAND with frequent rootlets. (TOPSOIL)	0.10	(0.10)	22.84	
				Brown fine to coarse SAND with occasional rootlets. (TOPSOIL)	0.40	(0.30)	22.54	
				Firm orange brown and grey brown fine to coarse sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)				
1.00 1.00	B D					(1.50)		
1.90	D			Base of Excavation at 1.90m	1.90		21.04	

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Excavated to 1.90m bgl. 3. Hand Shear Vanes completed in cohesive material only. 4. Moderate water seepage encountered at 1.90m bgl. 5. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP05A
Page No. 1 of 1

Method: Trial Pit	Date(s): 22/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448702.00, 117553.00	Stability: Stable	Dimensions: 2.20m x 0.50m
Stantec Project No: 332612639		Plant: JCB3CX	Scale: 1:25

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Grass over brown fine to coarse SAND with occasional rootlets. (TOPSOIL)	0.10	(0.10)		
				Brown fine to coarse SAND with rare rootlets. (TOPSOIL)	0.40	(0.30)		
				Orange brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	1.35	(0.95)		
				Soft orange brown mottled grey brown very sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	1.50	(0.15)		
				Base of Excavation at 1.50m				

General Remarks:
1. Additional location cleared with CAT & Genny by Hydrock engineer due to groundwater ingress in TP05. 2. Approximate coordinates taken from What3Words. 3. Ground level unknown. 4. Excavated to 1.50m bgl. 5. Pit installed with gravel, pipework and arisings to undertake soakaway testing in general accordance with BRE 365.

Logged in general accordance with BS5930:2015

Stantec

Project: Northern Areas of One Horton Heath

Trialpit No
TP06
Page No. 1 of 1

Method: Trial Pit	Date(s): 24/07/2025	Logged By: LC	Checked By: TF
Client: Eastleigh Borough Council	Co-ords: 448989.73, 117537.60	Stability: Stable	Dimensions: 2.50m x 0.50m; Scale: 1:25
Hydrock Project No: 332612639	Ground Level: 29.17m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Brown fine to coarse SAND with frequent rootlets and rare fine to coarse subangular flint and redbrick gravels. (TOPSOIL)	0.40	(0.40)	28.77	
				Brown fine to coarse SAND with rare rootlets and rare fine and medium subangular flint gravels. (TOPSOIL)	0.60	(0.20)	28.57	
1.00 1.00	B D			Soft orange brown mottled grey brown very sandy CLAY with rare subangular medium flint gravels. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	1.30	(0.70)	27.87	
2.00	LB			Orange brown mottled grey brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	2.10	(0.80)	27.07	
3.00	LB			Yellow brown occasionally mottled orange fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	3.50	(1.40)	25.67	
				Base of Excavation at 3.50m				

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 3.50m bgl. 4. No water encountered. 5. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP07
Page No. 1 of 1

Method: Trial Pit	Date(s): 24/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 449144.07, 117442.87	Stability: Stable	Dimensions: 2.30m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 29.33m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Grass over brown fine to coarse SAND with frequent rootlets. (TOPSOIL)	0.10	(0.10)	29.23	
0.30	ES			Brown slightly gravelly fine to coarse SAND with occasional rootlets. Gravel is subangular to rounded fine to coarse of flint. (TOPSOIL)	0.40	(0.30)	28.93	
0.60	ES			Orange brown slightly gravelly slightly clayey fine to coarse SAND with rare subangular fine to coarse flint gravels. (WITTERING FORMATION - GRANULAR)	0.80	(0.40)	28.53	
0.60	LB							
1.00	D			Firm orange brown very sandy CLAY with rare subangular medium flint gravels. (WITTERING FORMATION - COHESIVE)	1.50	(0.70)	27.83	
				Orange brown mottled grey brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	2.30	(0.80)	27.03	
				Grey brown mottled orange brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)		(1.20)		
3.50	D			Base of Excavation at 3.50m	3.50		25.83	
3.50	LB							

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 3.50m bgl. 4. Slow water seepage encountered at 3.50m bgl. 5. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP08
Page No. 1 of 1

Method: Trial Pit	Date(s): 24/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448663.94, 117425.43	Stability: Stable	Dimensions: 2.50m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 23.33m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Grass over brown fine to coarse SAND with frequent rootlets. (TOPSOIL)	0.10	(0.10)	23.23	
0.30	ES			Brown fine to coarse SAND with rare rootlets and rare subangular to rounded fine and medium flint gravels. (TOPSOIL)	0.40	(0.30)	22.93	
0.60	ES			Firm grey brown mottled orange brown sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)				
1.00 1.00	B D					(1.10)		
1.50	HSV	62/54/48kPa		Soft to firm orange brown mottled grey brown very sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	1.50		21.83	
					1.80	(0.30)	21.53	
2.00 2.00	B D			Orange brown mottled grey brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)				
3.00	LB		▼			(1.30)		
				Dark blue grey fine to coarse SAND with occasional dark brown medium subangular gravel fragments of petrified wood. (WITTERING FORMATION - GRANULAR)	3.10		20.23	
3.50 3.50	D LB		▼			(0.40)		
				Base of Excavation at 3.50m	3.50		19.83	

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 3.50m bgl. 4. Slow water seepage encountered at 3.0m bgl and fast water seepage encountered at 3.50m bgl. 4. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP10
Page No. 1 of 1

Method: Trial Pit	Date(s): 24/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448888.20, 117350.42	Stability: Stable	Dimensions: 2.50m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 29.80m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Brown fine to coarse SAND with frequent rootlets and occasional subangular to rounded medium and coarse flint gravels. (TOPSOIL)	0.50	(0.50)	29.30	
				Brown fine to coarse SAND with rare subangular fine flint gravels. (TOPSOIL)	0.80	(0.30)	29.00	
0.90 0.90	B D			Stiff brown mottled orange brown sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	1.00	(0.20)	28.80	
1.50	LB			Grey brown slightly mottled orange brown clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	2.10	(1.10)	27.70	
2.50	LB			Yellow brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	3.50	(1.40)	26.30	
				Base of Excavation at 3.50m				

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Excavated to 3.5m bgl. 3. Moderate water seepage encountered at 3.50m bgl. 4. Backfilled with arisings.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP12
Page No. 1 of 1

Method: Trial Pit	Date(s): 22/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448730.32, 117301.32	Stability: Stable	Dimensions: 2.00m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 24.88m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.30	ES			Brown fine to coarse SAND with occasional rootlets. (TOPSOIL)	0.50	(0.50)	24.38	
0.60	ES			Brown fine to coarse SAND with rare rootlets. (TOPSOIL)	0.60	(0.10)	24.28	
1.00	D			Orange brown mottled grey brown clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)				
1.00	LB				1	(0.90)		
				Base of Excavation at 1.50m	1.50		23.38	
					2			
					3			
					4			
					5			

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 1.50m bgl. 4. No water encountered 5. Pit installed with gravel, pipework and arisings to undertake soakaway testing in general accordance with BRE 365.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP13
Page No. 1 of 1

Method: Trial Pit	Date(s): 23/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448924.24, 117445.21	Stability: Stable	Dimensions: 2.00m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 30.40m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Brown fine to coarse SAND with occasional rootlets and rare medium subangular of flint and ceramic. (TOPSOIL)	0.50	(0.50)	29.90	
1.00 1.00	D LB			Yellow brown slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)	1.50	(1.00)	28.90	
				Base of Excavation at 1.50m				

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 1.50m bgl. 4. No water encountered. 5. Pit installed with gravel. pipework and arisings to undertake soakaway testing in general accordance with BRE 365.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP14
Page No. 1 of 1

Method: Trial Pit	Date(s): 22/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 448737.64, 117518.26	Stability: Unstable	Dimensions: 2.50m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 24.82m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
				Grass over brown fine to coarse SAND with frequent rootlets. (TOPSOIL)	0.10	(0.10)	24.72	
				Brown slightly clayey fine to coarse SAND with occasional rootlets. (TOPSOIL)	0.30	(0.20)	24.52	
				Orange fine to coarse SAND. (WITTERING FORMATION - GRANULAR)				
0.90	B					(0.70)		
1.00	D				1.00		23.82	
				Soft grey brown mottled orange brown very sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)		(0.60)		
					1.60		23.22	
				Grey brown mottled orange clayey fine to coarse SAND with rare subangular medium gravels. (WITTERING FORMATION - GRANULAR)				
2.00	B					(1.20)		
2.00	D			*... Between 2.40m and 2.45m bgl: Dark brown thinly laminated fine and medium SAND. Noted wet.*				
					2.80		22.02	
				Dark grey slightly clayey fine to coarse SAND. (WITTERING FORMATION - GRANULAR)		(0.30)		
3.00	B							
3.00	D				3.10		21.72	
				Base of Excavation at 3.10m				

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 3.10m bgl. 4. Groundwater encountered at 3.10m bgl. 5. Fast water seepage noted and trial pit becoming unstable and side walls collapsing. 6. Location terminated and backfilled with arisings. 7. Soakaway position relocated to TP05A due to water ingress.

Logged in general accordance with BS5930:2015

Stantec

Project: Parkside, One Horton Heath

Trialpit No
TP15
Page No. 1 of 1

Method: Trial Pit	Date(s): 23/07/2025	Logged By: LC	Checked By: DM
Client: Eastleigh Borough Council	Co-ords: 449095.70, 117576.70	Stability: Stable	Dimensions: 2.00m x 0.50m; Scale: 1:25
Stantec Project No: 332612639	Ground Level: 28.67m OD	Plant: JCB3CX	

Samples / Tests			Water-Strikes	Stratum Description	Depth mbgl	Thickness (m)	Level m OD	Legend
Depth (m)	Type	Results						
0.30	ES			Brown fine to coarse SAND with occasional rootlets. (TOPSOIL)	0.50	(0.50)	28.17	
				Brown fine to coarse SAND. (TOPSOIL)	0.70	(0.20)	27.97	
0.80	ES			Soft orange brown mottled grey brown very sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION - COHESIVE)	1.50	(0.80)	27.17	
1.00	D			Base of Excavation at 1.50m				

General Remarks:
1. Location cleared by third party specialist and surveyed using a Lecia Geomax GPS. 2. Hand Shear Vanes completed in cohesive material only. 3. Excavated to 1.50m bgl. 4. No water encountered. 5. Pit installed with gravel, pipework and arisings to undertake soakaway testing in general accordance with BRE 365.

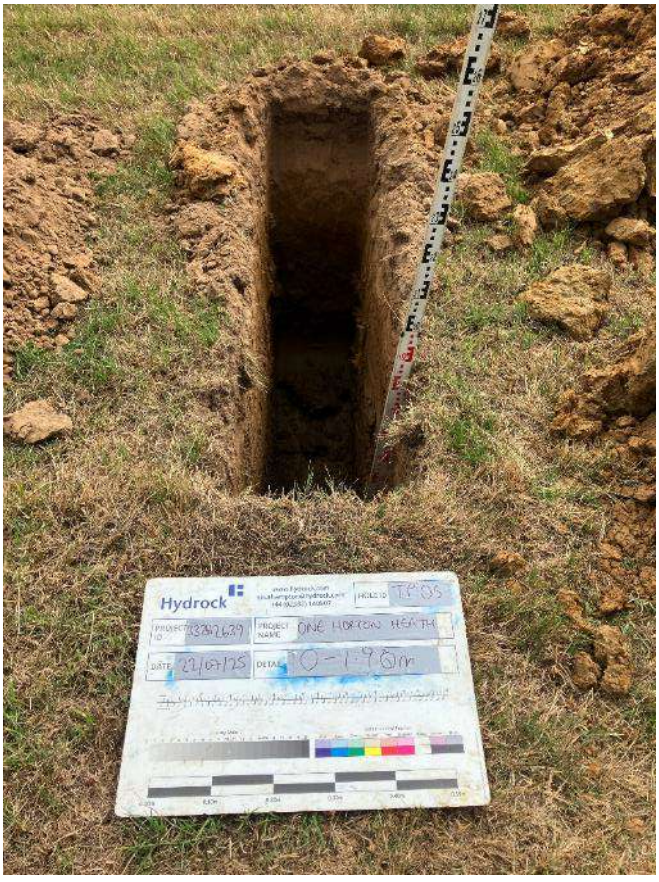
Logged in general accordance with BS5930:2015

Photograph: 1	
Date: 21/07/2025	
Direction: South East	
Description: Cable Percussion Rig set up on BH02 within The Homestal.	
Photograph: 2	
Date: 22/07/2025	
Direction: N/A	
Description: Location of TP14 within The Homestal.	

Photograph: 3	
Date: 22/07/2025	
Direction: East	
Description: TP14 excavated to 3.10m bgl.	
Photograph: 4	
Date: 22/07/2025	
Direction: N/A	
Description: Fast water ingress noted in TP14.	

Photograph: 5	
Date: 22/07/2025	
Direction: N/A	
Description: Collapse of side wall of TP14. Darker band can be seen which was recorded at 2.40-2.45m bgl. This was described as 'Dark brown thinly laminated SAND'. Noted wet.	
Photograph: 6	
Date: 22/07/2025	
Direction: North East	
Description: TP14 arisings from ground level to 1.0m bgl.	

Photograph: 7 Date: 22/07/2025 Direction: South East Description: Deeper arisings from TP14.	
Photograph: 8 Date: 22/07/2025 Direction: N/A Description: TP14 backfilled with arisings.	

Photograph: 9	
Date: 22/07/2025	
Direction: West	
Description: Location of TP05 within the Homestal.	
Photograph: 10	
Date: 22/07/2025	
Direction: East	
Description: TP05 excavated to 1.90m bgl.	

Photograph: 11 Date: 22/07/2025 Direction: N/A Description: Water ingress noted in TP05.	
Photograph: 12 Date: 22/07/2025 Direction: North East Description: TP05 arisings from ground level to 1.0m bgl.	

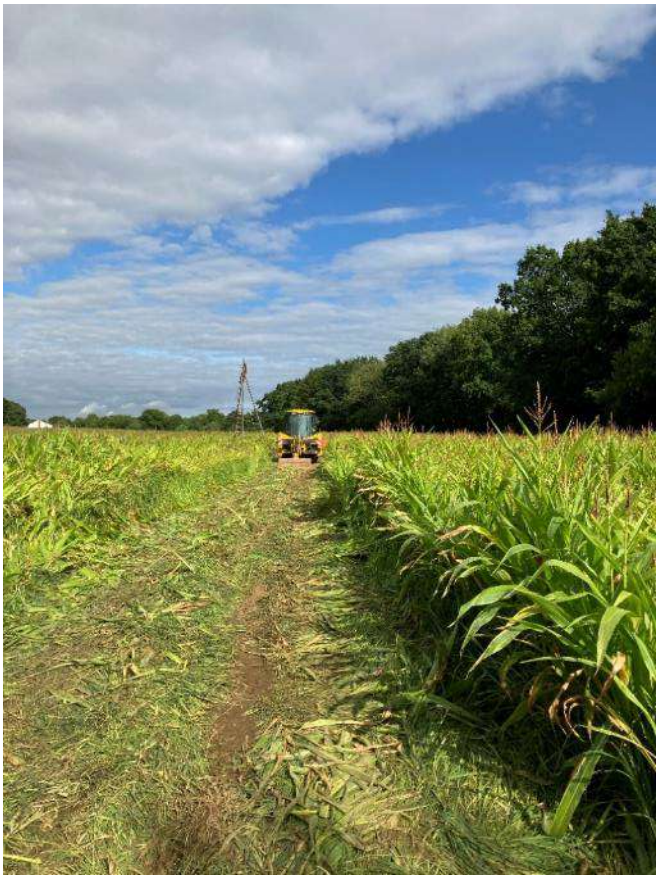
Photograph: 13	
Date: 22/07/2025	
Direction: N/A	
Description: TP14 deeper arisings.	
Photograph: 14	
Date: 22/07/2025	
Direction: N/A	
Description: TP05A excavated to 1.50m bgl. Backfilled with gravel, pipework and arisings to undertake soakaway testing.	

Photograph: 15	
Date: 22/07/2025	
Direction: North East	
Description: TP05A arisings from ground level to 0.40m bgl.	
Photograph: 16	
Date: 22/07/2025	
Direction: South East	
Description: TP05A deeper arisings.	

Photograph: 17	
Date: 22/04/2025	
Direction: South	
Description: TP12 excavated to 1.50m bgl.	
Photograph: 18	
Date: 22/07/2025	
Direction: South	
Description: TP12 trial pit.	

Photograph: 19 Date: 22/07/2025 Direction: South West Description: TP12 topsoil arisings from ground level to 0.06m bgl.	
Photograph: 20 Date: 22/07/2025 Direction: South East Description: TP12 deeper arisings.	

Photograph: 21 Date: 23/07/2025 Direction: East Description: TP12 backfilled with gravel, arisings and pipework to undertake soakaway testing.	
Photograph: 22 Date: 23/07/2025 Direction: North West Description: BH02 completed and installed.	

Photograph: 23	
Date: 23/07/2025	
Direction: East	
Description: Path cleared through maize crops to BH03.	
Photograph: 24	
Date: 23/07/2025	
Direction: North East	
Description: Cable percussion rig set up on BH03 within the Holme.	

Photograph: 25	
Date: 23/07/2025	
Direction: South West	
Description: TP13 location within the Folds.	
Photograph: 26	
Date: 23/07/2025	
Direction: West	
Description: TP13 excavated to 1.50m bgl.	

Photograph: 27	
Date: 23/07/2025	
Direction: N/A	
Description: TP13.	
Photograph: 28	
Date: 23/07/2025	
Direction: North West	
Description: TP13 topsoil arisings.	

Photograph: 29 Date: 23/07/2025 Direction: South West Description: TP13 deeper arisings.	
Photograph: 30 Date: 23/07/2025 Direction: South West Description: TP13 backfilled with gravel, pipework and arisings to undertake soakaway testing.	

Photograph: 31	
Date: 23/07/2025	
Direction: East	
Description: TP15 location within the Folds.	
Photograph: 32	
Date: 23/07/2025	
Direction: West	
Description: TP15 excavated to 1.50m bgl.	

Photograph: 33	
Date: 23/07/2025	
Direction: South West	
Description: TP15 topsoil arisings.	
Photograph: 34	
Date: 23/07/2025	
Direction: North West	
Description: TP15 deeper arisings. Backfilled with gravel, pipework and arisings to undertake soakaway testing.	

Photograph: 35	
Date: 23/07/2025	
Direction: South	
Description: TP01 excavated to 3.50m bgl within the Folds.	
Photograph: 36	
Date: 23/07/2025	
Direction: South East	
Description: TP01.	

Photograph: 37 Date: 23/07/2025 Direction: South West Description: TP01 topsoil arisings.	
Photograph: 38 Date: 23/07/2025 Direction: South East Description: TP01 deeper arisings.	

Photograph: 39	
Date: 23/07/2025	
Direction: West	
Description: Location of TP02 to the NE of the Folds.	
Photograph: 40	
Date: 23/07/2025	
Direction: North	
Description: TP01 excavated to 3.50m bgl.	

Photograph: 41	
Date: 23/07/2025	
Direction: N/A	
Description: TP02. Water ingress noted at base.	
Photograph: 42	
Date: 23/07/2025	
Direction: North West	
Description: TP02 topsoil arisings.	

Photograph: 43	
Date: 23/07/2025	
Direction: North East	
Description: TP02 deeper arisings.	
Photograph: 44	
Date: 23/07/2025	
Direction: North	
Description: TP02 backfilled with arisings.	

Photograph: 45	
Date: 24/07/2025	
Direction: East	
Description: Location of TP07 to the east of the Folds.	
Photograph: 46	
Date: 24/07/2025	
Direction: East	
Description: TP07 excavated to 3.50m bgl.	

Photograph: 47	
Date: 24/07/2025	
Direction: N/A	
Description: TP07.	
Photograph: 48	
Date: 24/07/2025	
Direction: North East	
Description: TP07 topsoil arisings.	

Photograph: 49	
Date: 24/07/2025	
Direction: South East	
Description: TP07 deeper arisings.	
Photograph: 50	
Date: 24/07/2025	
Direction: West	
Description: Location of TP04 within the Folds.	

Photograph: 51	
Date: 24/07/2025	
Direction: East	
Description: TP04 excavated to 3.50m bgl.	
Photograph: 52	
Date: 24/07/2025	
Direction: North East	
Description: TP04.	

Photograph: 53	
Date: 24/07/2025	
Direction: South East	
Description: TP04 topsoil arisings.	
Photograph: 54	
Date: 24/07/2025	
Direction: North East	
Description: TP04 deeper arisings.	

Photograph: 55 Date: 24/07/2025 Direction: North Description: TP04 backfilled with arisings.	
Photograph: 56 Date: 24/07/2025 Direction: South Description: Location of TP06 within the Folds.	

Photograph: 57 Date: 24/07/2025 Direction: South Description: TP06 excavated to 3.50m bgl.	
Photograph: 58 Date: 24/07/2025 Direction: N/A Description: TP06. Water ingress noted at base.	

Photograph: 59	
Date: 24/07/2025	
Direction: South West	
Description: TP06 topsoil arisings.	
Photograph: 60	
Date: 24/07/2025	
Direction: South East	
Description: TP06 deeper arisings.	

Photograph: 61	
Date: 24/07/2025	
Direction: North	
Description: TP06 backfilled with arisings.	
Photograph: 62	
Date: 24/07/2025	
Direction: North	
Description: TP10 excavated to 3.50m bgl.	

Photograph: 63 Date: 24/07/2025 Direction: N/A Description: TP10. Water ingress noted at base.	
Photograph: 64 Date: 24/07/2025 Direction: North East Description: TP10 topsoil arisings.	

Photograph: 65	
Date: 24/07/2025	
Direction: South West	
Description: Location of TP03 within the Holmestal.	
Photograph: 66	
Date: 24/07/2025	
Direction: North	
Description: TP03 excavated to 3.50m bgl.	

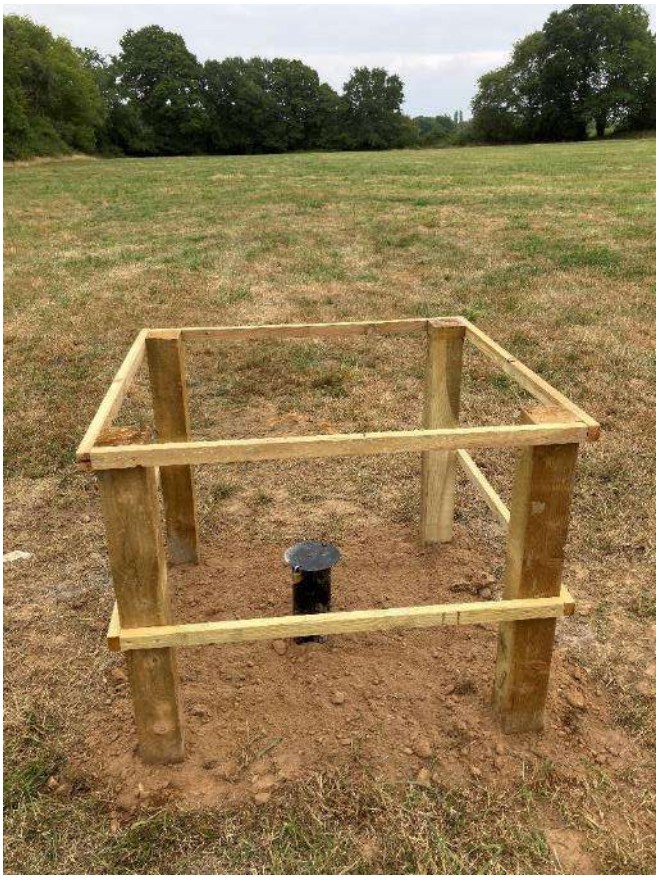
Photograph: 67	
Date: 24/07/2025	
Direction: N/A	
Description: TP03.	
Photograph: 68	
Date: 24/07/2025	
Direction: North	
Description: TP03 arisings from ground level to approximately 0.70m bgl.	

Photograph: 69 Date: 24/07/2025 Direction: North West Description: TP03 deeper arisings.	
Photograph: 70 Date: 24/07/2025 Direction: South Description: TP03 backfilled with arisings.	

Photograph: 71	
Date: 24/07/2025	
Direction: North	
Description: Location of TP08 within the Holmestal.	
Photograph: 72	
Date: 24/07/2025	
Direction: East	
Description: TP08 excavated to 3.50m bgl.	

Photograph: 73 Date: 24/07/2025 Direction: N/A Description: TP08. Water ingress noted at base.	
Photograph: 74 Date: 24/07/2025 Direction: North East Description: TP08 arisings from ground level to 0.60m bgl.	

Photograph: 75 Date: 24/07/2025 Direction: South East Description: TP08 deeper arisings.	
Photograph: 76 Date: 24/07/2025 Direction: East Description: TP08 backfilled with arisings	

Photograph: 77 Date: 24/07/2025 Direction: North East Description: BH04 in the southeast corner of the Folds. Tophat installed with wooden fence protection.	
Photograph: 78 Date: 24/07/2025 Direction: East Description: BH02 within the northwest of the Holmestal. Tophat installed with wooden fence protection.	

Photograph: 79	
Date: 24/07/2025	
Direction: South	
Description: BH01 within the north of the Folds. Tophat installed with wooden fence protection.	
Photograph: 80	
Date: 24/07/2025	
Direction: North East	
Description: BH03 within the Holme. Tophat installed with wooden fence protection.	

Appendix C Geotechnical test results

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

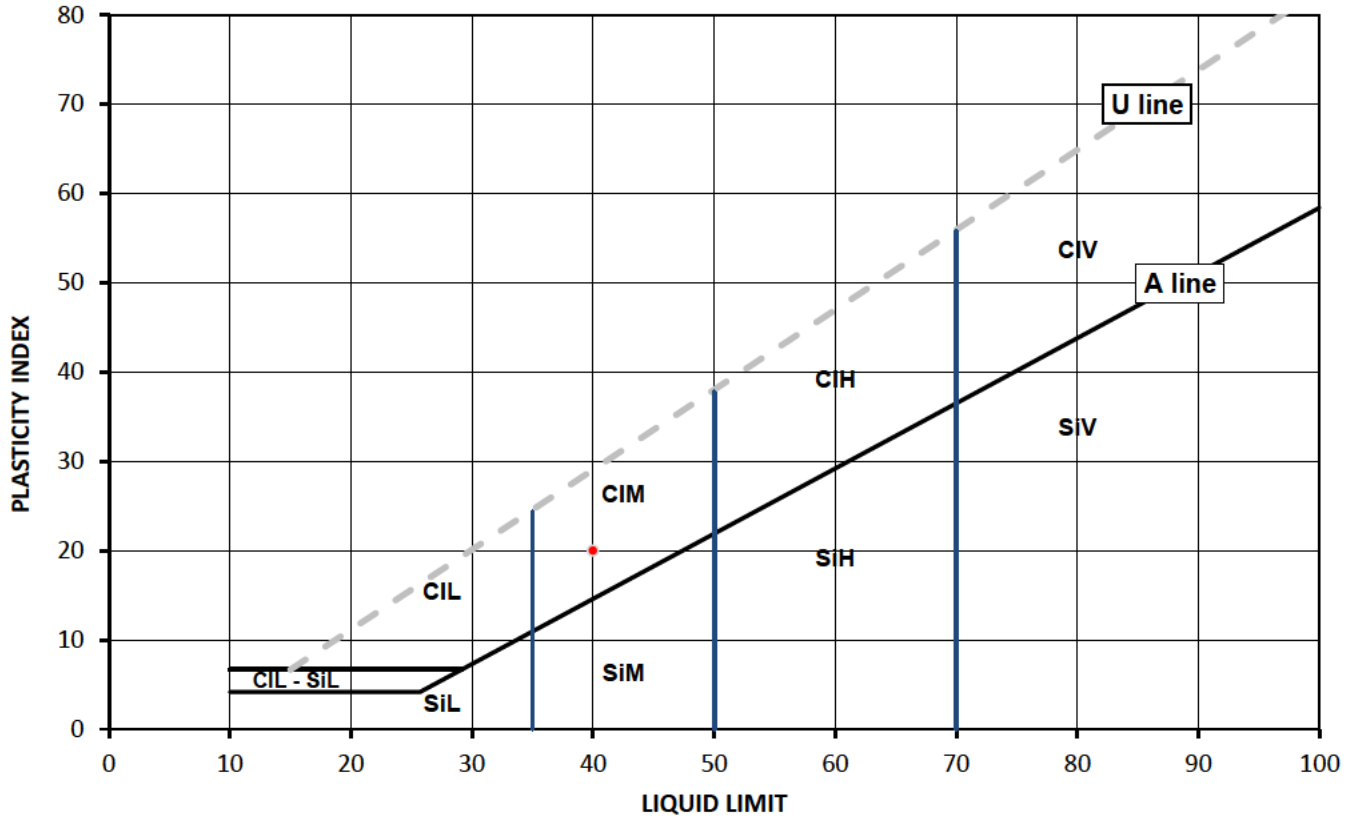
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635109	Depth Top [m]:	1.00
Hole No.:	TP14	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Greyish brown sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
27.7	40	20	20	0.40	0.60	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

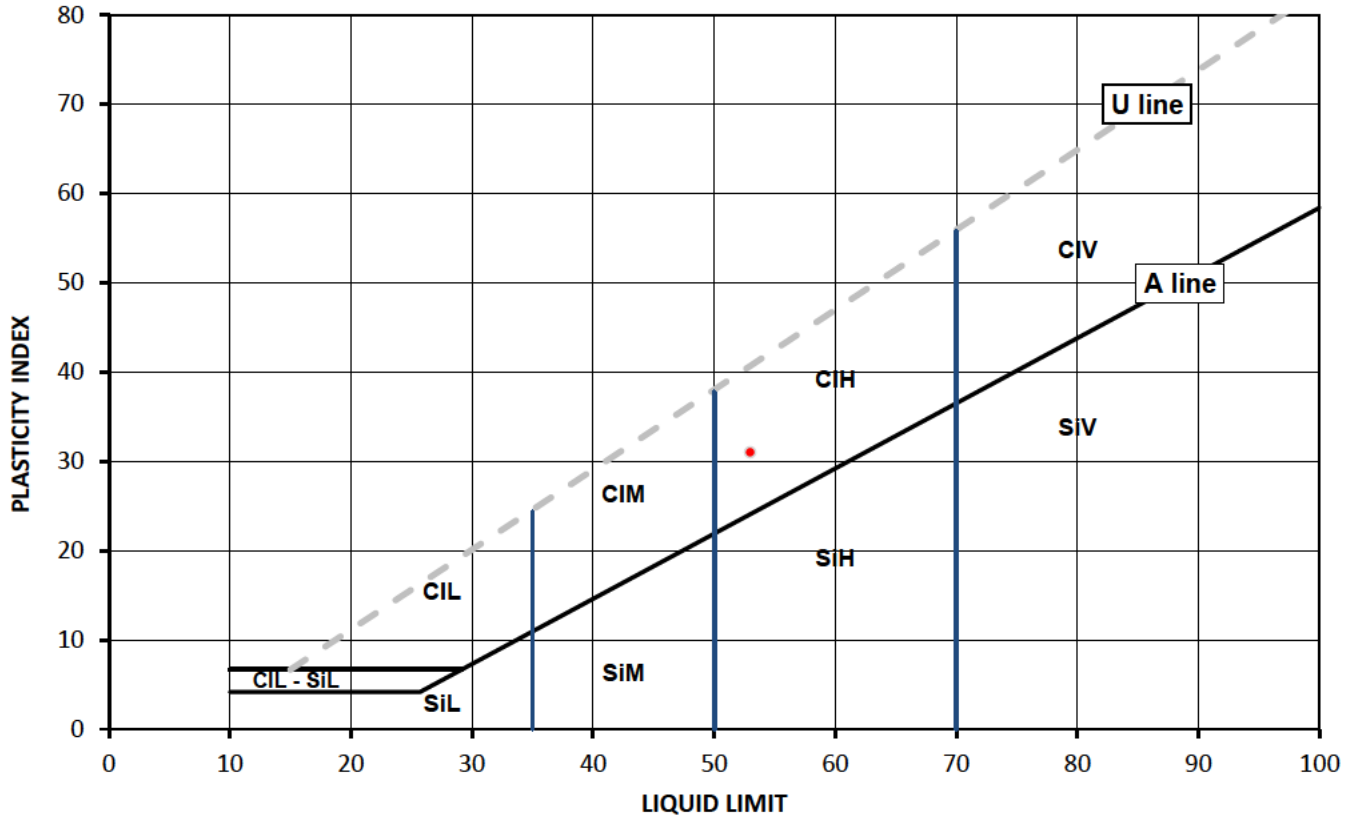
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635111	Depth Top [m]:	1.00
Hole No.:	TP05	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey slightly gravelly slightly sandy CLAY		
Sample Preparation:	Tested after >0.425mm removed by hand; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
23.8	53	22	31	0.06	0.94	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

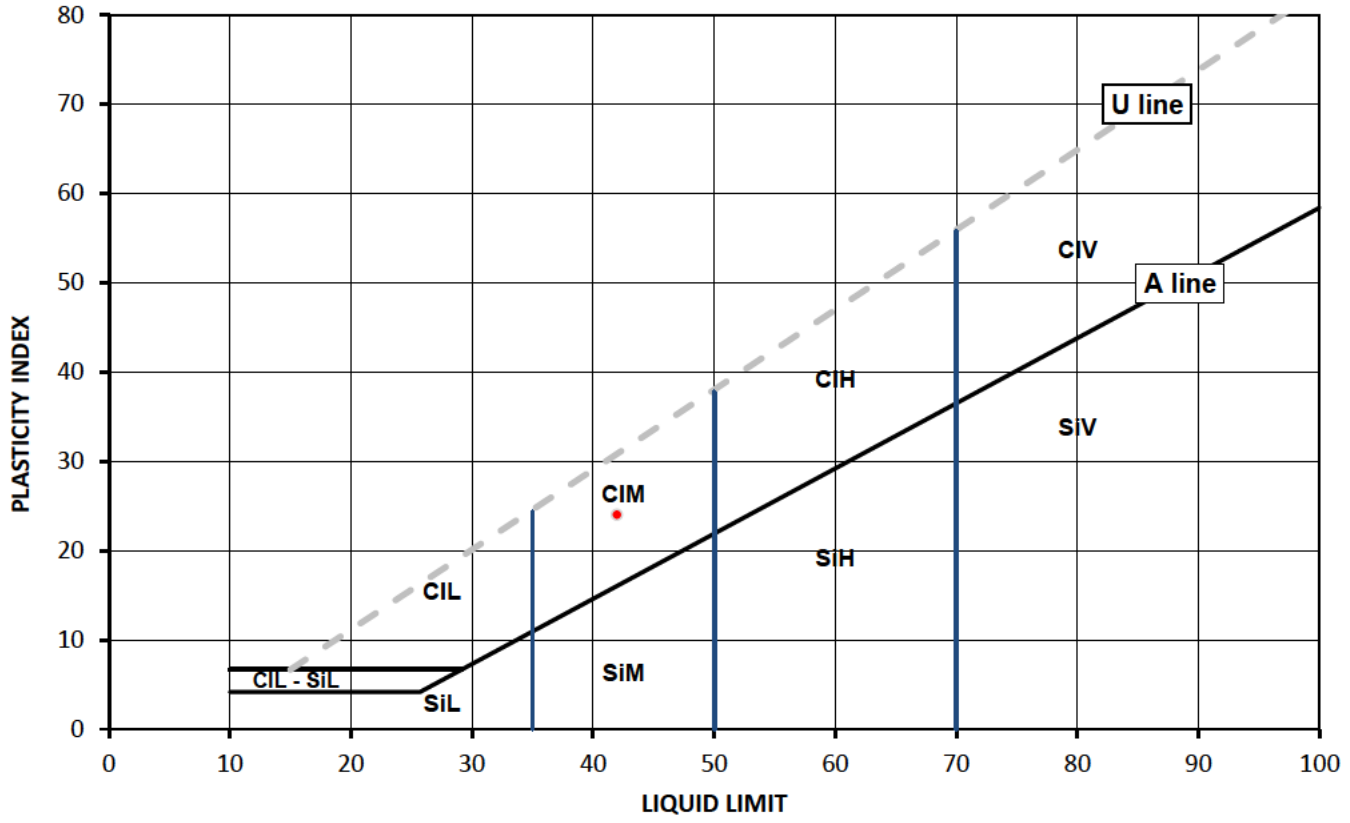
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635114	Depth Top [m]:	1.00
Hole No.:	TP01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown slightly sandy silty CLAY		

Sample Preparation: Tested after >0.425mm removed by hand; The water content in the sample was increased
Cone Type: 80g/30deg

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
20.7	42	18	24	0.13	0.88	98



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

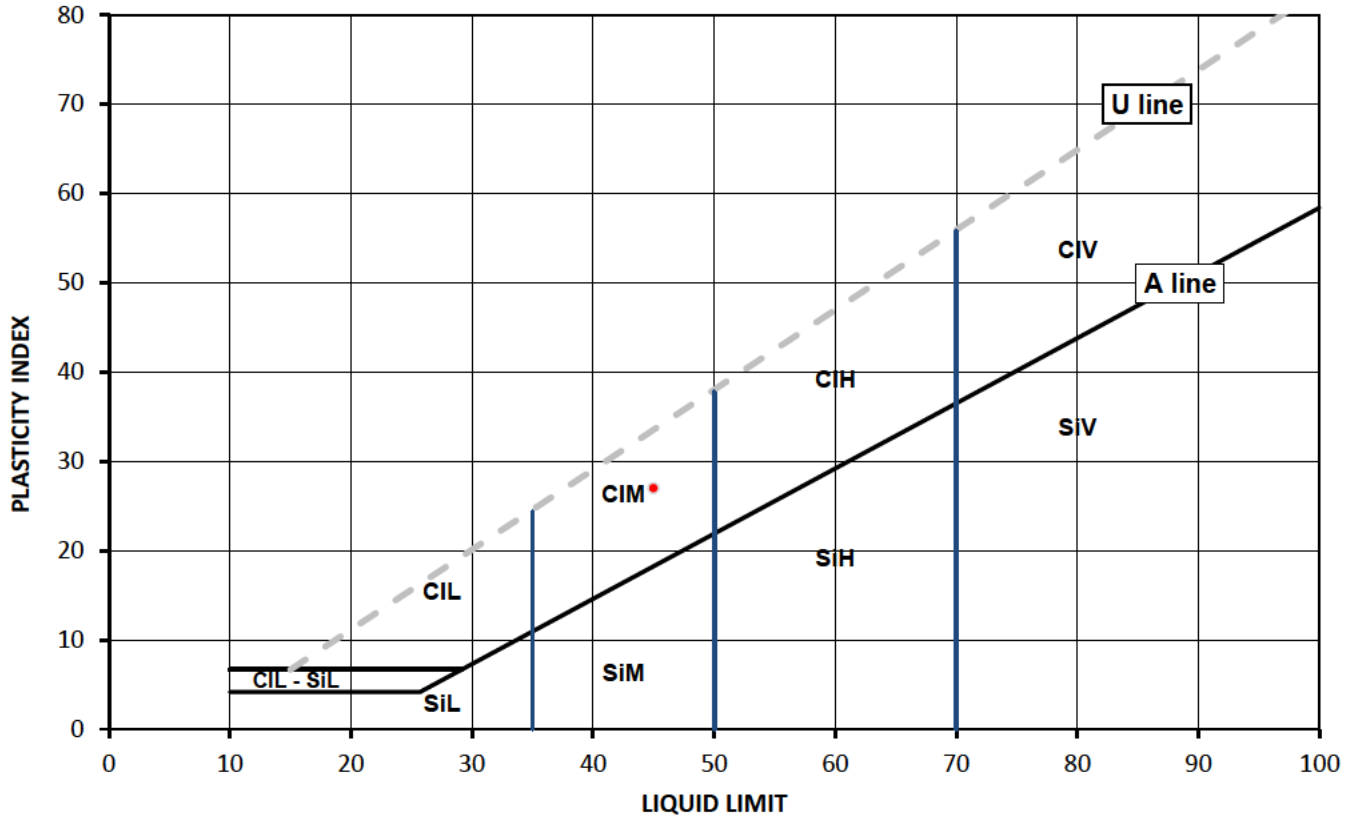
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	13/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635115	Depth Top [m]:	1.00
Hole No.:	TP02	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
21.8	45	18	27	0.15	0.85	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

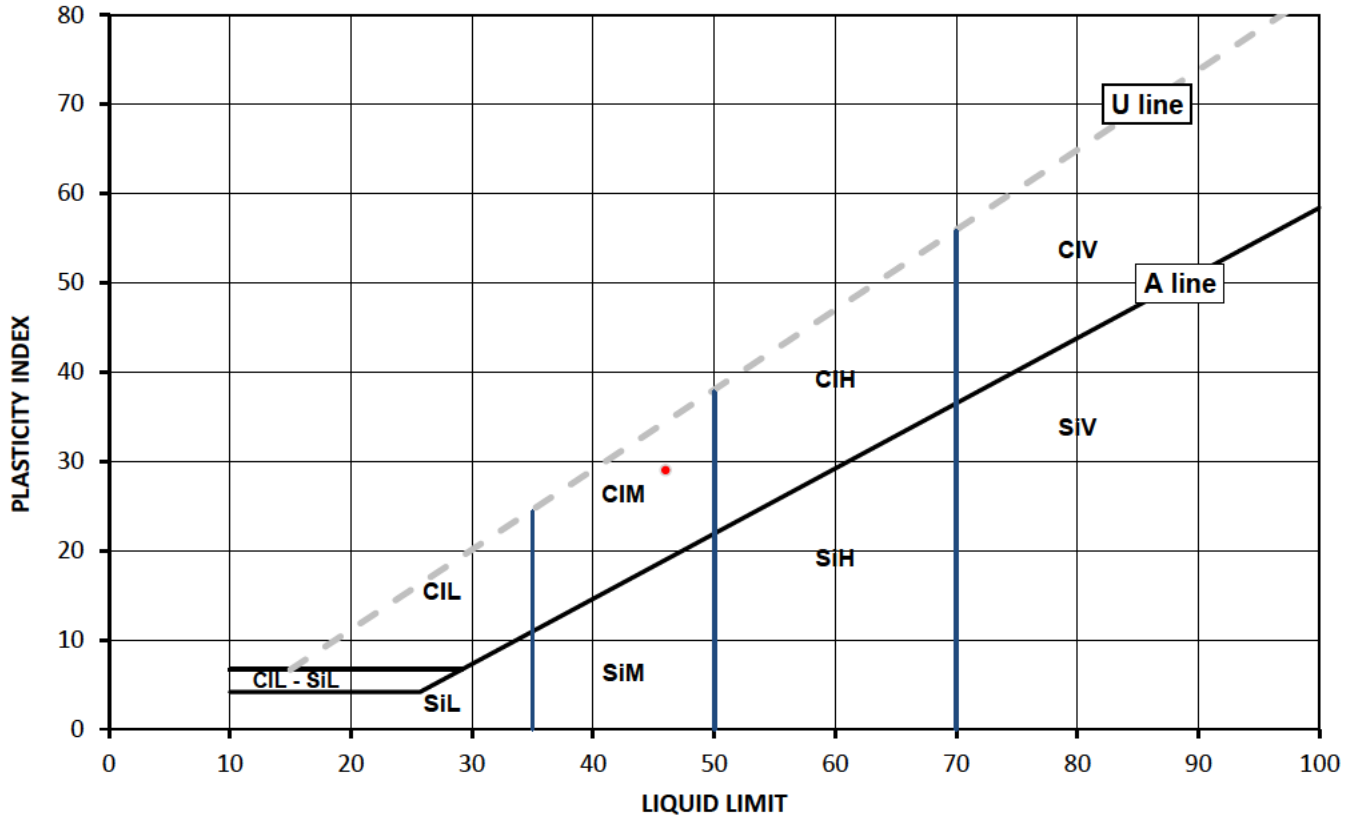
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635116	Depth Top [m]:	2.00
Hole No.:	TP02	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
24.8	46	17	29	0.28	0.72	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

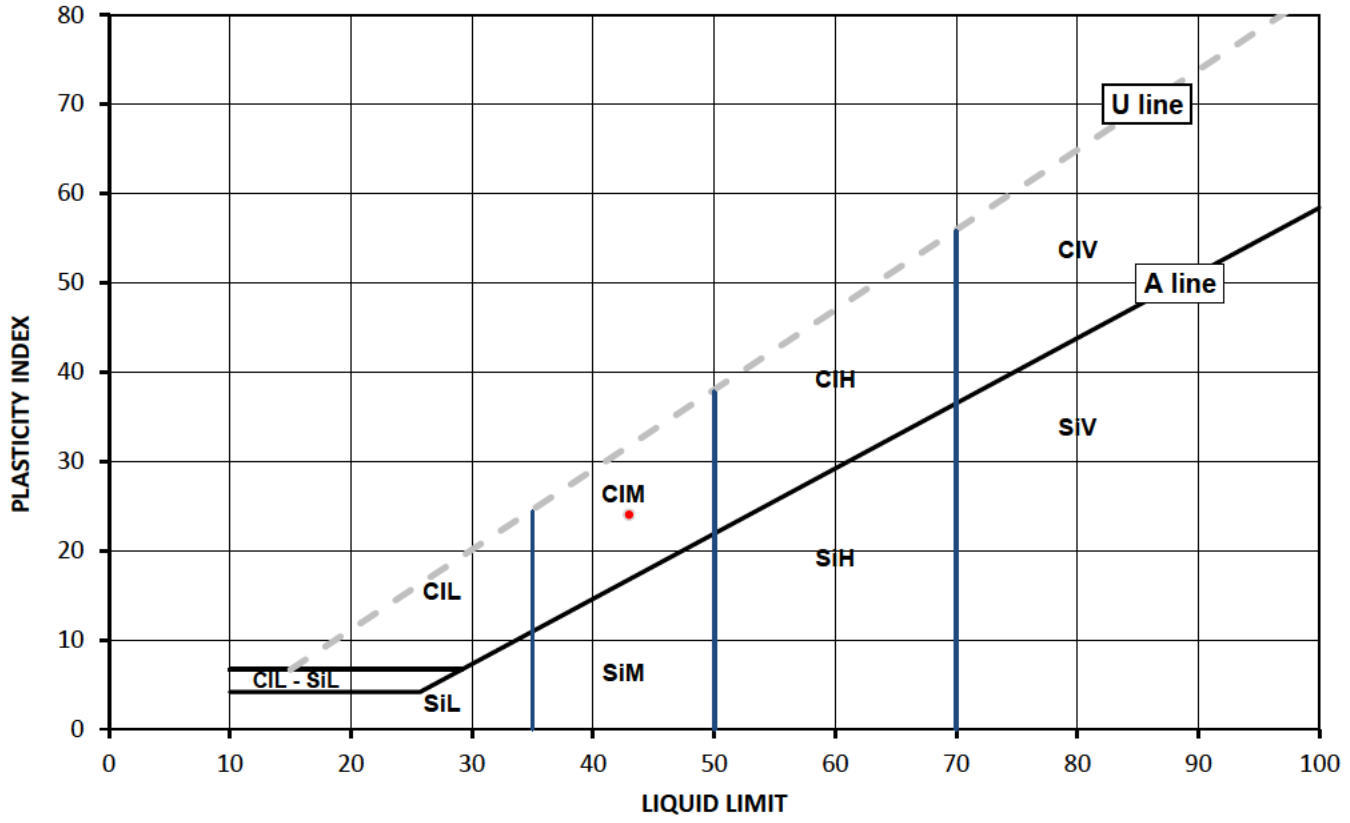
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635118	Depth Top [m]:	1.00
Hole No.:	TP04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown sandy CLAY		

Sample Preparation: Tested in natural condition; The water content in the sample was increased
Cone Type: 80g/30deg

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
18.2	43	19	24	-0.04	1.04	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

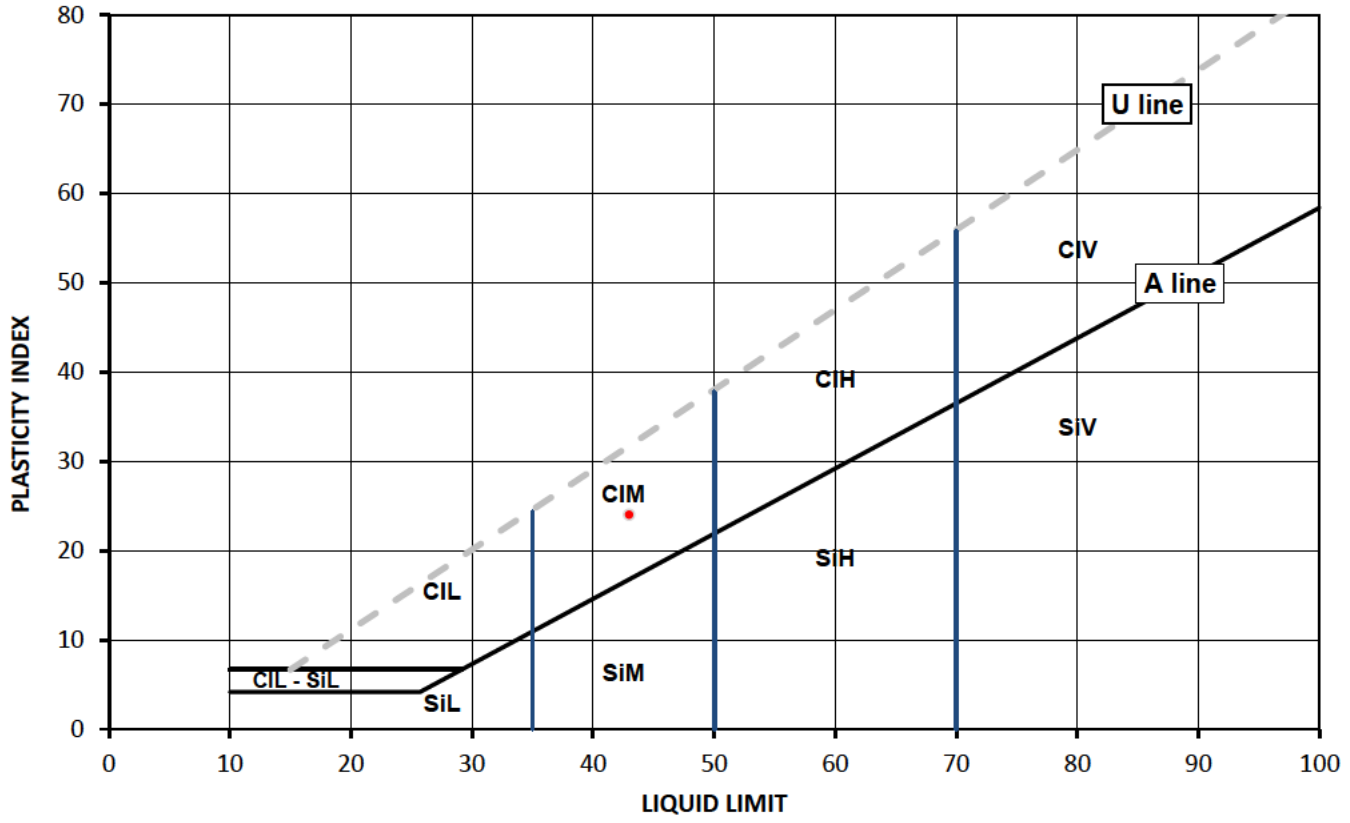
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635120	Depth Top [m]:	3.00
Hole No.:	TP04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >0.425mm removed by hand; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
23.1	43	19	24	0.17	0.83	98



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

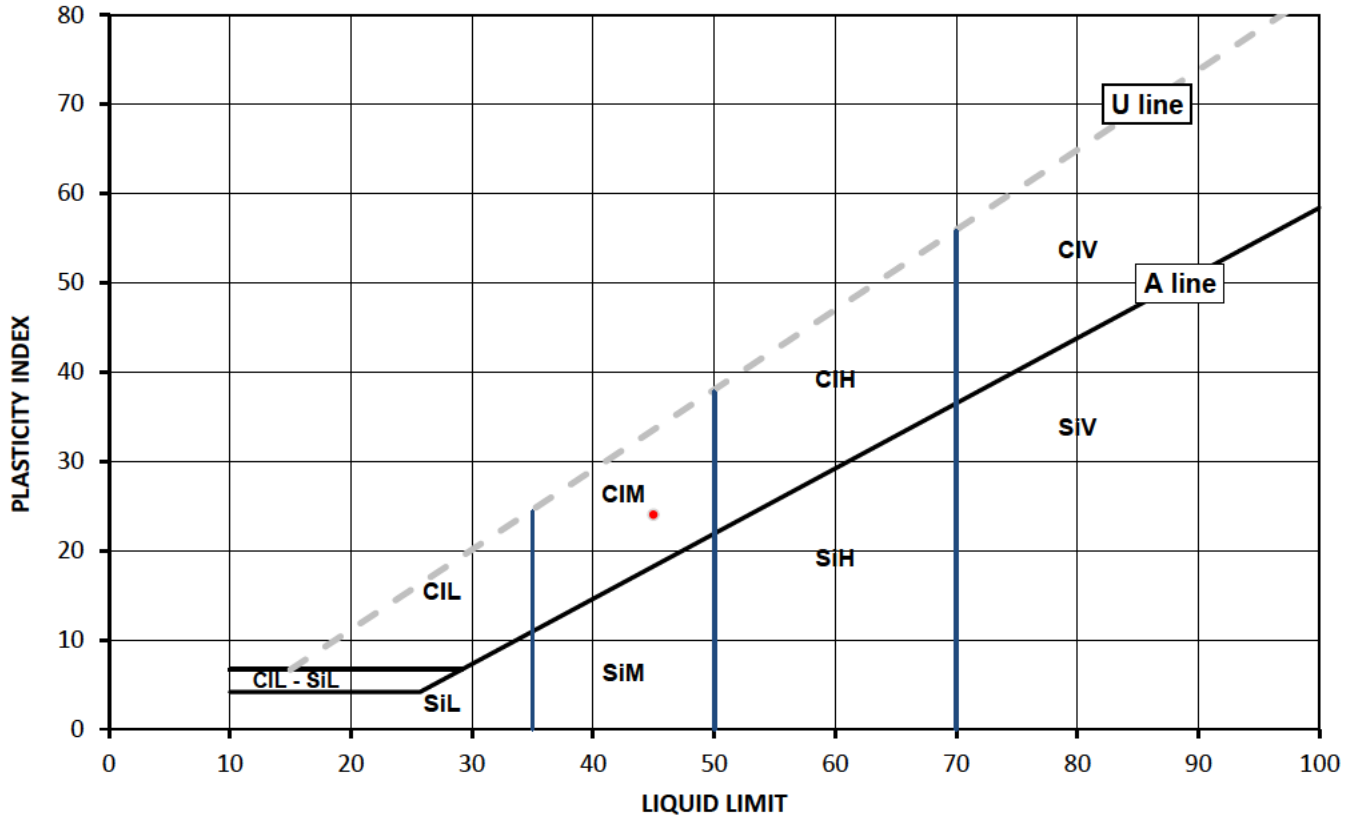
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635121	Depth Top [m]:	1.00
Hole No.:	TP06	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly slightly sandy CLAY		
Sample Preparation:	Tested after >0.425mm removed by hand; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
19.5	45	21	24	-0.04	1.04	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

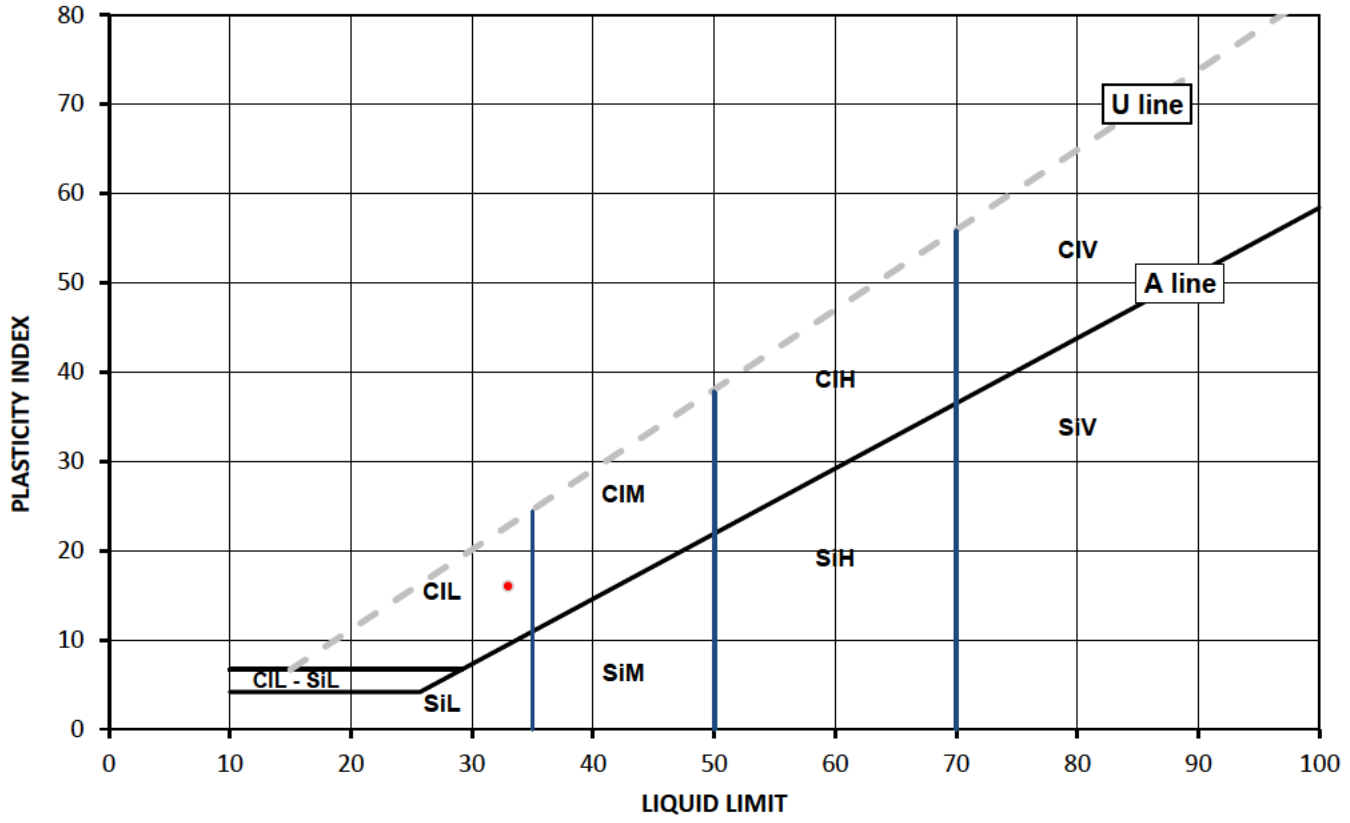
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635124	Depth Top [m]:	2.00
Hole No.:	TP03	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown very sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
24.3	33	17	16	0.44	0.56	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

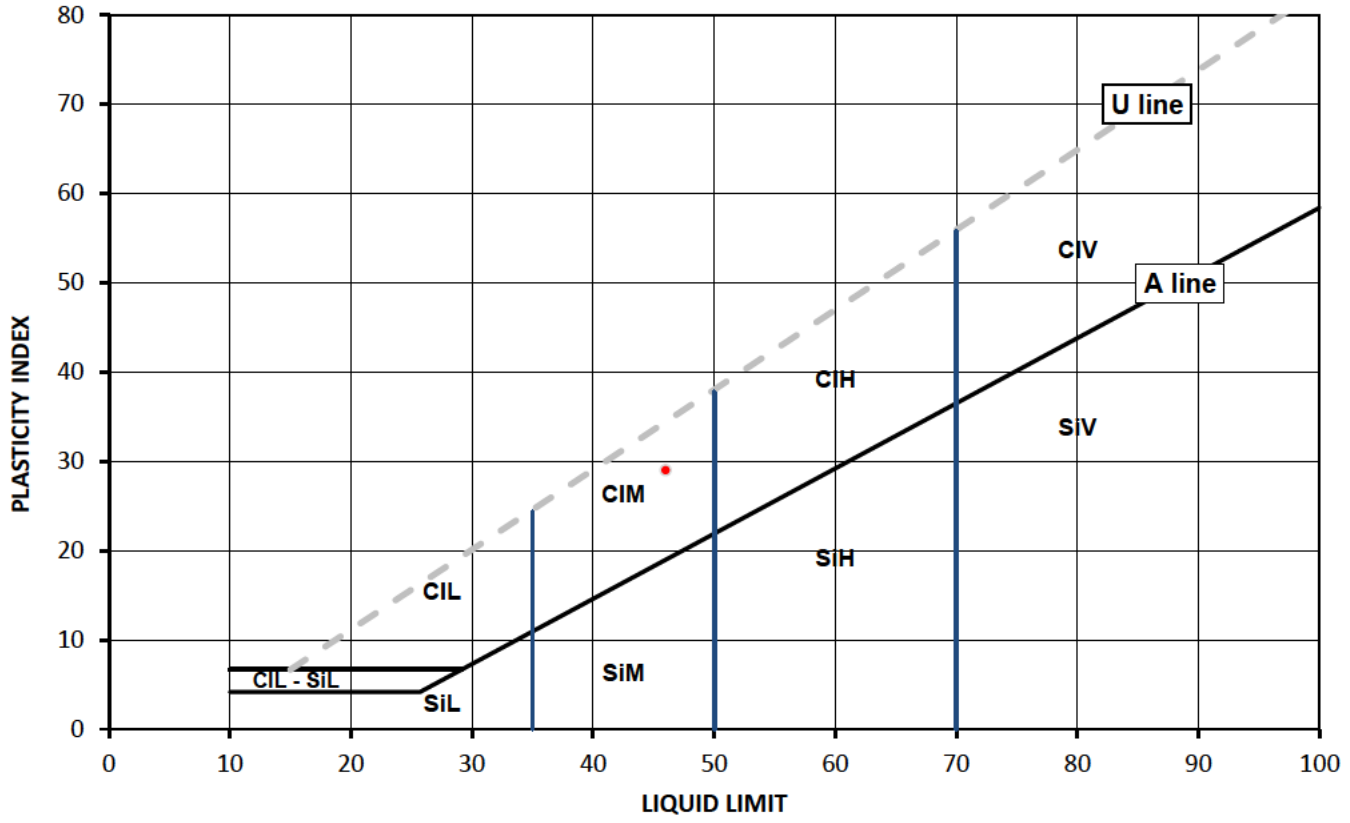
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635125	Depth Top [m]:	1.00
Hole No.:	TP08	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown slightly sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
13.9	46	17	29	-0.10	1.10	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

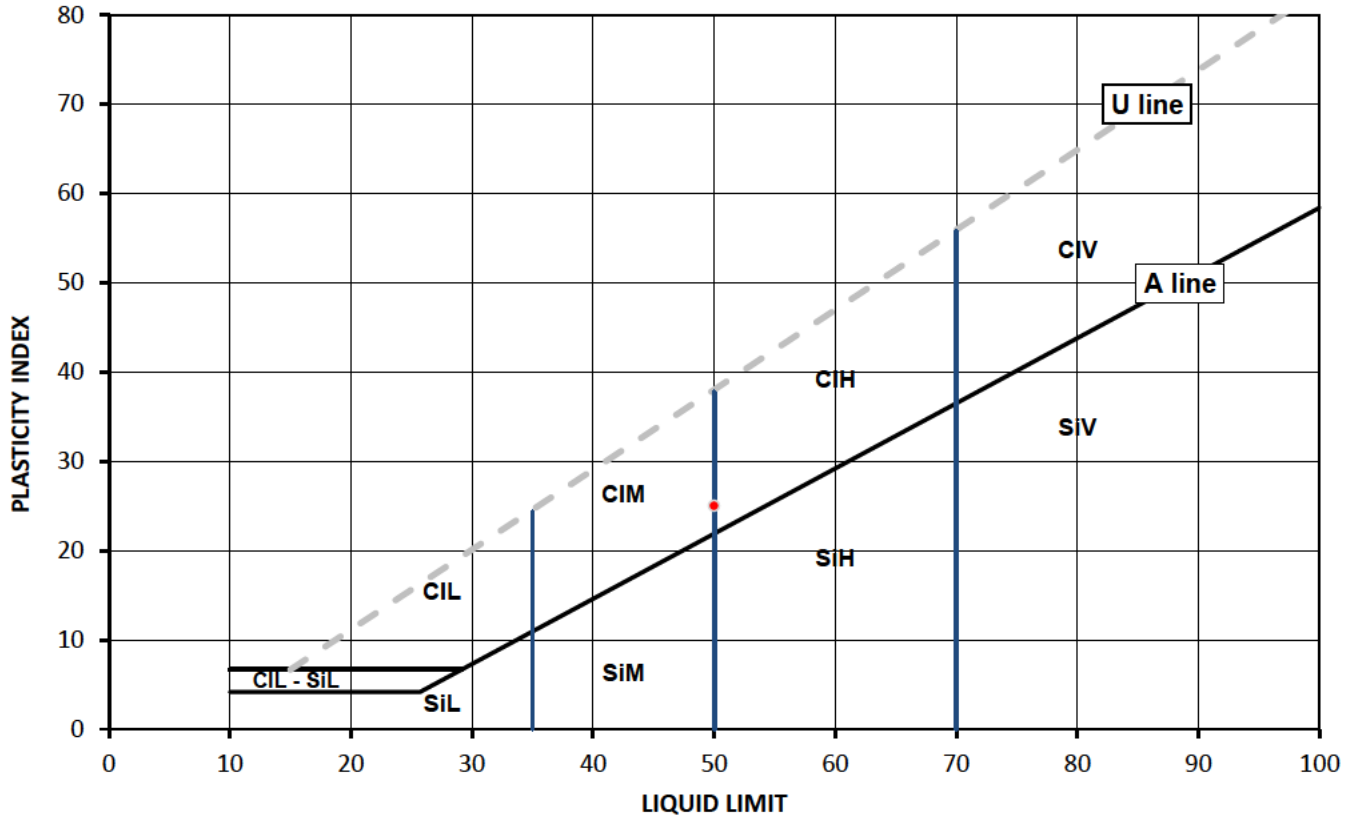
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635127	Depth Top [m]:	2.00
Hole No.:	BH01	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Orangish brown slightly sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
26.3	50	25	25	0.04	0.96	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

4041

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

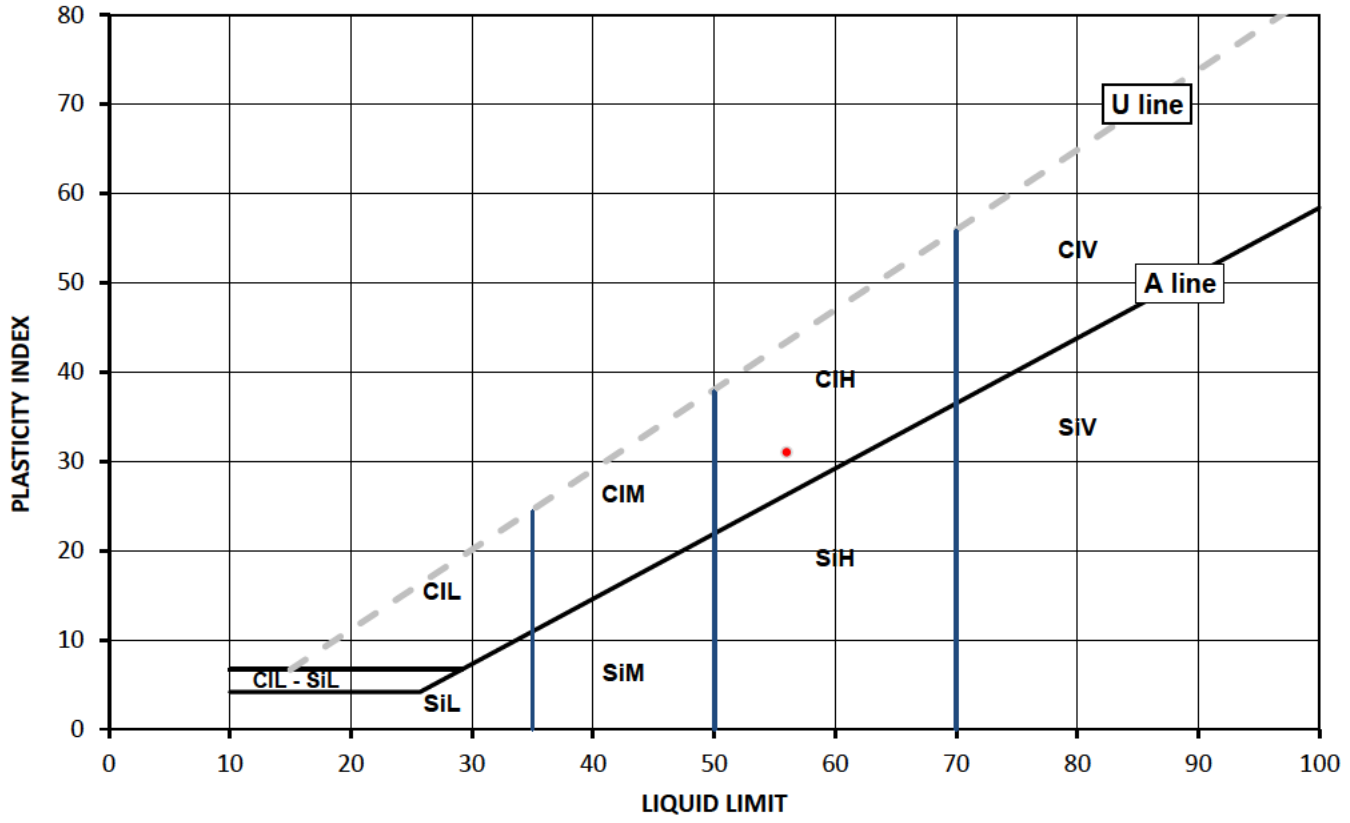
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635128	Depth Top [m]:	4.00
Hole No.:	BH01	Depth Base [m]:	4.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Brownish grey slightly sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
25.4	56	25	31	0.00	1.00	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

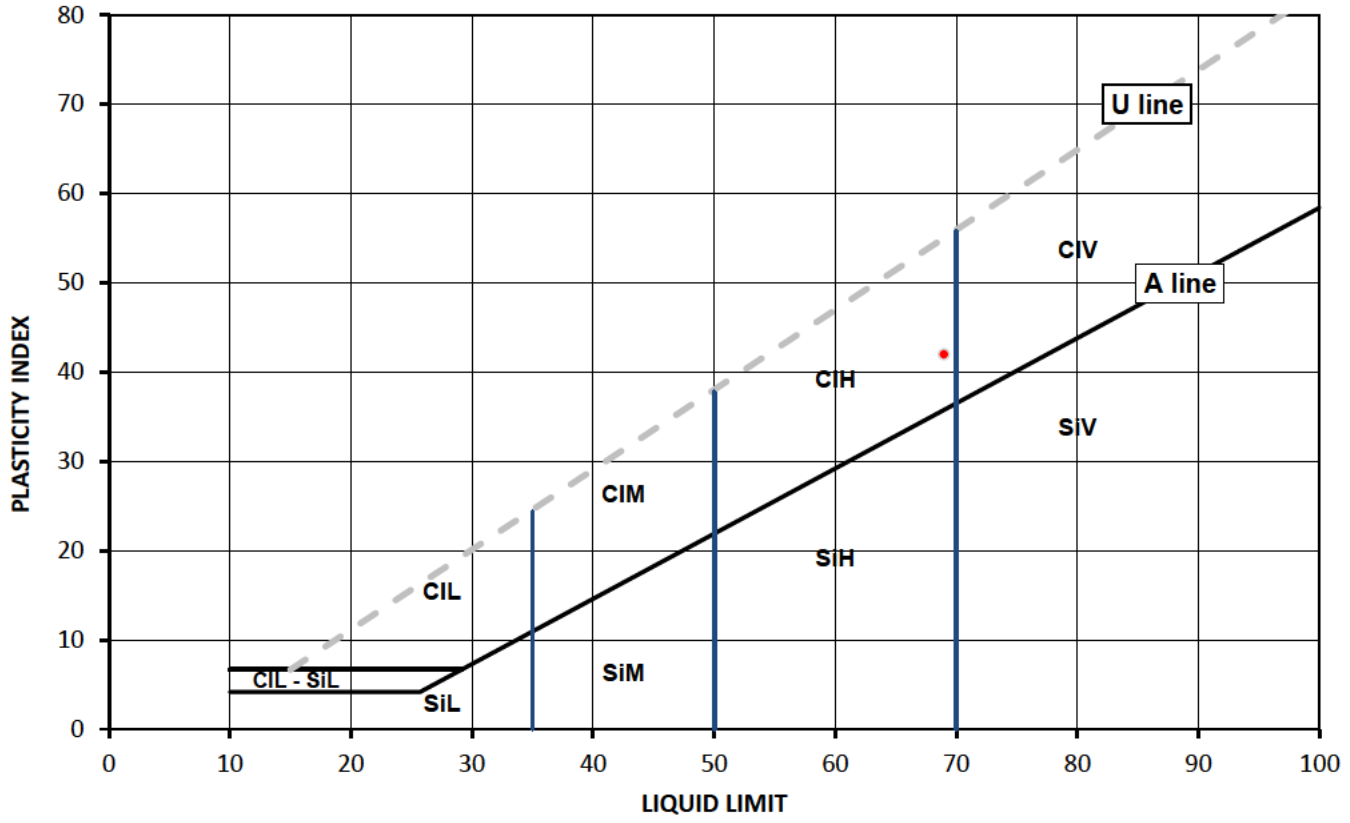
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	21/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635129	Depth Top [m]:	4.00
Hole No.:	BH02	Depth Base [m]:	4.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Greyish brown slightly gravelly CLAY		
Sample Preparation:	Tested after >0.425mm removed by hand; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
30.2	69	27	42	0.07	0.93	93



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

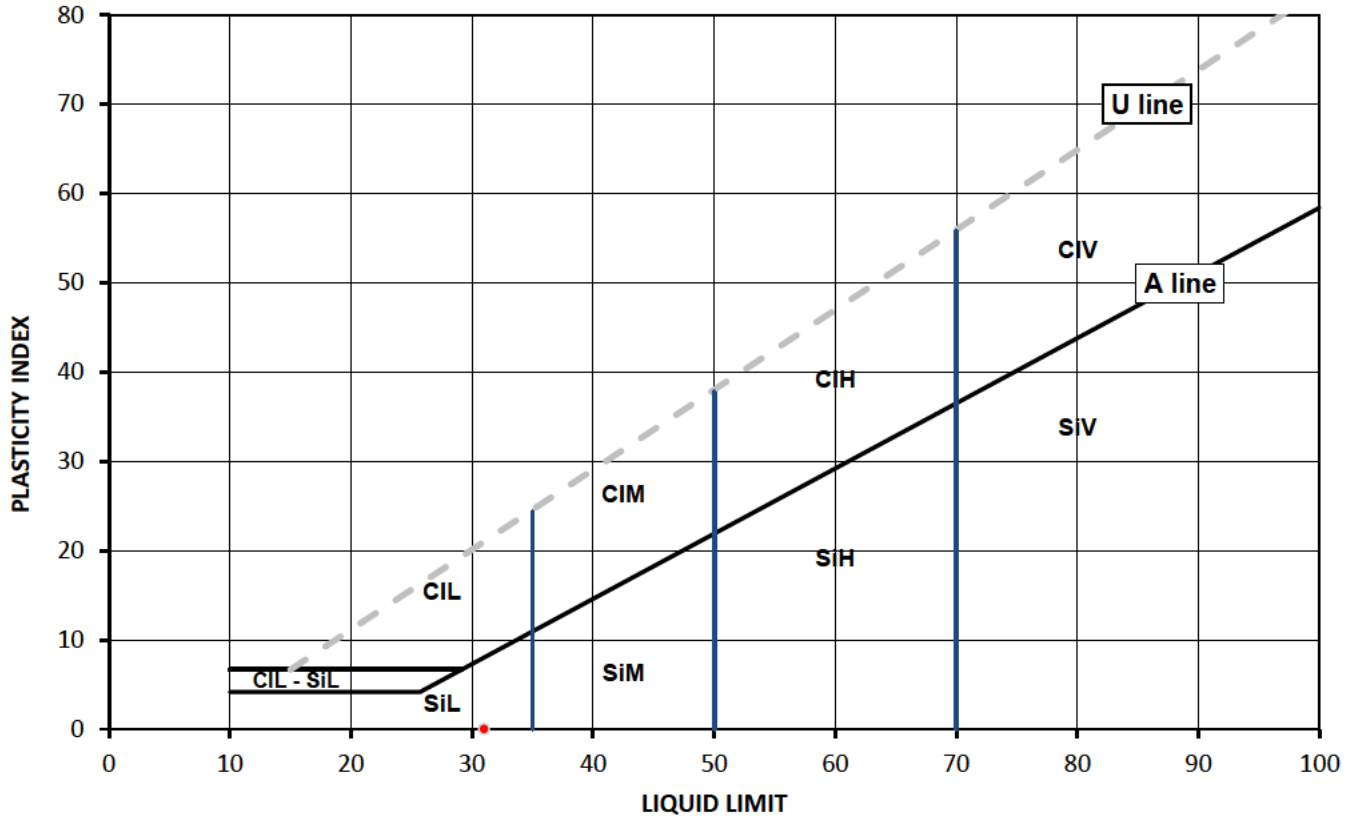
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635131	Depth Top [m]:	2.00
Hole No.:	BH03	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Brownish grey silty SAND		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
26.0	31	NP	NP	N/A	N/A	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks: NP - non plastic.

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

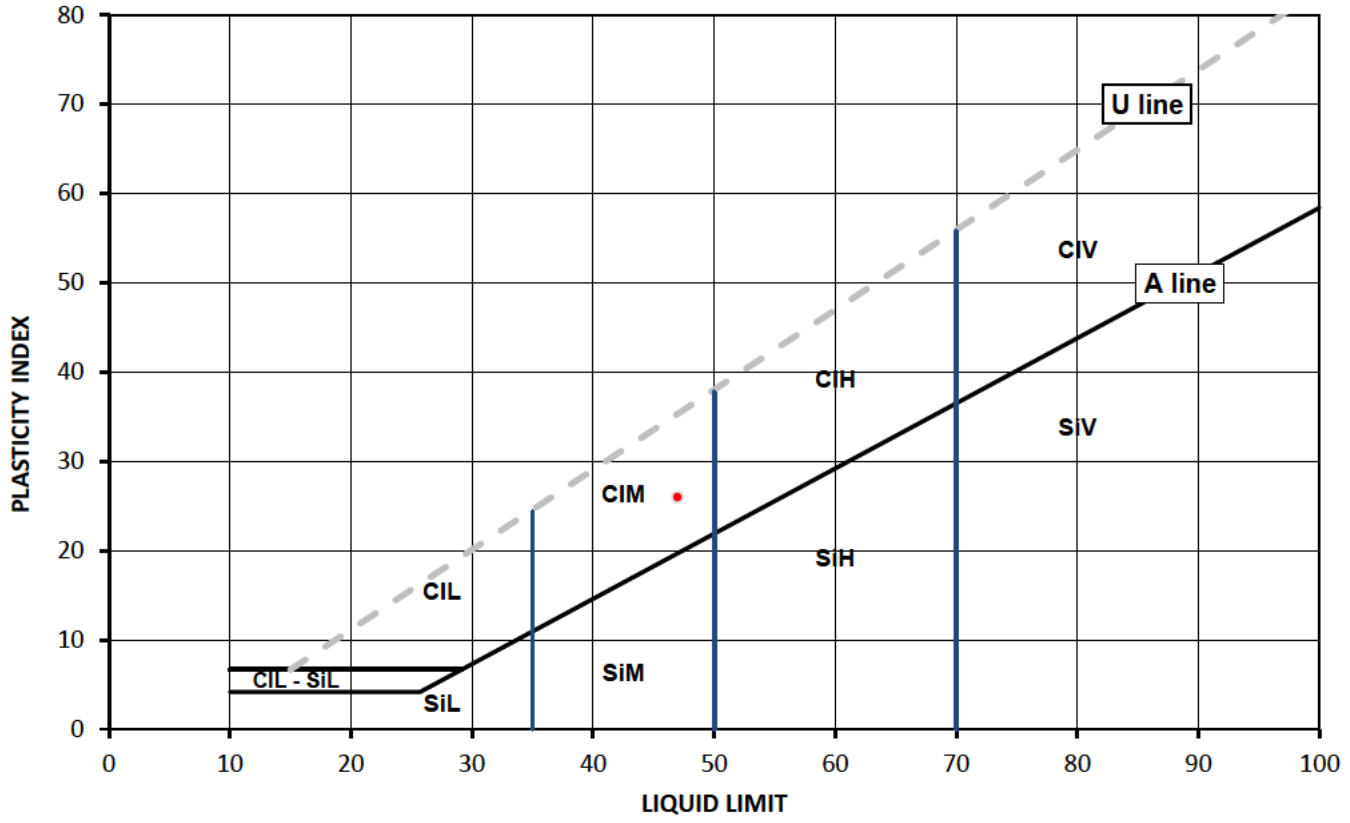
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635132	Depth Top [m]:	2.00
Hole No.:	BH04	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Brownish grey slightly sandy CLAY		
Sample Preparation:	Tested in natural condition; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
26.7	47	21	26	0.23	0.77	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

				Plasticity	Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 337.14

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Lily Cherry

Site Address: Northern Areas of One Horton Heath, Eastleigh

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

BS EN ISO 17892-12:2018+A2:2022 cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6. W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: 332612639
Job Number: 25-041139-1
Date Sampled: 22/07 - 24/07/2025
Date Received: 30/07/2025
Date Tested: 08/08 - 13/08/2025
Sampled By: Client - LC

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	W	Liquid & Plastic Limit							Density		
		Reference	Depth Top m	Depth Base m	Type			%	% Passing 425um %	WL* %	Correlation Factor	Wp %	Ip %	Cone type	Sample Preparation	bulk Mg/m3	dry Mg/m3	PD Mg/m3
635109	TP14	Not Given	1.00	Not Given	D	Greyish brown sandy CLAY	Atterberg 4 Point	27.7	100	40	-	20	20	80g/30 deg	N / I			
635110	TP14	Not Given	2.00	Not Given	B	Yellowish brown clayey SAND		27.0										
635111	TP05	Not Given	1.00	Not Given	B	Brownish grey slightly gravelly slightly sandy CLAY	Atterberg 4 Point	23.8	99	53	-	22	31	80g/30 deg	R / I			
635112	TP12	Not Given	1.00	Not Given	B	Yellowish brown very clayey SAND		15.1										
635113	TP13	Not Given	1.00	Not Given	B	Yellowish brown clayey SAND		10.3										
635114	TP01	Not Given	1.00	Not Given	B	Yellowish brown slightly sandy silty CLAY	Atterberg 4 Point	20.7	98	42	-	18	24	80g/30 deg	R / I			
635115	TP02	Not Given	1.00	Not Given	D	Brown slightly sandy CLAY	Atterberg 4 Point	21.8	100	45	-	18	27	80g/30 deg	N / I			
635116	TP02	Not Given	2.00	Not Given	D	Brown slightly sandy CLAY	Atterberg 4 Point	24.8	100	46	-	17	29	80g/30 deg	N / I			
635117	TP07	Not Given	2.00	Not Given	B	Yellowish brown very sandy CLAY		18.8										
635118	TP04	Not Given	1.00	Not Given	D	Brown sandy CLAY	Atterberg 4 Point	18.2	100	43	-	19	24	80g/30 deg	N / I			

Note: # Non accredited; NP - Non plastic; N - Tested in natural condition, R - Tested after >0,425mm removed by hand, WR - Tested after washing to remove >425mm; I - The water content in the sample was increased , D - The water content in the sample was decreased; * - One point liquid limit corrected as per the report Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025 **GF 362.16**

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Lily Cherry

Site Address: Northern Areas of One Horton Heath, Eastleigh

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

BS EN ISO 17892-12:2018+A2:2022 cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6. W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: 332612639
Job Number: 25-041139-1
Date Sampled: 21/07 - 24/07/2025
Date Received: 30/07/2025
Date Tested: 08/08 - 11/08/2025
Sampled By: Client - LC

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	W	Liquid & Plastic Limit							Density		
		Reference	Depth Top m	Depth Base m	Type			%	% Passing 425um %	WL* %	Correlation Factor	Wp %	Ip %	Cone type	Sample Preparation	bulk Mg/m3	dry Mg/m3	PD Mg/m3
635120	TP04	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 4 Point	23.1	98	43	-	19	24	80g/30 deg	R / I			
635121	TP06	Not Given	1.00	Not Given	D	Brown slightly gravelly slightly sandy CLAY	Atterberg 4 Point	19.5	99	45	-	21	24	80g/30 deg	R / I			
635122	TP10	Not Given	1.50	Not Given	B	Yellowish brown slightly sandy silty CLAY		24.9										
635124	TP03	Not Given	2.00	Not Given	D	Brown very sandy CLAY	Atterberg 4 Point	24.3	100	33	-	17	16	80g/30 deg	N / I			
635125	TP08	Not Given	1.00	Not Given	B	Yellowish brown slightly sandy CLAY	Atterberg 4 Point	13.9	100	46	-	17	29	80g/30 deg	N / I			
635126	TP08	Not Given	2.00	Not Given	B	Brownish grey sandy CLAY		21.8										
635127	BH01	Not Given	2.00	2.45	U	Orangish brown slightly sandy CLAY	Atterberg 4 Point	26.3	100	50	-	25	25	80g/30 deg	N / I			
635128	BH01	Not Given	4.00	4.45	U	Brownish grey slightly sandy CLAY	Atterberg 4 Point	25.4	100	56	-	25	31	80g/30 deg	N / I			
635129	BH02	Not Given	4.00	4.45	U	Greyish brown slightly gravelly CLAY	Atterberg 4 Point	30.2	93	69	-	27	42	80g/30 deg	R / I			
635131	BH03	Not Given	2.00	2.45	U	Brownish grey silty SAND	Atterberg 4 Point	26.0	100	31	-	NP	NP	80g/30 deg	N / I			

Note: # Non accredited; NP - Non plastic; N - Tested in natural condition, R - Tested after >0,425mm removed by hand, WR - Tested after washing to remove >425mm; I - The water content in the sample was increased , D - The water content in the sample was decreased; * - One point liquid limit corrected as per the report Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025 **GF 362.16**

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Lily Cherry

Site Address: Northern Areas of One Horton Heath, Eastleigh

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

BS EN ISO 17892-12:2018+A2:2022 cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6. W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: 332612639
Job Number: 25-041139-1
Date Sampled: 24/07/2025
Date Received: 30/07/2025
Date Tested: 11/08/2025
Sampled By: Client - LC

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	W	Liquid & Plastic Limit							Density		
		Reference	Depth Top m	Depth Base m	Type			%	% Passing 425um %	WL* %	Correlation Factor	Wp %	Ip %	Cone type	Sample Preparation	bulk Mg/m3	dry Mg/m3	PD Mg/m3
635132	BH04	Not Given	2.00	2.45	U	Brownish grey slightly sandy CLAY	Atterberg 4 Point	26.7	100	47	-	21	26	80g/30 deg	N / I			

Note: # Non accredited; NP - Non plastic; N - Tested in natural condition, R - Tested after >0,425mm removed by hand, WR - Tested after washing to remove >425mm; I - The water content in the sample was increased , D - The water content in the sample was decreased; * - One point liquid limit corrected as per the report Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025 **GF 362.16**

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022, clause 4.1

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Lily Cherry

Site Address: Northern Areas of One Horton Heath, Eastleigh

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 332612639
Job Number: 25-041139-1
Date Sampled: 22/07 - 24/07/2025
Date Received: 30/07/2025
Date Tested: 08/08 - 13/08/2025
Sampled By: Client - LC

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type			%											
635109	TP14	Not Given	1.00	Not Given	D	Greyish brown sandy CLAY		27.7											
635110	TP14	Not Given	2.00	Not Given	B	Yellowish brown clayey SAND		27.0											
635111	TP05	Not Given	1.00	Not Given	B	Brownish grey slightly gravelly slightly sandy CLAY		23.8											
635112	TP12	Not Given	1.00	Not Given	B	Yellowish brown very clayey SAND		15.1											
635113	TP13	Not Given	1.00	Not Given	B	Yellowish brown clayey SAND		10.3											
635114	TP01	Not Given	1.00	Not Given	B	Yellowish brown slightly sandy silty CLAY		20.7											
635115	TP02	Not Given	1.00	Not Given	D	Brown slightly sandy CLAY		21.8											
635116	TP02	Not Given	2.00	Not Given	D	Brown slightly sandy CLAY		24.8											
635117	TP07	Not Given	2.00	Not Given	B	Yellowish brown very sandy CLAY		18.8											
635118	TP04	Not Given	1.00	Not Given	D	Brown sandy CLAY		18.2											

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 126.19

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022, clause 4.1

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Lily Cherry

Site Address: Northern Areas of One Horton Heath, Eastleigh

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 332612639
Job Number: 25-041139-1
Date Sampled: 21/07 - 24/07/2025
Date Received: 30/07/2025
Date Tested: 08/08 - 11/08/2025
Sampled By: Client - LC

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type			%											
635120	TP04	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY		23.1											
635121	TP06	Not Given	1.00	Not Given	D	Brown slightly gravelly slightly sandy CLAY		19.5											
635122	TP10	Not Given	1.50	Not Given	B	Yellowish brown slightly sandy silty CLAY		24.9											
635124	TP03	Not Given	2.00	Not Given	D	Brown very sandy CLAY		24.3											
635125	TP08	Not Given	1.00	Not Given	B	Yellowish brown slightly sandy CLAY		13.9											
635126	TP08	Not Given	2.00	Not Given	B	Brownish grey sandy CLAY		21.8											
635127	BH01	Not Given	2.00	2.45	U	Orangish brown slightly sandy CLAY		26.3											
635128	BH01	Not Given	4.00	4.45	U	Brownish grey slightly sandy CLAY		25.4											
635129	BH02	Not Given	4.00	4.45	U	Greyish brown slightly gravelly CLAY		30.2											
635131	BH03	Not Given	2.00	2.45	U	Brownish grey silty SAND		26.0											

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 126.19

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022, clause 4.1

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Lily Cherry

Site Address: Northern Areas of One Horton Heath, Eastleigh

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 332612639
Job Number: 25-041139-1
Date Sampled: 24/07/2025
Date Received: 30/07/2025
Date Tested: 11/08/2025
Sampled By: Client - LC

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type			%											
635132	BH04	Not Given	2.00	2.45	U	Brownish grey slightly sandy CLAY		26.7											

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

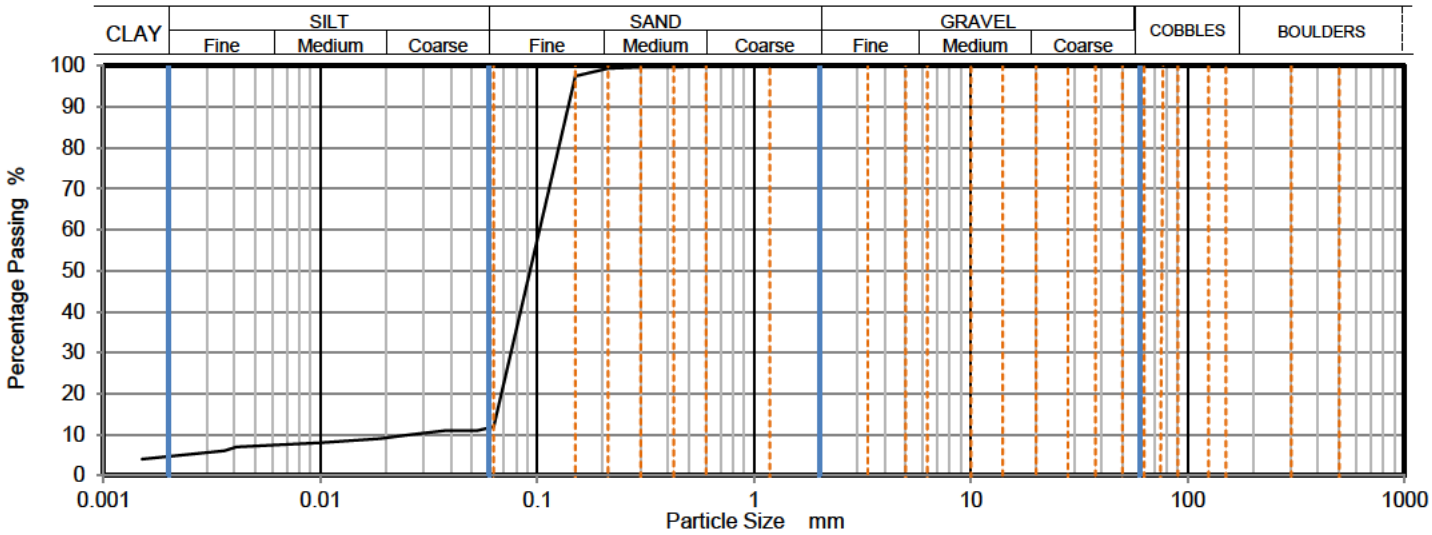
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635110	Depth Top [m]:	2.00
Hole No.:	TP14	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown clayey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.5 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0528	11
300	100	0.0376	11
150	100	0.0264	10
125	100	0.0188	9
90	100	0.0099	8
75	100	0.0041	7
63	100	0.0036	6
50	100	0.0015	4
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100	Particle density	(assumed)
0.425	100	2.65	Mg/m3
0.3	100		
0.212	99		
0.15	98		
0.063	12		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	88
Silt	7
Clay	5

Grading Analysis		
D100	mm	3.35
D60	mm	0.103
D30	mm	0.0757
D10	mm	0.0292
Uniformity Coefficient		3.5
Curvature Coefficient		1.9

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving and hydrometer sedimentation

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

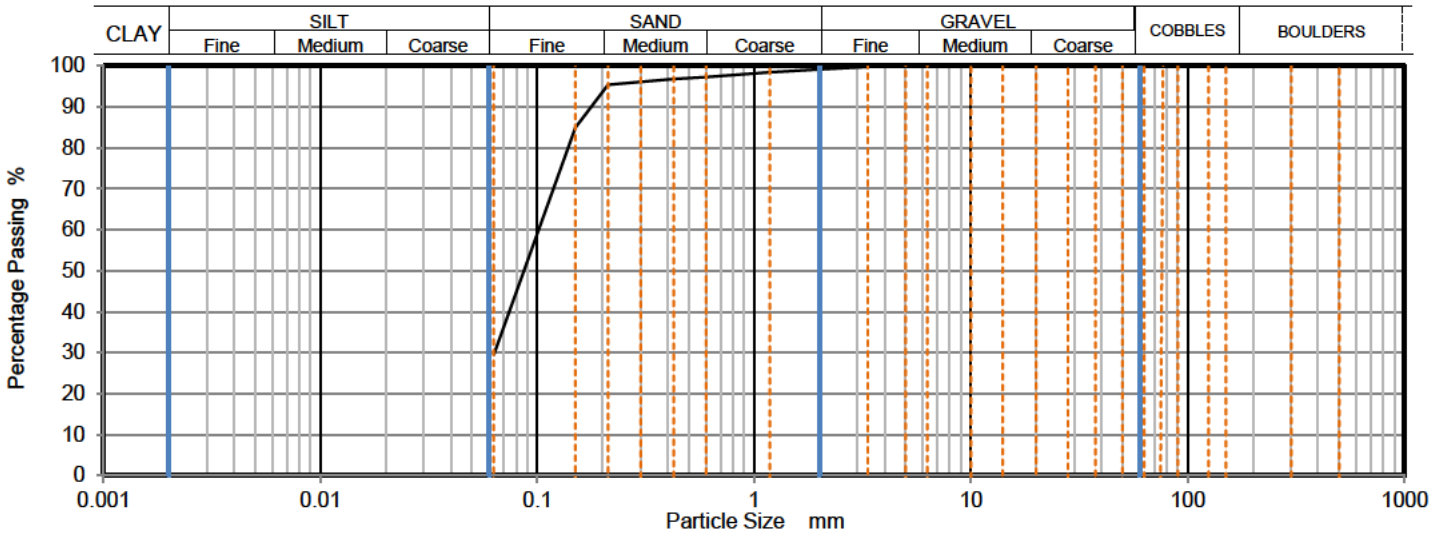
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635112	Depth Top [m]:	1.00
Hole No.:	TP12	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown very clayey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.5 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	99		
0.6	97		
0.425	97		
0.3	96		
0.212	95		
0.15	85		
0.063	30		

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	69
Fines <0.063 mm	30

Grading Analysis		
D100	mm	5
D60	mm	0.102
D30	mm	0.0635
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

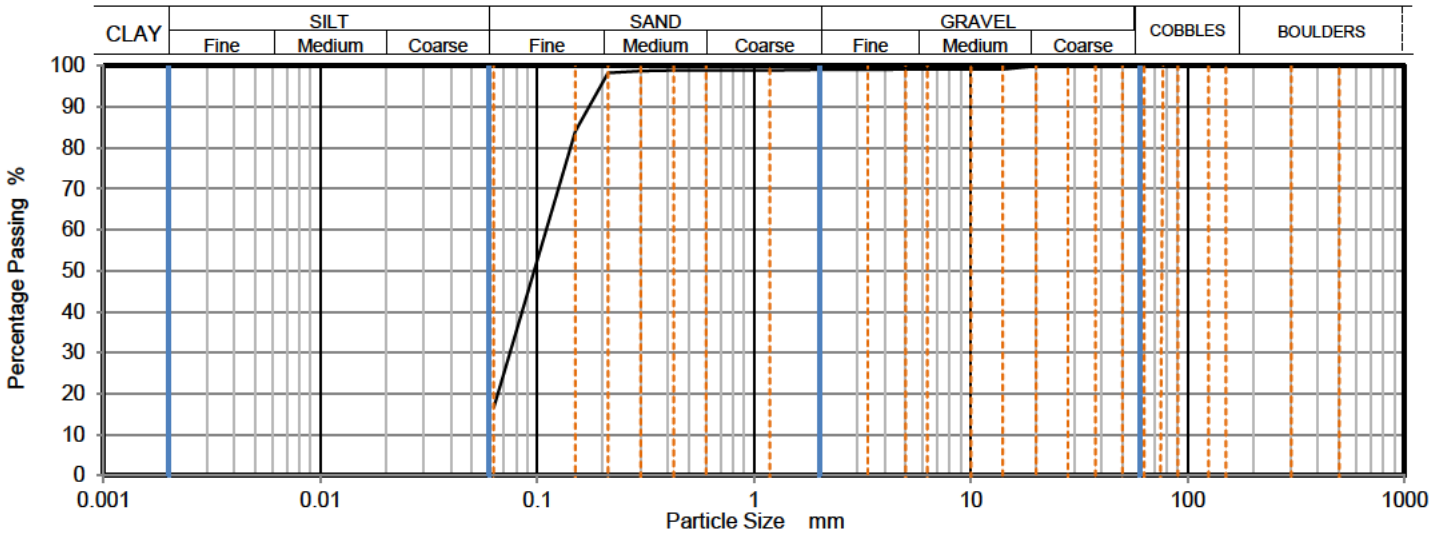
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635113	Depth Top [m]:	1.00
Hole No.:	TP13	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown clayey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.5 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	99		
10	99		
6.3	99		
5	99		
3.35	99		
2	99		
1.18	99		
0.6	99		
0.425	99		
0.3	99		
0.212	98		
0.15	84		
0.063	17		

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	82
Fines <0.063 mm	17

Grading Analysis		
D100	mm	20
D60	mm	0.11
D30	mm	0.0748
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

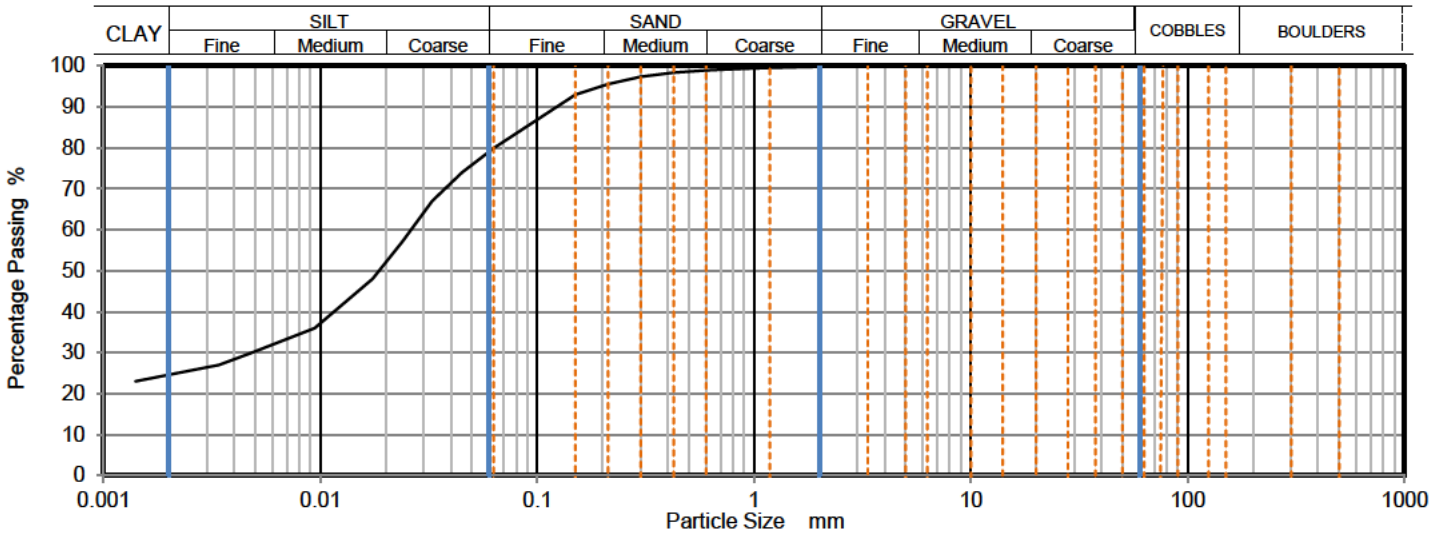
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635114	Depth Top [m]:	1.00
Hole No.:	TP01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered, oven dried at 106.5 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0449	74
300	100	0.0327	67
150	100	0.0238	57
125	100	0.0174	48
90	100	0.0094	36
75	100	0.0048	30
63	100	0.0034	27
50	100	0.0014	23
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99	Particle density	(assumed)
0.425	98	2.65	Mg/m3
0.3	97		
0.212	96		
0.15	93		
0.063	80		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	20
Silt	56
Clay	24

Grading Analysis		
D100	mm	3.35
D60	mm	0.0262
D30	mm	0.00461
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving and hydrometer sedimentation

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

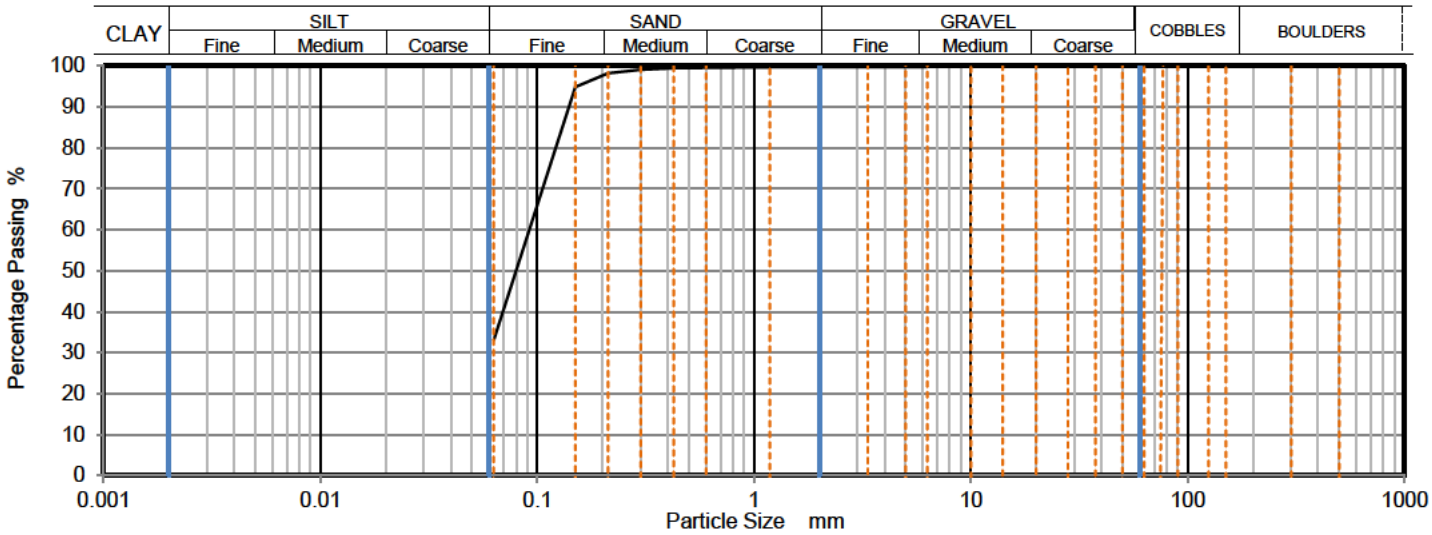
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635117	Depth Top [m]:	2.00
Hole No.:	TP07	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown very sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 108.8 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	99		
0.212	98		
0.15	95		
0.063	33		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	67
Fines <0.063 mm	33

Grading Analysis		
D100	mm	10
D60	mm	0.0919
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

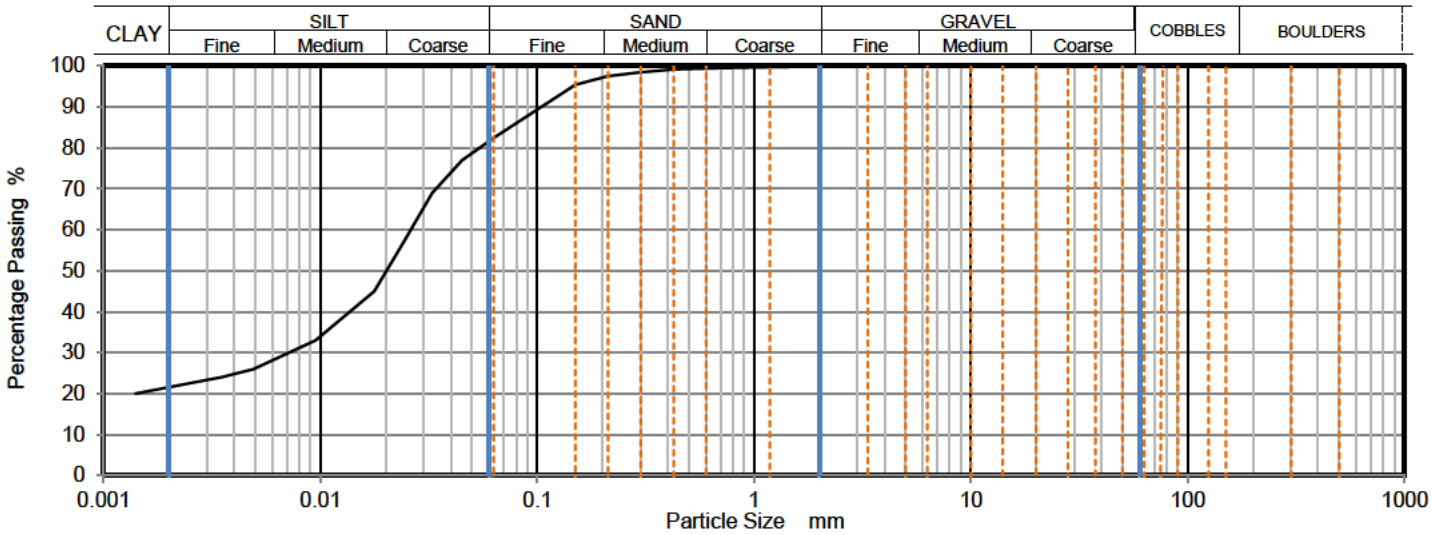
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635119	Depth Top [m]:	1.00
Hole No.:	TP04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered, oven dried at 108.8 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0449	77
300	100	0.0328	69
150	100	0.0242	57
125	100	0.0177	45
90	100	0.0095	33
75	100	0.0049	26
63	100	0.0035	24
50	100	0.0014	20
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99	Particle density	(assumed)
0.425	99	2.65	Mg/m3
0.3	99		
0.212	98		
0.15	95		
0.063	82		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	18
Silt	61
Clay	21

Grading Analysis		
D100	mm	5
D60	mm	0.0262
D30	mm	0.00716
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving and hydrometer sedimentation

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

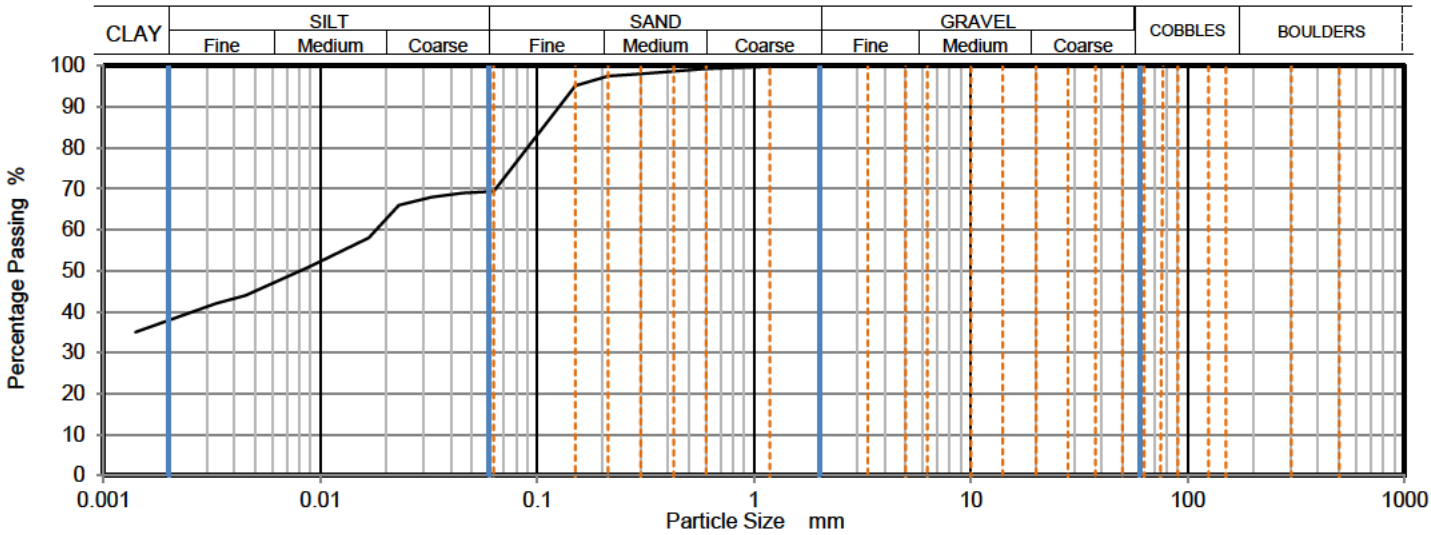
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635122	Depth Top [m]:	1.50
Hole No.:	TP10	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered, oven dried at 108.8 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0454	69
300	100	0.0325	68
150	100	0.0230	66
125	100	0.0167	58
90	100	0.0089	51
75	100	0.0045	44
63	100	0.0033	42
50	100	0.0014	35
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99	Particle density	(assumed)
0.425	99	2.65	Mg/m3
0.3	98		
0.212	98		
0.15	95		
0.063	69		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	31
Silt	32
Clay	37

Grading Analysis		
D100	mm	3.35
D60	mm	0.0179
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving and hydrometer sedimentation

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

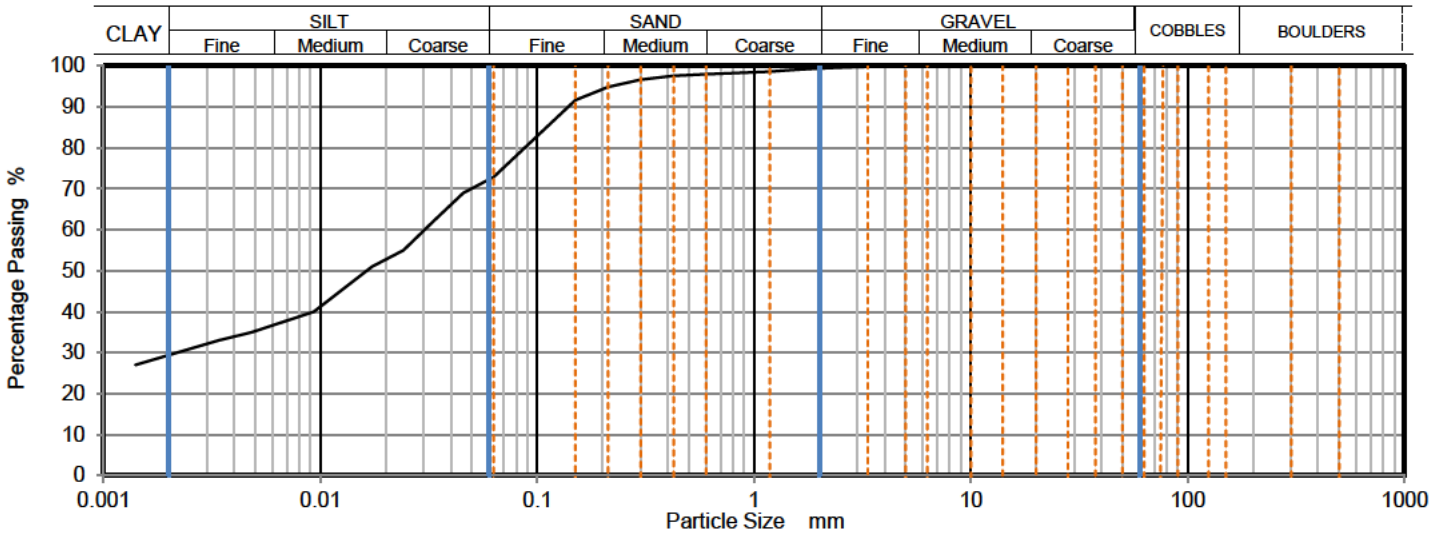
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	08/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635123	Depth Top [m]:	1.00
Hole No.:	TP03	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered, oven dried at 108.8 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0455	69
300	100	0.0331	62
150	100	0.0241	55
125	100	0.0173	51
90	100	0.0093	40
75	100	0.0048	35
63	100	0.0034	33
50	100	0.0014	27
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	99		
0.6	98	Particle density	(assumed)
0.425	98	2.65	Mg/m3
0.3	97		
0.212	95		
0.15	92		
0.063	73		

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	26
Silt	43
Clay	30

Grading Analysis		
D100	mm	6.3
D60	mm	0.0304
D30	mm	0.00216
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving and hydrometer sedimentation

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS EN ISO 17892-4:2016, BS 1377-2:2022 cl. 10

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

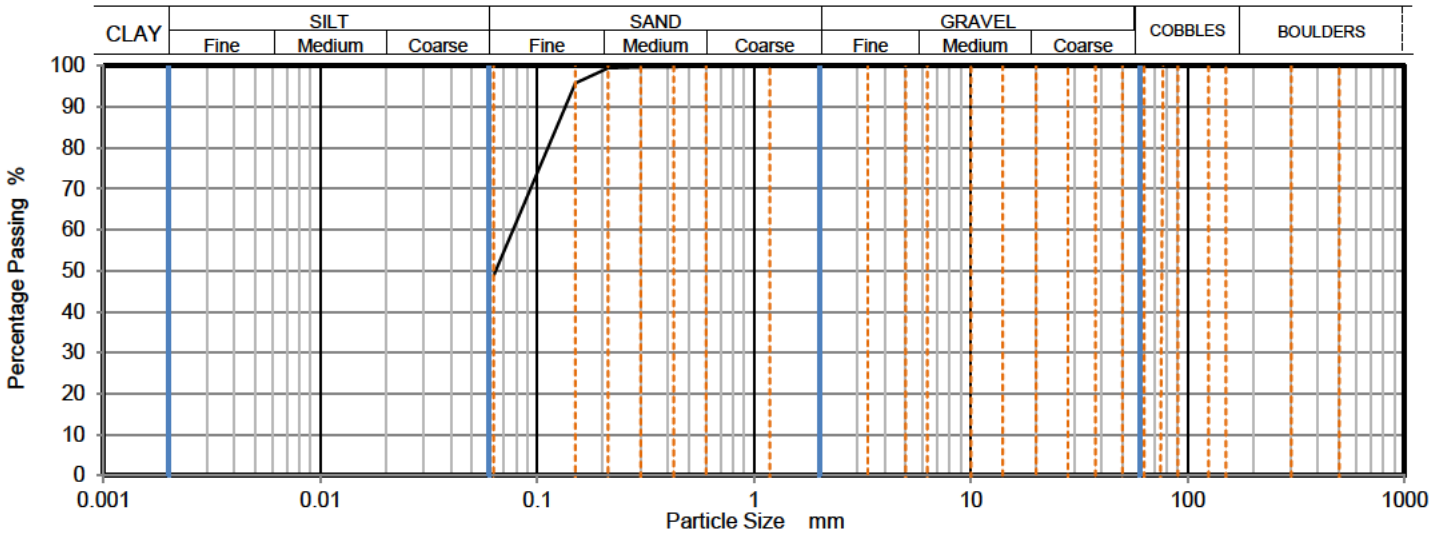
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	11/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635126	Depth Top [m]:	2.00
Hole No.:	TP08	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 106.5 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	100		
0.212	100		
0.15	96		
0.063	49		

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	51
Fines <0.063 mm	49

Grading Analysis		
D100	mm	2
D60	mm	0.0774
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 366.12

4041

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP COMPACTION METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-2: 2022, cl.11

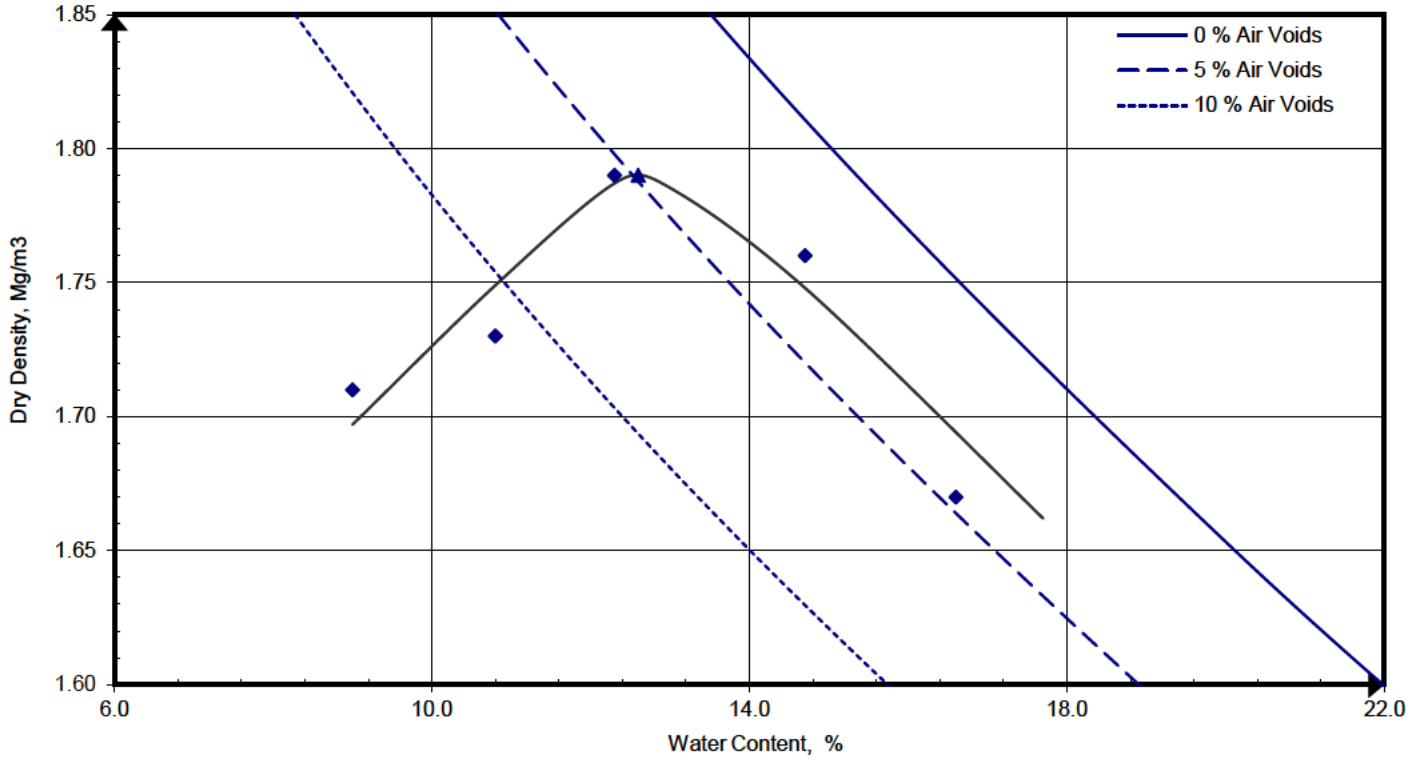
i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635112	Depth Top [m]:	1.00
Hole No.:	TP12	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown very clayey SAND		
Sample Preparation:	Sample was whole tested and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	9.0	10.8	12.3	14.7	16.6
Dry Density	Mg/m³	1.71	1.73	1.79	1.76	1.67

Grading zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.47
As received Water Content	%	15.1
Maximum Dry Density	Mg/m³	**1.79**

Optimum Water Content	%	**13**

Note: BS 1377-2:2022, cl 11.3

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 599.2

4041

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP COMPACTION METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-2: 2022, cl.11

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

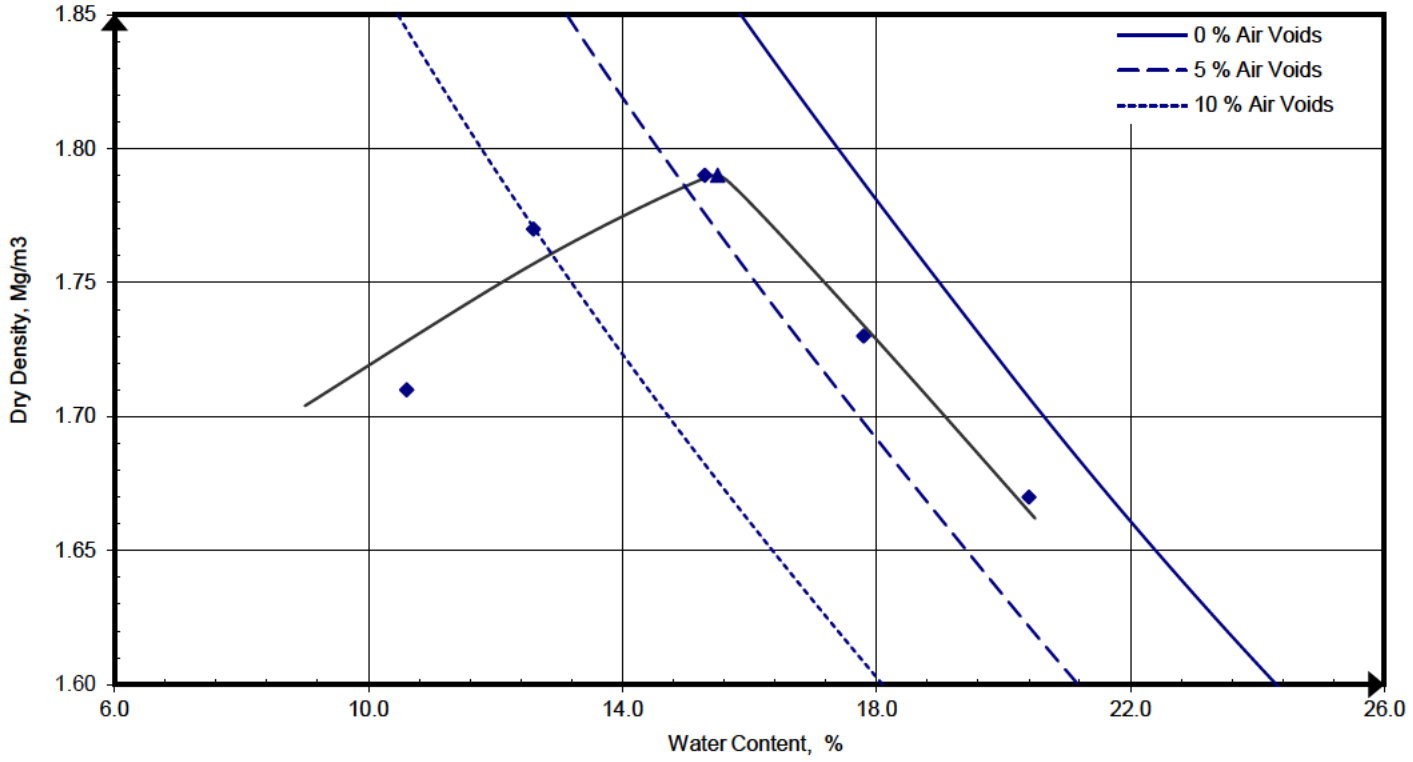
Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635114	Depth Top [m]:	1.00
Hole No.:	TP01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	10.6	12.6	15.3	17.8	20.4
Dry Density	Mg/m³	1.71	1.77	1.79	1.73	1.67

Grading zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.62
As received Water Content	%	24.7
Maximum Dry Density	Mg/m³	**1.79**

Optimum Water Content	%	**16**

Note: BS 1377-2:2022, cl 11.3

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 599.2

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP COMPACTION METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-2: 2022, cl.11

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

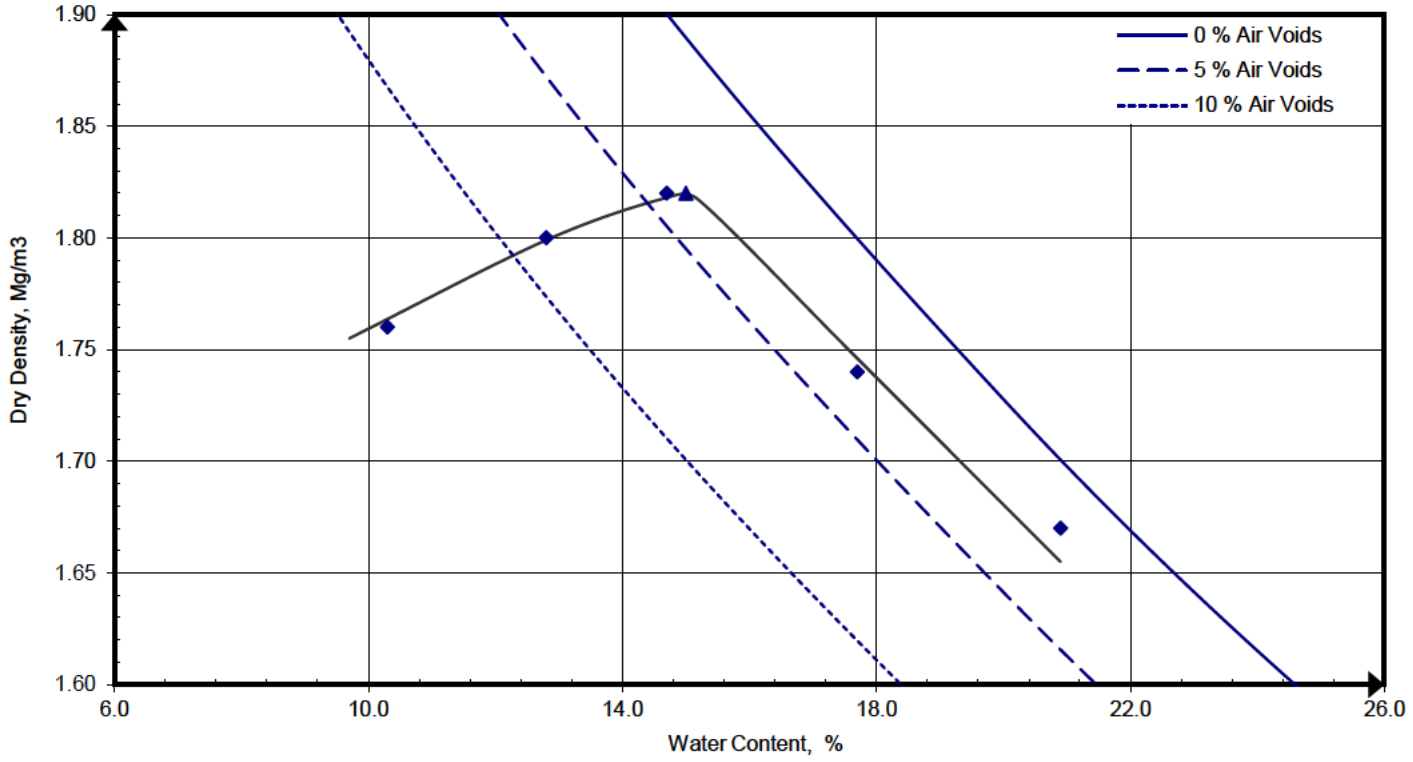
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635117	Depth Top [m]:	2.00
Hole No.:	TP07	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown very sandy CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	10.3	12.8	14.7	17.7	20.9
Dry Density	Mg/m³	1.76	1.80	1.82	1.74	1.67

Grading zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.64
As received Water Content	%	17.7
Maximum Dry Density	Mg/m³	**1.82**

Optimum Water Content	%	**15**

Note: BS 1377-2:2022, cl 11.3

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

4041

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP COMPACTION METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-2: 2022, cl.11

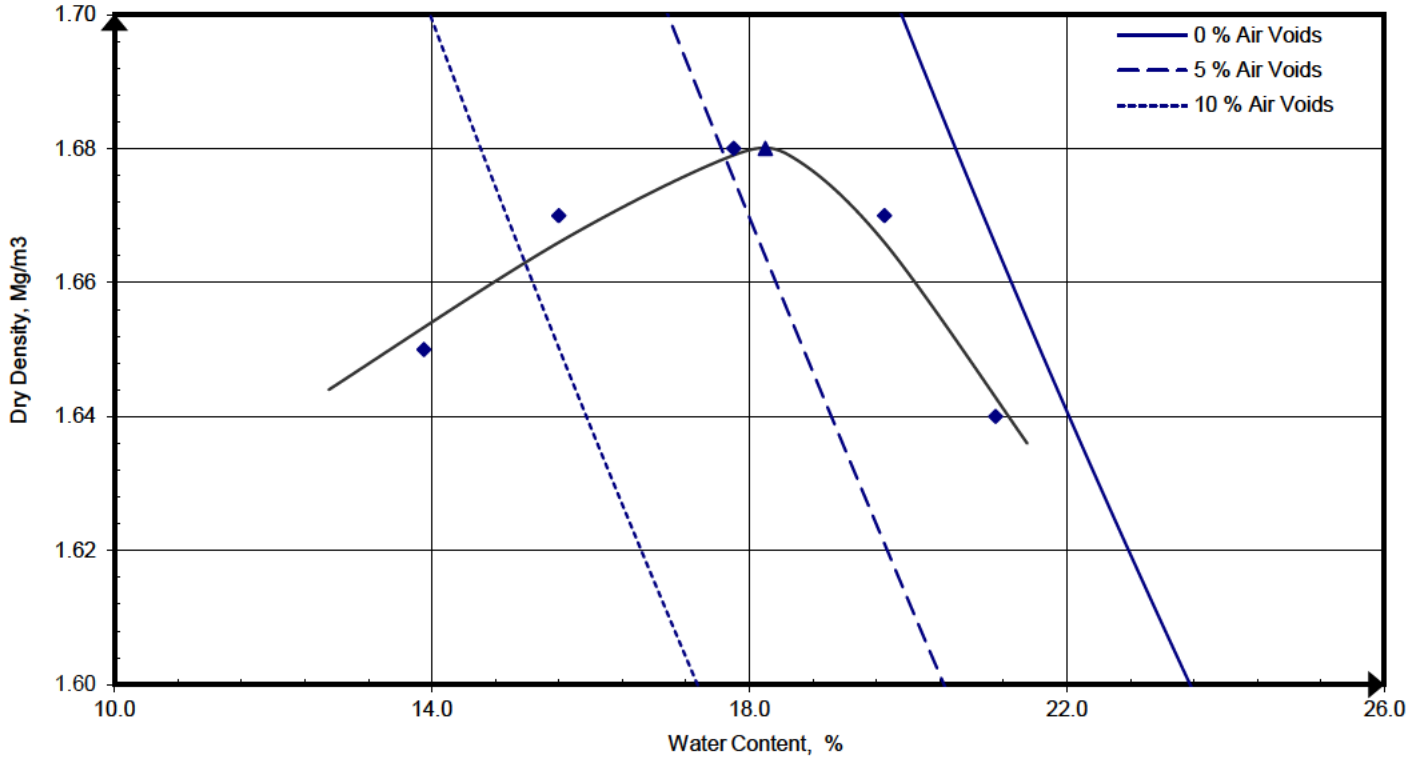
i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635119	Depth Top [m]:	1.00
Hole No.:	TP04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	13.9	15.6	17.8	19.7	21.1
Dry Density	Mg/m³	1.65	1.67	1.68	1.67	1.64

Grading zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.57
As received Water Content	%	26.5
Maximum Dry Density	Mg/m³	**1.68**

Optimum Water Content	%	**18**

Note: BS 1377-2:2022, cl 11.3

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 599.2

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP METHOD USING 4.5 KG RAMMER

Tested in Accordance with: BS 1377-2:2022, CL 11

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

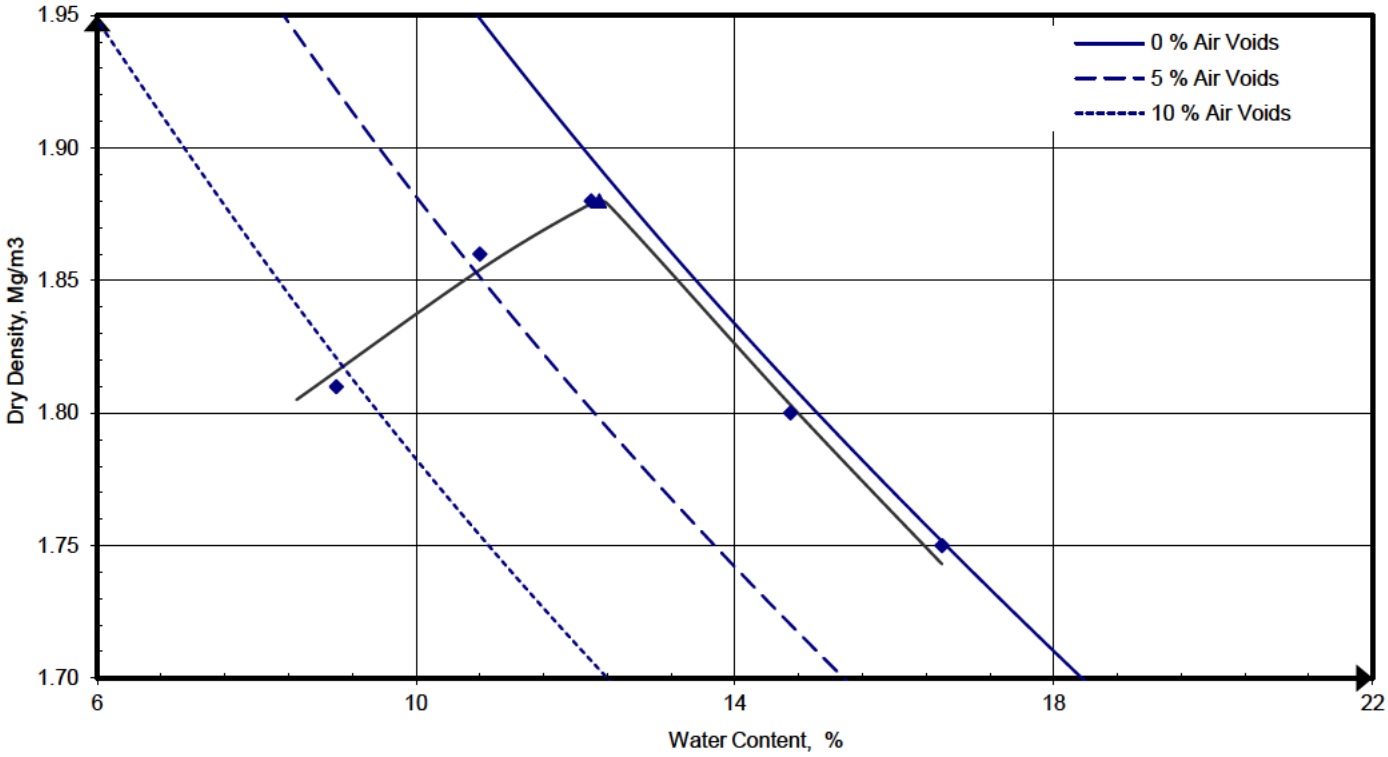
4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635112	Depth Top [m]:	1.00
Hole No.:	TP12	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown very clayey SAND		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	9.0	10.8	12.2	14.7	16.6
Dry Density	Mg/m³	1.81	1.86	1.88	1.80	1.75

Grading Zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.47
As received Water Content	%	15.1
Maximum Dry Density	Mg/m³	**1.88**

Optimum Water Content	%	**12**

BS 1377-2:2022, cl 11.5

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 601.2

4041

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP METHOD USING 4.5 KG RAMMER

Tested in Accordance with: BS 1377-2:2022, CL 11

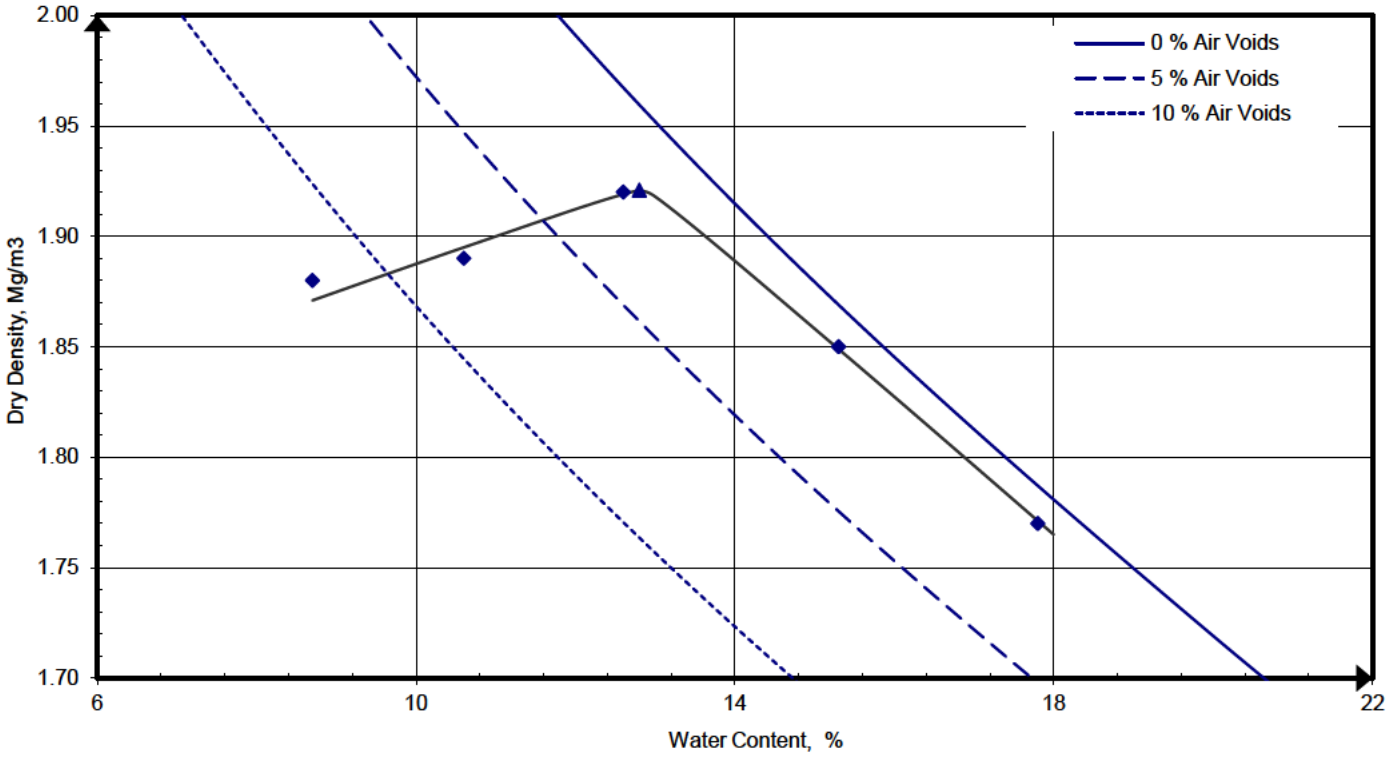
i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635114	Depth Top [m]:	1.00
Hole No.:	TP01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	8.7	10.6	12.6	15.3	17.8
Dry Density	Mg/m³	1.88	1.89	1.92	1.85	1.77

Grading Zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.62
As received Water Content	%	24.7
Maximum Dry Density	Mg/m³	**1.92**

Optimum Water Content	%	**13**

BS 1377-2:2022, cl 11.5

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 601.2

4041

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP METHOD USING 4.5 KG RAMMER

Tested in Accordance with: BS 1377-2:2022, CL 11

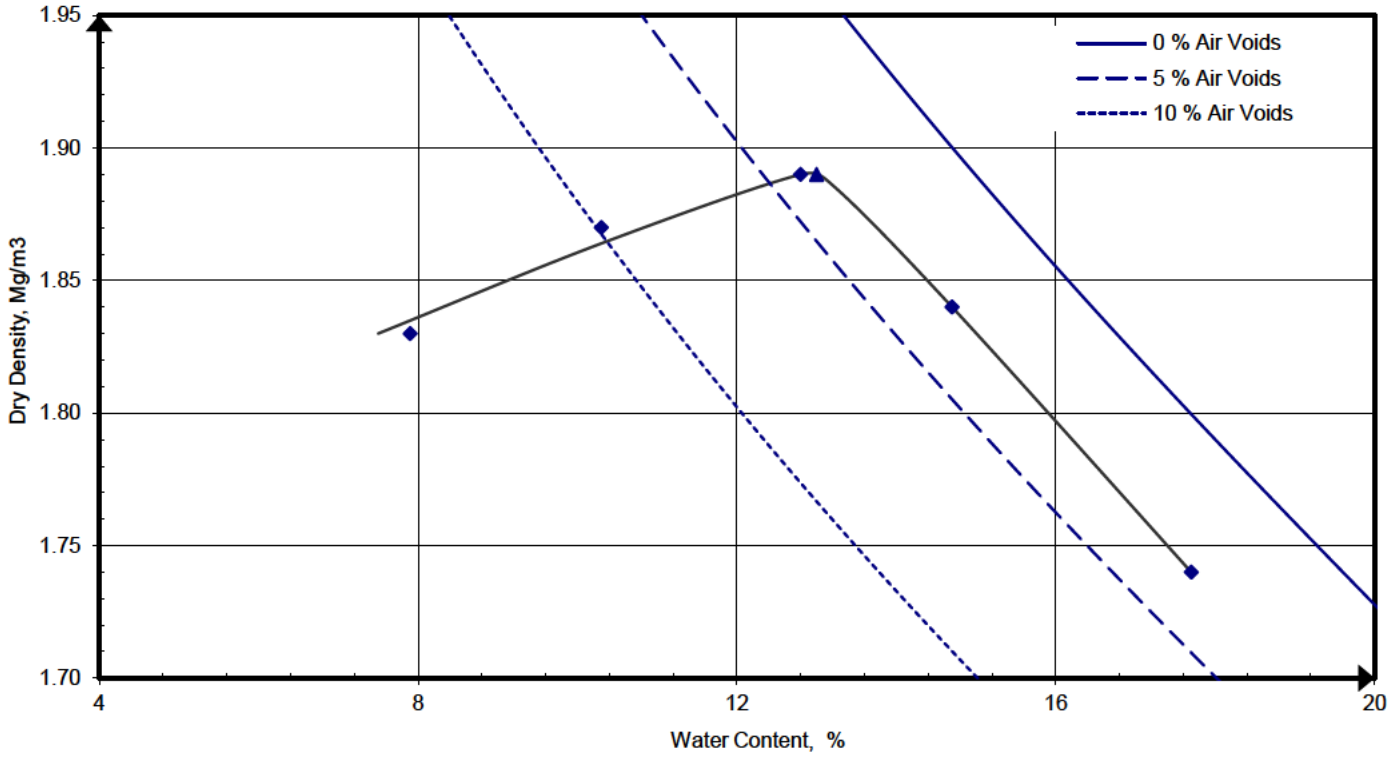
i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635117	Depth Top [m]:	2.00
Hole No.:	TP07	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Yellowish brown very sandy CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	7.9	10.3	12.8	14.7	17.7
Dry Density	Mg/m³	1.83	1.87	1.89	1.84	1.74

Grading Zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.64
As received Water Content	%	18.8
Maximum Dry Density	Mg/m³	**1.89**

Optimum Water Content	%	**13**

BS 1377-2:2022, cl 11.5

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 601.2

4041

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/WATER CONTENT RELATIONSHIP METHOD USING 4.5 KG RAMMER

Tested in Accordance with: BS 1377-2:2022, CL 11

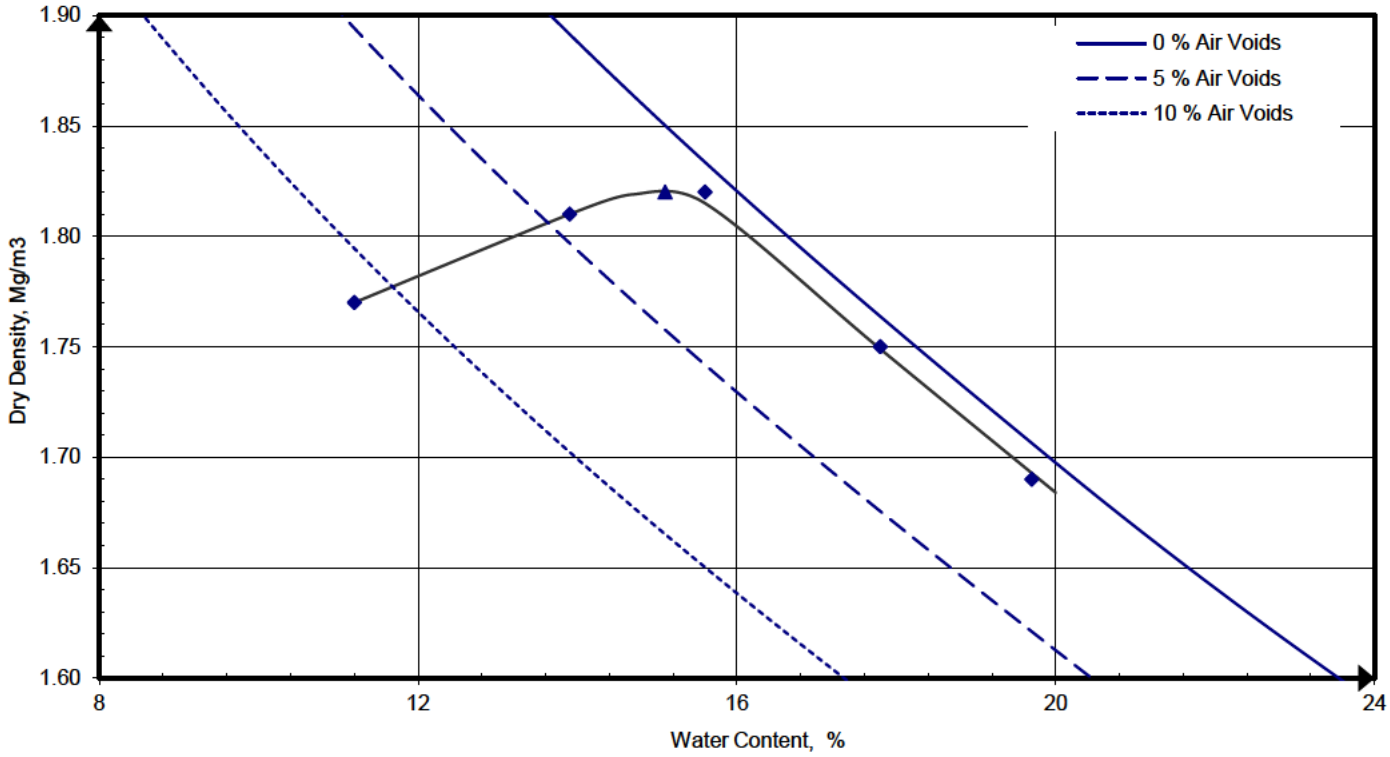
i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635119	Depth Top [m]:	1.00
Hole No.:	TP04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown slightly sandy silty CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Water Content	%	11.2	13.9	15.6	17.8	19.7
Dry Density	Mg/m³	1.77	1.81	1.82	1.75	1.69

Grading Zone	1
Mould Type	1 Litre
Samples Used	Single sample tested

Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.57
As received Water Content	%	26.5
Maximum Dry Density	Mg/m³	**1.82**

Optimum Water Content	%	**15**

BS 1377-2:2022, cl 11.5

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 601.2

TEST CERTIFICATE

DETERMINATION OF UNDRAINED SHEAR STRENGTH AT EACH COMPACTION POINT USING HAND VANE APPARATUS

Tested in Accordance with: Guideline for Hand Shear Vane Test*

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635114	Depth Top [m]:	1.00
Hole No.:	TP01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Soil Description:	Yellowish brown slightly sandy silty CLAY		

Moisture Content %	Shear Vane Reading 1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	Tv kPa
11	UTP	UTP	UTP	UTP	UTP	
13	UTP	UTP	UTP	UTP	UTP	
15	>130	>130	>130	>130	130	
18	74	70	68	76	72	
20	32	30	28	30	30	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Light Compaction (BS 1377-2:2022, cl. 11.3, 11.4).

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 275.12

TEST CERTIFICATE

DETERMINATION OF UNDRAINED SHEAR STRENGTH AT EACH COMPACTION POINT USING HAND VANE APPARATUS

Tested in Accordance with: Guideline for Hand Shear Vane Test*

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	23/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635114	Depth Top [m]:	1.00
Hole No.:	TP01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Soil Description:	Yellowish brown slightly sandy silty CLAY		

Moisture Content %	Shear Vane Reading 1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	Tv kPa
8.7	UTP	UTP	UTP	UTP	UTP	
11	UTP	UTP	UTP	UTP	UTP	
13	UTP	UTP	UTP	UTP	UTP	
15	>130	>130	>130	>130	130	
18	86	80	80	84	83	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction (BS 1377-2:2022, cl. 11.5, 11.6) .

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 275.12

TEST CERTIFICATE

DETERMINATION OF UNDRAINED SHEAR STRENGTH AT EACH COMPACTION POINT USING HAND VANE APPARATUS

Tested in Accordance with: Guideline for Hand Shear Vane Test*

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635119	Depth Top [m]:	1.00
Hole No.:	TP04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Soil Description:	Brown slightly sandy silty CLAY		

Moisture Content %	Shear Vane Reading 1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	Tv kPa
14	UTP	UTP	UTP	UTP	UTP	
16	UTP	UTP	UTP	UTP	UTP	
18	UTP	UTP	UTP	UTP	UTP	
20	90	110	108	100	102	
21	78	74	74	80	77	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Light Compaction (BS 1377-2:2022, cl. 11.3, 11.4).

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 275.12

TEST CERTIFICATE

DETERMINATION OF UNDRAINED SHEAR STRENGTH AT EACH COMPACTION POINT USING HAND VANE APPARATUS

Tested in Accordance with: Guideline for Hand Shear Vane Test*

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	27/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	635119	Depth Top [m]:	1.00
Hole No.:	TP04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Soil Description:	Brown slightly sandy silty CLAY		

Moisture Content %	Shear Vane Reading 1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	Tv kPa
11	UTP	UTP	UTP	UTP	UTP	
14	UTP	UTP	UTP	UTP	UTP	
16	UTP	UTP	UTP	UTP	UTP	
18	UTP	UTP	UTP	UTP	UTP	
20	90	120	110	116	109	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction (BS 1377-2:2022, cl. 11.5, 11.6) .

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 275.12

TEST CERTIFICATE

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST

Tested in Accordance with: BS EN ISO 17982-8:2018, BS 1377-2 Cl. 28:2022

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	25/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

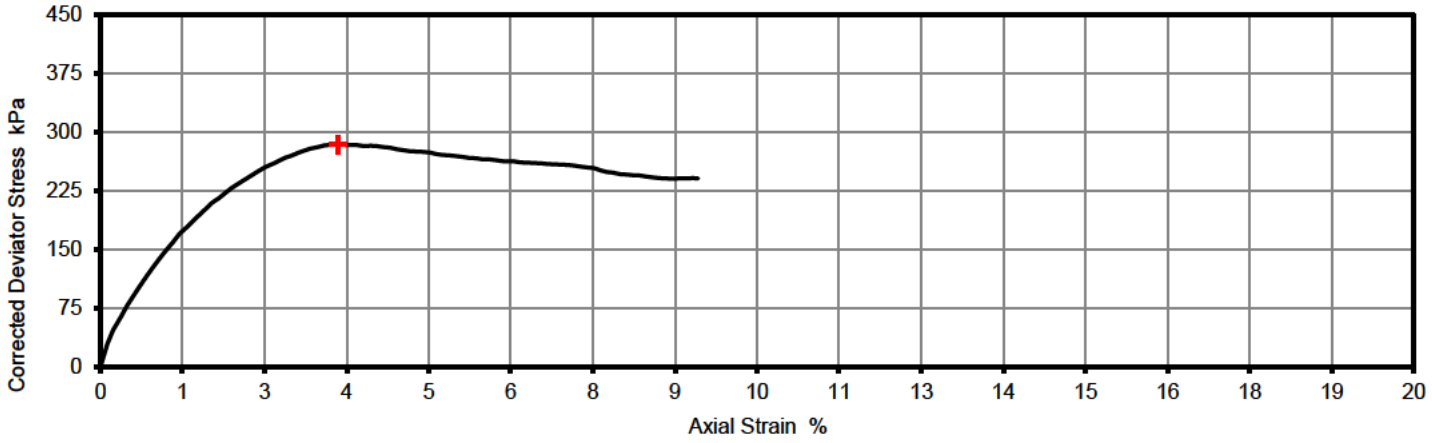
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

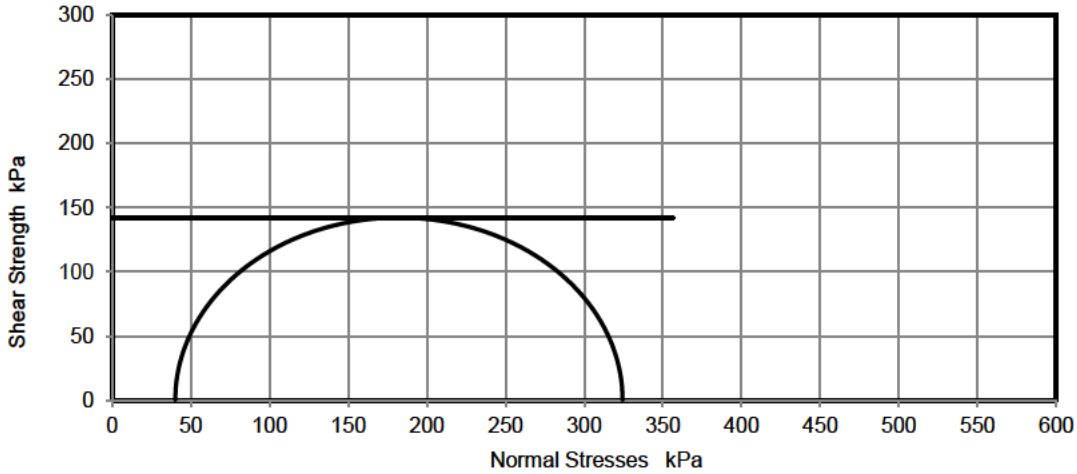
Laboratory Reference:	635127	Depth Top [m]:	2.00
Hole No.:	BH01	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Orangish brown slightly sandy CLAY		
Sample Preparation:	Sample prepared in accordance with BS EN ISO 17892-8: 2018 Clause 6.2.		

Test Number	1		Rate of Strain	1.00	%/min
Depth within Sample	-	m	Cell Pressure	40	kPa
Length	76.25	mm	Axial Strain at Failure	3.6	%
Diameter	38.26	mm	Deviator Stress, (σv-σh)	284	kPa
Length Prior to Shearing	76.25	mm	Undrained Shear Strength, cu	142	kPa ½(σv-σh)
Bulk Density	1.92	Mg/m3	Mode of Failure	Brittle	
Initial Water Content	26.3	%	Membrane Thickness	0.20	mm
Final Water Content	25.2	%	Membrane Correction	1.09	kPa
Dry Density	1.52	Mg/m3			

Deviator Stress v Axial Strain

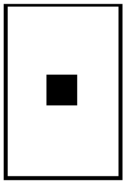


Mohr Circles





Position within sample



Note: Deviator stress corrected for area change and membrane effects.

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 463.5

TEST CERTIFICATE

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST

Tested in Accordance with: BS EN ISO 17982-8:2018, BS 1377-2 Cl. 28:2022

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	25/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

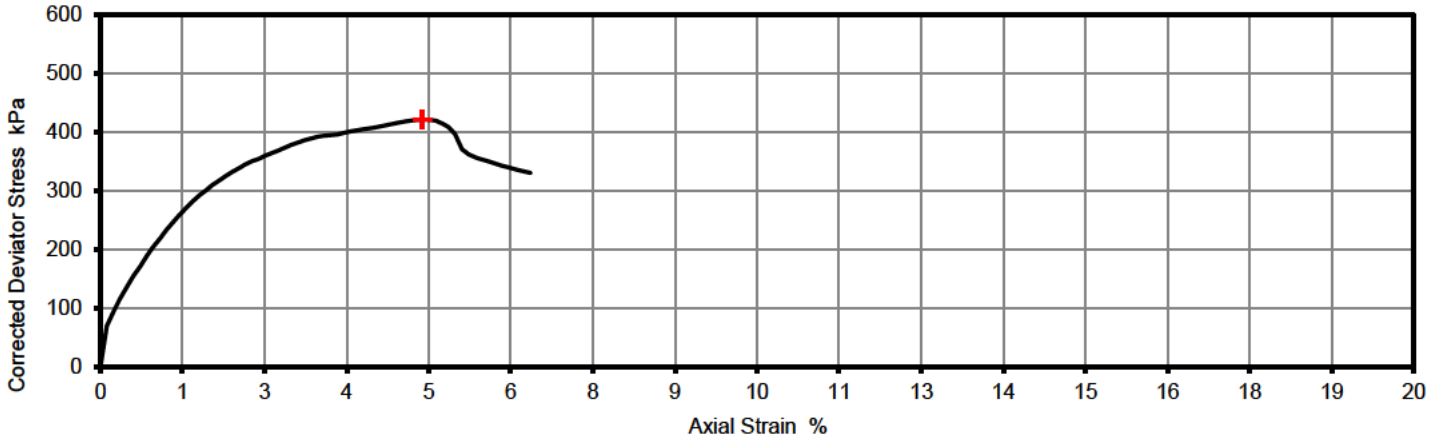
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

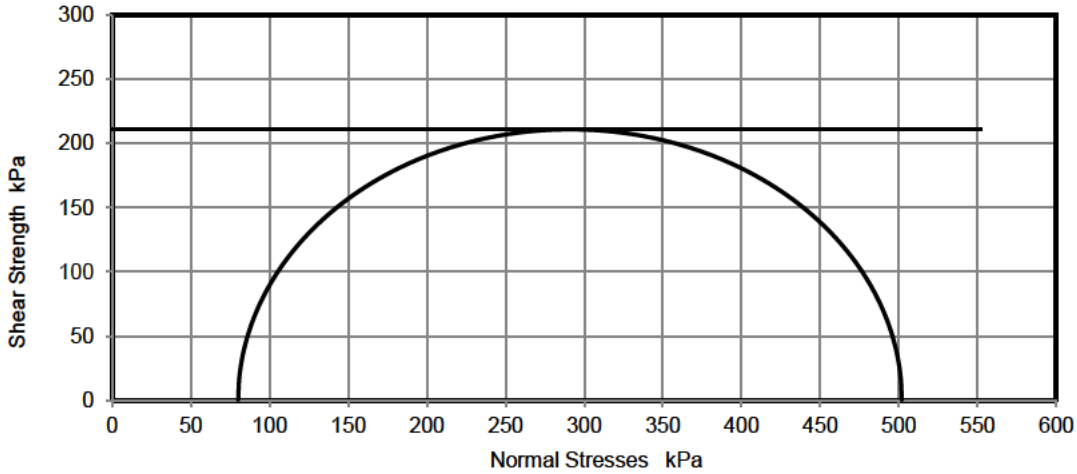
Laboratory Reference:	635128	Depth Top [m]:	4.00
Hole No.:	BH01	Depth Base [m]:	4.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Brownish grey slightly sandy CLAY		
Sample Preparation:	Sample prepared in accordance with BS EN ISO 17892-8: 2018 Clause 6.2.		

Test Number	1		Rate of Strain	1.00	%/min	
Depth within Sample	-	m	Cell Pressure	80	kPa	
Length	100.41	mm	Axial Strain at Failure	4.9	%	
Diameter	50.03	mm	Deviator Stress, (σv-σh)	422	kPa	
Length Prior to Shearing	100.41	mm	Undrained Shear Strength, cu	211	kPa	½(σv-σh)
Bulk Density	1.99	Mg/m3	Mode of Failure	Brittle		
Initial Water Content	25.3	%	Membrane Thickness	0.24	mm	
Final Water Content	24.7	%	Membrane Correction	1.36	kPa	
Dry Density	1.59	Mg/m3				

Deviator Stress v Axial Strain

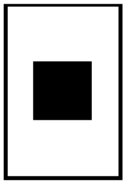


Mohr Circles





Position within sample



Note: Deviator stress corrected for area change and membrane effects.

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 463.5

TEST CERTIFICATE

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST

Tested in Accordance with: BS EN ISO 17982-8:2018, BS 1377-2 Cl. 28:2022

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	21/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	25/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

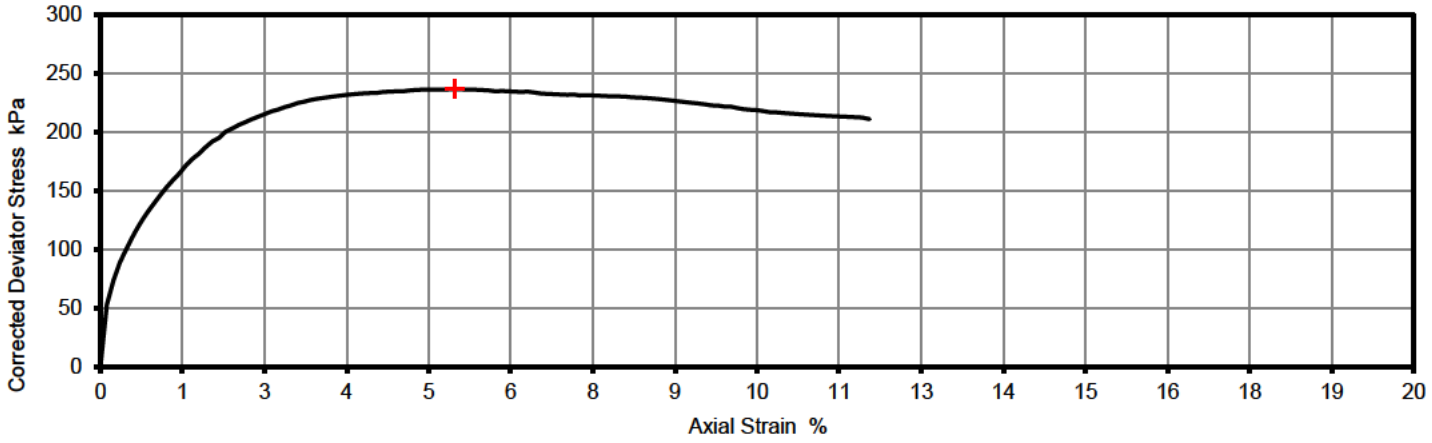
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

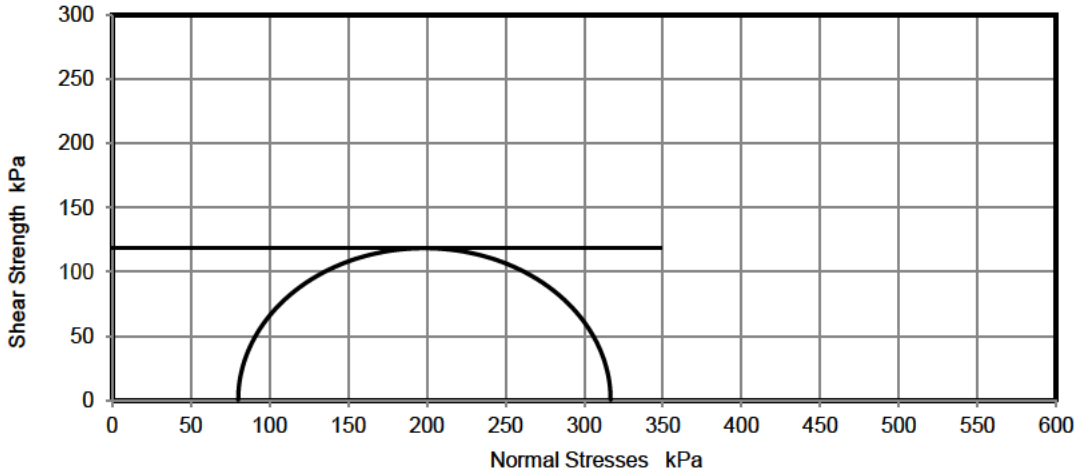
Laboratory Reference:	635129	Depth Top [m]:	4.00
Hole No.:	BH02	Depth Base [m]:	4.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Greyish brown slightly gravelly CLAY		
Sample Preparation:	Sample prepared in accordance with BS EN ISO 17892-8: 2018 Clause 6.2.		

Test Number	1		Rate of Strain	1.00	%/min
Depth within Sample	-	m	Cell Pressure	80	kPa
Length	100.57	mm	Axial Strain at Failure	5.4	%
Diameter	49.71	mm	Deviator Stress, (σv-σh)	237	kPa
Length Prior to Shearing	100.56	mm	Undrained Shear Strength, cu	118	kPa ½(σv-σh)
Bulk Density	1.98	Mg/m3	Mode of Failure	Brittle	
Initial Water Content	30.1	%	Membrane Thickness	0.25	mm
Final Water Content	28.5	%	Membrane Correction	1.57	kPa
Dry Density	1.52	Mg/m3			

Deviator Stress v Axial Strain

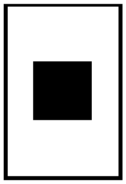


Mohr Circles





Position within sample



Note: Deviator stress corrected for area change and membrane effects.

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 463.5

TEST CERTIFICATE

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST

Tested in Accordance with: BS EN ISO 17982-8:2018, BS 1377-2 Cl. 28:2022

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	21/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	25/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

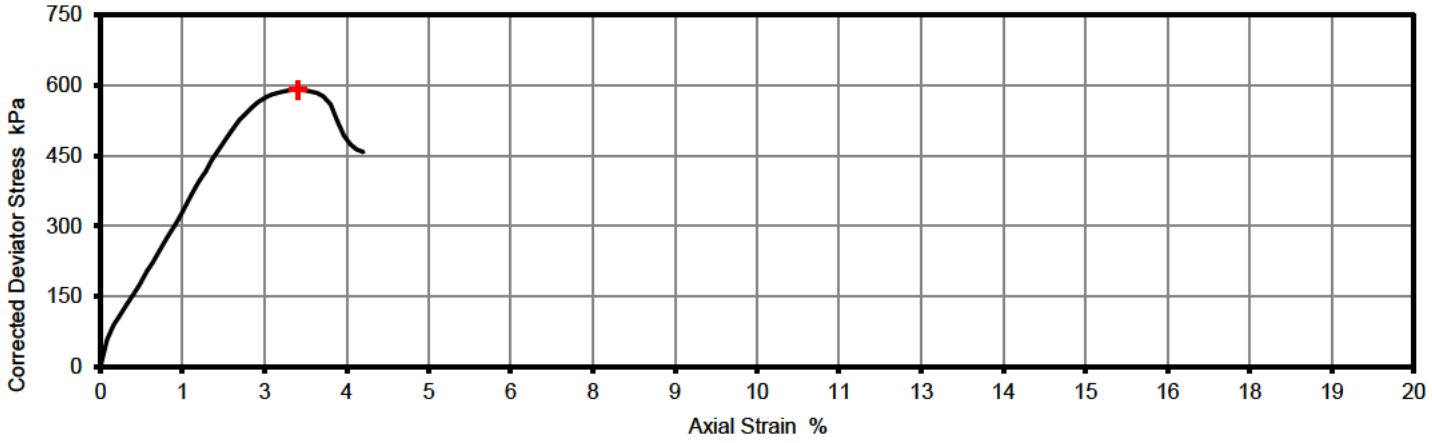
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

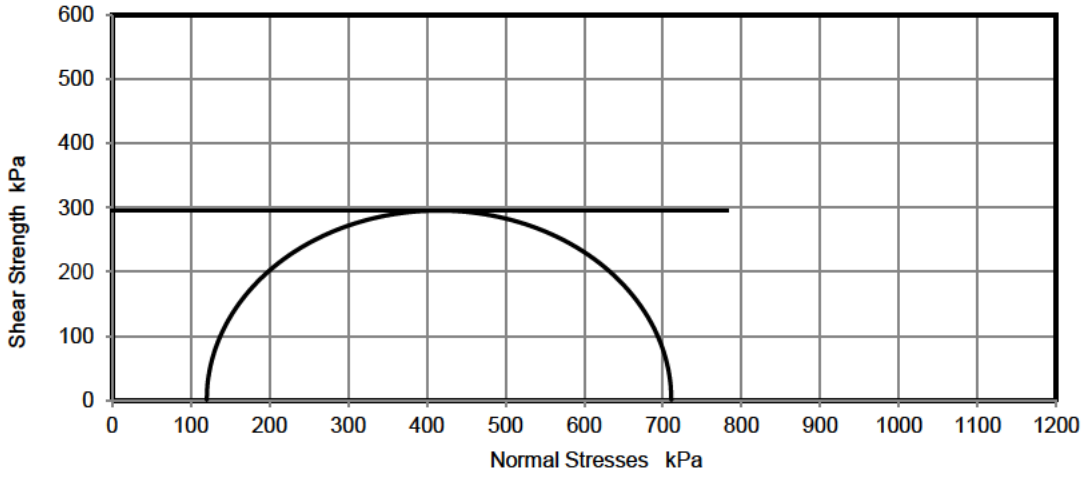
Laboratory Reference:	635130	Depth Top [m]:	6.00
Hole No.:	BH02	Depth Base [m]:	6.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Greyish brown CLAY		
Sample Preparation:	Sample prepared in accordance with BS EN ISO 17892-8: 2018 Clause 6.2.		

Test Number	1		Rate of Strain	1.00	%/min
Depth within Sample	-	m	Cell Pressure	120	kPa
Length	100.10	mm	Axial Strain at Failure	3.0	%
Diameter	49.97	mm	Deviator Stress, (σv-σh)	591	kPa
Length Prior to Shearing	100.10	mm	Undrained Shear Strength, cu	295	kPa ½(σv-σh)
Bulk Density	2.02	Mg/m3	Mode of Failure	Compound	
Initial Water Content	23.1	%	Membrane Thickness	0.23	mm
Final Water Content	22.4	%	Membrane Correction	0.80	kPa
Dry Density	1.64	Mg/m3			

Deviator Stress v Axial Strain

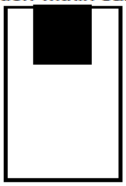


Mohr Circles





Position within sample



Note: Deviator stress corrected for area change and membrane effects.

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 463.5

4041

TEST CERTIFICATE

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST

Tested in Accordance with: BS EN ISO 17982-8:2018, BS 1377-2 Cl. 28:2022

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	25/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

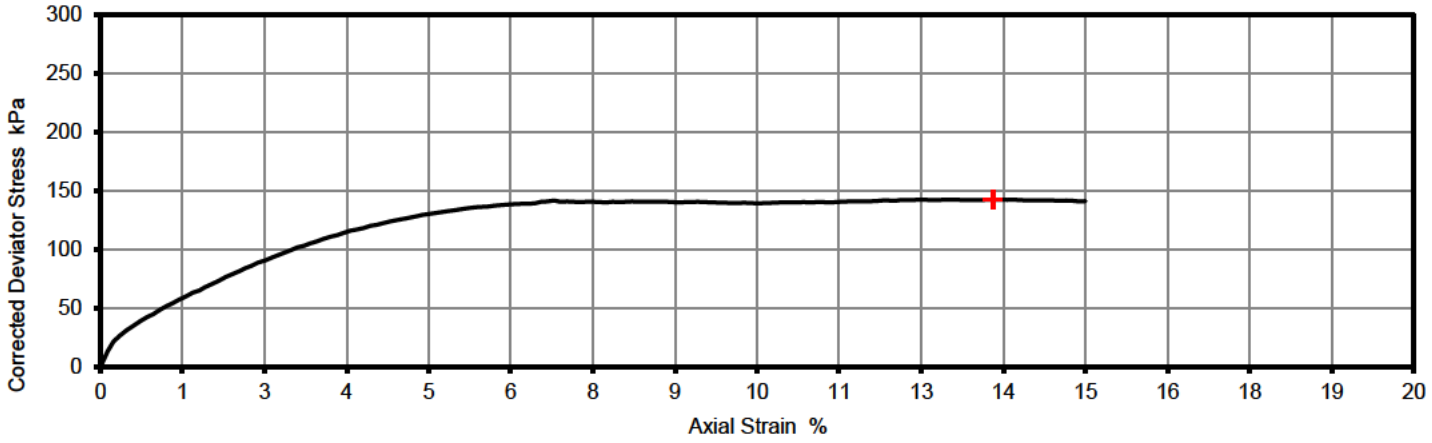
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

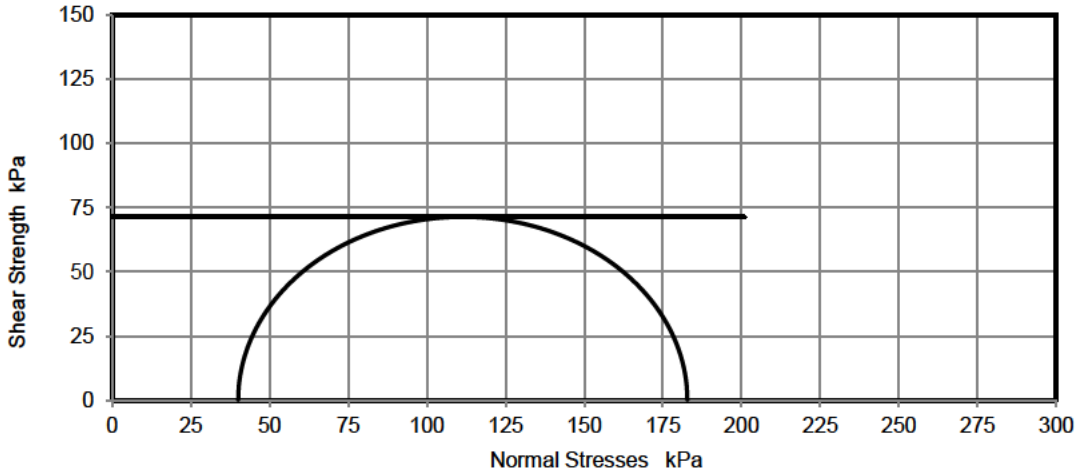
Laboratory Reference:	635131	Depth Top [m]:	2.00
Hole No.:	BH03	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Brownish grey silty SAND		
Sample Preparation:	Sample prepared in accordance with BS EN ISO 17892-8: 2018 Clause 6.2.		

Test Number	1		Rate of Strain	1.00	%/min
Depth within Sample	-	m	Cell Pressure	40	kPa
Length	99.52	mm	Axial Strain at Failure	13.6	%
Diameter	49.22	mm	Deviator Stress, (σv-σh)	143	kPa
Length Prior to Shearing	99.52	mm	Undrained Shear Strength, cu	71	kPa ½(σv-σh)
Bulk Density	1.97	Mg/m3	Mode of Failure	Compound	
Initial Water Content	26.0	%	Membrane Thickness	0.24	mm
Final Water Content	27.0	%	Membrane Correction	3.83	kPa
Dry Density	1.57	Mg/m3			

Deviator Stress v Axial Strain

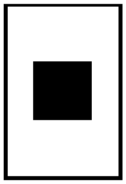


Mohr Circles





Position within sample



Note: Deviator stress corrected for area change and membrane effects.

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 463.5

TEST CERTIFICATE

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST

Tested in Accordance with: BS EN ISO 17982-8:2018, BS 1377-2 Cl. 28:2022

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041139-1
		Date Sampled:	24/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	25/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

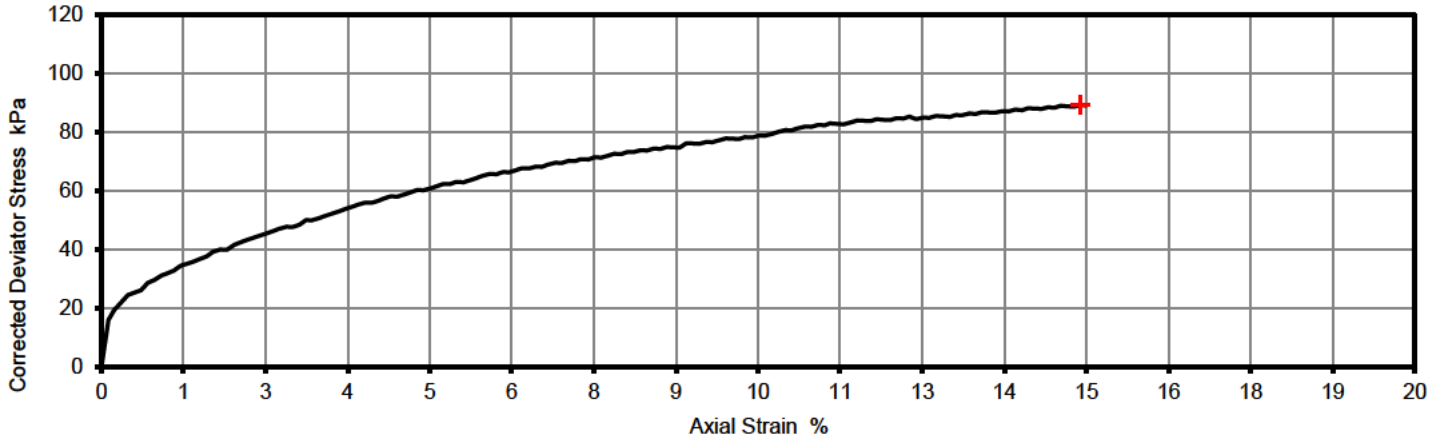
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

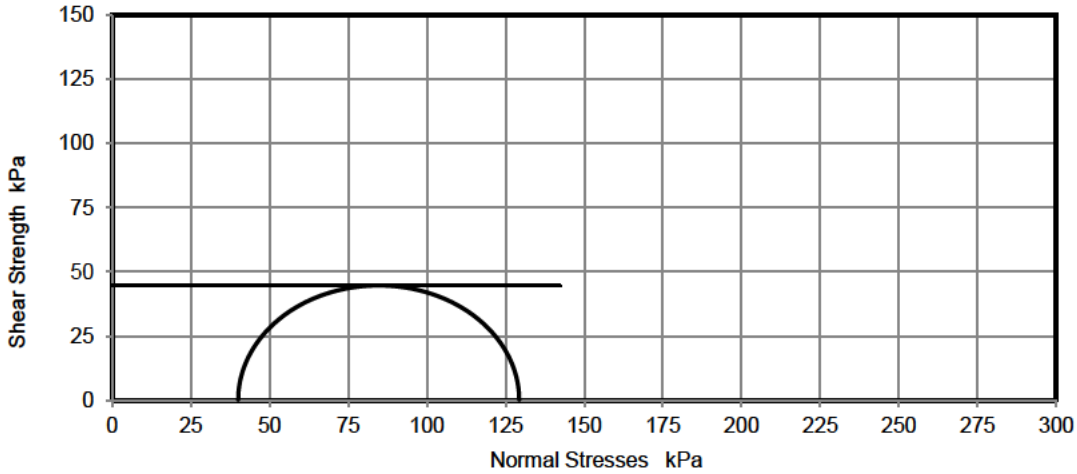
Laboratory Reference:	635132	Depth Top [m]:	2.00
Hole No.:	BH04	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Brownish grey slightly sandy CLAY		
Sample Preparation:	Sample prepared in accordance with BS EN ISO 17892-8: 2018 Clause 6.2.		

Test Number	1		Rate of Strain	1.30	%/min
Depth within Sample	-	m	Cell Pressure	40	kPa
Length	76.33	mm	Axial Strain at Failure	14.9	%
Diameter	38.27	mm	Deviator Stress, (σv-σh)	89	kPa
Length Prior to Shearing	76.32	mm	Undrained Shear Strength, cu	45	kPa ½(σv-σh)
Bulk Density	1.97	Mg/m3	Mode of Failure	Plastic	
Initial Water Content	26.6	%	Membrane Thickness	0.19	mm
Final Water Content	24.6	%	Membrane Correction	4.28	kPa
Dry Density	1.56	Mg/m3			

Deviator Stress v Axial Strain

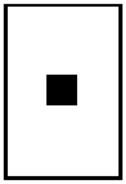


Mohr Circles





Position within sample



Note: Deviator stress corrected for area change and membrane effects.

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 29/08/2025

GF 463.5

Hydrock Consultants Ltd
5-7 Tanner Street
London
SE1 3LE

t: 0121 752 5197

e: Lily.Cherry@stantec.com
Emma.Judd@stantec.com
tom.fairweather@stantec.com
Helen.Gardiner@stantec.com

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 25-041144

Project / Site name:	Northern Areas of One Horton Heath, Eastleigh	**Samples received on:**	30/07/2025
Your job number:	332612639	**Samples instructed on/ Analysis started on:**	01/08/2025
Your order number:	EPL046300	**Analysis completed by:**	12/08/2025
Report Issue Number:	1	**Report issued on:**	12/08/2025
Samples Analysed:	6 soil samples		

Signed: [redacted]

Dominika Liana
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

Excel copies of reports are only valid when accompanied by this PDF certificate.

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 25-041144
Project / Site name: Northern Areas of One Horton Heath, Eastleigh

Lab Sample Number				635152	635153	635154	635155	635156
Sample Reference				TP13	TP01	TP02	TP03	TP08
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	2.00	2.00	1.00	2.00
Date Sampled				23/07/2025	23/07/2025	23/07/2025	24/07/2025	24/07/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	10	18	21	15	18
Total mass of sample received	kg	0.1	NONE	0.5	0.5	0.6	0.5	0.8
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	6.7	6.9	8.4	8.5	8.5
Total Sulphate as SO_4	%	0.005	MCERTS	0.043	0.021	0.022	0.018	0.011
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	17	18	56	11	10
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	8.29	9.16	28.1	5.61	5.14
Total Sulphur	mg/kg	50	MCERTS	140	59	61	56	< 50
Total Sulphur	%	0.005	MCERTS	0.014	0.006	0.006	0.006	< 0.005

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 25-041144
Project / Site name: Northern Areas of One Horton Heath, Eastleigh

Lab Sample Number				635157
Sample Reference				BH01
Sample Number				None Supplied
Water Matrix				N/A
Depth (m)				3.30-3.40
Date Sampled				24/07/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	21
Total mass of sample received	kg	0.1	NONE	0.5

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.7
Total Sulphate as SO_4	%	0.005	MCERTS	0.035
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	340
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	169
Total Sulphur	mg/kg	50	MCERTS	5200
Total Sulphur	%	0.005	MCERTS	0.523

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 25-041144
Project / Site name: Northern Areas of One Horton Heath, Eastleigh

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
635152	TP13	None Supplied	1	Brown sand
635153	TP01	None Supplied	2	Brown clay and sand
635154	TP02	None Supplied	2	Brown clay and sand with gravel
635155	TP03	None Supplied	1	Brown clay and sand with gravel
635156	TP08	None Supplied	2	Brown clay and sand with vegetation
635157	BH01	None Supplied	3.30-3.40	Brown loam and clay with gravel

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 25-041144
Project / Site name: Northern Areas of One Horton Heath, Eastleigh

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022, cl 5.3 and 5.5, Fall Cone Method, 4 Pt Test, BS 1377-2:2022, cl 5.2 and 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

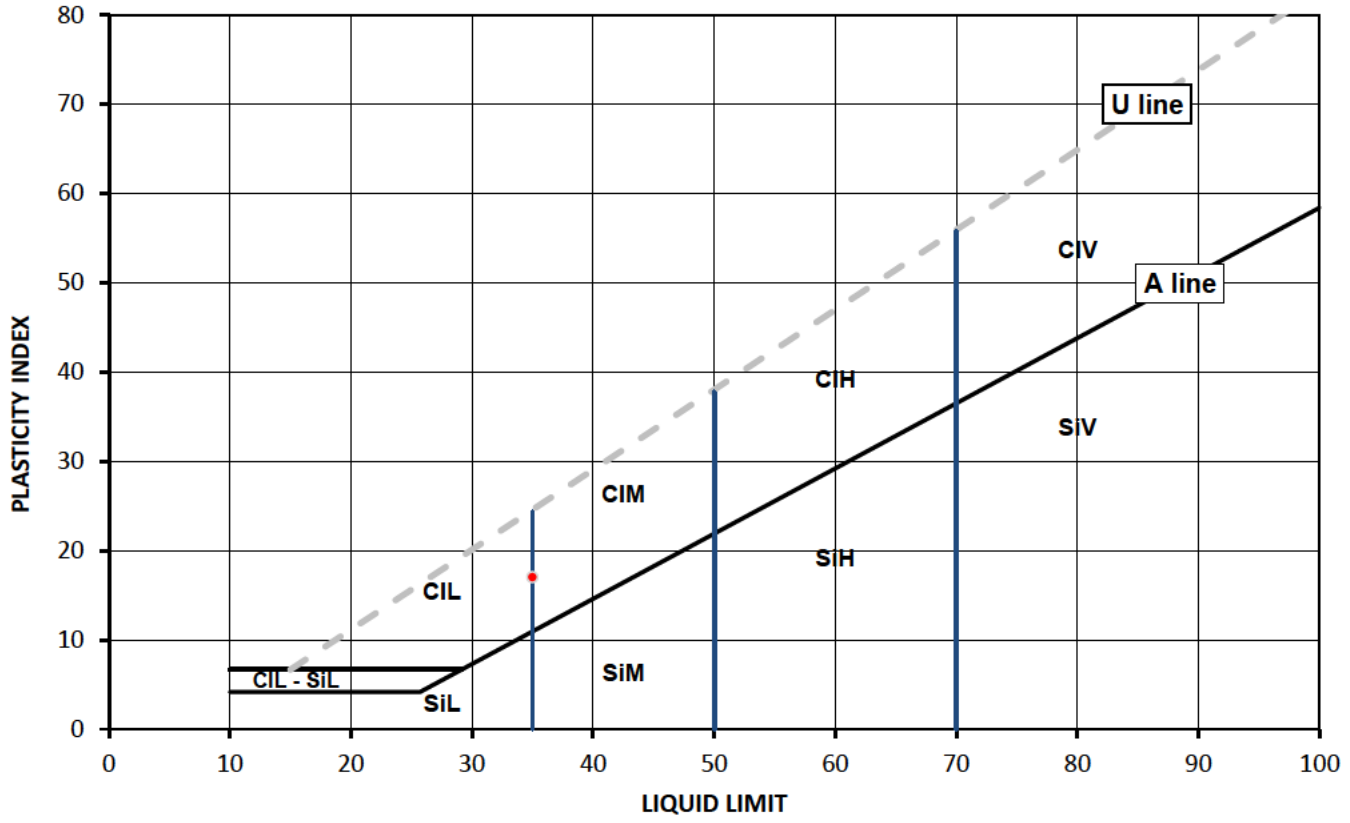
Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041591-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	14/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	638378	Depth Top [m]:	2.00
Hole No.:	BH02	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Orangish brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >0.425mm removed by hand; The water content in the sample was increased		
Cone Type:	80g/30deg		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity Index [IL] % #	Consistency Index [IC] % #	% Passing 425µm BS Test Sieve
19.5	35	18	17	0.12	0.88	98



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN ISO 17892-1:2014+A1:2022, BS 1377-2:2022; # Non accredited

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 03/09/2025

GF 337.14

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022, clause 4.1

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Hydrock Consultants Ltd

Client Address: 5-7 Tanner Street, London, SE1 3LE

Contact: Lily Cherry

Site Address: Northern Areas of One Horton Heath, Eastleigh

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 332612639
Job Number: 25-041591-1
Date Sampled: 22/07/2025
Date Received: 30/07/2025
Date Tested: 14/08/2025
Sampled By: Client - LC

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type			%											
638378	BH02	Not Given	2.00	2.45	U	Orangish brown slightly gravelly sandy CLAY		19.5											

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 03/09/2025

TEST CERTIFICATE

UNCONSOLIDATED UNDRAINED TRIAXIAL TEST

Tested in Accordance with: BS EN ISO 17982-8:2018, BS 1377-2 Cl. 28:2022

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Hydrock Consultants Ltd	Client Reference:	332612639
Client Address:	5-7 Tanner Street, London, SE1 3LE	Job Number:	25-041591-1
		Date Sampled:	22/07/2025
		Date Received:	30/07/2025
Contact:	Lily Cherry	Date Tested:	26/08/2025
Site Address:	Northern Areas of One Horton Heath, Eastleigh	Sampled By:	Client - LC

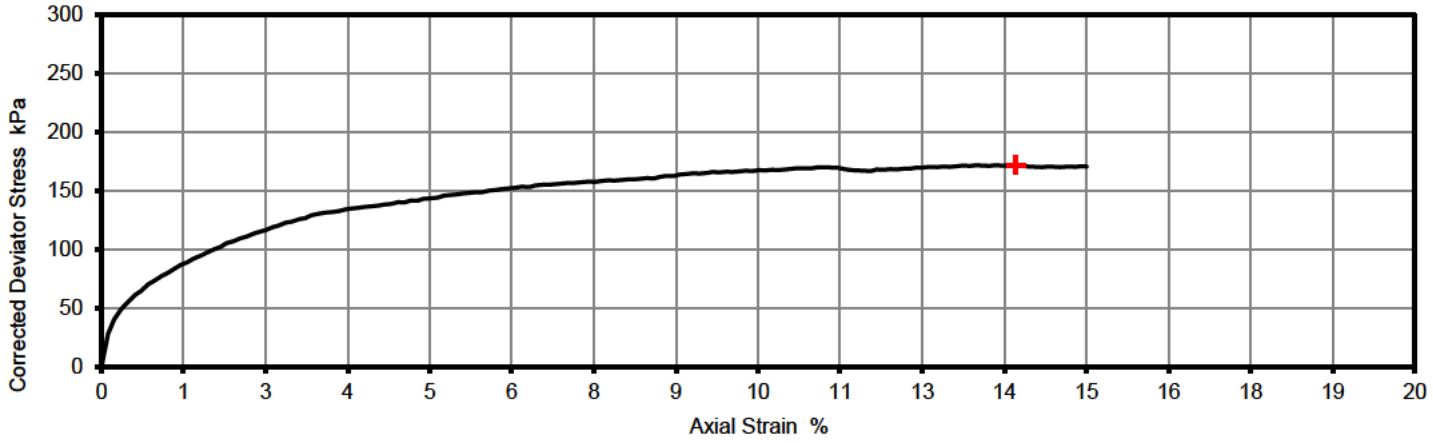
Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

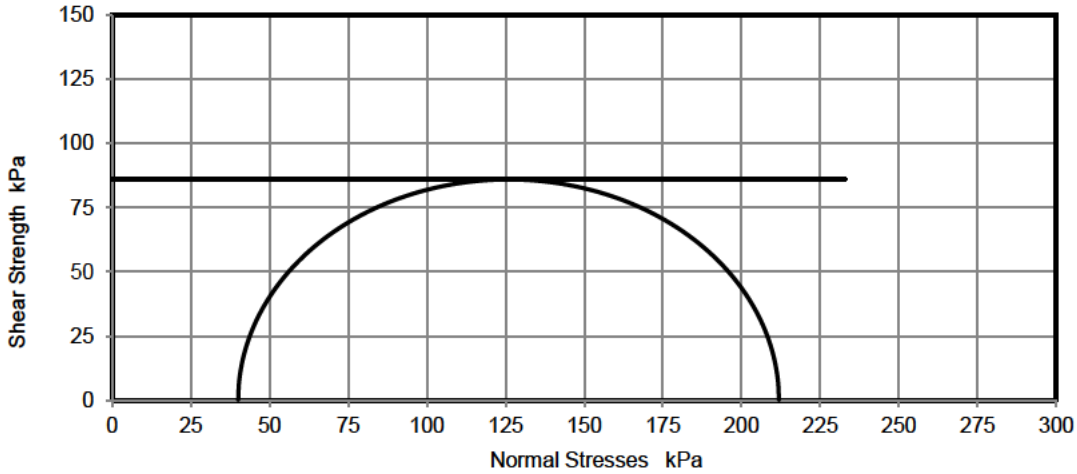
Laboratory Reference:	638378	Depth Top [m]:	2.00
Hole No.:	BH02	Depth Base [m]:	2.45
Sample Reference:	Not Given	Sample Type:	U
Sample Description:	Orangish brown slightly gravelly sandy CLAY		
Sample Preparation:	Sample prepared in accordance with BS EN ISO 17892-8: 2018 Clause 6.2.		

Test Number	1		Rate of Strain	1.00	%/min
Depth within Sample	-	m	Cell Pressure	40	kPa
Length	76.55	mm	Axial Strain at Failure	13.9	%
Diameter	38.12	mm	Deviator Stress, (σv-σh)	172	kPa
Length Prior to Shearing	76.55	mm	Undrained Shear Strength, cu	86	kPa ½(σv-σh)
Bulk Density	2.03	Mg/m3	Mode of Failure	Compound	
Initial Water Content	19.4	%	Membrane Thickness	0.20	mm
Final Water Content	18.9	%	Membrane Correction	4.22	kPa
Dry Density	1.70	Mg/m3			

Deviator Stress v Axial Strain

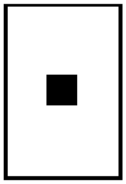


Mohr Circles





Position within sample



Note: Deviator stress corrected for area change and membrane effects.

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: [redacted]

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Date Reported: 03/09/2025

GF 463.5

Appendix D Site monitoring data

Variable Head Permeability Test Certificate

Standpipe Test

Tested in accordance with BS EN ISO 22282-2:2012 Annex B Section B.4

Client:	Eastleigh Borough Council
Site Name:	Parkside, One Horton Heath
Contract Number:	332612639

Borehole Reference:	BH03
Date Tested:	23/07/2025
Test Reference:	Test 1

Hydrock

Permeabiltiy Test Details	Test Type (Falling or Rising Head)		Rising Head	
	Datum Point (i.e where levels are measured from)		Ground Level	
Standpipe Details	Height of casing/pipe above Ground Level (GL)	C	0.00	m
	Top of response zone below GL	T	1.20	mbgl
	Base of response zone below GL	B	6.00	mbgl
	Top of response zone below datum	Td	1.20	mbd
	Base of response zone below datum	Bd	6.00	mbd
	Standpipe Diameter	d	50	mm
	Filter Zone Diameter	D	150	mm
	Standpipe Radius	r	0.025	m
	Filter Zone Radius	R	0.075	m
	Length of Filter zone	l	4.80	m
Water Details	Depth to groundwater in standpipe measured pre-test below GL / datum (nb. readings soon after installation may be affected by drilling / flush disturbance).	GWd	1.34	mbd
		GW	1.34	mbgl
Early Time Assessment	Starting Time	t_a	0.00	min
	Starting Head	h_a	3.16	m
Comment				
Test Scenario	C	Length of Test Zone	L	4.66 m
		Test zone equal to saturated screen length		
Comment				

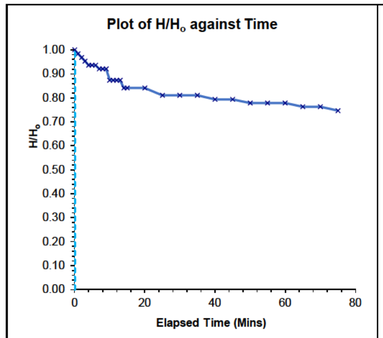
Is the Test Length > 8 x standpipe radius?	Yes
Comment	Standpipe geometry valid
Is standpipe geometry valid and does H/Ho go below 0.37?	No
Assessment	Basic Time Lag conditions not met, alternative approach required

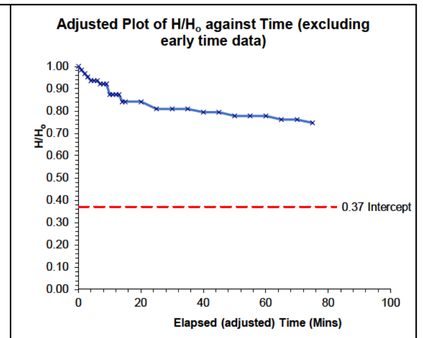
H/Ho intercept Test	**Head Ratio**	**Time (min)**	**Depth (min)**
Head Ratio H/Ho >0.37	-	-	-
Head Ratio H/Ho <0.37	-	-	-

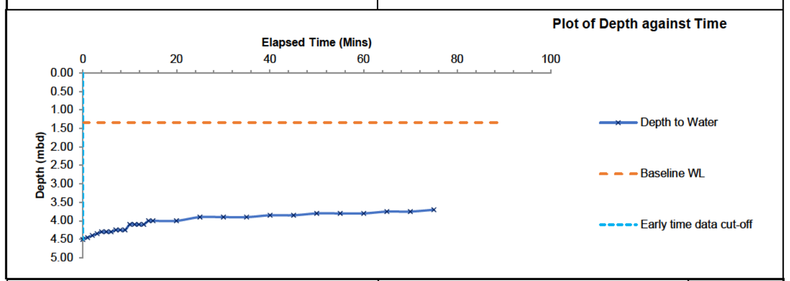
Interpolated Depth at H/Ho 0.37 intercept	-	m
Interpolated Basic Time Lag Time T	-	Min
Hydraulic Conductivity $k = \frac{r^2 . ln(L/R)}{2 . L . t_0}$	-	m/min
	-	m/sec
	-	m/d

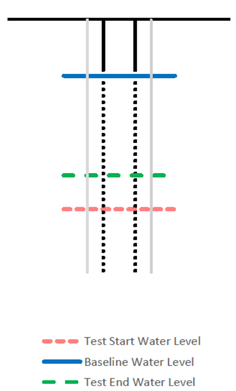
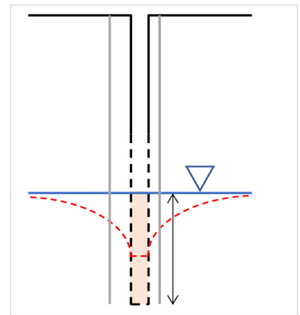
Notes	Rising Head Test - Water Level did not return to stable groundwater level and test terminated to early. GWL used from subsequent dip round as more likely to represent the equilibrium level.
	Variable head permeability testing in accordance with BS EN ISO 22282:2012 calculates hydraulic conductivity (a measure of fluid flow through a porous medium) using the equations given in Hvorslev (1951). The calculated values are not infiltration/permeation rates and should not be used in the design of infiltration systems.

Field Data		**Head Data**		**Adjusted Data Excluding Early-Time Data**			
Elapsed Time (t) (mins)	Depth to water from datum (m)	Head (H) (m) (absolute)	Head Ratio (H/H_o)	Adjusted Time (t) mins	Depth to water from datum (m)	Head (H) (m) (absolute)	Head Ratio (H/H_o)
0.0	4.50	-3.16	1.00	0.00	4.50	3.16	1.000
1.0	4.45	-3.11	0.98	1.00	4.45	3.11	0.984
2.0	4.40	-3.06	0.97	2.00	4.40	3.06	0.968
3.0	4.35	-3.01	0.95	3.00	4.35	3.01	0.953
4.0	4.30	-2.96	0.94	4.00	4.30	2.96	0.937
5.0	4.30	-2.96	0.94	5.00	4.30	2.96	0.937
6.0	4.30	-2.96	0.94	6.00	4.30	2.96	0.937
7.0	4.25	-2.91	0.92	7.00	4.25	2.91	0.921
8.0	4.25	-2.91	0.92	8.00	4.25	2.91	0.921
9.0	4.25	-2.91	0.92	9.00	4.25	2.91	0.921
10.0	4.10	-2.76	0.87	10.00	4.10	2.76	0.873
11.0	4.10	-2.76	0.87	11.00	4.10	2.76	0.873
12.0	4.10	-2.76	0.87	12.00	4.10	2.76	0.873
13.0	4.10	-2.76	0.87	13.00	4.10	2.76	0.873
14.0	4.00	-2.66	0.84	14.00	4.00	2.66	0.842
15.0	4.00	-2.66	0.84	15.00	4.00	2.66	0.842
20.0	4.00	-2.66	0.84	20.00	4.00	2.66	0.842
25.0	3.90	-2.56	0.81	25.00	3.90	2.56	0.810
30.0	3.90	-2.56	0.81	30.00	3.90	2.56	0.810
35.0	3.90	-2.56	0.81	35.00	3.90	2.56	0.810
40.0	3.85	-2.51	0.79	40.00	3.85	2.51	0.794
45.0	3.85	-2.51	0.79	45.00	3.85	2.51	0.794
50.0	3.80	-2.46	0.78	50.00	3.80	2.46	0.778
55.0	3.80	-2.46	0.78	55.00	3.80	2.46	0.778
60.0	3.80	-2.46	0.78	60.00	3.80	2.46	0.778
65.0	3.75	-2.41	0.76	65.00	3.75	2.41	0.763
70.0	3.75	-2.41	0.76	70.00	3.75	2.41	0.763
75.0	3.70	-2.36	0.75	75.00	3.70	2.36	0.747







Test Schematic	**Test Scenario**	**C**
		
Assumptions (BS EN ISO 22282-2:2012, B4.2): 1: Length of screen >8x pipe radius 2: Applied below water table only	Test zone equal to saturated screen length	

Version : 1.0 - 24/11/2022

Variable Head Permeability Test Certificate

Standpipe Test

Tested in accordance with BS EN ISO 22282-2:2012 Annex B Section B.4

Client:	Eastleigh Borough Council
Site Name:	Parkside, One Horton Heath
Contract Number:	332612639

Borehole Reference:	BH04
Date Tested:	24/07/2025
Test Reference:	Test 1

Hydrock

Permeabiltiy Test Details	Test Type (Falling or Rising Head)		Rising Head	
	Datum Point (i.e where levels are measured from)		Ground Level	
Standpipe Details	Height of casing/pipe above Ground Level (GL)	C	0.00	m
	Top of response zone below GL	T	1.20	mbgl
	Base of response zone below GL	B	5.00	mbgl
	Top of response zone below datum	Td	1.20	mbd
	Base of response zone below datum	Bd	5.00	mbd
	Standpipe Diameter	d	50	mm
	Filter Zone Diameter	D	150	mm
	Standpipe Radius	r	0.025	m
	Filter Zone Radius	R	0.075	m
	Length of Filter zone	l	3.80	m
Water Details	Depth to groundwater in standpipe measured pre-test below GL / datum (nb. readings soon after installation may be affected by drilling / flush disturbance).	GWd	0.98	mbd
		GW	0.98	mbgl
Early Time Assessment	Starting Time	t_a	0.00	min
	Starting Head	h_a	3.02	m
Comment				
Test Scenario	B	Length of Test Zone	L	3.80 m
		Test zone equal to screen length		
Comment				

Is the Test Length > 8 x standpipe radius?	Yes
Comment	Standpipe geometry valid
Is standpipe geometry valid and does H/Ho go below 0.37?	Yes
Assessment	Use Basic Time Lag Approach

H/Ho intercept Test	**Head Ratio**	**Time (min)**	**Depth (min)**
Head Ratio H/Ho >0.37	0.40	4	2.2
Head Ratio H/Ho <0.37	0.34	5	2

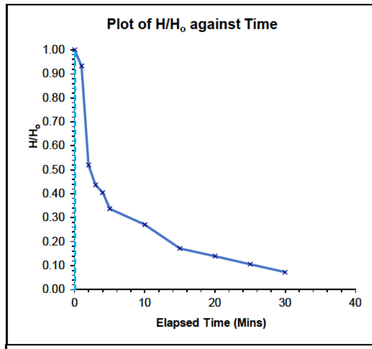
Interpolated Depth at H/Ho 0.37 intercept	2.10	m
Interpolated Basic Time Lag Time T	4.51	Min
Hydraulic Conductivity $k = \frac{r^2 . ln(L/R)}{2 . L . t_0}$	7.15E-05	m/min
	1.19E-06	m/sec
	0.10	m/d

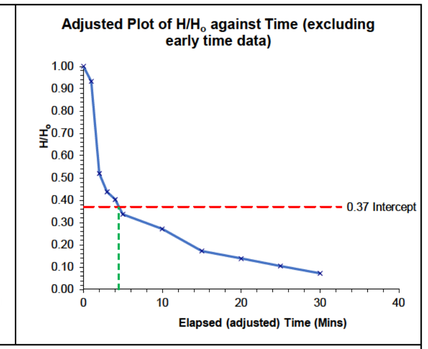
Notes

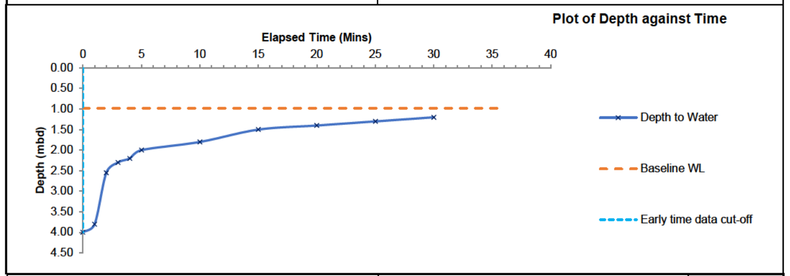
Stable GWL taken from 1st monitoring round as hole not dipped prior to test

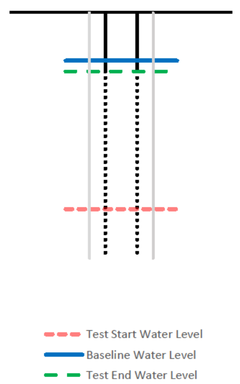
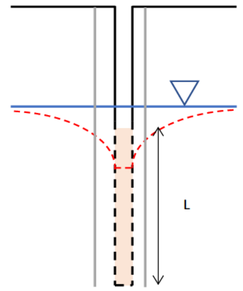
Variable head permeability testing in accordance with BS EN ISO 22282:2012 calculates hydraulic conductivity (a measure of fluid flow through a porous medium) using the equations given in Hvorslev (1951). The calculated values are not infiltration/permeation rates and should not be used in the design of infiltration systems.

Field Data		**Head Data**		**Adjusted Data Excluding Early-Time Data**			
Elapsed Time (t) (mins)	Depth to water from datum (m)	Head (H) (m) (absolute)	Head Ratio (H/H_o)	Adjusted Time (t) mins	Depth to water from datum (m)	Head (H) (m) (absolute)	Head Ratio (H/H_o)
0.0	4.00	-3.02	1.00	0.00	4.00	3.02	1.000
1.0	3.80	-2.82	0.93	1.00	3.80	2.82	0.934
2.0	2.55	-1.57	0.52	2.00	2.55	1.57	0.520
3.0	2.30	-1.32	0.44	3.00	2.30	1.32	0.437
4.0	2.20	-1.22	0.40	4.00	2.20	1.22	0.404
5.0	2.00	-1.02	0.34	5.00	2.00	1.02	0.338
10.0	1.80	-0.82	0.27	10.00	1.80	0.82	0.272
15.0	1.50	-0.52	0.17	15.00	1.50	0.52	0.172
20.0	1.40	-0.42	0.14	20.00	1.40	0.42	0.139
25.0	1.30	-0.32	0.11	25.00	1.30	0.32	0.106
30.0	1.20	-0.22	0.07	30.00	1.20	0.22	0.073







Test Schematic	**Test Scenario**	**B**
		
Test Start Water Level Baseline Water Level Test End Water Level		
Assumptions (BS EN ISO 22282-2:2012, B4.2): 1: Length of screen >8x pipe radius 2: Applied below water table only	Test zone equal to screen length	

Version : 1.0 - 24/11/2022

Stantec

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	07/08/2025	**Weather:**	Sunny, cloudy, warm
Time:	09:30	**Monitoring Round:**	1
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH01	**Casing Level above GL (m):**	0.25
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.50
Pipe Material:	PVC	**Base of Screen (m bgl):**	5.86
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.75
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	6.11
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	

Well conditons:

Good condition, gas tap closed. Grey silt noted on dip tape.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.10	20.50	0.00	0.00	0.00
0:00:30	-	0.00	0.00	3.10	17.60	0.00	0.00	0.00
0:01:00	-		0.00	3.10	17.60	0.00	0.00	0.00
0:02:00	-		0.00	3.10	17.60	0.00	0.00	0.00
0:03:00	-		0.00	3.10	17.50	0.00	0.00	0.00
0:04:00	-		0.00	3.20	17.50	0.00	0.00	0.00
0:05:00	-		0.00	3.20	17.50	0.00	0.00	0.00
0:06:00	-		0.00	3.20	17.50	0.00	0.00	0.00
0:07:00	-		0.00	3.30	17.50	0.00	0.00	0.00
0:08:00	-		0.00	3.30	17.50	0.00	0.00	0.00
0:09:00	-		0.00	3.30	17.50	0.00	0.00	0.00
0:10:00	-		0.00	3.30	17.50	0.00	0.00	0.00
Steady State		0.00	0.00	3.30	17.50	0.00	0.00	0.00

Ambient readings

Atmospheric pressure (mb):	1013.00						
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**	
	0.00	0.00	20.80	0.00	0.00	0.00	

Observations during monitoring

No odour

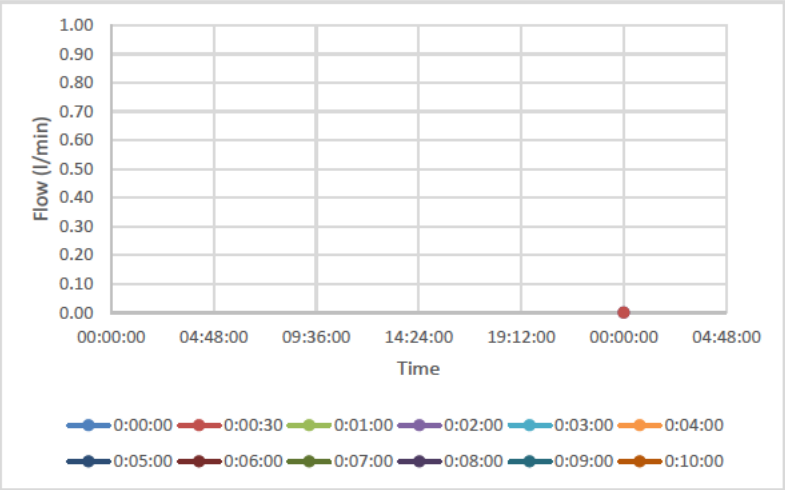
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

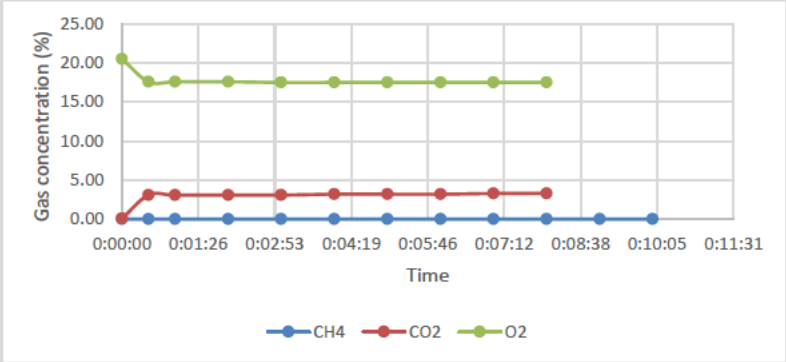
Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

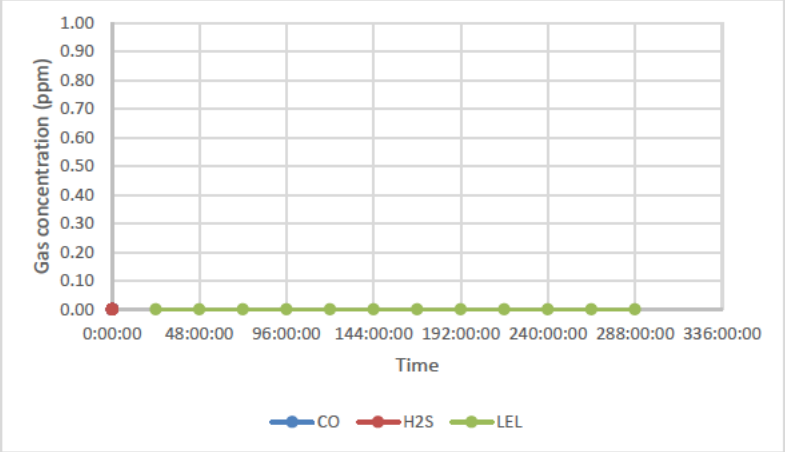
Groundwater Gauging:

Equipment Details:

Dipmeter type:		**Instrument serial number:**	
Monitoring Data			
Monitoring Datum		**Water Level Depth (m bd):**	2.37
NAPL Gauging:	**LNAPL** / **DNAPL**	**Measured Well Depth (m bd):**	6.11
Depth to NAPL (m bd):		**Water Level Depth (m bgl):**	2.12
NAPL Thickness (mm):		**Measured Well Depth (m bgl):**	**5.86**


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	11/09/2025	**Weather:**	Sunny, cloudy with rain
Time:	11:15	**Monitoring Round:**	2
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH01	**Casing Level above GL (m):**	0.25
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.50
Pipe Material:	PVC	**Base of Screen (m bgl):**	5.86
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.75
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	6.11
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	
Well conditons:			

Good condition, gas tap closed. Grey silt noted on dip tape.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.20	19.70	0.00	0.00	0.00
0:00:30	-	0.00	0.00	3.90	15.70	0.00	0.00	0.00
0:01:00	-		0.00	4.00	15.60	0.00	0.00	0.00
0:02:00	-		0.00	4.00	15.60	0.00	0.00	0.00
0:03:00	-		0.00	4.00	15.50	0.00	0.00	0.00
0:04:00	-		0.00	4.00	15.50	0.00	0.00	0.00
0:05:00	-		0.00	4.00	15.50	0.00	0.00	0.00
0:06:00	-							
0:07:00	-							
0:08:00	-							
0:09:00	-							
0:10:00	-							
Steady State		0.00	0.00	4.00	15.50	0.00	0.00	0.00

Ambient readings							
Atmospheric pressure (mb):	1001.00						
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**	
	0.00	20.50	0.00	0.00	0.00	0.00	

Observations during monitoring

Steady after 5 mins

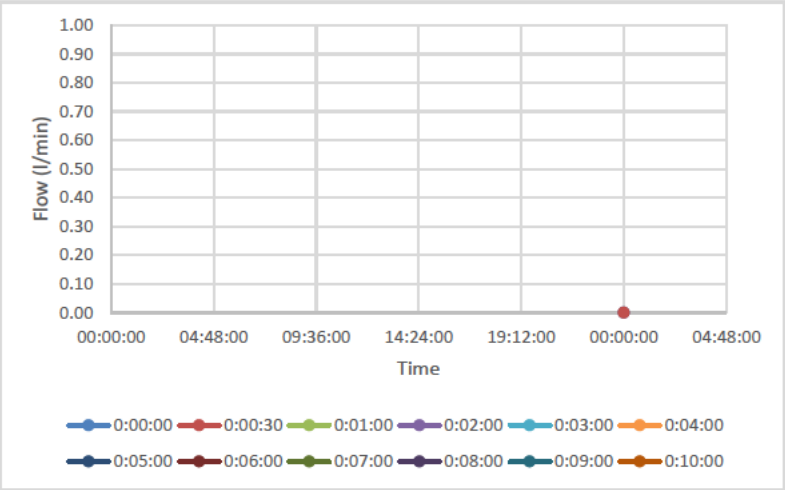
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

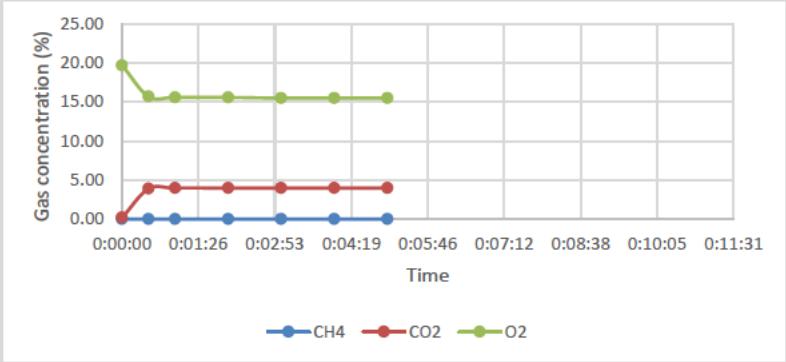
Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

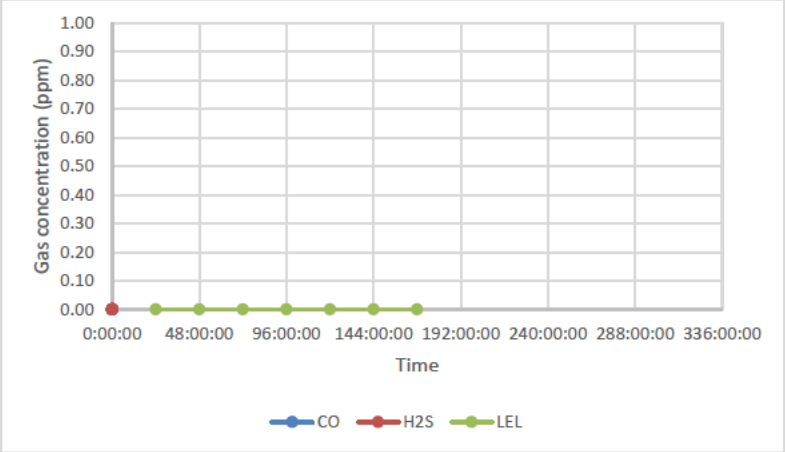
Groundwater Gauging:

Equipment Details:

Dipmeter type:		Instrument serial number:	
Monitoring Data			
Monitoring Datum		**Water Level Depth (m bd):**	2.55
NAPL Gauging:	**LNAPL** / **DNAPL**	**Measured Well Depth (m bd):**	6.12
Depth to NAPL (m bd):		**Water Level Depth (m bgl):**	2.30
NAPL Thickness (mm):		**Measured Well Depth (m bgl):**	**5.87**


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

Stantec

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	07/08/2025	**Weather:**	Sunny, cloudy, warm
Time:	08:54	**Monitoring Round:**	1
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH02	**Casing Level above GL (m):**	0.28
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.00
Pipe Material:	PVC	**Base of Screen (m bgl):**	6.31
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.28
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	6.59
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	
Well conditons:			

Good condition, gas tap closed. Brown silt noted on dip tape.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.20	20.20	0.00	0.00	0.00
0:00:30	-	0.00	0.00	2.80	18.70	0.00	0.00	0.00
0:01:00	-		0.00	2.80	18.70	0.00	0.00	0.00
0:02:00	-		0.00	2.90	18.70	0.00	0.00	0.00
0:03:00	-		0.00	3.00	18.60	0.00	0.00	0.00
0:04:00	-		0.00	3.10	18.50	0.00	0.00	0.00
0:05:00	-		0.00	3.40	18.40	0.00	0.00	0.00
0:06:00	-		0.00	3.70	18.30	0.00	0.00	0.00
0:07:00	-		0.00	3.90	18.20	0.00	0.00	0.00
0:08:00	-		0.00	4.20	18.10	0.00	0.00	0.00
0:09:00	-		0.00	4.30	18.10	0.00	0.00	0.00
0:10:00	-		0.00	4.40	18.00	0.00	0.00	0.00
Steady State		0.00	0.00	4.40	18.00	0.00	0.00	0.00

Ambient readings							
Atmospheric pressure (mb):	1013.00						
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**	
	0.00	0.00	20.80	0.00	0.00	0.00	

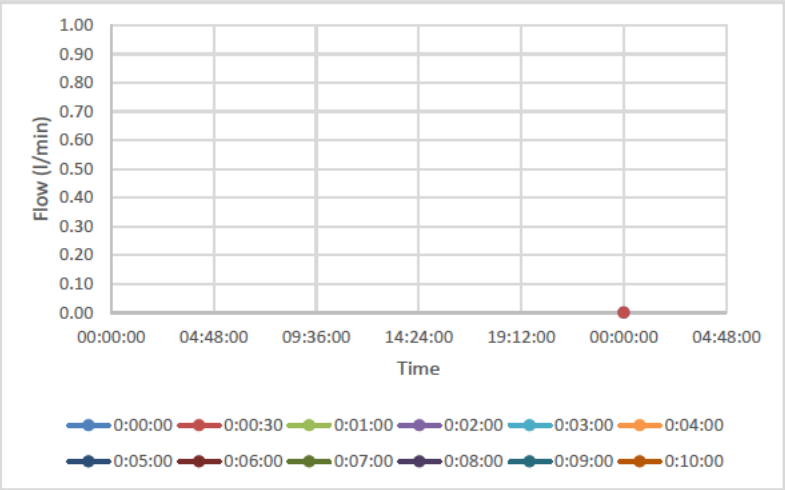
Observations during monitoring

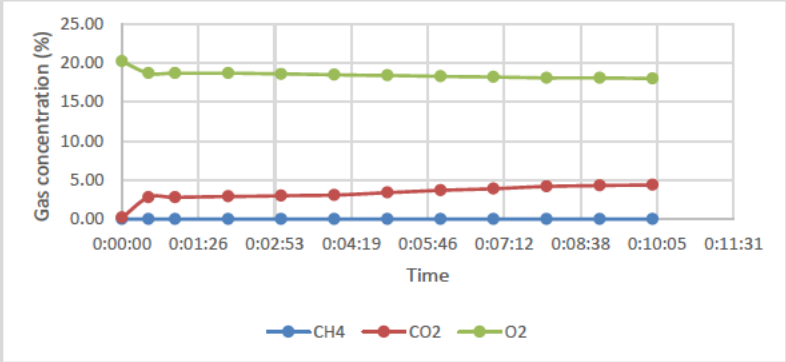
No odour

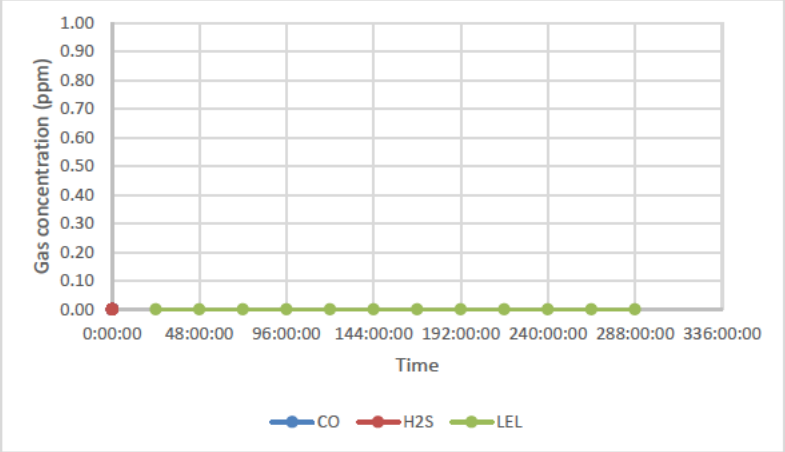
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

Groundwater Gauging:				
Equipment Details:				
Dipmeter type:		**Instrument serial number:**		
Monitoring Data				
Monitoring Datum			**Water Level Depth (m bd):**	3.85
NAPL Gauging:	**LNAPL**	**DNAPL**	**Measured Well Depth (m bd):**	6.59
Depth to NAPL (m bd):			**Water Level Depth (m bgl):**	3.57
NAPL Thickness (mm):			**Measured Well Depth (m bgl):**	**6.31**


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	11/09/2025	**Weather:**	Sunny, cloudy with rain
Time:	10:52	**Monitoring Round:**	2
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH02	**Casing Level above GL (m):**	0.28
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.00
Pipe Material:	PVC	**Base of Screen (m bgl):**	6.31
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.28
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	6.59
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	

Well conditons:

Good condition, gas tap closed. Brown silt noted on dip tape.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.30	19.30	0.00	0.00	0.00
0:00:30	-	0.00	0.00	2.70	17.70	0.00	0.00	0.00
0:01:00	-		0.00	2.90	17.70	0.00	0.00	0.00
0:02:00	-		0.00	2.80	17.70	0.00	0.00	0.00
0:03:00	-		0.00	2.90	17.60	0.00	0.00	0.00
0:04:00	-		0.00	3.00	17.60	0.00	0.00	0.00
0:05:00	-		0.00	3.00	17.60	0.00	0.00	0.00
0:06:00	-		0.00	3.10	17.60	0.00	0.00	0.00
0:07:00	-		0.00	3.30	17.60	0.00	0.00	0.00
0:08:00	-		0.00	3.40	17.60	0.00	0.00	0.00
0:09:00	-		0.00	3.50	17.50	0.00	0.00	0.00
0:10:00	-		0.00	3.60	17.50	0.00	0.00	0.00
Steady State		0.00	0.00		17.50	0.00	0.00	0.00

Ambient readings

Atmospheric pressure (mb):	1003.00						
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**	
	0.00	0.00	20.50	0.00	0.00	0.00	

Observations during monitoring

CO2 steady rise still not stable after 10 minutes.

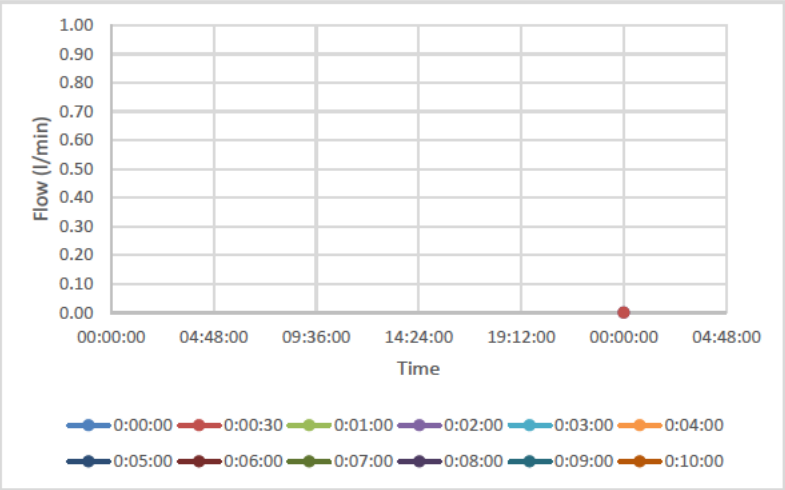
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

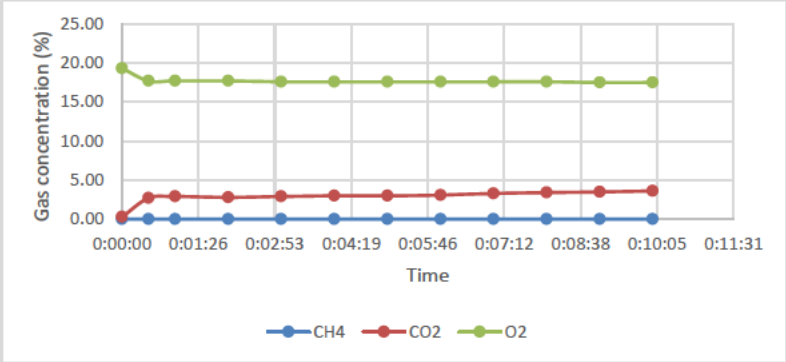
Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

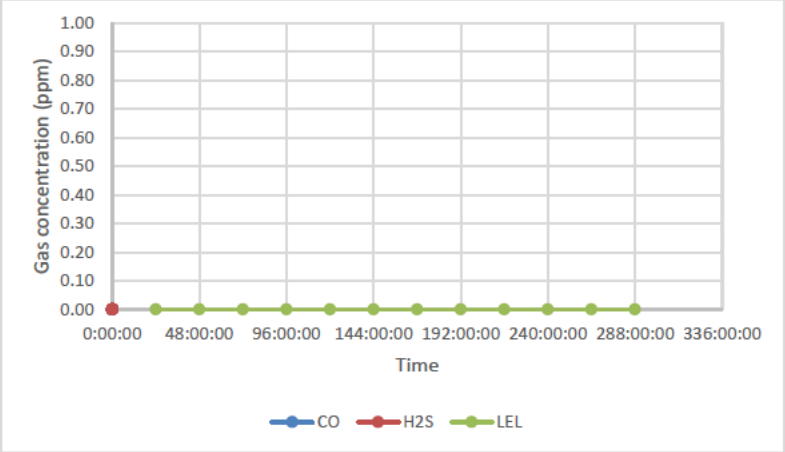
Groundwater Gauging:

Equipment Details:

Dipmeter type:		**Instrument serial number:**	
Monitoring Data			
Monitoring Datum		**Water Level Depth (m bd):**	4.00
NAPL Gauging:	**LNAPL** / **DNAPL**	**Measured Well Depth (m bd):**	6.64
Depth to NAPL (m bd):		**Water Level Depth (m bgl):**	3.72
NAPL Thickness (mm):		**Measured Well Depth (m bgl):**	**6.36**


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

Stantec

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	07/08/2025	**Weather:**	Sunny, cloudy, warm
Time:	10:15	**Monitoring Round:**	1
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH03	**Casing Level above GL (m):**	0.34
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.50
Pipe Material:	PVC	**Base of Screen (m bgl):**	6.22
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.84
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	6.56
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	
Well conditons:			

Good condition, gas tap closed.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.20	19.50	0.00	0.00	0.00
0:00:30	-	0.00	0.00	0.30	20.60	0.00	0.00	0.00
0:01:00	-		0.00	0.30	20.50	0.00	0.00	0.00
0:02:00	-		0.00	0.30	20.40	0.00	0.00	0.00
0:03:00	-		0.00	0.30	20.30	0.00	0.00	0.00
0:04:00	-		0.00	0.40	20.20	0.00	0.00	0.00
0:05:00	-		0.00	0.40	20.10	0.00	0.00	0.00
0:06:00	-		0.00	0.40	20.00	0.00	0.00	0.00
0:07:00	-		0.00	0.40	20.00	0.00	0.00	0.00
0:08:00	-		0.00	0.40	20.00	0.00	0.00	0.00
0:09:00	-		0.00	0.40	20.00	0.00	0.00	0.00
0:10:00	-		0.00	0.40	20.00	0.00	0.00	0.00
Steady State		0.00	0.00	0.40	20.00	0.00	0.00	0.00

Ambient readings

Atmospheric pressure (mb):	1013.00					
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**
	0.00	0.00	20.90	0.00	0.00	0.00

Observations during monitoring

No odour

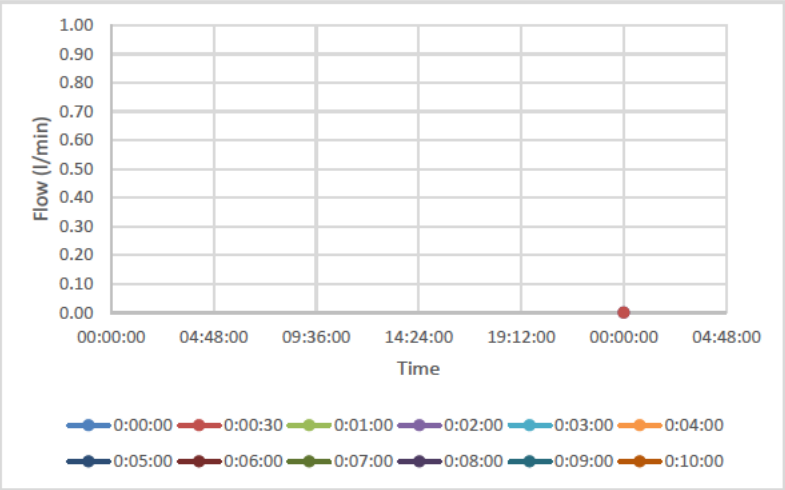
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

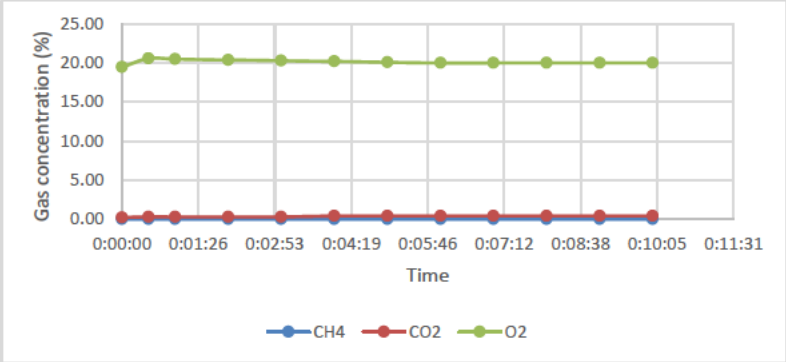
Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

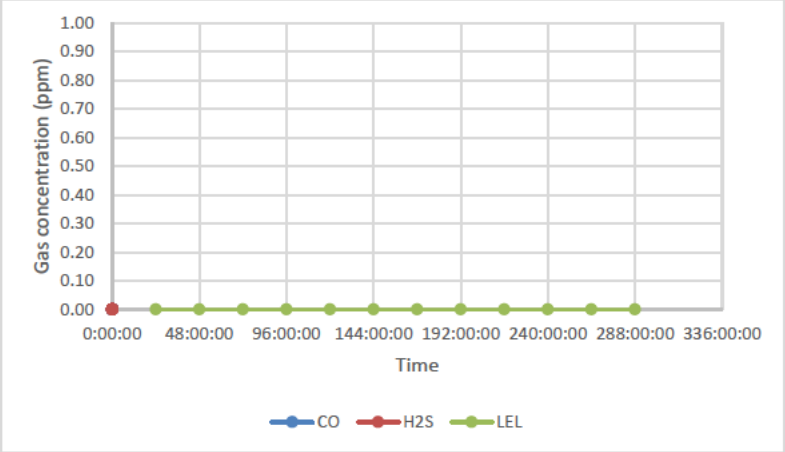
Groundwater Gauging:

Equipment Details:

Dipmeter type:		**Instrument serial number:**	
Monitoring Data			
Monitoring Datum		**Water Level Depth (m bd):**	1.68
NAPL Gauging:	**LNAPL** / **DNAPL**	**Measured Well Depth (m bd):**	6.56
Depth to NAPL (m bd):		**Water Level Depth (m bgl):**	1.34
NAPL Thickness (mm):		**Measured Well Depth (m bgl):**	**6.22**


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	11/09/2025	**Weather:**	Sunny, cloudy with rain
Time:	11:45	**Monitoring Round:**	2
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH03	**Casing Level above GL (m):**	0.34
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.50
Pipe Material:	PVC	**Base of Screen (m bgl):**	6.22
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.84
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	6.56
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	
Well conditons:			

Good condition, gas tap closed.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.20	19.30	0.00	0.00	0.00
0:00:30	-	0.00	0.00	0.50	20.40	0.00	0.00	0.00
0:01:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:02:00	-		0.00	0.50	20.10	0.00	0.00	0.00
0:03:00	-		0.00	0.50	20.00	0.00	0.00	0.00
0:04:00	-		0.00	0.50	20.00	0.00	0.00	0.00
0:05:00	-		0.00	0.50	20.00	0.00	0.00	0.00
0:06:00	-							
0:07:00	-							
0:08:00	-							
0:09:00	-							
0:10:00	-							
Steady State			0.00	0.50	20.00	0.00	0.00	0.00

Ambient readings						
Atmospheric pressure (mb):	1000.00					
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**
	0.00	0.00	20.80	0.00	0.00	0.00

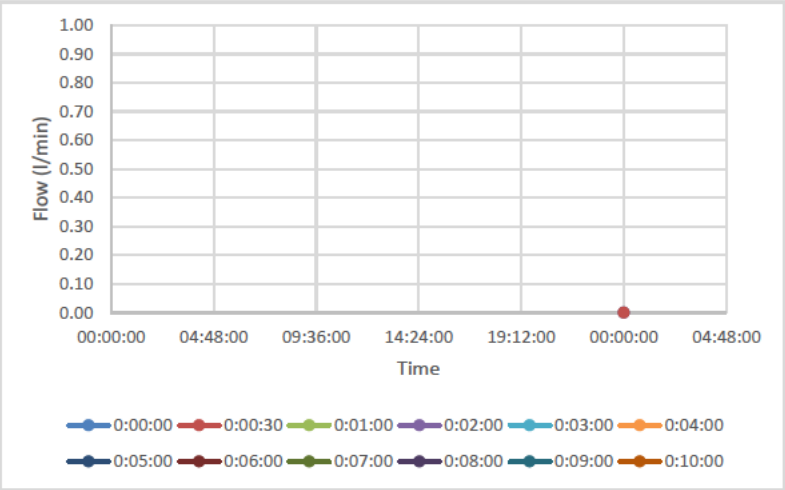
Observations during monitoring

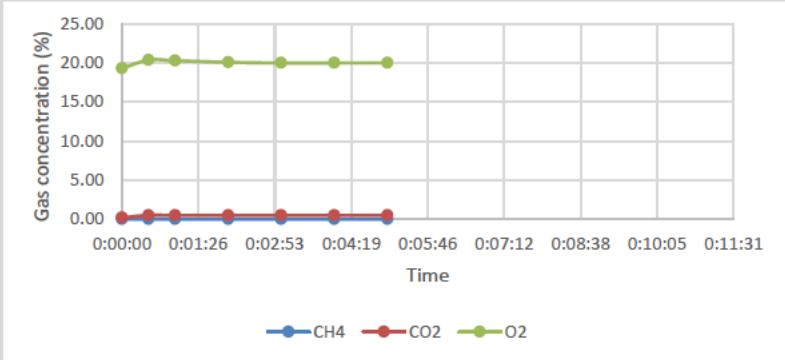
Stable readings after 5 minutes

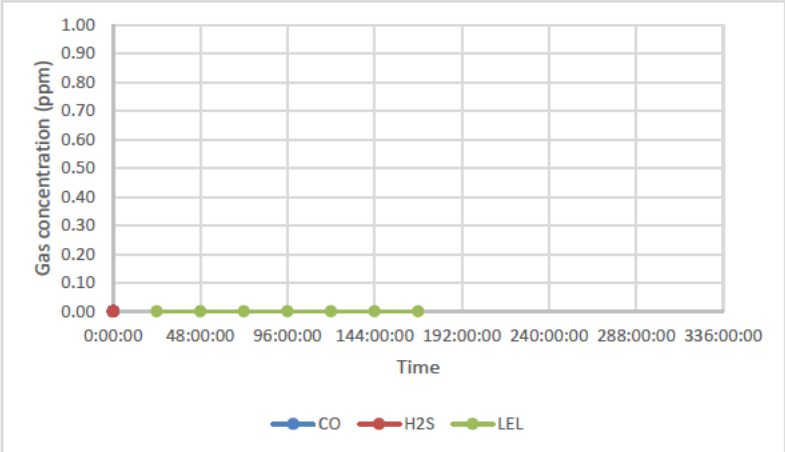
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

Groundwater Gauging:				
Equipment Details:				
Dipmeter type:		**Instrument serial number:**		
Monitoring Data				
Monitoring Datum			**Water Level Depth (m bd):**	1.61
NAPL Gauging:	**LNAPL**	**DNAPL**	**Measured Well Depth (m bd):**	6.55
Depth to NAPL (m bd):			**Water Level Depth (m bgl):**	1.27
NAPL Thickness (mm):			**Measured Well Depth (m bgl):**	**6.21**


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	07/08/2025	**Weather:**	Sunny, cloudy, warm
Time:	10:45	**Monitoring Round:**	1
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH04	**Casing Level above GL (m):**	0.34
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.50
Pipe Material:	PVC	**Base of Screen (m bgl):**	5.58
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.84
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	5.92
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	
Well conditons:			

Good condition, gas tap closed.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.20	20.20	0.00	0.00	0.00
0:00:30	-	0.00	0.00	0.30	20.50	0.00	0.00	0.00
0:01:00	-		0.00	0.30	20.50	0.00	0.00	0.00
0:02:00	-		0.00	0.30	20.50	0.00	0.00	0.00
0:03:00	-		0.00	0.40	20.50	0.00	0.00	0.00
0:04:00	-		0.00	0.40	20.40	0.00	0.00	0.00
0:05:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:06:00	-		0.00	0.40	20.30	0.00	0.00	0.00
0:07:00	-		0.00	0.40	20.40	0.00	0.00	0.00
0:08:00	-		0.00	0.40	20.30	0.00	0.00	0.00
0:09:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:10:00	-		0.00	0.40	20.30	0.00	0.00	0.00
Steady State		0.00	0.00	0.40	20.30	0.00	0.00	0.00

Ambient readings

Atmospheric pressure (mb):	1013.00					
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**
	0.00	0.00	20.80	0.00	0.00	0.00

Observations during monitoring

No odour

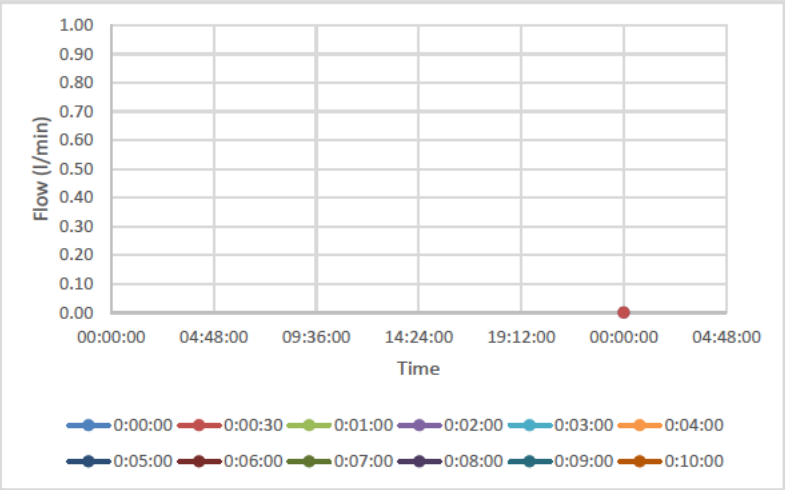
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

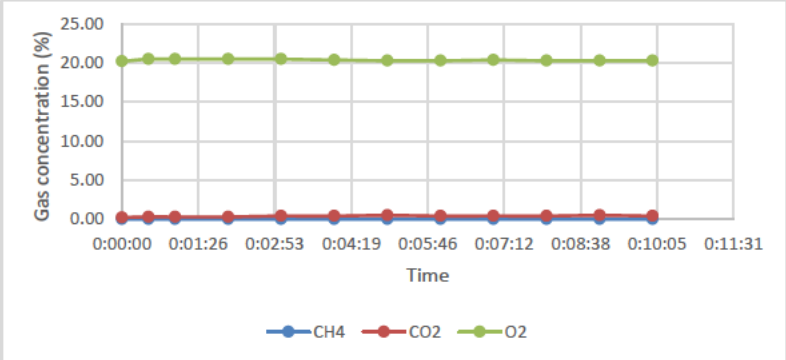
Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

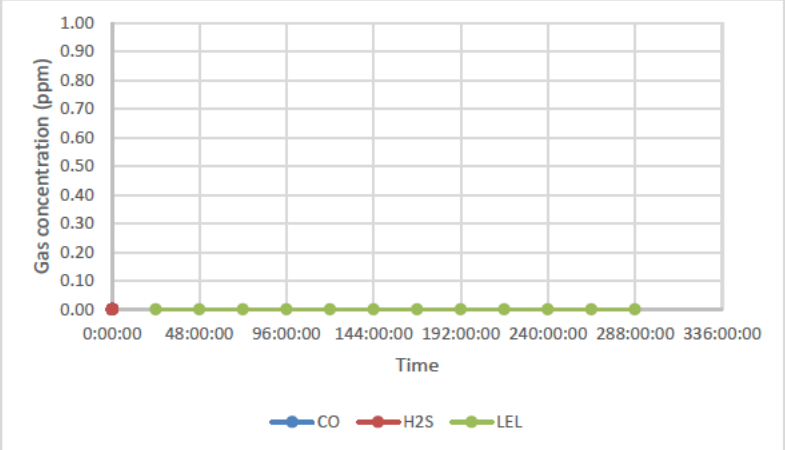
Groundwater Gauging:

Equipment Details:

Dipmeter type:		**Instrument serial number:**	
Monitoring Data			
Monitoring Datum		**Water Level Depth (m bd):**	1.32
NAPL Gauging:	**LNAPL** / **DNAPL**	**Measured Well Depth (m bd):**	5.92
Depth to NAPL (m bd):		**Water Level Depth (m bgl):**	0.98
NAPL Thickness (mm):		**Measured Well Depth (m bgl):**	**5.58**


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

Project Details			
Project Name:	Parkside, One Horton Heath	**Project Number:**	332612639
Visit Details			
Date:	11/09/2025	**Weather:**	Sunny, cloudy with rain
Time:	12:05	**Monitoring Round:**	2
Comments:		**Recorded by:**	LC
Well Details			
Monitoring point ID:	BH04	**Casing Level above GL (m):**	0.34
Single or dual gas tap:	Single	**Top of Screen (m bgl):**	1.50
Pipe Material:	PVC	**Base of Screen (m bgl):**	5.58
Pipe Diameter D (mm):	50	**Top of Screen (m b.casing):**	1.84
Hole Diameter R (mm):		**Base of Screen (m b.casing):**	5.92
Expected headspace air volume:			
Equipment Details			
Gas Analyser Model:	GFM 436	**Instrument Serial Number:**	
Calibration Date:	24/09/2025	**Span gas check ok:**	
PID instrument:	-	**Instrument Serial Number:**	
Calibration Date:	-	**Calibration check ok:**	
Well conditons:			

Good condition, gas tap closed.

Well measurement readings

Parameter Details - for Not Recorded use "NR" and explain why in Well Conditions. For non-detect use the displayed value.

Time (hh:mm:ss)	Relative BH pressure (hPA/mb)	Borehole flow (litres/hour)	CH4 (%)	CO2 (%)	O2 (%)	CO (ppm)	H2S (ppm)	LEL (%)
0:00:00	0	0.00	0.00	0.00	19.90	0.00	0.00	0.00
0:00:30	-	0.00	0.00	0.50	20.30	0.00	0.00	0.00
0:01:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:02:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:03:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:04:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:05:00	-		0.00	0.50	20.30	0.00	0.00	0.00
0:06:00	-							
0:07:00	-							
0:08:00	-							
0:09:00	-							
0:10:00	-							
Steady State		0.00	0.00	0.50	20.30	0.00	0.00	0.00

Ambient readings							
Atmospheric pressure (mb):	1000.00						
Ambient concentrations:	**CH4**	**CO2**	**O2**	**CO**	**H2S**	**LEL**	
	0.00	0.00	20.80	0.00	0.00	0.00	

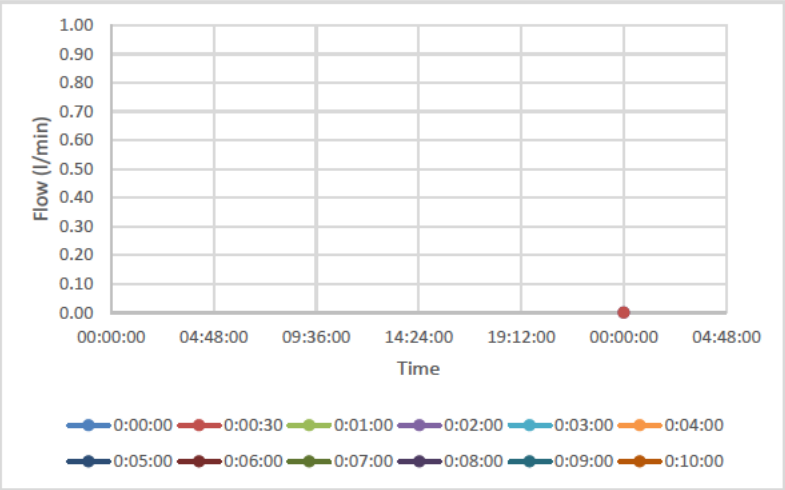
Observations during monitoring

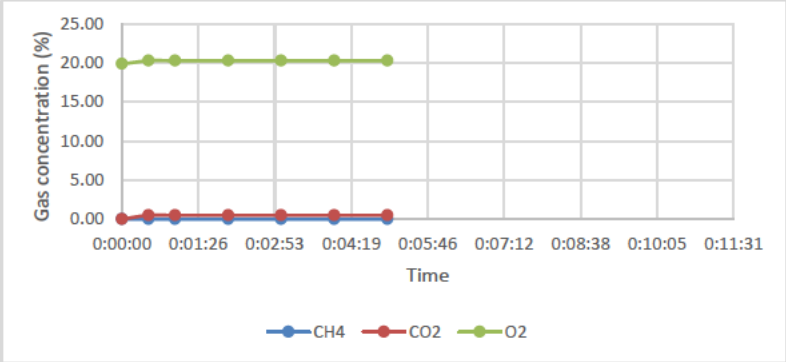
Stable readings after 5 minutes

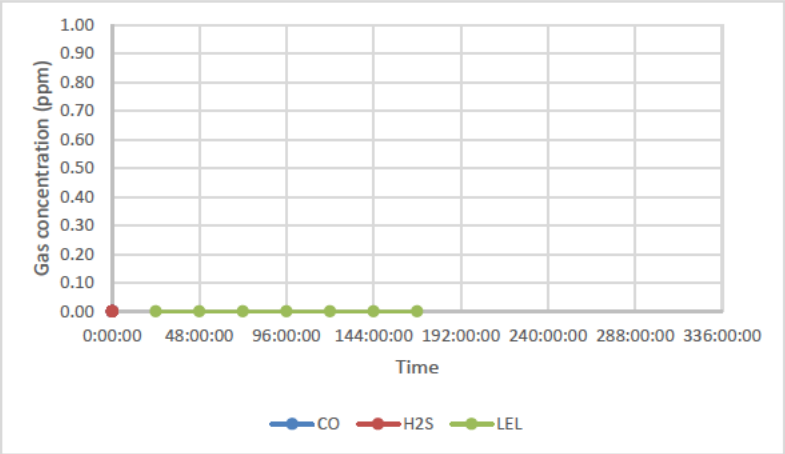
Vapour/Gas Samples (note Sample Ref must include monitoring round as prefix)

Sample Depth (mbgl):	Sample Ref:	Sample Type:	Container Type:	Sample Size (l):	Starting vacuum:	End vacuum:	Sampling Rate (l/min):
QA/QC Samples							
☐ Duplicate							
☐ Triplicate							

Groundwater Gauging:							
Equipment Details:							
Dipmeter type:					**Instrument serial number:**		
Monitoring Data							
Monitoring Datum					**Water Level Depth (m bd):**	1.09	
NAPL Gauging:	**LNAPL**	**DNAPL**			**Measured Well Depth (m bd):**	5.73	
Depth to NAPL (m bd):					**Water Level Depth (m bgl):**	0.75	
NAPL Thickness (mm):					**Measured Well Depth (m bgl):**	**5.39**	


1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Flow (l/min)
00:00:00
04:48:00
09:36:00
14:24:00
19:12:00
00:00:00
04:48:00
Time
0:00:00
0:00:30
0:01:00
0:02:00
0:03:00
0:04:00
0:05:00
0:06:00
0:07:00
0:08:00
0:09:00
0:10:00


25.00
20.00
15.00
10.00
5.00
0.00
Gas concentration (%)
0:00:00
0:01:26
0:02:53
0:04:19
0:05:46
0:07:12
0:08:38
0:10:05
0:11:31
Time
CH4
CO2
O2

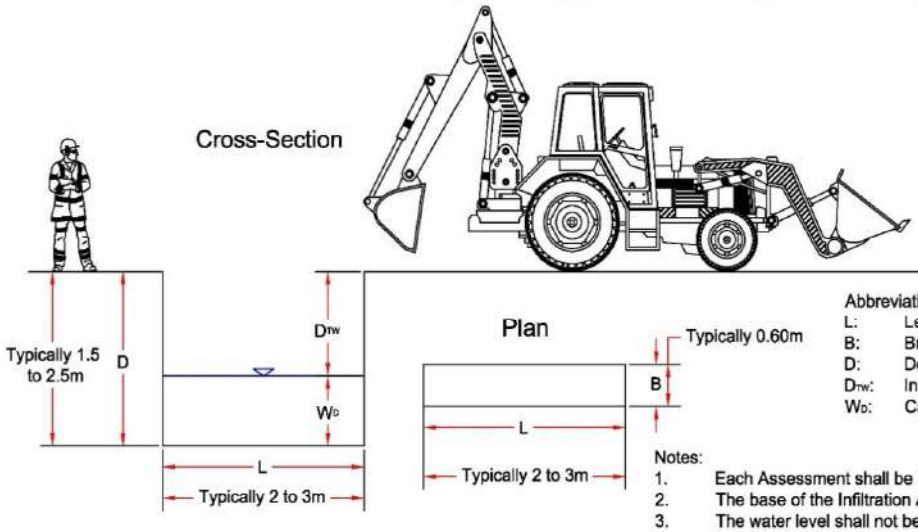

1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Gas concentration (ppm)
0:00:00
48:00:00
96:00:00
144:00:00
192:00:00
240:00:00
288:00:00
336:00:00
Time
CO
H2S
LEL

1 DAY INFILTRATION ASSESSMENT - AIDE MEMOIR

Site: Parkside, One Horton Heath
Client: Eastleigh Borough Council
Test Location TP05A **Date of start** 22/07/2025 **Date at end** 23/07/2025

ANTICIPATED GROUND PROFILE FROM DESK STUDY	ACTUAL GROUND PROFILE FROM EXCAVATION
GROUND LEVEL	GROUND LEVEL
BASE OF PIT	BASE OF PI 1.5

INFILTRATION ASSESSMENT PIT TYPICAL DIMENSIONS



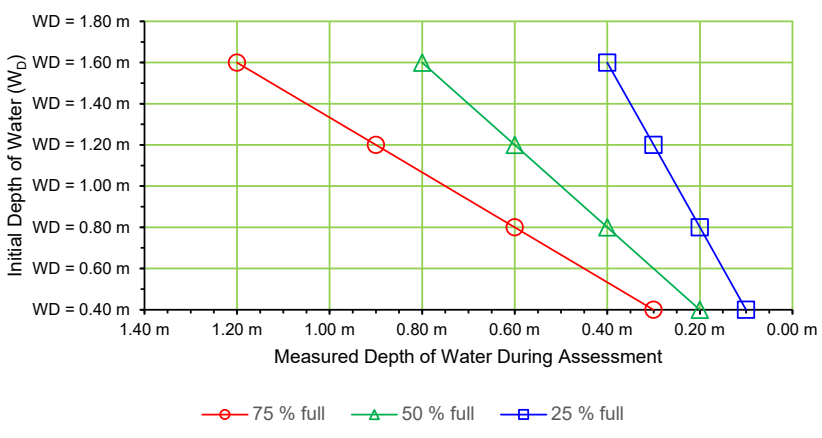
ACTUAL DIMENSIONS			
L			
B			
D			
D_{TW}			
W_D			

Abbreviations:
L: Length of Infiltration Assessment Pit.
B: Breadth / Width of Infiltration Assessment Pit.
D: Depth of Infiltration Assessment Pit.
D_{TW}: Initial Depth to Top of Water.
W_D: Calculated Water Depth.

Notes:
1. Each Assessment shall be limited to a single stratum.
2. The base of the Infiltration Assessment Pit shall be below all Made Ground,
3. The water level shall not be raised above the base of the Made Ground.
4. The base of the Infiltration Assessment Pit shall be at least 1m into the stratum which is to be assessed.
5. The base of the Infiltration Assessment Pit shall be above the Water Table.
6. Minimum target depth of water of 1.0m.
7. Where any of the above conditions cannot be met, it shall be reported immediately to the Project Manager for additional guidance before the test is commenced.

Calculated Water Depth (W_D) = D - D_{TW}
Maximum Fill Volume (V_W) = W_D x B x L
Corrected Water Volume (V_{WC}) = V_W x Gravel Porosity (P_I)

Infiltration	RUN 1		RUN 2		RUN 3	
	W_D		W_D		W_D	
	W_{D1}	D_{TW1}	W_{D2}	D_{TW2}	W_{D3}	D_{TW3}
75% full						
25% full						



SITE OBSERVATIONS - VOLUME LOSS			
Test Run	Infiltration Records up to 6 Hours	Comments
1	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 2
2	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 3
3	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Indicative Infiltration Rate achieved.

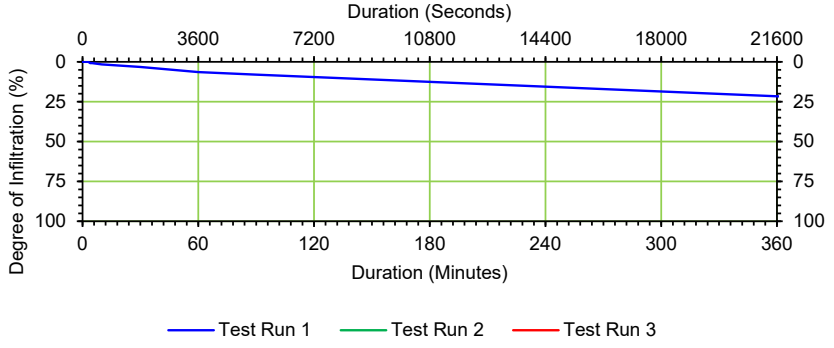
1 DAY INFILTRATION ASSESSMENT - WORKSHEET

Site: Parkside, One Horton Heath
Client: Eastleigh Borough Council
Test Location TP05A **Date of start** 22/07/2025 **Date at end** 23/07/2025

Test Run 1		Test Run 2		Test Run 3	
Pit Dimensions (m)		**Pit Dimensions (m)**		**Pit Dimensions (m)**	
Trial Pit Length (L)	2.200m	Trial Pit Length (L)		Trial Pit Length (L)	
Trial Pit Breadth / Width (B)	0.500m	Trial Pit Breadth / Width (B)		Trial Pit Breadth / Width (B)	
Effective Depth (D)	1.500m	Effective Depth (D)		Effective Depth (D)	
Time at Start of Filling	13.16	Time at Start of Filling		Time at Start of Filling	
Time at End of Filling	13.19	Time at End of Filling		Time at End of Filling	
Depth from Surface to Water (D_{TW})	0.250m	Depth below Surface to Water (D_{TW})		Depth below Surface to Water (D_{TW})	
Water Depth (W_D)	1.250m	Water Depth (W_D)	-	Water Depth (W_D)	-
Maximum Fill Volume (V_W)	1.375m³	Maximum Fill Volume (V_W)	-	Maximum Fill Volume (V_W)	-
Gravel used to backfill Test Pit	Yes	Gravel used to backfill Test Pit		Gravel used to backfill Test Pit	
Porosity of Gravel Backfill (P_t)	0.300	Porosity of Gravel Backfill (P_t)		Porosity of Gravel Backfill (P_t)	
Corrected Water Volume (V_{WC})	0.413m³	Corrected Water Volume (V_{WC})	-	Corrected Water Volume (V_{WC})	-

Test Run 1 Time to soakaway				Test Run 2 Time to soakaway				Test Run 3 Time to soakaway			
Time		Depth to water	Duration	Time		Depth to water	Duration	Time		Depth to water	Duration
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds
1	13.190	0.250	0								
1	13.200	0.250	60								
1	13.210	0.250	120								
1	13.220	0.250	180								
1	13.230	0.260	240								
1	13.240	0.260	300								
1	13.290	0.270	600								
1	13.390	0.280	1200								
1	13.490	0.290	1800								
1	14.190	0.330	3600								
1	14.490	0.350	5400								
2	8.190	1.010	68400								
2	14.300	1.430	90660								
			90660								
			90660								
			90660								
			90660								
			90660								
			90660								
			90660								
			90660								
			90660								
			90660								
			90660								

25% water loss (75% full)	0.563m	**25% water loss (75% full)**	-	**25% water loss (75% full)**	-
50% water loss (50% full)	0.875m	**50% water loss (50% full)**	-	**50% water loss (50% full)**	-
75% water loss (25% full)	1.188m	**75% water loss (25% full)**	-	**75% water loss (25% full)**	-
25% time (seconds)	25684 sec	**25% time (seconds)**	-	**25% time (seconds)**	-
75% time (seconds)	77808 sec	**75% time (seconds)**	-	**75% time (seconds)**	-
Vp 75-25	0.206m³	**Vp 75-25**	-	**Vp 75-25**	-
ap 50 (Actual area from test)	4.475m³	**ap 50 (Actual area from test)**	-	**ap 50 (Actual area from test)**	-
tp 75 - 25	52123 sec	**tp 75 - 25**		**tp 75 - 25**	
Soil Infiltration Rate	**8.84E-07m/s**	**Soil Infiltration Rate**	-	**Soil Infiltration Rate**	-



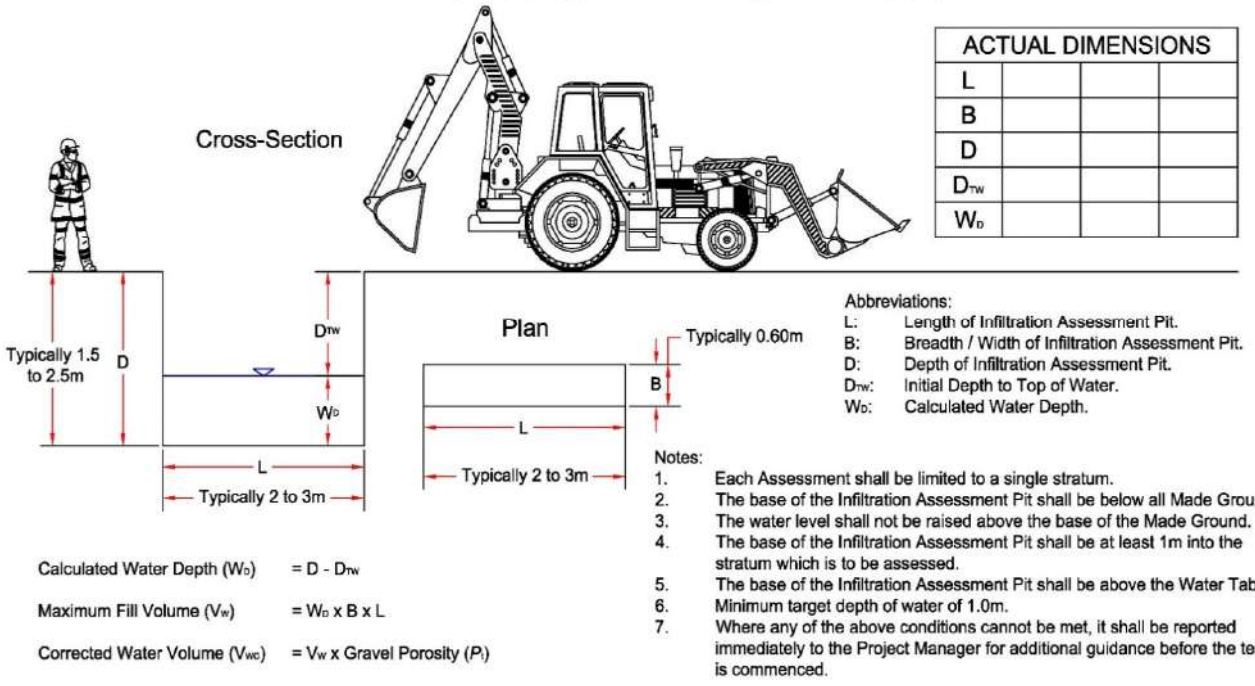
Form completed by		
Tested By	PRINT	Scott Lovell
	SIGN	S.Lovell
	DATE	22/07/2025
Calculated By	PRINT	Lily Cherry
	SIGN	L.Cherry
	DATE	11/08/2025
Checked by	PRINT	Anthony Elkins
	SIGN	A.Elkins
	DATE	15/09/2025

1 DAY INFILTRATION ASSESSMENT - AIDE MEMOIR

Site: Parkside, One Horton Heath
Client: Eastleigh Borough Council
Test Location TP12 **Date of start** 23/07/2025 **Date at end** 23/07/2025

ANTICIPATED GROUND PROFILE FROM DESK STUDY	ACTUAL GROUND PROFILE FROM EXCAVATION
GROUND LEVEL	GROUND LEVEL
BASE OF PIT	BASE OF PIT

INFILTRATION ASSESSMENT PIT TYPICAL DIMENSIONS



ACTUAL DIMENSIONS			
L			
B			
D			
D_{TW}			
W_D			

Abbreviations:
L: Length of Infiltration Assessment Pit.
B: Breadth / Width of Infiltration Assessment Pit.
D: Depth of Infiltration Assessment Pit.
D_{TW}: Initial Depth to Top of Water.
W_D: Calculated Water Depth.

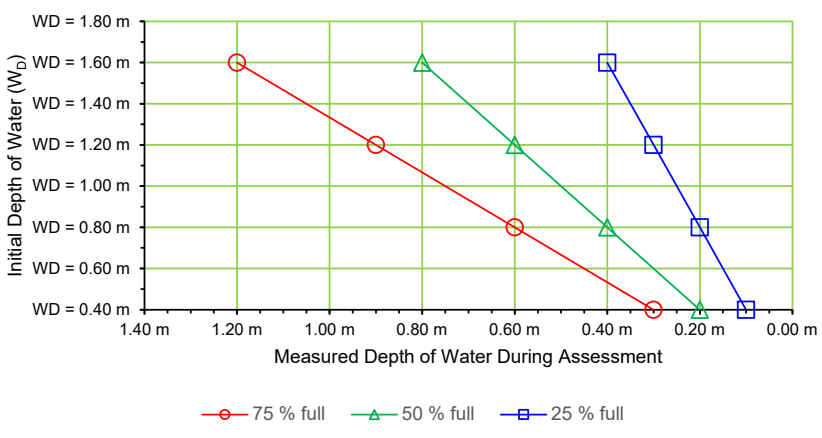
Notes:
1. Each Assessment shall be limited to a single stratum.
2. The base of the Infiltration Assessment Pit shall be below all Made Ground,
3. The water level shall not be raised above the base of the Made Ground.
4. The base of the Infiltration Assessment Pit shall be at least 1m into the stratum which is to be assessed.
5. The base of the Infiltration Assessment Pit shall be above the Water Table.
6. Minimum target depth of water of 1.0m.
7. Where any of the above conditions cannot be met, it shall be reported immediately to the Project Manager for additional guidance before the test is commenced.

Calculated Water Depth (W_D) = D - D_{TW}

Maximum Fill Volume (V_W) = W_D x B x L

Corrected Water Volume (V_{WC}) = V_W x Gravel Porosity (P_I)

Infiltration	RUN 1		RUN 2		RUN 3	
	W_D		W_D		W_D	
	W_{D1}	D_{TW1}	W_{D2}	D_{TW2}	W_{D3}	D_{TW3}
75% full						
25% full						



SITE OBSERVATIONS - VOLUME LOSS

Test Run	Infiltration Records up to 6 Hours	Comments
1	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 2
2	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 3
3	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Indicative Infiltration Rate achieved.

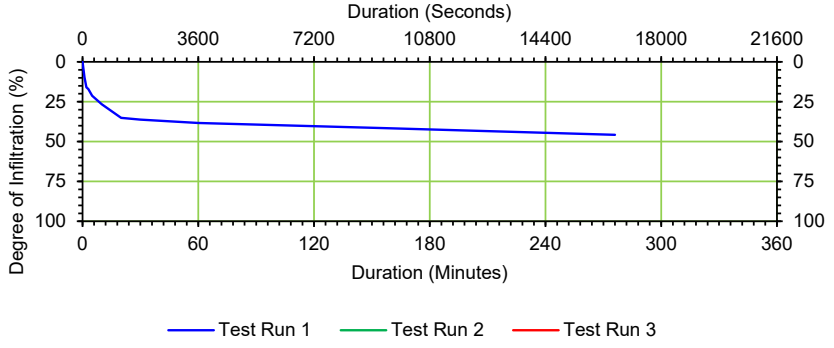
1 DAY INFILTRATION ASSESSMENT - WORKSHEET

Site: Parkside, One Horton Heath
Client: Eastleigh Borough Council
Test Location TP12 **Date of start** 23/07/2025 **Date at end** 23/07/2025

Test Run 1		Test Run 2		Test Run 3	
Pit Dimensions (m)		**Pit Dimensions (m)**		**Pit Dimensions (m)**	
Trial Pit Length (L)	2.000m	Trial Pit Length (L)		Trial Pit Length (L)	
Trial Pit Breadth / Width (B)	0.500m	Trial Pit Breadth / Width (B)		Trial Pit Breadth / Width (B)	
Effective Depth (D)	1.350m	Effective Depth (D)		Effective Depth (D)	
Time at Start of Filling	9.01	Time at Start of Filling		Time at Start of Filling	
Time at End of Filling	9.04	Time at End of Filling		Time at End of Filling	
Depth from Surface to Water (D_{TW})	0.410m	Depth below Surface to Water (D_{TW})		Depth below Surface to Water (D_{TW})	
Water Depth (W_D)	0.940m	Water Depth (W_D)	-	Water Depth (W_D)	-
Maximum Fill Volume (V_W)	0.940m³	Maximum Fill Volume (V_W)	-	Maximum Fill Volume (V_W)	-
Gravel used to backfill Test Pit	Yes	Gravel used to backfill Test Pit		Gravel used to backfill Test Pit	
Porosity of Gravel Backfill (P_t)	0.300	Porosity of Gravel Backfill (P_t)		Porosity of Gravel Backfill (P_t)	
Corrected Water Volume (V_{WC})	0.282m³	Corrected Water Volume (V_{WC})	-	Corrected Water Volume (V_{WC})	-

Test Run 1 Time to soakaway				Test Run 2 Time to soakaway				Test Run 3 Time to soakaway			
Time		Depth to water	Duration	Time		Depth to water	Duration	Time		Depth to water	Duration
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds
1	9.040	0.410	0								
1	9.050	0.500	60								
1	9.060	0.560	120								
1	9.070	0.570	180								
1	9.080	0.590	240								
1	9.090	0.610	300								
1	9.140	0.660	600								
1	9.240	0.740	1200								
1	9.340	0.750	1800								
1	10.040	0.770	3600								
1	11.400	0.800	9360								
1	12.400	0.820	12960								
1	13.400	0.840	16560								
			16560								
			16560								
			16560								
			16560								
			16560								
			16560								
			16560								
			16560								
			16560								
			16560								

Test Run 1		Test Run 2		Test Run 3	
25% water loss (75% full)	0.645m	**25% water loss (75% full)**	-	**25% water loss (75% full)**	-
50% water loss (50% full)	0.880m	**50% water loss (50% full)**	-	**50% water loss (50% full)**	-
75% water loss (25% full)	1.115m	**75% water loss (25% full)**	-	**75% water loss (25% full)**	-
25% time (seconds)	510 sec	**25% time (seconds)**	-	**25% time (seconds)**	-
75% time (seconds)	-	**75% time (seconds)**	-	**75% time (seconds)**	-
Vp 75-25	0.141m³	**Vp 75-25**	-	**Vp 75-25**	-
ap 50 (Actual area from test)	3.350m³	**ap 50 (Actual area from test)**	-	**ap 50 (Actual area from test)**	-
tp 75 - 25		**tp 75 - 25**		**tp 75 - 25**	
Soil Infiltration Rate	-	**Soil Infiltration Rate**	-	**Soil Infiltration Rate**	-



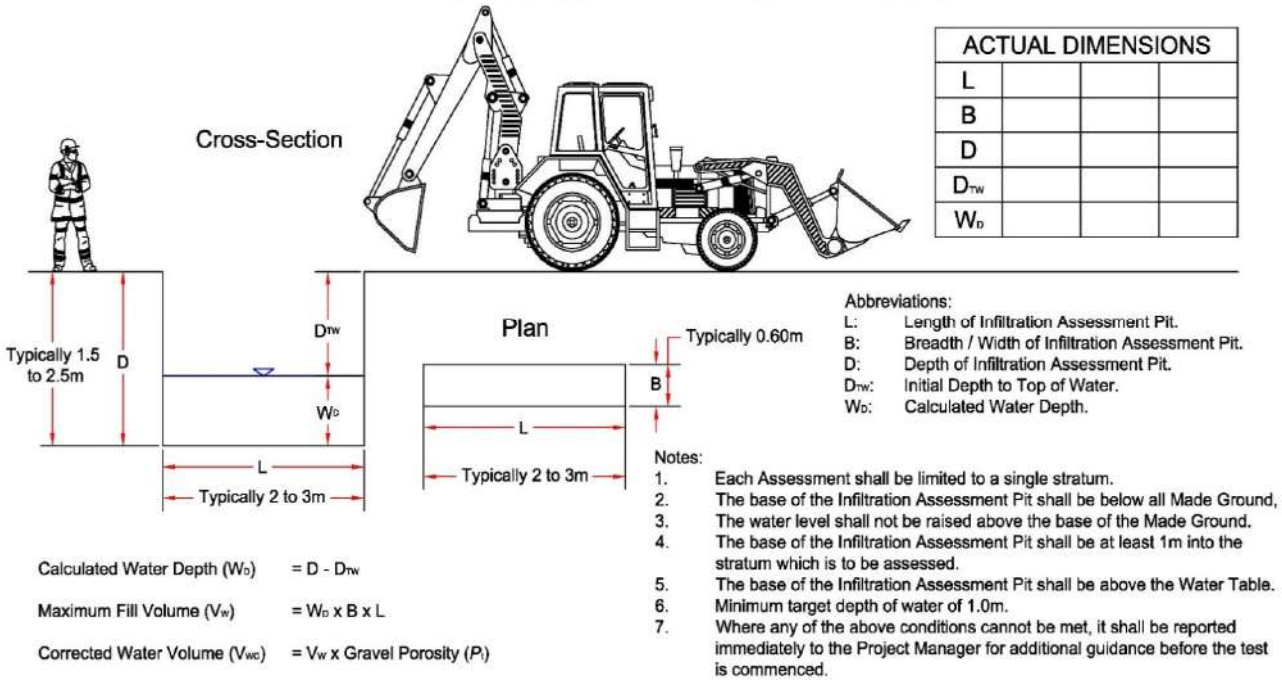
Form completed by		
Tested By	PRINT	Scott Lovell
	SIGN	S.Lovell
	DATE	23/07/2025
Calculated By	PRINT	Lily Cherry
	SIGN	L.Cherry
	DATE	11/08/2025
Checked by	PRINT	Anthony Elkins
	SIGN	A.Elkins
	DATE	15/09/2025

1 DAY INFILTRATION ASSESSMENT - AIDE MEMOIR

Site: Parkside, One Horton Heath
Client: Eastleigh Borough Council
Test Location TP13 **Date of start** 23/07/2025 **Date at end** 23/07/2025

ANTICIPATED GROUND PROFILE FROM DESK STUDY	ACTUAL GROUND PROFILE FROM EXCAVATION
GROUND LEVEL	GROUND LEVEL
BASE OF PIT	BASE OF PIT

INFILTRATION ASSESSMENT PIT TYPICAL DIMENSIONS



ACTUAL DIMENSIONS			
L			
B			
D			
D_{TW}			
W_D			

Abbreviations:
L: Length of Infiltration Assessment Pit.
B: Breadth / Width of Infiltration Assessment Pit.
D: Depth of Infiltration Assessment Pit.
D_{TW}: Initial Depth to Top of Water.
W_D: Calculated Water Depth.

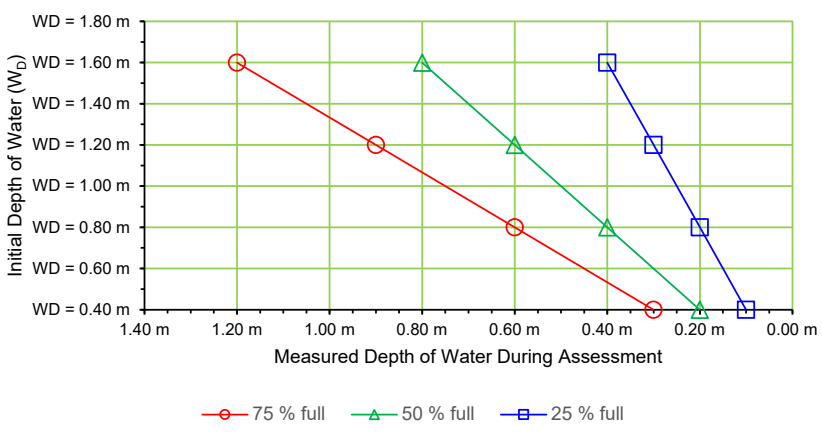
Notes:
1. Each Assessment shall be limited to a single stratum.
2. The base of the Infiltration Assessment Pit shall be below all Made Ground,
3. The water level shall not be raised above the base of the Made Ground.
4. The base of the Infiltration Assessment Pit shall be at least 1m into the stratum which is to be assessed.
5. The base of the Infiltration Assessment Pit shall be above the Water Table.
6. Minimum target depth of water of 1.0m.
7. Where any of the above conditions cannot be met, it shall be reported immediately to the Project Manager for additional guidance before the test is commenced.

Calculated Water Depth (W_D) = D - D_{TW}

Maximum Fill Volume (V_W) = W_D x B x L

Corrected Water Volume (V_{WC}) = V_W x Gravel Porosity (P_I)

Infiltration	RUN 1		RUN 2		RUN 3	
	W_D		W_D		W_D	
	W_{D1}	D_{TW1}	W_{D2}	D_{TW2}	W_{D3}	D_{TW3}
75% full						
25% full						



SITE OBSERVATIONS - VOLUME LOSS

Test Run	Infiltration Records up to 6 Hours	Comments
1	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 2
2	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 3
3	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Indicative Infiltration Rate achieved.

1 DAY INFILTRATION ASSESSMENT - WORKSHEET

Site: Parkside, One Horton Heath

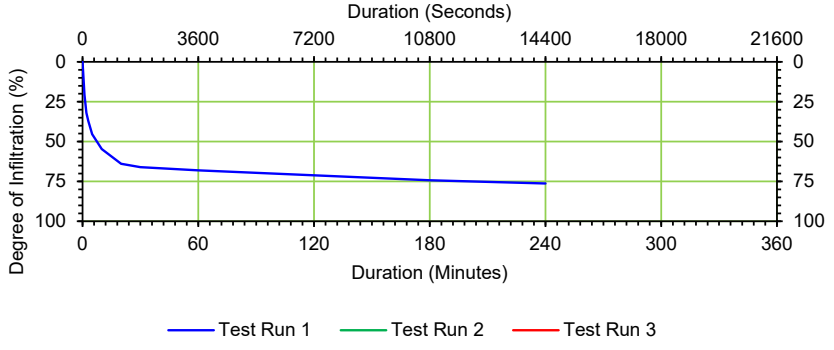
Client: Eastleigh Borough Council

Test Location TP13 **Date of start** 23/07/2025 **Date at end** 23/07/2025

Test Run 1		Test Run 2		Test Run 3	
Pit Dimensions (m)		**Pit Dimensions (m)**		**Pit Dimensions (m)**	
Trial Pit Length (L)	2.000m	Trial Pit Length (L)		Trial Pit Length (L)	
Trial Pit Breadth / Width (B)	0.500m	Trial Pit Breadth / Width (B)		Trial Pit Breadth / Width (B)	
Effective Depth (D)	1.250m	Effective Depth (D)		Effective Depth (D)	
Time at Start of Filling	9.58	Time at Start of Filling		Time at Start of Filling	
Time at End of Filling	10.00	Time at End of Filling		Time at End of Filling	
Depth from Surface to Water (D_{TW})	0.280m	Depth below Surface to Water (D_{TW})		Depth below Surface to Water (D_{TW})	
Water Depth (W_D)	0.970m	Water Depth (W_D)	-	Water Depth (W_D)	-
Maximum Fill Volume (V_W)	0.970m³	Maximum Fill Volume (V_W)	-	Maximum Fill Volume (V_W)	-
Gravel used to backfill Test Pit	Yes	Gravel used to backfill Test Pit		Gravel used to backfill Test Pit	
Porosity of Gravel Backfill (P_t)	0.300	Porosity of Gravel Backfill (P_t)		Porosity of Gravel Backfill (P_t)	
Corrected Water Volume (V_{WC})	0.291m³	Corrected Water Volume (V_{WC})	-	Corrected Water Volume (V_{WC})	-

Test Run 1 Time to soakaway				Test Run 2 Time to soakaway				Test Run 3 Time to soakaway			
Time		Depth to water	Duration	Time		Depth to water	Duration	Time		Depth to water	Duration
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds
1	10.000	0.280	0								
1	10.010	0.480	60								
1	10.020	0.590	120								
1	10.030	0.640	180								
1	10.040	0.680	240								
1	10.050	0.720	300								
1	10.100	0.810	600								
1	10.200	0.900	1200								
1	10.300	0.920	1800								
1	11.000	0.940	3600								
1	12.000	0.970	7200								
1	13.000	1.000	10800								
1	14.000	1.020	14400								
			14400								
			14400								
			14400								
			14400								
			14400								
			14400								
			14400								
			14400								
			14400								
			14400								
			14400								

Test Run 1		Test Run 2		Test Run 3	
25% water loss (75% full)	0.523m	**25% water loss (75% full)**	-	**25% water loss (75% full)**	-
50% water loss (50% full)	0.765m	**50% water loss (50% full)**	-	**50% water loss (50% full)**	-
75% water loss (25% full)	1.008m	**75% water loss (25% full)**	-	**75% water loss (25% full)**	-
25% time (seconds)	83 sec	**25% time (seconds)**	-	**25% time (seconds)**	-
75% time (seconds)	12150 sec	**75% time (seconds)**	-	**75% time (seconds)**	-
Vp 75-25	0.146m³	**Vp 75-25**	-	**Vp 75-25**	-
ap 50 (Actual area from test)	3.425m³	**ap 50 (Actual area from test)**	-	**ap 50 (Actual area from test)**	-
tp 75 - 25	12067 sec	**tp 75 - 25**		**tp 75 - 25**	
Soil Infiltration Rate	**3.52E-06m/s**	**Soil Infiltration Rate**	-	**Soil Infiltration Rate**	-



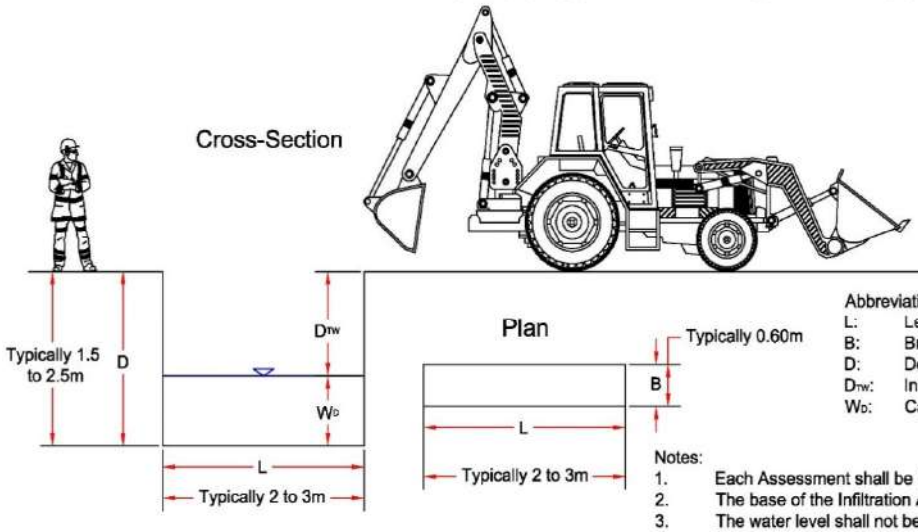
Form completed by		
Tested By	PRINT	Scott Lovell
	SIGN	S.Lovell
	DATE	23/07/2025
Calculated By	PRINT	Lily Cherry
	SIGN	L.Cherry
	DATE	11/08/2025
Checked by	PRINT	Anthony Elkins
	SIGN	A. Elkins
	DATE	15/09/2025

1 DAY INFILTRATION ASSESSMENT - AIDE MEMOIR

Site: Parkside, One Horton Heath
Client: Eastleigh Borough Council
Test Location TP15 **Date of start** 23/07/2025 **Date at end** 23/07/2025

ANTICIPATED GROUND PROFILE FROM DESK STUDY	ACTUAL GROUND PROFILE FROM EXCAVATION
GROUND LEVEL	GROUND LEVEL
BASE OF PIT	BASE OF PIT

INFILTRATION ASSESSMENT PIT TYPICAL DIMENSIONS



ACTUAL DIMENSIONS			
L			
B			
D			
D_{TW}			
W_D			

Abbreviations:
L: Length of Infiltration Assessment Pit.
B: Breadth / Width of Infiltration Assessment Pit.
D: Depth of Infiltration Assessment Pit.
D_{TW}: Initial Depth to Top of Water.
W_D: Calculated Water Depth.

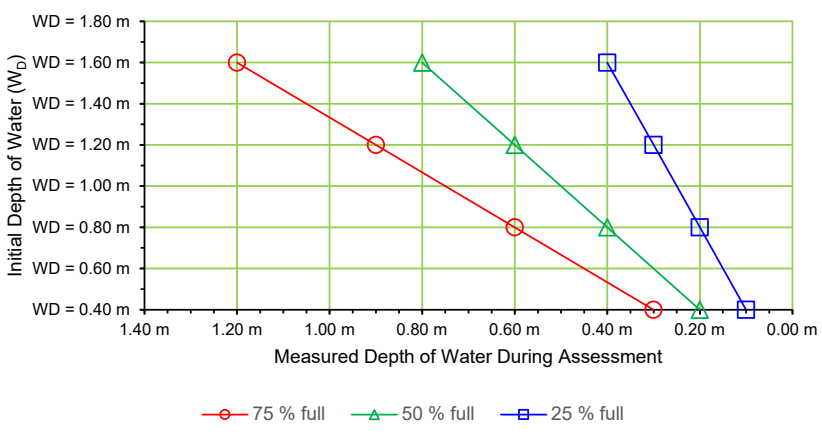
Notes:
1. Each Assessment shall be limited to a single stratum.
2. The base of the Infiltration Assessment Pit shall be below all Made Ground,
3. The water level shall not be raised above the base of the Made Ground.
4. The base of the Infiltration Assessment Pit shall be at least 1m into the stratum which is to be assessed.
5. The base of the Infiltration Assessment Pit shall be above the Water Table.
6. Minimum target depth of water of 1.0m.
7. Where any of the above conditions cannot be met, it shall be reported immediately to the Project Manager for additional guidance before the test is commenced.

Calculated Water Depth (W_D) = D - D_{TW}

Maximum Fill Volume (V_W) = W_D x B x L

Corrected Water Volume (V_{WC}) = V_W x Gravel Porosity (P_I)

Infiltration	RUN 1		RUN 2		RUN 3	
	W_D		W_D		W_D	
	W_{D1}	D_{TW1}	W_{D2}	D_{TW2}	W_{D3}	D_{TW3}
75% full						
25% full						



SITE OBSERVATIONS - VOLUME LOSS

Test Run	Infiltration Records up to 6 Hours	Comments
1	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 2
2	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Refer to results of Run 3
3	<25%	Unlikely without significant attenuation
	<75%	Requires additional BRE DG365 testing
	>75%	Indicative Infiltration Rate achieved.

1 DAY INFILTRATION ASSESSMENT - WORKSHEET

Site: Parkside, One Horton Heath
Client: Eastleigh Borough Council
Test Location TP15 **Date of start** 23/07/2025 **Date at end** 23/07/2025

Test Run 1		Test Run 2		Test Run 3	
Pit Dimensions (m)		**Pit Dimensions (m)**		**Pit Dimensions (m)**	
Trial Pit Length (L)	2.000m	Trial Pit Length (L)		Trial Pit Length (L)	
Trial Pit Breadth / Width (B)	0.500m	Trial Pit Breadth / Width (B)		Trial Pit Breadth / Width (B)	
Effective Depth (D)	1.460m	Effective Depth (D)		Effective Depth (D)	
Time at Start of Filling	11.12	Time at Start of Filling		Time at Start of Filling	
Time at End of Filling	11.15	Time at End of Filling		Time at End of Filling	
Depth from Surface to Water (D_{TW})	0.460m	Depth below Surface to Water (D_{TW})		Depth below Surface to Water (D_{TW})	
Water Depth (W_D)	1.000m	Water Depth (W_D)	-	Water Depth (W_D)	-
Maximum Fill Volume (V_W)	1.000m³	Maximum Fill Volume (V_W)	-	Maximum Fill Volume (V_W)	-
Gravel used to backfill Test Pit	Yes	Gravel used to backfill Test Pit		Gravel used to backfill Test Pit	
Porosity of Gravel Backfill (P_t)	0.300	Porosity of Gravel Backfill (P_t)		Porosity of Gravel Backfill (P_t)	
Corrected Water Volume (V_{WC})	0.300m³	Corrected Water Volume (V_{WC})	-	Corrected Water Volume (V_{WC})	-

Test Run 1 Time to soakaway				Test Run 2 Time to soakaway				Test Run 3 Time to soakaway			
Time		Depth to water	Duration	Time		Depth to water	Duration	Time		Depth to water	Duration
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds
1	11.150	0.460	0								
1	11.160	0.570	60								
1	11.170	0.630	120								
1	11.180	0.660	180								
1	11.190	0.680	240								
1	11.200	0.690	300								
1	11.250	0.770	600								
1	11.350	0.880	1200								
1	11.450	0.960	1800								
1	12.150	0.990	3600								
1	13.150	1.010	7200								
1	14.150	1.020	10800								
			10800								
			10800								
			10800								
			10800								
			10800								
			10800								
			10800								
			10800								
			10800								
			10800								
			10800								

25% water loss (75% full)			0.710m	**25% water loss (75% full)**			-	**25% water loss (75% full)**			-
50% water loss (50% full)			0.960m	**50% water loss (50% full)**			-	**50% water loss (50% full)**			-
75% water loss (25% full)			1.210m	**75% water loss (25% full)**			-	**75% water loss (25% full)**			-
25% time (seconds)			375 sec	**25% time (seconds)**			-	**25% time (seconds)**			-
75% time (seconds)			-	**75% time (seconds)**			-	**75% time (seconds)**			-
Vp 75-25			0.150m³	**Vp 75-25**			-	**Vp 75-25**			-
ap 50 (Actual area from test)			3.500m³	**ap 50 (Actual area from test)**			-	**ap 50 (Actual area from test)**			-
tp 75 - 25				**tp 75 - 25**				**tp 75 - 25**			
Soil Infiltration Rate		-		**Soil Infiltration Rate**		-		**Soil Infiltration Rate**		-	



Form completed by		
Tested By	PRINT	Scott Lovell
	SIGN	S.Lovell
	DATE	23/07/2025
Calculated By	PRINT	Lily Cherry
	SIGN	L.Cherry
	DATE	11/08/2025
Checked by	PRINT	Anthony Elkins
	SIGN	A.Elkins
	DATE	15/09/2025

With every community, we redefine what's possible.

Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

Stantec UK Limited
Third Floor, White Building
1-4 Cumberland Place
Southampton SO15 2NP
UNITED KINGDOM
stantec.com