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Huyton Cricket Club, Huyton

Phase 2 Geo-Environmental Investigation Report

For: Breck Homes Ltd



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1.0 INTRODUCTION

This Phase 2 Geo-Environmental Investigation Report has been prepared at the request of Breck Homes Ltd. Instructions to proceed were received in August 2025.

This report pertains to a c. 2.26 Ha site located to the north of Huyton Lane, Huyton, c. 10.0km north of Liverpool City Centre, at the approximate post code L36 7XH. The National Ordnance Survey Grid Reference for the centre of the site is 344429E, 391316N.

The site currently comprises a vacant plot of land, formerly a cricket club and bowling green, with associated hardstanding in the north-western site section and a disused grade II listed cricket club pavilion building. The site is bound by residential properties to the north, west and south and Huyton Lane to the east and south-east. Access to the site is off the unnamed track running from Huyton Lane along the north-eastern site boundary. An aerial photo of the site is included below and a site location plan is contained in Appendix 2.



Figure 1: Aerial image of the site dated September 2022.

This Phase 2 Geo-Environmental Investigation Report is to be used for submission to the Local Authority as part of a planning application. It is the client's intention to retain the pavilion building and develop the site into a low-rise residential

development comprising 69 No. semi-detached, terraced houses and an apartment block with associated private gardens, soft landscaping and access roads.

A proposed development plan is contained in Appendix 2 with an extract below:



Figure 2: Extract of proposed development plan. Taken from "Proposed Site Layout – Option A" Rev E

1.1 Brief

The brief was to carry out an intrusive geo-environmental ground investigation for the site based upon the findings of the IGE Consulting *Phase 1 Geo-Environmental Report* (4334-01, May 2025) and the proposed development outlined in Section 1.0. The investigation was to include the following tasks:

- a) Undertake / install appropriate exploratory holes and collect representative samples from exploratory holes and arrange appropriate chemical testing in accordance with the latest legal framework, record olfactory and / or visual evidence of contamination during intrusive works and undertake on site in-situ and laboratory geotechnical testing;

- b) Refine conceptual models to accommodate the findings of the ground investigation works in terms of the risk to human health, ground gas, controlled waters and the wider environment;
- c) Identify the risks and evaluate whether a Phase 3 numerical risk assessment and / or a Remedial Strategy, is required; and
- d) Undertake an assessment of the ground conditions to provide outline recommendations for the proposed foundations.

A report was to be provided to summarise the findings and recommendations.

2.0 SCOPE OF INVESTIGATION WORK

This Phase 2 Geo-Environmental Investigation has been designed based on the findings of the IGE Consulting *Phase 1 Geo-Environmental* Report (4334-01, May 2025) and the client's requirements in relation to the proposed development outlined in Section 1.0.

The ground investigation works were undertaken between the 8th and 10th September 2025 and comprised 13 No. dynamic sampling boreholes and 21 No. mechanically excavated trial pits undertaken spatially across the site. TP15 to TP17 were excavated to allow 3 No. soil infiltration tests to be undertaken. Subsequent laboratory testing was undertaken between 10th September and 2nd October 2025.

Excavation of trial pits was undertaken using a JCB 3CX excavator. Drilling of dynamic sampling boreholes was carried out by GP Drilling Ltd. Testing of soil samples for environmental purposes was carried out by i2 Analytical in accordance with the Environment Agency's MCERTS (Monitoring Certification) quality assurance accreditation scheme. Testing of soils for geotechnical laboratory analysis was undertaken by The Testing Lab Ltd, a UKAS accredited laboratory. These organisations were appointed directly by IGE Consulting to carry out these contracting works.

The locations of the exploratory holes were topographically surveyed (X-Y-Z axis) with an accuracy of 20mm.

The ground investigation was undertaken in general accordance with:

- BS 5930 (2015) + A1 (2020) Code of Practice for Ground Investigation;
- BS EN ISO 17892 Geotechnical Investigation and Testing - Laboratory Testing of Soil;
- BS 10175 (2011) + A1 (2017) Investigation of Potentially Contaminated Sites – Code of Practice;
- BS EN 1997-2 (2007) Eurocode 7 – Geotechnical Design – Ground Investigation and Testing;

- BS 8485 (2015) + A1 (2019) Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings;
- BS 8576 (2013) Guidance on Investigations for Ground Gas – Permanent Gases and Volatile Organic Compounds; and
- Land Contamination Risk Management (2025).

Further details pertaining to the ground investigation works are outlined in the following sections.

The limitations of the investigation work and report are included in Appendix 1.

The trial pits and dynamic sample boreholes were undertaken in order to achieve the following:

- to establish the thickness, extent and characteristics of any possible Made Ground and underlying natural superficial deposits;
- to undertake in-situ geotechnical testing within these deposits;
- to obtain samples from these deposits for classification and laboratory testing;
- to allow for the installation of ground gas and groundwater monitoring wells; and
- to allow soil infiltration tests to be undertaken.

The exploratory hole location plan is located in Appendix 2 and an extract is included below:

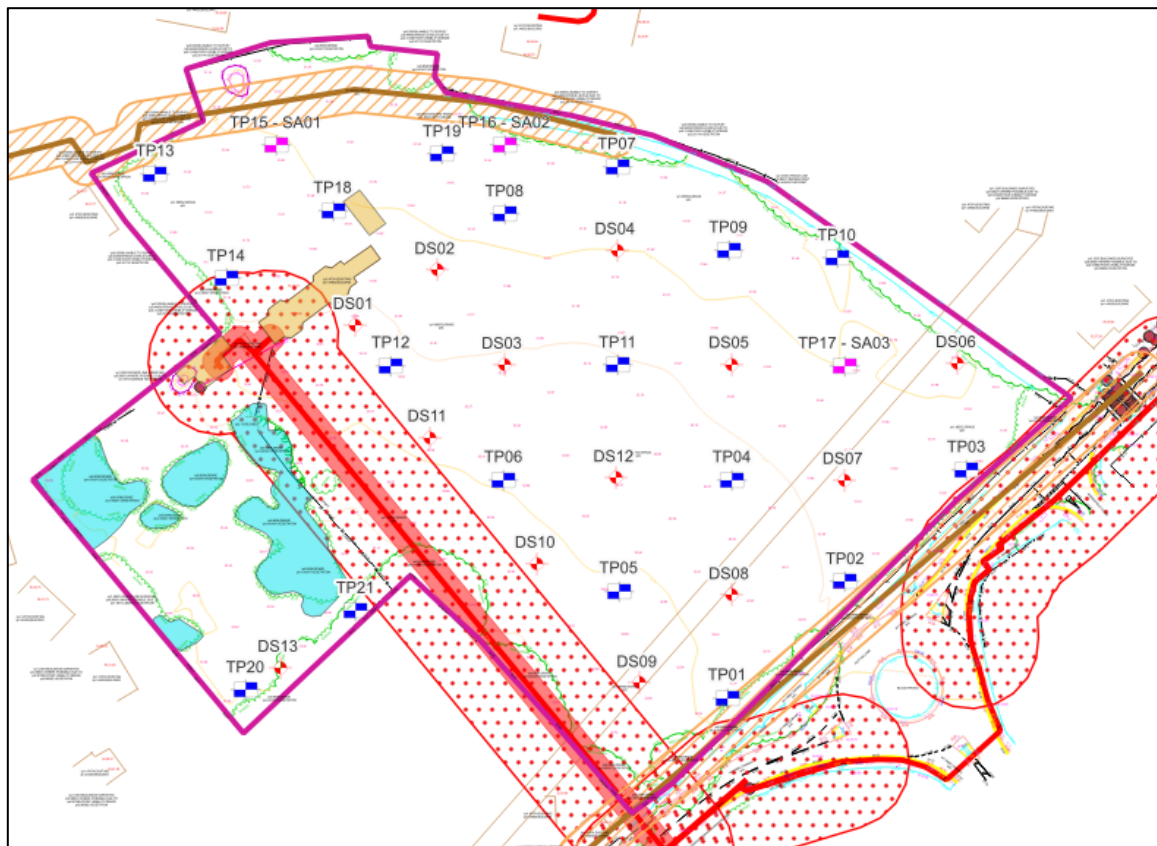


Figure 3: An extract of the exploratory hole location plan, area of Japanese Knotweed (blue), Cricket Pavillion (beige), low pressure gas main and 15m easement (red), United Utilities sewer and buffer (brown)

It should be noted that the exploratory holes undertaken in the southwestern section of the site were limited due to the presence of Japanese Knotweed (blue on plan above).

2.1 Trial Pits

21 No. trial pits were mechanically excavated to depths of between 2.00m and 3.35m bgl (29.65m and 30.10m AOD) using a JCB 3CX. The trial pits were placed spatially across the site to gain a representative view of the ground conditions.

3 No. BRE 365 soil infiltration test pits were also constructed within proposed Public Open Space (POS) areas to determine if the use of Sustainable Drainage Systems (SuDS) may be feasible.

The locations of the trial pits are shown on the exploratory hole location plan in Appendix 2 and trial pit exploratory hole logs and photographs are contained in Appendix 3.

2.2 Dynamic Sampling Boreholes

13 No. dynamic sampling boreholes were constructed spatially across the site to depths of between 4.24m and 5.45m bgl (28.05m to 26.10m AOD).

The locations of the dynamic sampling boreholes are shown on the exploratory hole location plan in Appendix 2 and the dynamic sampling borehole logs are contained in Appendix 4.

2.3 Site Testing and Sampling

The following site tests and sampling were carried out:

- a) Retrieval of environmental samples and bulk disturbed samples from trial pits and dynamic sampling sleeves for the purposes of chemical and geotechnical laboratory testing and classification.
- b) Where possible, in-situ and ex-situ shear strength testing was undertaken within fine grained material (clay) from the trial pits and from the dynamic sampling borehole sleeve samples using a 19mm hand shear vane in accordance with BS1377-9.
- c) Standard Penetration Tests (SPTs) were undertaken at regular 1.00m intervals between 1.00m and 5.00m bgl within the dynamic sampling boreholes.
- d) Soil infiltration testing in accordance with BRE365.

2.4 Laboratory Testing

2.4.1 Chemical Laboratory Testing

20 No. soil samples were obtained during exploratory hole construction and sent to i2 Analytical laboratories for chemical testing. These samples were placed into sterile sealed containers to facilitate MCERTS chemical laboratory testing of potential contaminants. Chemical testing suites are outlined below and are based upon a wide range of possible contaminative sources.

Asbestos ID, sulfate, pH, nitrate, total and free cyanide, arsenic, barium, beryllium, boron, cadmium, chromium, chromium (hexavalent), copper, lead, mercury, nickel, selenium, vanadium, zinc, Total TPH screen and speciated TPH (TPH-CWG), Speciated Polyaromatic Hydrocarbons and Monochromatics and Oxygenates (BTEX and MTBE).

2.4.2 Geotechnical Laboratory Testing

The following geotechnical laboratory tests were carried out on selected samples obtained from across the site:

- a) Determination of moisture content, liquid limit and plastic limit in accordance with BS EN ISO 17892-1 (2014)+ A1(2022), BS EN ISO 17892-12 (2018)+ A2 (2022);
- b) Determination of particle size distribution (PSD) in accordance with BS EN ISO 17892-4 (2016), and determination of water content in accordance with BS EN ISO 17892-1 (2014) (oven dry); and
- c) BRE Special Digest suite for aggressive ground conditions.

3.0 FINDINGS

3.1 Ground Conditions

The typical ground conditions encountered across the site are as follows:

- **Made Ground Topsoil** comprising dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets to a depth of 0.30m to 0.70m bgl (33.20m to 30.91m AOD), underlain by:
- **Glacial Till** comprising stiff orangish brown slightly gravelly sandy CLAY with occasional gravel to cobble sized pockets of reddish brown clayey fine to coarse SAND to a depth of between 4.00m at least 5.45m bgl (28.45m and at least 26.10m AOD).

Images of the typical Glacial Till deposits are shown below:



Figure 4: Typical Glacial Till deposits encountered on site (Image of TP05).

3.1.1 Glacial Till – Sand/Silt

Spatially across the site, 12 No. exploratory holes encountered Glacial Till comprising bands of medium dense to dense, brown clayey fine to coarse SAND or brown slightly gravelly very sandy SILT (behaving as a coarse soil) at a depth from between 0.50m to 5.00m (31.10m to 27.50m AOD) to a depth of between 3.00m to at least 5.45m bgl (30.50m and 27.00m AOD). The thicknesses of these deposits ranged from 0.10m to at least 1.45m (average thickness 0.65m).

3.1.2 Early termination of Dynamic Sample Boreholes

During IGE ground investigation, 4 No. dynamic sample boreholes (DS01, DS09, DS10 and DS11) were prematurely terminated within the Glacial Till at a depth of between 4.24m and 5.21m bgl (27.91m and 27.29m AOD) due to refusals (N-value of 50+). The cause of the refusals is unknown. The locations of the refusals are circled in red on the extract below:

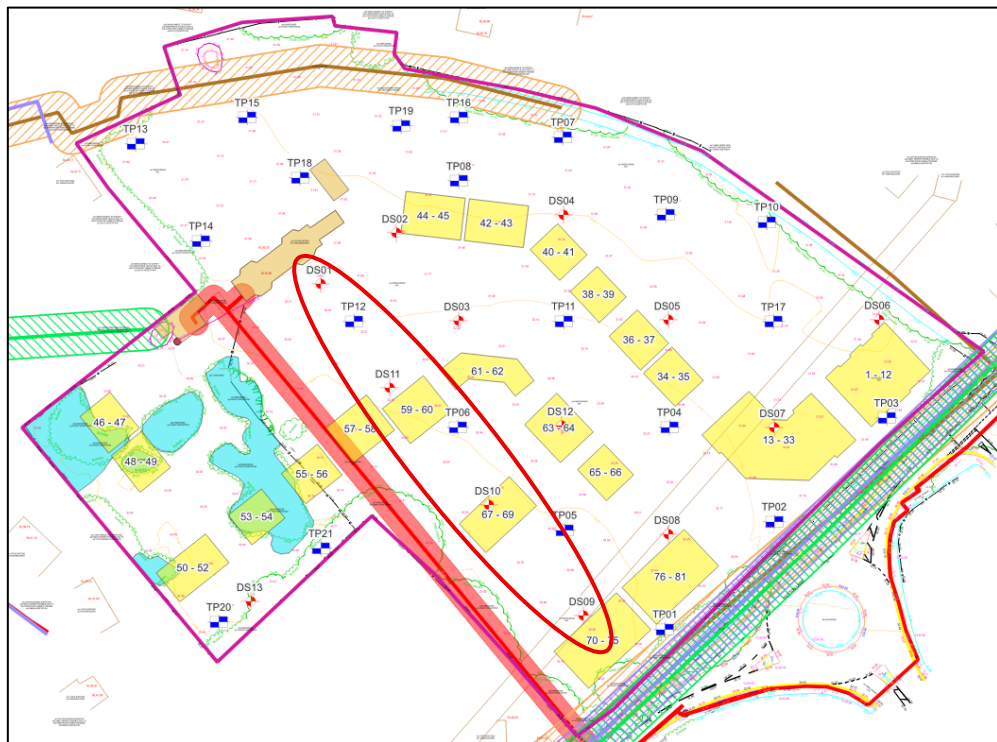


Figure 5: QGIS extract indicating the locations of early window sample borehole termination.

3.1.3 Notable Exceptions

The following notable exceptions to the aforementioned typical ground conditions were recorded:

- Along the eastern site boundary within TP01 to TP03, variable **Made Ground** comprising brown or yellowish brown, gravelly, very clayey fine to coarse SAND with cobbles, very stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY was recorded to a depth of between 0.60m and 1.10m bgl (31.29m and 31.27m AOD). The Made Ground may be associated with the construction of Huyton Lane and the footpath adjacent to the eastern site boundary or as a result of the development of the Cricket Club.
- **Made Ground** was encountered within TP19 within the vicinity of the hardstanding track. The ground conditions within TP19 comprised Made Ground Topsoil to a depth of 0.20m bgl (31.20m AOD), underlain by dark brown slightly gravelly very sandy CLAY to a depth of 0.60m bgl (30.80m AOD), underlain by Made Ground comprising firm to stiff brownish grey mottled yellowish brown gravelly slightly sandy CLAY to a depth of 0.90m bgl (30.50m AOD).

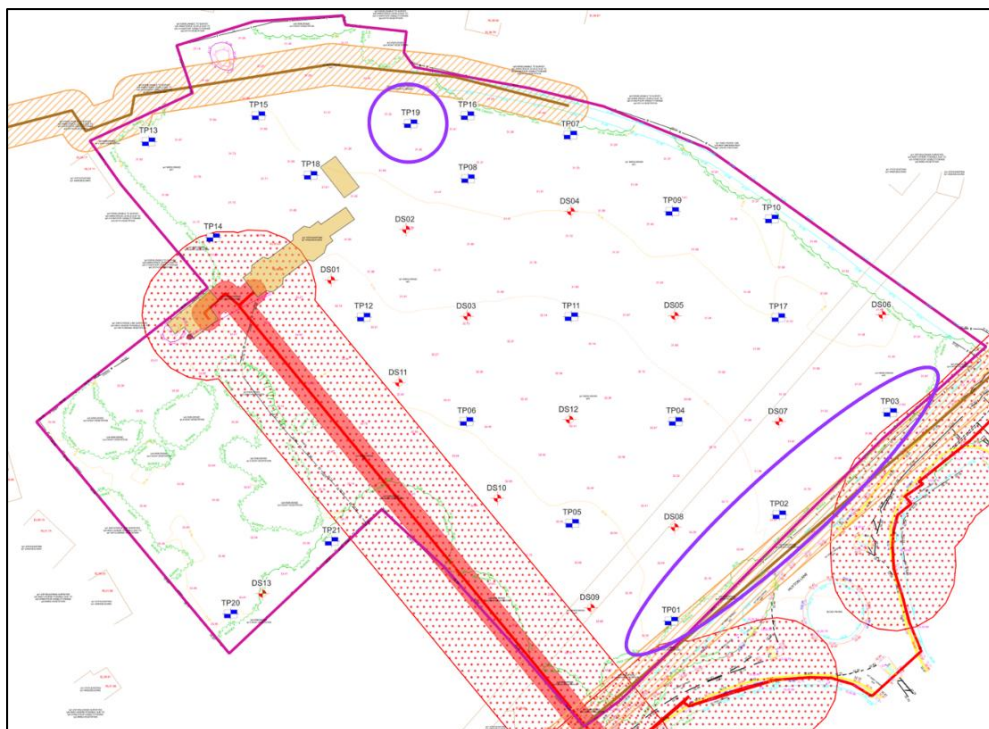


Figure 6: QGIS extract indicating the locations of deeper Made Ground encountered on site (purple).

The cross section presented in Figure 7, below, highlights the recorded depths of granular Glacial Till encountered across the site. Detailed cross sections are included in Appendix 2.

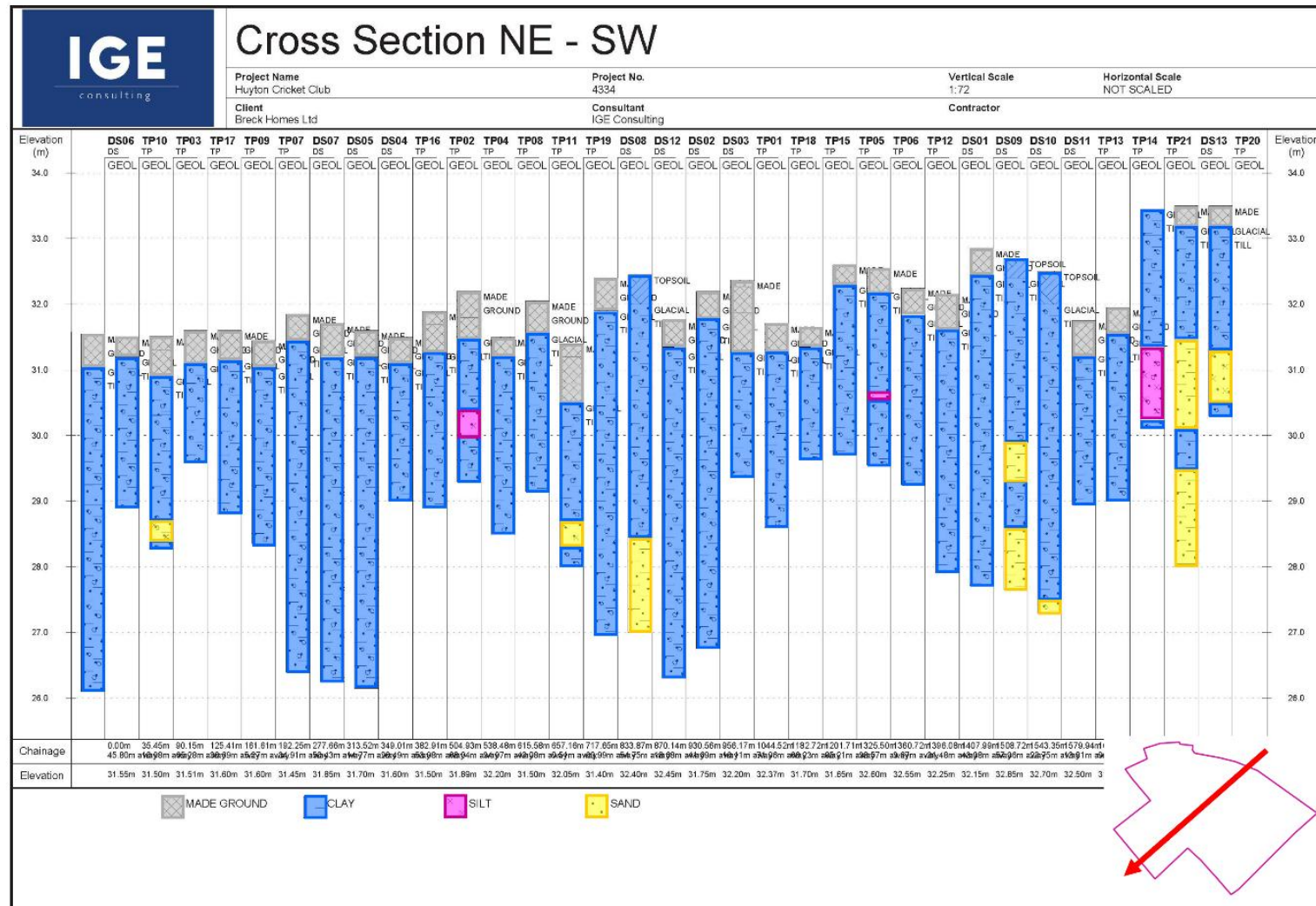


Figure 7: Cross Section of the site showing all exploratory holes from northeast to southwest.

3.2 Visual and Olfactory Contamination Findings

During the intrusive exploratory hole investigation works, the soils were examined carefully for both visual and olfactory evidence of contamination. Visual evidence of contamination was noted within the Made Ground and is detailed in the table below.

Exploratory Hole	Depth m bgl (m AOD)	Stratum Detail (Formation)	Remarks
TP02	0.55 – 0.60 (31.34 – 31.29)	Dark grey angular to subangular fine to coarse GRAVEL (Made Ground)	Clinker noted within gravel
TP14	0.00 – 0.40 (31.95 – 31.55)	Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets and low cobble content. (Made Ground)	
TP19	0.00 – 0.20 (31.40 – 31.20)	Dark grey very gravelly fine to coarse SAND with roots and rootlets. (Made Ground)	
DS13	0.00 – 0.30 (33.50 – 33.20)	Dark brown slightly gravelly very clayey SAND with frequent roots. (Made Ground)	
DS04	0.00 – 0.40 (31.60 – 31.20)	Dark brown slightly gravelly very clayey ashy SAND with frequent rootlets (Made Ground)	Made Ground Topsoil noted to be ashy
DS05	0.00 – 0.50 (31.70 – 31.20)		
DS06	0.00 – 0.50 (31.55 – 31.05)		
DS07	0.00 – 0.40 (31.85 – 31.45)		

No other visual and / or olfactory evidence of contamination was encountered during the ground investigation.

3.3 Water Strikes

No water strikes were recorded within the trial pits. A number of ingresses were recorded at depth during the construction of the dynamic sample boreholes and are detailed in the table below.

Exploratory Hole	Depth m bgl (<i>m AOD</i>)	Comments
DS02	3.00 (28.75)	Water ingress within borehole
DS03	3.00 (29.20)	
DS04	3.70 (27.90)	
DS07	2.80 (29.05)	

Water strikes are detailed on the exploratory hole logs contained in Appendices 3 and 4.

3.4 Services

A low pressure gas main is present crossing the site from southeast to northwest and is shown in red on the plan below. It is understood that it is to remain within the proposed development. A United Utilities sewer main is also noted crossing the northern section of the site from west to east, shown in brown on the plan below. Other private services associated with the cricket club pavilion in the northern site section should be established prior to development.

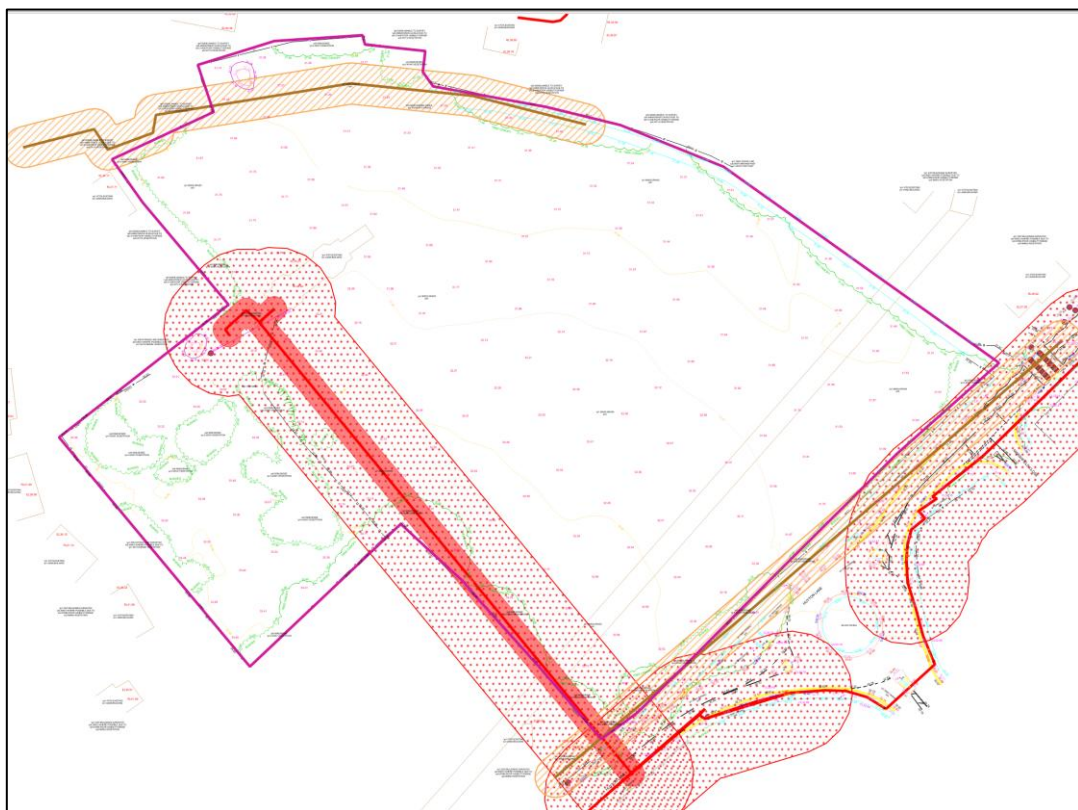


Figure 8: QGIS Extract showing the existing services present on site low pressure gas main (red) and UU Sewer (brown).

3.5 Conceptual Ground Model

The findings of the Phase 2 ground investigation works have been used to create a conceptual ground model of the site. The conceptual ground model demonstrates the geological strata encountered across the site:

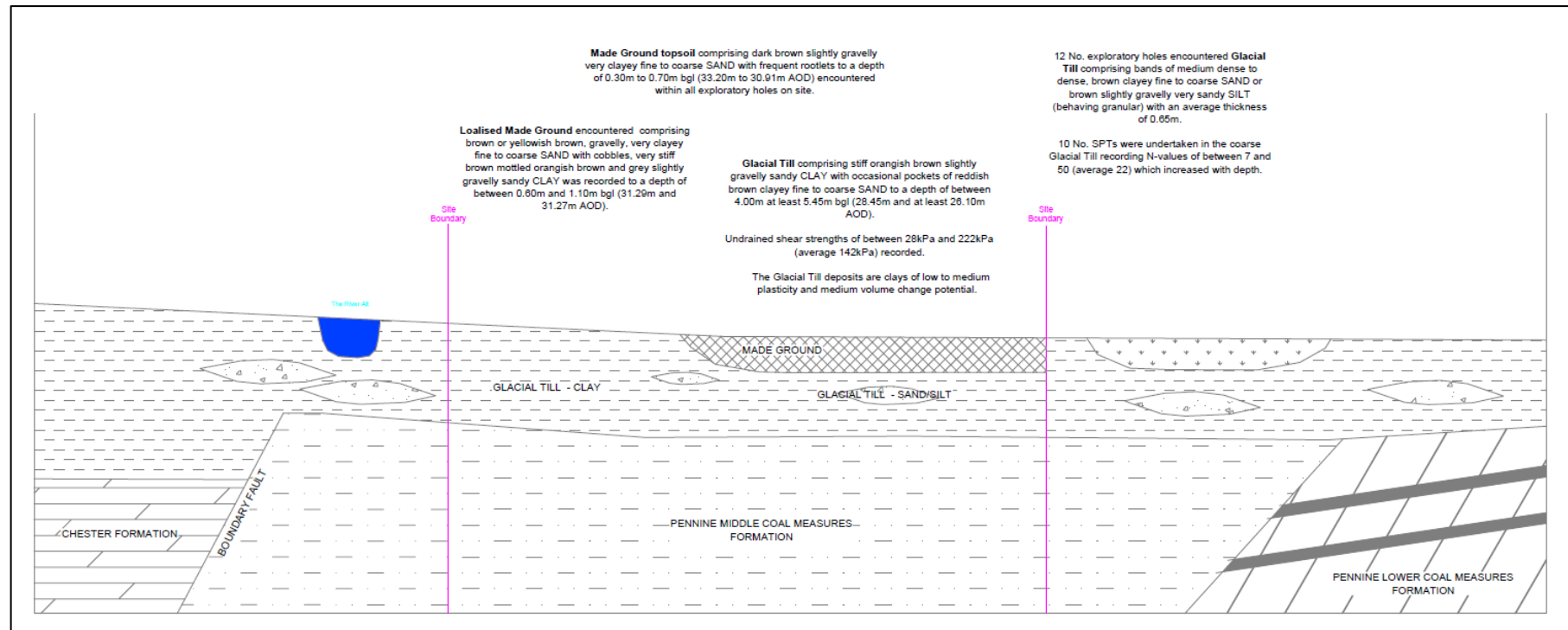


Figure 9: Extract of the conceptual ground model for the site.

The detailed conceptual ground model is included in Appendix 2.

3.6 Infiltration Testing Results

Soil infiltration tests were undertaken at 3 No. locations (TP15 to TP17) in accordance with BRE 365. Only a singular soil infiltration test could be undertaken in each trial pit due to the very slow infiltration rate.

Exploratory Hole	Test Depth (m bgl)	Soil Infiltration Rate (m/sec ²)
TP15 - SA01	1.00 – 2.00	N/A
TP16 - SA02	1.50 – 2.50	
TP17 – SA03	1.00 – 2.00	

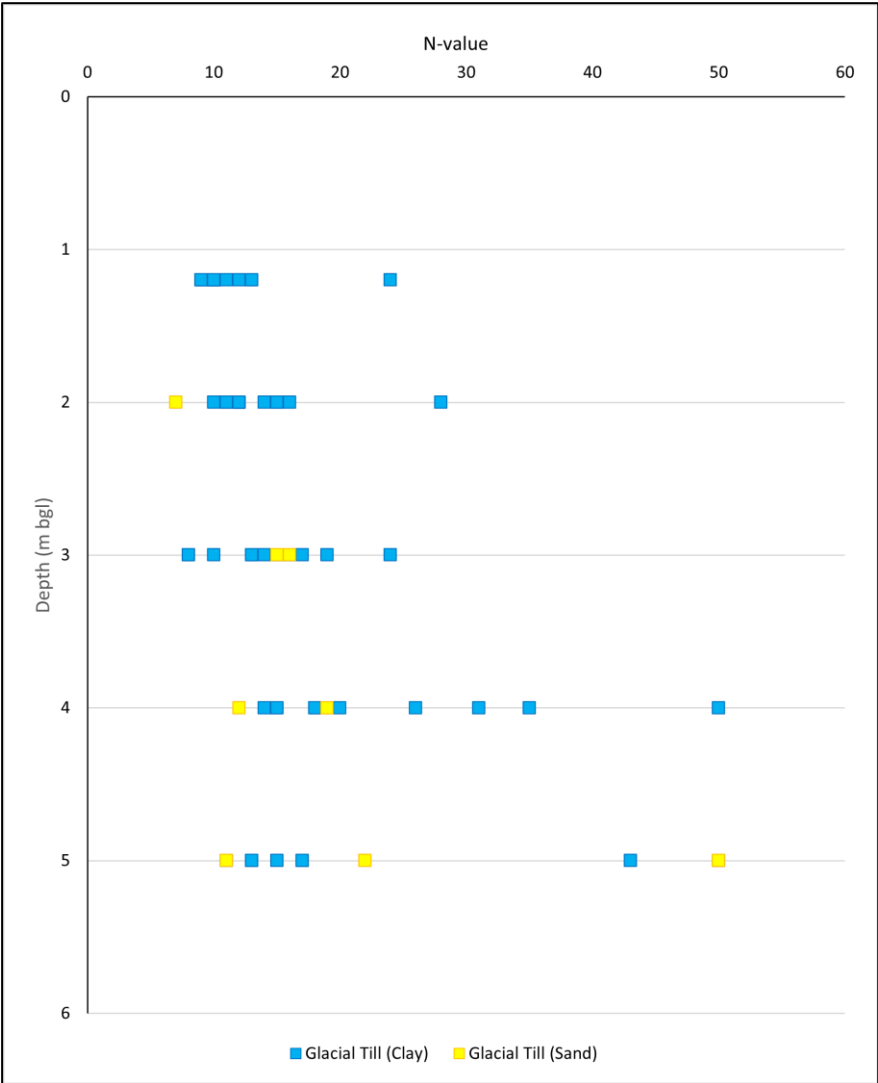
The soil infiltration test calculations are contained within Appendix 5.

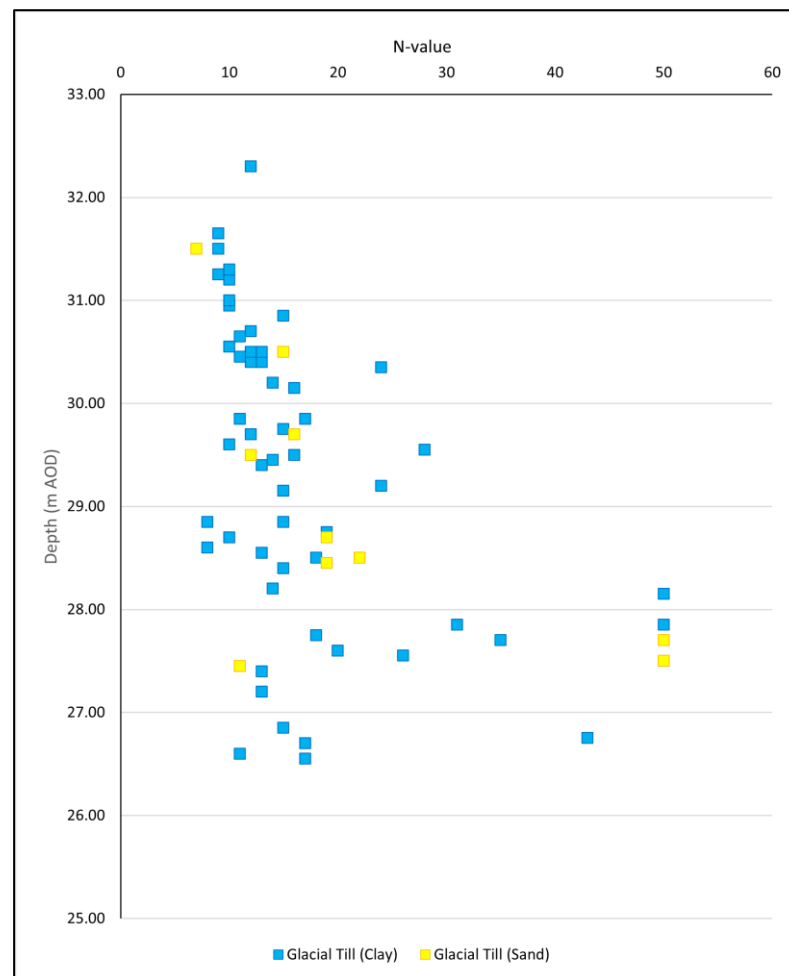
3.7 Geotechnical Site Testing

The results of the geotechnical testing undertaken during the ground investigation are summarised below.

3.7.1 Standard Penetration Tests

Standard penetration tests (SPTs) were undertaken at regular 1.00m intervals during the construction of the dynamic sampling boreholes at depths of between 1.20m and 5.00m bgl. The following scatter graphs show that there was generally a positive correlation between increasing uncorrected N-value with depth. However, the N-values recorded at c. 4.00m bgl are recorded to become more variable, anticipated to be associated with the Glacial Till becoming silty, with inclusions of sand and the presence of groundwater at these depths.



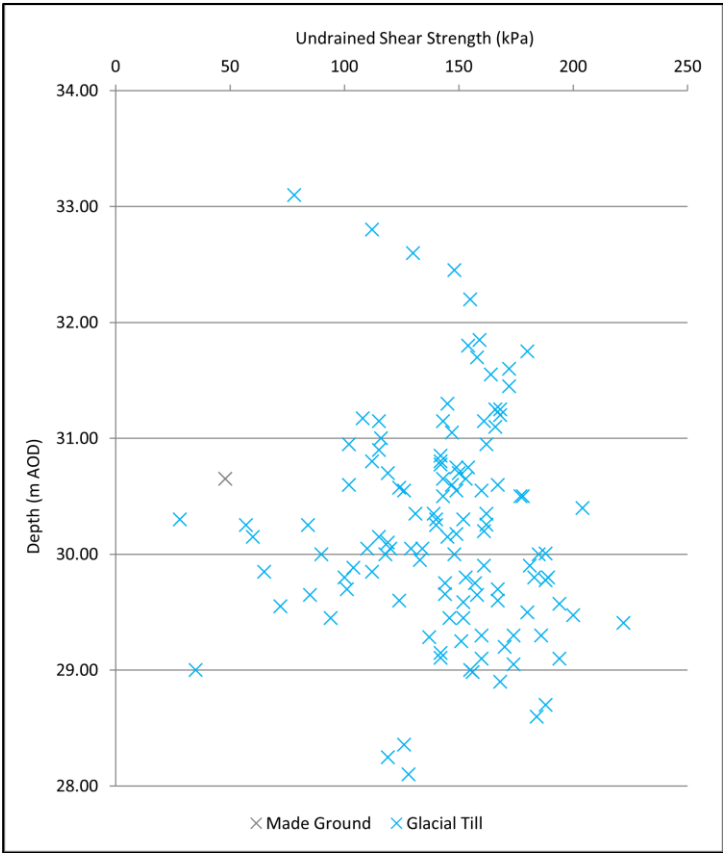
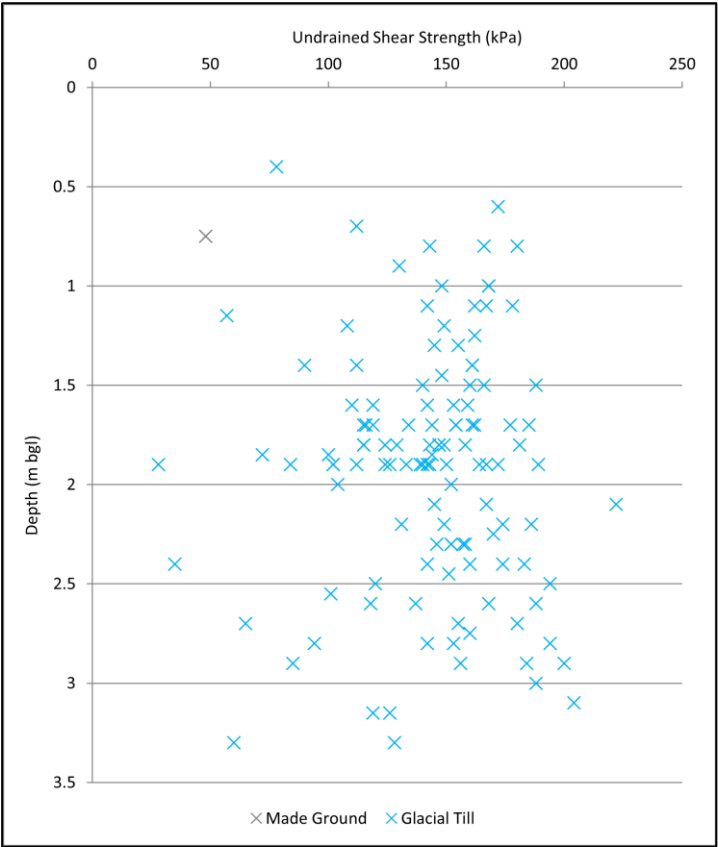


SPT results are included on the dynamic sample borehole logs presented in Appendix 4.

3.7.2 Hand Shear Vane (19mm) Tests

Where possible, both in-situ and ex-situ undrained shear strength testing was undertaken on samples of fine-grained material (clay) within trial pits and dynamic sampling boreholes using a 19mm hand shear vane in accordance with BS1377-9. It should be noted that undertaking hand shear vane tests below 2m bgl within dynamic sample boreholes is considered inappropriate; the increased sampling disturbance at depth can produce unrepresentative results.

Undrained shear strength was noted to be variable with depth within the Glacial Till deposits. The variability within these results is likely to be associated with increasing silt and sand content within the Glacial Till.



Hand shear vane test results are included on the trial pit logs and dynamic sampling borehole logs, contained within Appendices 3 and 4, respectively.

3.8 Geotechnical Laboratory Testing

The results of the geotechnical laboratory tests undertaken during the ground investigation are summarised below. The full geotechnical laboratory test results are included in Appendix 6.

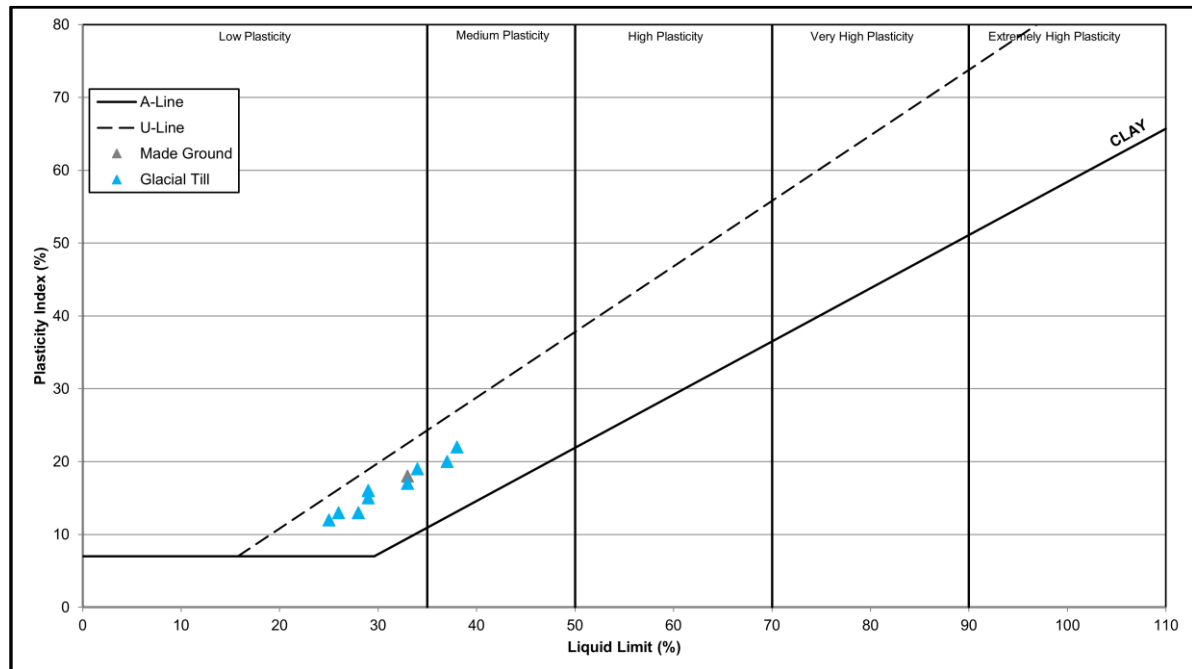
3.8.1 Atterberg Limit Tests

Atterberg limit tests were undertaken on 1 No. sample of Made Ground and 14 No. samples from natural Glacial Till deposits. The results of the Atterberg testing are as follows:

Sample	Sample Depth (m bgl)	Formation	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index	Passing through 425 micron (%)	Modified Plasticity Index
TP01	0.70	Made Ground	15.1	33	15	18	99	18
TP09	0.55	Glacial Till	12.4	33	16	17	99	17
TP13	0.60		12.7	29	13	16	99	16
TP02	0.65		12.7	33	16	17	92	16
TP03	0.70		17.8	38	16	22	95	21
TP15	0.70		14.8	37	17	20	98	20
TP18	0.70		11	28	15	13	91	12
DS12	0.80		16.1	34	15	19	98	19
TP05	0.80		16.2	29	13	16	97	16
TP18	0.80		11	28	15	13	91	12
TP20	1.40		18	29	14	15	99	15
TP10	1.50		12.8	29	13	16	98	16
DS11	1.70		14.4	26	13	13	98	13
TP14	2.40		13.8	25	13	12	95	11

DS07	3.00		26.1	29	13	16	100	16
Average (Glacial Till)			15	25	13	16	-	-

Green = low volume change potential. Orange = medium volume change potential.

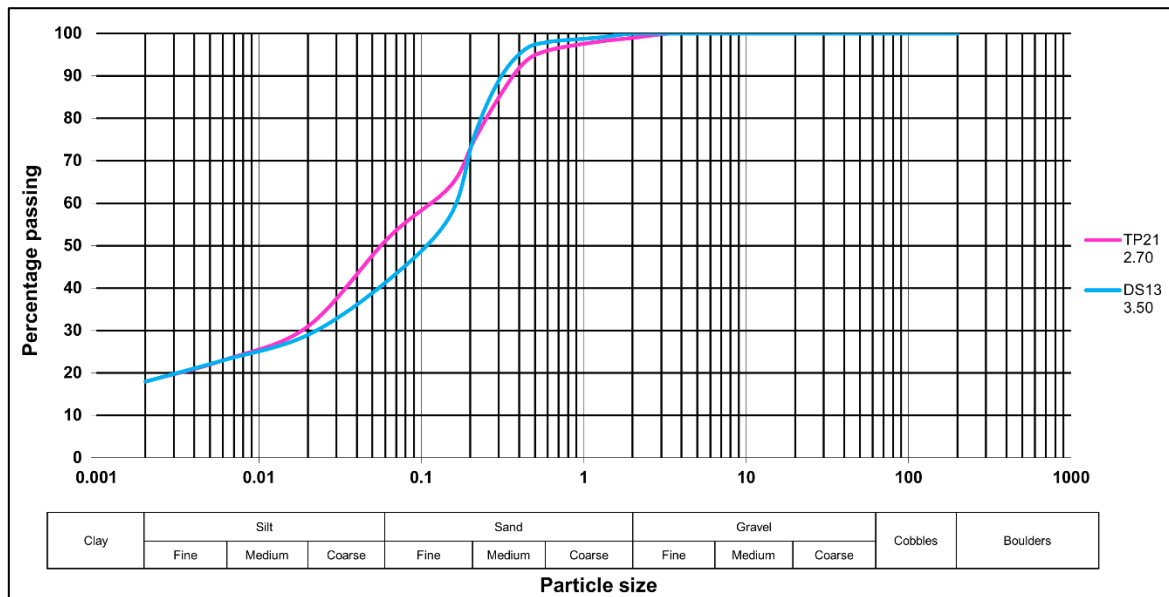


The Atterberg Limit tests indicate that the Made Ground is of low plasticity and the Glacial Till deposits are generally of low to medium plasticity in-line with BS14688 Part 2.

The Made Ground sample was noted to be of low volume change potential. The Glacial Till is generally of low to medium volume change potential, in-line with NHBC Chapter 4.2 guidance.

3.8.2 Particle Size Distribution Testing

2 No. particle size distribution tests were undertaken on samples of Glacial Till to determine the sand and silt content encountered within deposits from TP21 and DS13 in the southern section of the site.



Exploratory Hole	Depth (m bgl)	Clay	Silt	Sand (%)	Gravel (%)	Description
TP21	2.70	18	24	58	0	Slightly gravelly very sandy SILT
DS13	3.50	18	34	47	1	Very sandy CLAY

The results of the PSD testing indicates the high silt content observed within the clay Glacial Till encountered on site.

3.8.3 BRE Special Digest Suite Testing

In accordance with BRE Special Digest 1: Concrete in Aggressive Ground (2005), the site has been classified as brownfield with mobile groundwater. BRE SD1 testing suites were undertaken on 2 No. samples of Made Ground and 5 No. samples of Glacial Till in order to determine the Design Sulfate (DS) levels and the Aggressive Chemical Environment for Concrete (ACEC), with the findings summarised below:

Sample	Depth (m bgl)	Strata	DS Class	ACEC Class
TP01	0.20	Made Ground	1	AC-1
TP04	0.60		1	AC-2z
TP10	0.45	Glacial Till	1	AC-2z
TP07	0.70		1	AC-2z

TP12	1.00		1	AC-1
TP02	1.50		1	AC-1
TP13	1.50		1	AC-1

3.9 Environmental Laboratory Test Results

The findings of the chemical test results, summarised below, will be assessed against generic assessment criteria (GAC) for the purposes of screening allowable concentrations in comparison to the measured site concentrations. The GAC are defined based on the critical receptors identified at the site, detailed in the Phase 1 Investigation. Receptors are considered in relation to:

- Human health receptors (e.g. end-users, construction workers and the general public) via measured solid concentrations; and
- Additional receptors which may be relevant e.g. flora/fauna, water, buried concrete.

The GAC adopted for assessment of soils in relation to Human Health are based on published LQM/CIEH S4ULs (2015) for those compounds for which published criteria are available for varying scenarios (residential, commercial, allotment, public open space). In the absence of LQM/CIEH S4ULs (2015) the following GAC defining documents are adopted - CL:AIRE Soil GAC for Human Health Assessment (2010) and Category 4 Screening Levels (C4SLs) (2014).

The primary risk to human receptors from free cyanide in soils is an acute risk (i.e. a single dose could have a lethal affect as opposed to adverse effects from cumulative intake (chronic affect)). There is no current UK guidance available for calculating acute risks from free cyanide, therefore an in-house methodology has been used to derive an acute GAC of 60 mg/kg for all exposure scenarios. The value is given for Free or Easily Liberatable Cyanide but should be used to assess Total Cyanide in the absence of cyanide speciation. In cases where the Total Cyanide exceeds the GAC then analysis for Free or Easily Liberatable Cyanide should be completed.

Appendix 8 contains the full screening tables for 11 No. samples of Made Ground and 9 No. samples of Glacial Till. All results have been assessed against the relevant GACs for a **residential with home grown produce** scenario based on a measured organic matter content of **1%**.

3.9.1 Asbestos

An asbestos screen was performed on all Made Ground samples. No asbestos was found to be present within any of the samples tested.

3.9.2 Polycyclic aromatic hydrocarbons (PAHs)

Of the sixteen PAH compounds, there were no exceedances of the GAC for the residential with homegrown produce scenario.

3.9.3 Metals and metalloids

A single exceedance of lead was recorded within the Made Ground tested from TP03 at 0.40m bgl. The GAC for lead is noted to be 200 mg/kg and the sample from TP03 recorded a concentration of 220 mg/kg. No other exceedances of heavy metals or metalloids were recorded in any of the remaining samples submitted for laboratory analysis.

3.9.4 Total Petroleum Hydrocarbons (TPH)

There were no TPH compounds recorded in excess of the laboratory detection limit in the Made Ground or Glacial Till samples obtained.

3.9.5 Monoaromatics and Oxygenates

There were no concentrations of monoaromatics or oxygenates above detection limit within any of the samples tested.

3.10 **Ground Gas Monitoring**

The following dynamic sampling boreholes were installed with a standpipe to allow for monitoring of ground gas concentrations and any underlying groundwater which may be present:

Exploratory Hole	Response Zone Stratum	Response Zone Depth m bgl (m AOD)	
		Top of Response Zone	Base of Response Zone
DS01	Glacial Till comprising slightly gravelly sandy CLAY	1.00 (31.15)	3.00 (29.15)
DS04	Glacial Till comprising slightly gravelly sandy CLAY	3.00 (28.60)	5.00 (26.60)
DS08	Glacial Till comprising slightly gravelly sandy CLAY	1.00 (31.40)	3.00 (29.40)
DS13	Glacial Till comprising slightly gravelly sandy CLAY and very clayey fine to coarse SAND	1.00 (32.50)	3.00 (30.50)

The monitoring wells are constructed of 51mm diameter HDPE plain pipe to the depth of the response zone. The response zones comprise slotted pipe surrounded by a gravel annulus which are sealed above and below with hydrated bentonite seals. The monitoring wells are topped with a flush lockable cover.

The scheduled programme of 6 No. visits has been completed. . During all visits the response zones of all ground gas monitoring wells were noted to be flooded despite the water being bailed out during each visit, with the exception of DS01 during the first visit. Therefore, the majority of the ground gas monitoring data is deemed unreliable in accordance with BS8485:2015 + A1 2019. The ground gas monitoring results have been excluded from the below table and the following assessment. The results from 1 No, visit at DS01 has been summarised below:

Gas Monitoring Well	Steady O ₂ Concentration (%)	Peak CO ₂ Concentration (%)	Peak CH ₄ Concentration (%)	Peak H ₂ S Concentration (ppm)	Atmospheric Pressure (mbar)	Steady Gas Flow (l/hr)
DS01	19.9	0.50	0.1	1	1022 - 1024	0.1

Ground gas monitoring was undertaken utilising a GFM 4300 gas analyser. Results in grey are at the instrument detection limit.

The ground gas monitoring results and calibration certificate are included in Appendix 9.

3.11 Groundwater Depth Monitoring

The above wells were also installed for the purposes of groundwater depth monitoring. Upon completion of the scheduled 6 No. visits, the following range of results has been recorded:

Groundwater Monitoring Well	Response Zone m bgl (m AOD)	Water Level m bgl (m AOD)	Remarks
DS01	1.00 – 3.00 (31.15 – 29.15)	0.60 – 1.09 (31.46 – 31.06)	Bailed during each visit - attempted to bail further but could not due to fast recharge.
DS04	3.00 – 5.00 (28.60 – 26.60)	0.50 – 1.49 (31.10 – 30.11)	Bailed during each visit and recharge noted.
DS08	1.00 – 3.00 (31.40 – 29.40)	0.85 – 1.70 (31.55 – 30.67)	Bailed during each visit and recharge noted.
DS13	1.00 – 3.00 (32.50 – 30.50)	0.10 – 0.62 (33.40 – 32.88)	Bailed during each visit - attempted to bail further but could not due to fast recharge. Unable to monitor on visits 4 and 5 due to well being completely submerged under a large puddle.

The groundwater monitoring results are included with the gas monitoring results in Appendix 9.

4.0 ENVIRONMENTAL CONCLUSIONS

4.1 Assessment of Environmental Results

Soil sample analyses have assessed the presence of contaminants on a spatial basis, and the concentrations at which they occur across the site.

A single exceedance of the residential with homegrown produce scenario of lead was recorded within the Made Ground tested from TP03 at 0.40m bgl. No other exceedances were recorded within the Made Ground.

No GAC exceedances for the '*residential with home grown produce*' land use scenario were recorded for any of the natural samples (Topsoil and Glacial Till) or Made Ground Topsoil samples sent for laboratory chemical testing. No asbestos was detected in any of the samples tested. The existing subsoils are anticipated to be suitable for re-use within the proposed development, subject to further testing. Evidence of contamination was identified within the Made Ground Topsoil encountered on site, pertaining to clinker within gravel as well as significant quantities of ash. No olfactory evidence of contamination was found.

The original conceptual models produced in the IGE Consulting *Phase 1 Geo-Environmental Investigation Report* have been revised / updated using the findings from the geo-environmental ground investigation.

4.2 Conceptual Model for Human Health Risk

The possible sources of contamination identified within the Phase 1 report include:

- On-Site Made Ground;
- On-Site Cricket Club Pavilion and Adjacent Buildings; and
- Off-Site Current and Historical Industrial Land Use.

The human health pathways identified within the Phase 1 report include:

- Ingestion of dust and soil;

- Dermal contact with dust and soil;
- Inhalation (dust);
- Inhalation (vapours);
- Consumption of homegrown produce; and
- Inhalation and oral backgrounds.

The human health receptors identified within the Phase 1 report include:

- End users;
- Construction workers; and
- The general public and adjacent site users.

4.2.1. Made Ground - Eastern site boundary and hardstanding track

Excluding Made Ground Topsoil, Made Ground was encountered along the eastern site boundary (TP01 – TP03) and within the vicinity of the hardstanding track in the northern site section (TP19) to a depth of between 0.60m and 1.10m bgl (31.29m and 31.27m AOD). No olfactory evidence of contamination was recorded within any of the exploratory holes with the exception of the presence of ash and clinker. However, a single exceedance of lead was recorded within the deeper Made Ground within TP03 at 0.40m bgl. The sample recorded a concentration of 220mg/kg which was noted to be marginally in excess of the GAC (200mg/kg). The primary migration pathways for lead in a residential with homegrown produce scenario are through direct ingestion of dust and soil and oral background pathways. Given the relatively shallow depth of the Made Ground recorded, feasible migration pathways are present. The Made Ground could be attributed to the build-up of the site to facilitate the cricket club development or the construction of Huyton Lane and the footpath running parallel with the site boundary, as well as the hardstanding track and cricket club pavilion in the northern site section. A watching brief should be implemented during construction to identify the presence of other Made Ground deposits to facilitate further chemical testing of the Made Ground.

4.2.2 Made Ground Topsoil and Glacial Till

Made Ground Topsoil was encountered within the majority of the exploratory holes to a depth of between 0.30m to 0.70m bgl (33.20m to 30.91m AOD) underlain by Glacial Till. There were no other exceedances recorded within any of the Made Ground Topsoil, suggesting that the Made Ground Topsoil is not a significant source of contamination and can therefore be discounted. No exceedances were recorded within the Glacial Till; the cohesive nature of this material underlying the site will further reduce migration of contaminants. Furthermore, there was no visual or olfactory evidence of contamination within the Made Ground or Glacial Till deposits.

4.2.3 Human Health Conclusions

The majority of the site comprises Made Ground Topsoil, underlain by Glacial Till. A single exceedance of lead was recorded within the Made Ground along the eastern site boundary, however, as the Made Ground deposits have been recorded in other areas of the site, the presence of additional elevated concentrations within the Made Ground cannot be discounted. Although they may be present, they are not anticipated to be widespread and as a result, the risk is deemed **low to moderate** to human health of site occupants, the general public and construction workers.

Pathways may be present in areas of Made Ground where private gardens / soft landscaping are proposed. Therefore, if Made Ground is present within 600mm of finalised garden levels, or within 300mm in areas of soft landscaping, then remedial measures including a cover system will be necessary in these areas, although are not considered necessary site wide.

Any potential increase in risk to construction workers associated with acute interaction with soils can be mitigated with appropriate PPE and health and safety procedures.

4.3 **Conceptual Model for Ground Gas Risk**

Potential ground gas sources identified within the Phase 1 report include:

- On-site Made Ground;
- Off-site Huyton Wetlands; and

- Off-site coal seams (unnamed, Arley and Rushy Park) and the off-site historical coal shaft.

Potential ground gas pathways identified within the Phase 1 report include:

- Migration through fractures and fissures in bedrock;
- Preferential migration along foundations and service ducts;
- Migration within groundwater;
- Ingress through cavity walls and floors; and
- Inhalation.

Potential ground gas receptors identified within the Phase 1 report include:

- Human occupants;
- Site workers; and
- Buildings and structures.

4.3.1 Made Ground Topsoil

Made Ground Topsoil was encountered within the majority of the exploratory holes to a depth of between 0.30m to 0.70m bgl (33.20m to 30.91m AOD) and was noted to include occasional red brick, ceramic, metal and clinker. Although Total Organic Carbon (TOC) content of up to 4.50% was recorded, these percentages are more likely to be associated with the frequent rootlets observed given the nature of the topsoil, rather than organic rich Made Ground. Given the limited thickness of Made Ground Topsoil encountered across the site, and lack of excessive organic rich or putrescible material, the Made Ground Topsoil is not considered a significant ground gas source.

4.3.2 Made Ground

Made Ground was encountered along the eastern site boundary and within the vicinity of the hardstanding track to a depth of between 0.60m and 1.10m bgl (31.29m and 31.27m AOD). The Made Ground was noted to be localised to existing features on site and included red brick and ceramic, suggesting a lack of organic rich or

putrescible material. Total Organic Content (TOC) of between 1.70% and 2.70% was noted within the Made Ground tested.

Due to the limited extent and thickness of the Made Ground, a ground gas monitoring well could not be installed within the Made Ground. However, a ground gas monitoring well was installed within the Glacial Till in DS01 in the vicinity of the cricket club pavilion. Limited concentrations of ground gas were recorded during gas monitoring, with methane concentrations below detection limit and a peak carbon dioxide concentration of 0.5%. Given the lack of organic rich material, limited thickness and extent of Made Ground and lack of elevated ground gas concentrations, the Made Ground is not considered a significant source of ground gas.

4.3.3 Peat

Previous ground investigation undertaken by Earth Environmental recorded 'occasional patches of peat' within a single exploratory hole (WS201) along the northern site boundary. Peat deposits were not encountered during IGE ground investigation. In accordance with BS8576 (2013), peat soils are considered to be a high concentration, 'very low' generation potential source. Anaerobic conditions associated with peat result in ground gas emissions with a high percentage of methane, however emission is very slow and low volume. Therefore, peat is considered a high concentration, low generation source as stated in CL:AIRE *Research Bulletin 17 (RB17)*, dated November 2012. As a result, peat is not considered a significant source of ground gas, particularly as the peat encountered was in a very localised area and present in small pockets only rather than a thick stratum of peat

4.3.4 Off-Site Huyton Wetlands

Huyton wetlands is recorded 35m east of the site from 1956 until present. Organic matter including peat associated with the wetlands may be a source of ground gas, however, given the nature of the wetlands, the ground is likely to be saturated and therefore is not considered a significant ground gas risk. If the wetlands were noted to dry out, a potential ground gas source may be present, however this is considered highly unlikely.

4.3.5 Mine Gas

The Mining Remediation Authority Map Viewer indicates that there are no workings beneath the site. The nearest recorded underground workings are located more than 200m northeast of the site. The seam is last recorded to be worked over 100 years ago in 1902 and therefore mine gas generation will be significantly reduced. Furthermore, given the presence of cohesive Glacial Till beneath the majority of the site and the distance to the seams, the potential for migration of mine gas is considered very low.

4.3.6 Gas Screening Value

The response zones of all monitoring wells were recorded to be flooded during all 6 No. ground gas monitoring visits, with the exception of 1 No. visit from DS01. The gas monitoring results from within flooded wells are considered unreliable in accordance with BS 8485 (2015) + A1 (2019) and therefore have not been included within the GSV calculation. The results of this visit has been assessed in accordance with BS 8485 (2015) + A1 (2019). The characteristic Gas Screening Value (GSV) is calculated by dividing the maximum methane or carbon dioxide concentration by 100 and multiplying by the maximum steady flow rate recorded at the same monitoring point (the instrument detection limit of 0.1 l/hr is utilised when below detection limit flow rates are recorded). If required, the worst case GSV can be calculated by dividing the maximum carbon dioxide and methane concentration by 100 and multiplying by the maximum steady flow rate on site.

Ground gas monitoring has recorded a maximum peak carbon dioxide concentration of 0.5% v/v and methane concentration below detection limit. No steady flow rates above detection limits were recorded.

As no steady flow rates were recorded on-site, the GSV and the worst case GSV for carbon dioxide at the site can be calculated as $(0.50/100) \times 0.1 = 0.0005 \text{ l/hr}$.

The GSV and the worst case GSV for methane can be calculated as $(0.1/100) \times 0.1 = 0.0001 \text{ l/hr}$.

Measured flow readings

During the single visit where the monitoring well at DS01 was not flooded, a peak flow of -48.5 l/hr was recorded and within flooded monitoring wells, peak flow rates of between -90 l/hr and 103 l/hr were recorded during the initial monitoring visits. The highly variable flows recorded are likely to be attributed to the 'piston effect' as a result of fast recharge of groundwater following bailing in combination with a falling pressure atmospheric event, leading to gas accumulating in the head of the monitoring well, rather than a true flow of ground gas. Given the lack of significant sources identified, a positive flow of 48.5 l/hr is not anticipated within DS01 and as a result, they have been discounted from the ground gas risk assessment.

4.3.2 Ground Gas Conclusions

All monitoring wells were recorded to be flooded, with the exception of 1 No. visit from DS01, and therefore a lack of ground gas monitoring data is available. As a result, although a GSV has been calculated based on one visit undertaken in DS01, the GSV is not considered a suitable parameter to determine the ground gas risk on site and greater consideration should be given to the conceptual site model. No significant sources of ground gas have been identified on or off site and therefore no contaminant linkages exist. As a result, the ground gas risk on-site is deemed to be **very low** and in-line with Characteristic Situation 1 (CS1). Therefore, no ground gas protection measures are deemed necessary in the proposed development, in-line with BS8485 + A1 (2019).

4.3.3 Radon

The Indicative Atlas of Radon in England and Wales produced by the Health Protection Agency and British Geological Survey indicates that the site lies within a lower probability area, less than 1% of homes are above the action level. Consequently, no radon protection measures are necessary in the construction of new dwellings or extensions.

4.4 Conceptual Model for Controlled Waters Risk

The possible sources of contamination identified within the Phase 1 report includes the on-site Made Ground.

The controlled waters pathways identified within the Phase 1 report include:

- Vertical migration through coarse Made Ground and coarse soils;
- Lateral migration along low permeability natural soils and pooling at relative low points;
- Vertical migration along future foundations and pooling at the base;
- Migration through porous bedrock; and
- Overland flow.

The controlled water receptors identified within the Phase 1 report include:

- Groundwater within the Secondary Undifferentiated (superficial) and Secondary A (bedrock) aquifers; and
- Surface water courses (River Alt along the northern site boundary).

The ground investigation recorded Made Ground Topsoil within all exploratory holes to a depth of between 0.30m to 0.70m bgl (33.20m to 30.91m AOD). Made Ground was also noted in the eastern site section and in the vicinity of the hardstanding in the northern site section to a depth of between 0.60m and 1.10m bgl (31.29m and 31.20m AOD). Marginally elevated concentrations of lead were recorded within a single exploratory hole (TP03 at 0.40m bgl) within the Made Ground. Water ingresses between 2.80m and 3.70m bgl (29.20m and 27.90m AOD) were recorded across the site during the ground investigation and shallow groundwater was noted between 0.10m and 1.70m bgl (33.40m and 30.11m AOD) during monitoring. However, given the relatively low mobility of lead, the potential for migration into the underlying groundwater is further reduced. Although the variable Made Ground and shallow groundwater will facilitate vertical migration of contaminants, the underlying cohesive Glacial Till will significantly reduce any further vertical migration to the underlying bedrock aquifers.

The River Alt is recorded along the northern site boundary. Elevated concentrations of lead were encountered in TP03, 30m south of the river, and the presence of

cohesive Glacial Till may facilitate lateral migration of contaminants. However, the lead was recorded to be only marginally elevated and given the low mobility of lead in water, significant migration is unlikely. Furthermore, the elevated concentrations recorded were noted to be localised to TP03 along the eastern site boundary only and Made Ground deposits are anticipated to be localised to existing site features including the hardstanding track, cricket club pavilion and Huyton Road. Therefore the Made Ground is not considered a widespread source.

4.4.1 Controlled Waters Conclusions

The risk to controlled waters is deemed **low** due to a lack of significant contaminative linkages. No further assessment or remedial measures are considered necessary.

Following development, the increase in hardstanding will facilitate overland flow of contaminants however, potential elevated concentrations of contaminants are likely to be below hardstanding.

4.4.2 Construction Environmental Management Plan

Dependant on finalised site levels, it is anticipated that earthworks will be required on site within the proposed development. As part of this work, there is a risk of the generation of silt run off, particularly in the northern site section in the vicinity of the River Alt. Given the close proximity of the River Alt on the northern site boundary, control of suspended solids in water is likely to be required. Consequently, it is recommended that a Construction Environmental Management Plan (CEMP) is undertaken for the site.

4.5 **Conceptual Model for Building Materials & Services**

In accordance with BRE Special Digest 1: Concrete in Aggressive Ground (2005), the site has been classified as brownfield with mobile groundwater, the soils have been classified as Design Sulfate level DS-1 and subsequently within the Aggressive Chemical Environment for Concrete (ACEC) classification of AC-1 or AC-2z. All concrete to be used within the Made Ground and Glacial Till on site should be designed to meet the requirements of DS-1, AC-2z.

The chemical laboratory testing results are contained within Appendix 7.

4.6 Outline Remedial Strategy

As discussed in section 4.2.3, due to the human health GAC exceedances for the residential with plant uptake scenario recorded within the Made Ground on site, and feasible contaminative pathways being identified, remedial measures are required for some areas of the proposed development where Made Ground exists (excluding Topsoil Made Ground as this will be stripped prior to development). Remedial measures are not required site wide, however, where Made Ground will be present within 600mm of finalised garden levels or within 300mm of proposed POS or soft landscaping, a clean cover system will be required in order to break the contaminative linkages. Based on the Made Ground encountered, the areas where clean cover systems are likely to be required are included on the plan below:



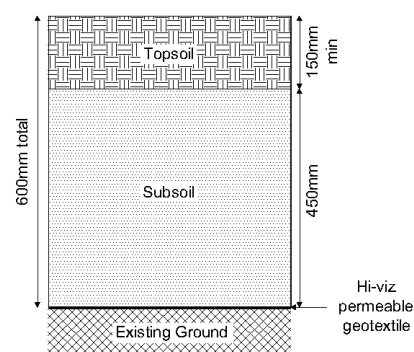
Figure 9: QGIS Extract showing the anticipated areas where a clean cover system is required (yellow hatch)), based on Made Ground encountered.

Details of the required clean cover system are included below.

4.6.1 Clean Cover System

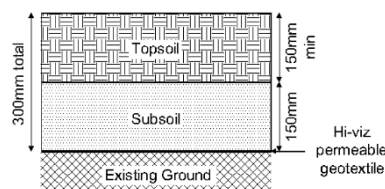
In line with Liverpool City Council 'Requirements for Contaminated Land Validation' (2010), where Made Ground is present to greater than 600mm below finalised garden levels (300mm in areas of soft landscaping) the following procedure is outlined for use in private gardens and in areas of soft landscaping:

1. Excavate to 600mm bgl in private gardens (300mm in soft landscaping areas).
2. A 600mm clean cover system is recommended to be added to the proposed private gardens (300mm in soft landscaping areas). This is to consist of:
 - No less than 150mm and no more than 300mm suitable topsoil, underlain by:
 - Suitable subsoil to a total (topsoil + subsoil) depth of 600mm (300mm in areas of soft landscaping), underlain by:
 - A high vis geotextile marker; and
 - Validated in line with the below strategy.



Where Made Ground is shallower than 600mm in garden areas or shallower than 300mm in soft landscaped areas / public open space, excavating to the required depth for a cover system in these areas would constitute source removal. Therefore, where this is the case, the following procedure is proposed:

1. Excavate to the base of the Made Ground (<600mm in gardens and <300mm in soft landscaping areas). clean cover system is not necessary.
2. Add suitable subsoil and topsoil to create a garden / soft landscaping to the client's specification.
3. Validate in line with the below strategy.



A

Clean Cover System Validation

Once the 600mm clean cover system is required to break contaminative linkages (300mm in areas of soft landscaping), validation requirements in line with Liverpool City Council 'Requirements for Contaminated Land Validation' (2010) include:

- Details of the source of the cover material;
- Chemical test results to demonstrate that the soil is free from contamination and 'suitable for use' in-line with the below chemical testing suites and rates;
- Waste transfer notes to provide evidence of source; and
- Confirmation of cover depth by either measurement tape or topographical survey with photographs at a frequency of one pit per three plots.

Imported topsoil and subsoil is required to be tested at source prior to import to confirm suitability. All topsoil and subsoil, whether site-won or imported is required to be tested at the following frequency:

Source	Material End Use	Sampling Frequency ¹	Testing Suites ³ (see below)
Greenfield Source:	Topsoil	1 per 200m ³	A, B, C, D, F
	Subsoil	1 per 200m ³	A, B, C, D, F
Brownfield Source:	Topsoil	1 per 50m ³	A, B, C, D, F, H
	Subsoil	1 per 100m ³	A, B, C, D, F
	General Fill ²	1 per 1000m ³	A, B, C, E, G

- 1) Minimum 3 samples regardless of volume.
- 2) 'General Fill' is material used primarily to raise levels, specifically not within areas of private gardens, public open space, or soft landscaping, e.g. 6F2.
- 3) In addition to the standard suites given, the laboratory testing suite should include any additional contaminants of concern based on the source of the samples.

Testing Suites:

- A. Asbestos ID, Asbestos quantification.
- B. pH, total and free cyanide, soluble sulfate, organic matter.
- C. Arsenic, Beryllium, Boron, Cadmium, Chromium (III and VI) Copper, Lead, Inorganic Mercury, Nickel, Selenium, Vanadium, Zinc.
- D. Speciated PAHs: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(ghi)perylene.
- E. Total (non-speciated) PAHs.
- F. Speciated Total Petroleum Hydrocarbons (TPH): Aliphatic >EC5 - EC6, >EC6 - EC8, >EC8 - EC10, >EC10 - EC12, >EC12 - EC16, >EC16 - EC21, >EC21 - EC35, and > EC35 - EC44, and Aromatic >EC5 - EC7, >EC7 - EC8, >EC8 - EC10, >EC10 - EC12, >EC12 - EC16, >EC16 - EC21, >EC21 - EC35, > EC35 - EC44.
- G. Total Petroleum Hydrocarbons (TPH): TPH EC6 – EC40.

H. BTEX: Benzene, Toluene, Ethylbenzene, p- & m-xylene, o-xylene. Methyl tertiary butyl ether (MTBE).

Once tested, the results are to be compared against the following Acceptability Criteria:

Suite	Determinand (mg/kg unless stated)	Acceptability Criteria for:			
		Private Gardens	Public Open Space (residential)	Soft Landscaping or Public Open Space (Park)	General Fill
A	Asbestos (%)	ND	ND	ND	<0.001 – 0.01%
B	pH	>6 - <8 ⁽³⁾	>6 - <8 ⁽³⁾	>6 - <8 ⁽³⁾	>5 - <10 ⁽³⁾
	Total Cyanide	0.5 ⁽³⁾	0.5 ⁽³⁾	0.5 ⁽³⁾	0.5 ⁽³⁾
	Free Cyanide	0.5 ⁽³⁾	0.5 ⁽³⁾	0.5 ⁽³⁾	0.5 ⁽³⁾
	Soluble Sulfate (mg/l)	500 ⁽³⁾	500 ⁽³⁾	500 ⁽³⁾	500 ⁽³⁾
C	Arsenic	37	79	170	640
	Beryllium	1.7	2.2	63	12
	Boron	290	21000	46000	240000
	Cadmium	11	120	560	190
	Chromium (III)	910	1500	33000	8600
	Chromium (VI)	6	7.7	220	33
	Copper	2400	12000	44000	68000
	Lead	200 ⁽¹⁾	630 ⁽¹⁾	1300	2330 ⁽¹⁾
	Inorganic Mercury	40	120	240	1100
	Nickel	130	230	800	980
	Selenium	250	1100	1800	12000
	Vanadium	410	2000	5000	9000
	Zinc	3700	81000	170000	730000
D	Naphthalene	2.3	4900	1200	
	Acenaphthylene	170	15000	29000	
	Acenaphthene	210	15000	29000	
	Fluorene	170	9900	20000	
	Phenanthrene	95	3100	6200	
	Anthracene	2400	74000	150000	
	Fluoranthene	280	3100	6300	
	Pyrene	620	7400	15000	
	Benzo(a)anthracene	7.2	29	49	
	Chrysene	15	57	93	
	Benzo(b)fluoranthene	2.6	7.1	13	
	Benzo(k)fluoranthene	77	190	370	
	Benzo(a)pyrene	2.2	5.7	11	
	Indeno(1,2,3-cd)pyrene	27	82	150	
	Dibenz(a,h)anthracene	0.24	0.57	1.1	
	Benzo(ghi)perylene	320	640	1400	
E	Total PAHs				1000 ⁽⁴⁾
F	TPH-CWG - Aliphatic >EC5 - EC6	42	570000	95000	
	TPH-CWG - Aliphatic >EC6 - EC8	100	600000	150000	
	TPH-CWG - Aliphatic >EC8 - EC10	27	13000	14000	
	TPH-CWG - Aliphatic >EC10 - EC12	130	13000	21000	
	TPH-CWG - Aliphatic >EC12 - EC16	1100	13000	25000	
	TPH-CWG - Aliphatic >EC16 - EC21	65000	250000	450000	
	TPH-CWG - Aliphatic >EC21 - EC35				
	TPH-CWG - Aliphatic > EC35 - EC44	65000	250000	450000	
	TPH-CWG - Aromatic >EC5 - EC7	70	56000	76000	
	TPH-CWG - Aromatic >EC7 - EC8	130	56000	87000	
	TPH-CWG - Aromatic >EC8 - EC10	34	5000	7200	

	TPH-CWG - Aromatic >EC10 - EC12	74	5000	9200	
	TPH-CWG - Aromatic >EC12 - EC16	140	5100	10000	
	TPH-CWG - Aromatic >EC16 - EC21	260	3800	7600	
	TPH-CWG - Aromatic >EC21 - EC35	1100	3800	7800	
	TPH-CWG - Aromatic > EC35 - EC44	1100	3800	7800	
G	TPH > EC6 - EC40				5000 ⁽⁴⁾
H	Benzene	0.087	72	90	
	Toluene	130	56000	87000*	
	Ethylbenzene	47	24000	17000*	
	p & m-xylene	56	41000	17000***	
	o-xylene	60	41000	17000*	
	MTBE (Methyl Tertiary Butyl Ether)	LOD ⁽³⁾	LOD ⁽³⁾	LOD ⁽³⁾	

LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015) used unless stated:

- 1) Category 4 Screening Levels (March 2014)
- 2) CL:AIRE Soil GAC for Human Health Assessment (January 2010)
- 3) In-house screening criteria used as no GAC methodology currently exists
- 4) Hazardous waste thresholds. This limit only applies to imported material, not to in-situ soil.

Assumed 1% SOM (most conservative) for those values dependent upon SOM.

ND = Not Detected

LOD = Limit of Detection

*Exceeds vapour saturation limit

**Exceeds solubility saturation limit

The above acceptability criteria for PAHs for imported topsoil and subsoil are based on the published LQM/CIEH S4ULs (2015) for each individual PAH and not based on the Category 4 Screening Level using benzo(a)pyrene as a surrogate marker. This is as the source of the imported material is unknown therefore using the surrogate marker approach may not be suitable as the distribution of PAHs in the imported material may not be similar to those in the Culp et al. (1998)¹ study. Once chemical testing had been undertaken on imported soil and the distribution of PAHs compared to the distribution in the Culp et al. (1998) study, it may be suitable to use the surrogate marker approach / C4SL.

¹ Culp et al. (1998), *A comparison of the tumors induced by coal tar and benzo[a]pyrene in a 2-year bioassay*, **Carcinogenesis**, vol.19, no.1, pp.117–124.

5.0 GEOTECHNICAL CONCLUSIONS

5.1 Geotechnical Assessment of Ground Conditions

The intrusive investigation works have revealed that the ground conditions at the site generally comprise Topsoil or Made Ground Topsoil, underlain by localised Made Ground underlain by Glacial Till.

The principal strata identified are outlined in further detail below.

5.1.1 Topsoil Made Ground

Made Ground Topsoil was recorded within all exploratory holes and typically comprised dark brown slightly gravelly very clayey fine to coarse sand with frequent rootlets, red brick and ceramic. Based on an average thickness of 0.35m there is anticipated to be c. 7,500m³ of material which may be suitable for re-use, subject to further chemical testing and determination of anthropogenic content as less than 5% is considered acceptable.

5.1.2 Made Ground - Eastern site boundary and hardstanding track

In localised areas, variable Made Ground comprising sand and clay with varying secondary constituents was recorded within TP01, TP02, TP03, and DS19. The presence of other localised pockets of Made Ground cannot be discounted. An exceedance of the residential GAC for lead was recorded within TP03 and therefore the Made Ground along the eastern site boundary may be suitable for reuse in less sensitive areas such as beneath plots or roads following processing and further chemical testing but cannot be placed within 600mm beneath private gardens or 300mm within areas of soft landscaping.

1 No. Atterberg test was undertaken on the fine Made Ground along the eastern boundary (0.70m bgl), which indicates that the Made Ground deposits are clays of low plasticity and low volume change potential.

A single hand shear vane reading was undertaken in the Made Ground at 0.75m bgl and recorded an undrained shear strength value of 48kPa.

As a result, the Made Ground is not considered a suitable bearing stratum for any of the proposed structures at the site.

5.1.3 Glacial Till - Clay

Fine Glacial Till deposits were encountered in all exploratory holes and were noted to be consistent across the site, comprising stiff orangish brown slightly gravelly sandy clay

121 No. hand shear vane results were undertaken within the Glacial Till which recorded undrained shear strengths of between 35kPa and 222kPa (average 142kPa), generally increasing with depth. The hand shear vane testing indicates that the material is generally of high to very high strength. The lower hand shear vane readings are likely to be associated with increased silt and sand content within the Glacial Till.

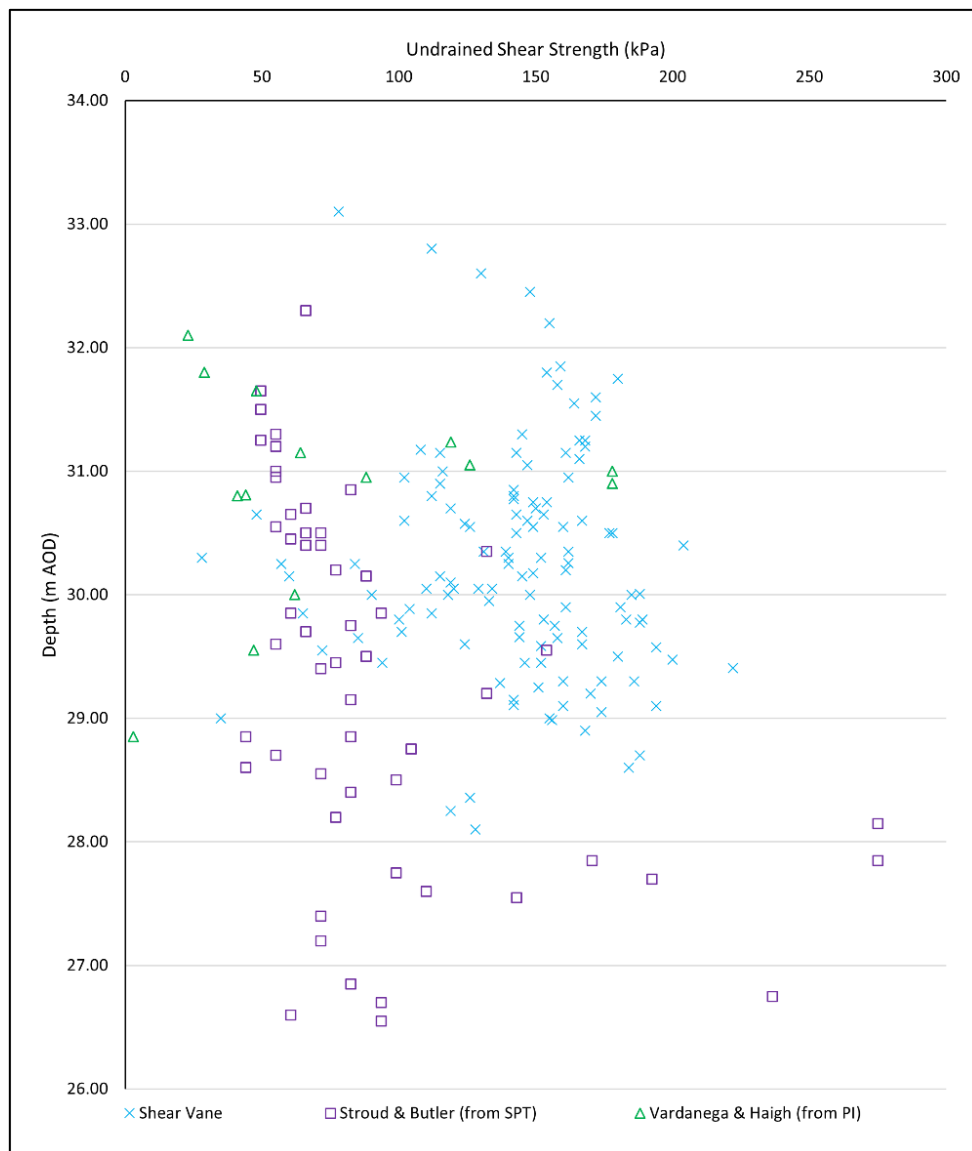
14 No. Atterberg tests were undertaken on samples of shallow Glacial Till (0.55m – 3.00m bgl), which indicated that the Glacial Till deposits are clays of low to medium plasticity and low to medium volume change potential.

54 No. SPTs were undertaken in this stratum recording N-values of between 8 and 50 (average 16) which increased with depth. Utilising the *Stroud and Butler (1975)* empirical correlation between N-values and undrained shear strengths, it is assessed that the Glacial Till is of high strength, increasing with depth.

Atterberg testing indicates that a number of the samples have natural moisture contents below the plastic limits, indicating a degree of desiccation, and therefore the hand shear vanes recorded within the shallow Glacial Till deposits may be falsely high when compared to other assessment methods.

The correlation of *Vardanega & Haigh (2014)* between plasticity indices and undrained shear strength gives good general accordance with the direct shear vane

measurements and the empirical correlation of *Stroud & Butler* for the Glacial Till. The results from *Vardanega & Haigh* have therefore been used to augment the dataset, shown below.



5.1.4 Glacial Till – Sand and Silt

Bands of silt and sand, generally recorded to be medium dense to dense, brown clayey fine to coarse sand or brown slightly gravelly very sandy silt (behaving granular) were encountered in 13 No. exploratory holes between 0.10m and at least 1.45m thickness.

10 No. SPTs were undertaken in the sand and silt recording N-values of between 7 and 50 (average 22) which increased with depth.

The large range in N values is characteristic of interbedded materials, particularly those with high percentages of silt. The presence of shallow groundwater will also contribute to the variable results.

5.1.5 Bedrock

Previous ground investigation undertaken by Earth Environmental in 2018 recorded bedrock of the Pennine Middle Coal Measures formation at 3.50m bgl and 4.70m bgl within 2 No. exploratory holes (WS209 and WS212). Earth Environmental suggests that the bedrock typically comprised grey or reddish-brown mudstone with refusals within the stratum.

During the IGE ground investigation, 4 No. dynamic sample boreholes (DS01, DS09, DS10 and DS11) were terminated at depths of between 4.24m and 5.21m bgl (27.91m and 27.29m AOD) due to refusals. However, no evidence of material indicative of bedrock was found in the IGE Consulting ground investigation. The plan below highlights the locations of the refusals encountered during Earth Environmental ground investigation and the refusals encountered within IGE ground investigation.

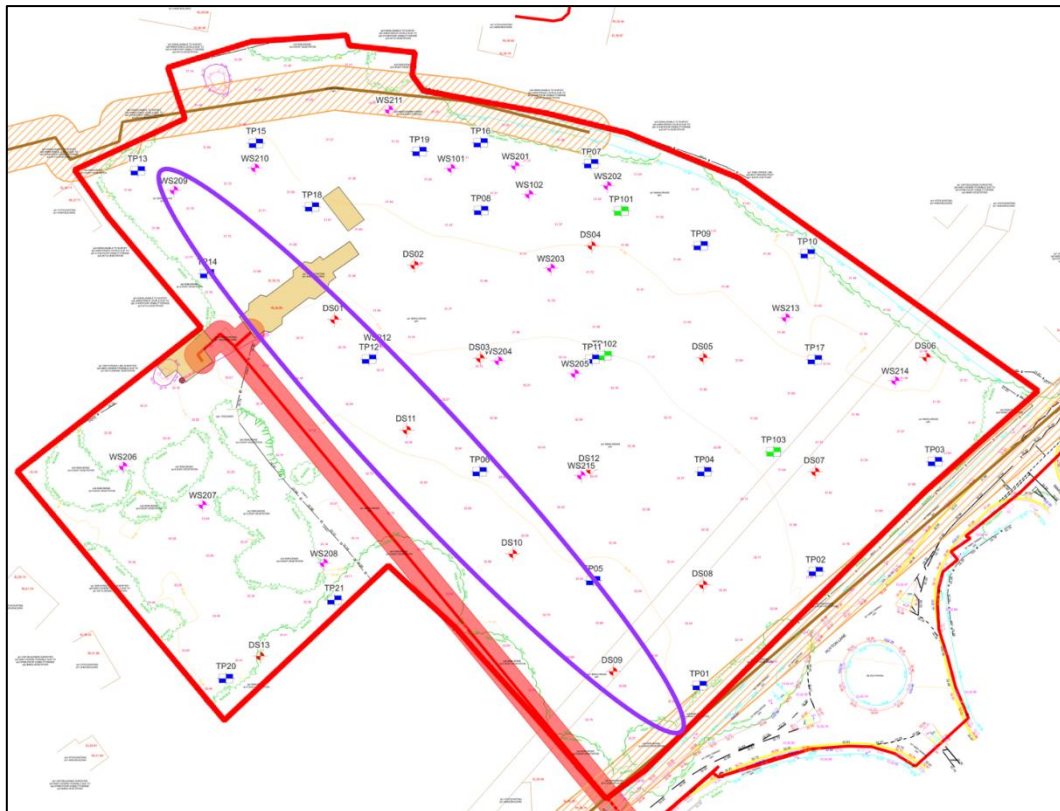


Figure 9: QGIS extract indicating the locations of early window sample borehole termination (purple), Earth Environmental Boreholes (pink) and IGE Consulting Boreholes (red).

The refusals generally follow a linear pattern from northwest to southeast, however the reason for the refusals is unknown at this stage.

5.2 Groundwater

4 No. water ingresses were recorded during the construction of the dynamic sample boreholes at depths of between 2.70m and 3.70m bgl (29.20m and 27.90m AOD), suggesting areas of localised perched water are present. 4 No groundwater depth monitoring wells were installed as part of the ground investigation works. Shallow groundwater was noted between 0.10m and 1.70m bgl (33.40m and 30.11m AOD) during ground gas and groundwater monitoring, and all monitoring wells were noted to be flooded, with DS13 recorded to be completely submerged on 2 No. monitoring visits. Therefore, temporary works and groundwater control may be required for excavations on site.

5.3 Foundations



Figure 10: GQIS Extract of the exploratory hole location plan showing proposed plots (yellow), dynamic sample boreholes (red) and trial pit locations (blue).

5.3.1 Majority of site

Based on existing site levels, the shallow Glacial Till is considered a suitable founding stratum for the majority of the proposed low-rise development at 0.90m bgl. Assuming a traditional strip or trench foundation of 600mm width lain at least 200mm into the suitable founding strata, a minimum allowable net bearing pressure of at least 125kN/m² (75 kN load) with differential settlement less than 25mm should be readily achievable.

Numerous exploratory holes encountered bands of Glacial Till comprising silt and sand at depths from between 0.50m to 5.00m (31.10m to 27.50m AOD) to a depth of between 3.00m to at least 5.45m bgl (30.50m and 27.00m AOD). Given the range in thicknesses within the bands, foundation deepening may required, subject to site levels, to ensure that foundations are constructed upon a single stratum.

Heave precaution and foundation deepening may also be required in-line with Premier / NHBC Guidance given the presence of low and medium volume change potential soils. Given the presence of numerous established trees around the site boundary, it is likely that mass fill trench foundations will be required. A tree survey and finalised levels of proposed plots will be required for the production of a detailed foundation zoning plan.

It is recommended that any localised 'soft spot' areas encountered during excavation works should be removed and foundations extended down to suitable formation strata. To minimise issues with potential differential settlement of the foundation structure, it is recommended that foundations are not constructed upon more than one stratum type, as delineated within the exploratory hole logs.

5.3.2 Plots 46 – 49

During the ground investigation, exploratory holes could not be undertaken within a section of the western site area due to the presence of Japanese Knotweed (marked in blue on the plan). Based on the remainder of the site, strip/trench foundations are likely to be suitable for plots 46 to 49, however, detailed foundation design cannot be undertaken until further work is completed in this area following treatment of the Japanese Knotweed.

5.3.3 Plots 55 – 60

An existing low pressure gas main crosses the southwestern site section within the vicinity of plots 55 to 60 (marked in red on the plan) at an unknown depth. Although the main is likely to be diverted, an assessment of the impact of existing services upon the proposed foundations should be made before selecting a final foundation solution for these plots.

5.4 **Floor Slabs**

Based on existing site levels, it is envisaged that in line with Premier / NHBC Guidance, ground bearing floor slabs will be suitable across the majority of the proposed development. This will be subject to proposed levels and would not be the case if the proposed finished floor levels are in excess of 600mm above existing natural strata or where foundations are greater than 1.50m bgl within areas of tree influence. Along the eastern site boundary where Made Ground in excess of 600mm is present, a ground bearing floor slab will not be feasible. The use of suspended floor slabs will also be viable if this is the client's preferred build methodology.

5.5 **Earthworks and External Areas**

5.5.1 Highways and External areas

Given the cohesive nature of the Glacial Till, it is envisaged that any soft spots can be re-engineered, therefore the hard-surfaced external works including the access road and pavements may be constructed on proof-rolled natural sub-grade formations across the site. Following completion of an engineering earthworks specification, it is recommended that CBR determinations are undertaken for detailed design of the highway / external areas.

5.5.2 Earthworks

Rare bands of silt across the site have been recorded, which may make the Glacial Till deposits difficult to re-engineer to the required specification. Due to the high silt content the material may be subject to significant changes in behaviour at small moisture content changes. Protection from seasonal variations including groundwater

and excess trafficking will be paramount in determining the success of the earthworks.

Works should be halted during periods of intermittent or prolonged rainfall to ensure the materials are not placed in a manner that would result in softening of either the formation or the newly placed material. It will be the contractor's responsibility to determine appropriate weather conditions and determine the suitability of works. Particular attention must be given to variable weather conditions when re-engineering clay and silt rich soils as a moisture content fluctuation (1%+/-) of the tolerable limit will result in unacceptable degree of compaction loss.

It is considered that all excavations are supported or battered back in accordance with guidance contained in CIRIA R97. Given the presence of shallow groundwater, there is likely to be a requirement for temporary works including groundwater control.

5.5.3 Stockpile Management

During the course of the development it is likely that there will be areas of stockpiled soils intended for use within the proposed gardens. These will have been subjected to off-site testing and approved for use on site. It is imperative that the stockpiles are well managed to avoid inadvertent mixing or depositing of surplus or deleterious materials that would compromise the continued use. We would recommend that the site management reviews the proposed positions for placement of stockpiles and places either fencing or warning signs to ensure compliance.

5.5.4 Export of Materials

Any soils to be removed from site must be classified in accordance with WM3 under the definition of waste and chemically tested to determine their destination, i.e. reuse or landfill. Waste ticket records must also be retained as proof of the export of materials from site.

6.0 RECOMMENDATIONS

- Following any variation in a finalised proposed development detailed design including earthworks design, proposed levels and arboricultural survey (tree survey) it is recommended that the above conclusions are re-appraised to determine the suitability.
- The conclusions of this report should be agreed with relevant regulatory authorities prior to the commencement of works.
- No ground gas protection measures are deemed necessary given a lack of sources identified on or in close proximity to the site.
- No remedial measures are deemed necessary with respect to soil or groundwater at the site.
- If any hereto unidentified visual or olfactory evidence of contamination is encountered during earthworks or construction work, then the Local Authority Environmental Health Officer and Environment Agency should be contacted immediately to determine appropriate mitigation measures.
- It is recommended that plate bearing tests should be undertaken to obtain CBR values following completion of the earthworks activity at the proposed formation level for highway design.
- It is recommended that the presence and associated constraints of all site services are established prior to significant intrusive works beginning.

APPENDIX 1

LIMITATIONS OF INVESTIGATION WORK AND REPORT

LIMITATIONS OF REPORT

This consultancy report was compiled and carried out by IGE Consulting Limited ('IGE') for the client, as defined in the main report (the 'client'), on the basis of a defined programme and scope of works and the terms of a contract between IGE and the client. IGE undertook this with all reasonable skill and care, taking into account the limits of the scope of works required by the client, the prevailing site conditions, the time scale involved and the resources, including financial and manpower resources, agreed between IGE and the client. IGE cannot accept responsibility to any parties whatsoever, following the issue of this report, for any matters arising which may be considered outwith the agreed scope of works.

Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices. This report may not be relied upon, or transferred to, by any other party without the written agreement of its author. If a third party relies on this report, it does so wholly at its own and sole risk and IGE disclaims any liability to such parties.

It is IGE's understanding that this report is to be used for the purpose described in the 'Brief' section of this report. That purpose was a significant factor in determining the scope and the services to be provided. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without IGE's review and advice shall be at the client's sole and own risk.

The information contained in this report is protected by disclosure under Part 3 of the Environmental Information Regulations 2004 pursuant to the provisions of Regulation 12(5) without the consent in writing of a Director of IGE.

This report is a function of the date it was written and should be read in light of any subsequent changes in legislation, statutory requirements and industry practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of IGE. In the absence of such written advice of IGE, reliance on the report in the future shall be at the client's own and sole risk. Should IGE be requested to review the report in the future, IGE shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between IGE and the client.

The observations and conclusions described in this report are based solely upon the scope of works agreed between the client and IGE. IGE has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report. IGE is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the agreed scope of works. For the avoidance of doubt, this report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species (e.g. Japanese Knotweed). It is recommended that the client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the identification of asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace full and proper surveys.

LIMITATIONS OF INVESTIGATION WORK

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations, the potential exists for ground conditions to be encountered which are different to those considered in this report. The explored extent of the site area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried

out for a limited number of parameters, based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Exploratory Holes

Where exploratory holes have been carried out as part of this investigation, the spacing has been determined to provide a reasonable indication of the general ground conditions across the site, but the number has ultimately been limited by commercial constraints. The findings of the exploratory holes relate specifically to the exploratory hole locations and are no absolute guarantee of the ground conditions between such locations. Due allowance should be made for the possibility of variation in conditions between exploratory hole locations.

Extent of Contamination Testing

The extent of contaminated land testing carried out on samples obtained from the site has been determined in accordance with the latest legal guidance issued by the government to provide, with reasonable certainty, the probable general levels of contamination present on site that could pose a significant hazard to human health or waters. The extent of site investigation works including chemical testing has also been limited by reasonable commercial constraints. Although extensive testing of samples has been carried out, the volume of samples taken for testing are a minute fraction of the total volume of soils and groundwater present on site. Therefore, there is a residual risk that undetected pockets of contamination may be present on site, situated between testing locations.

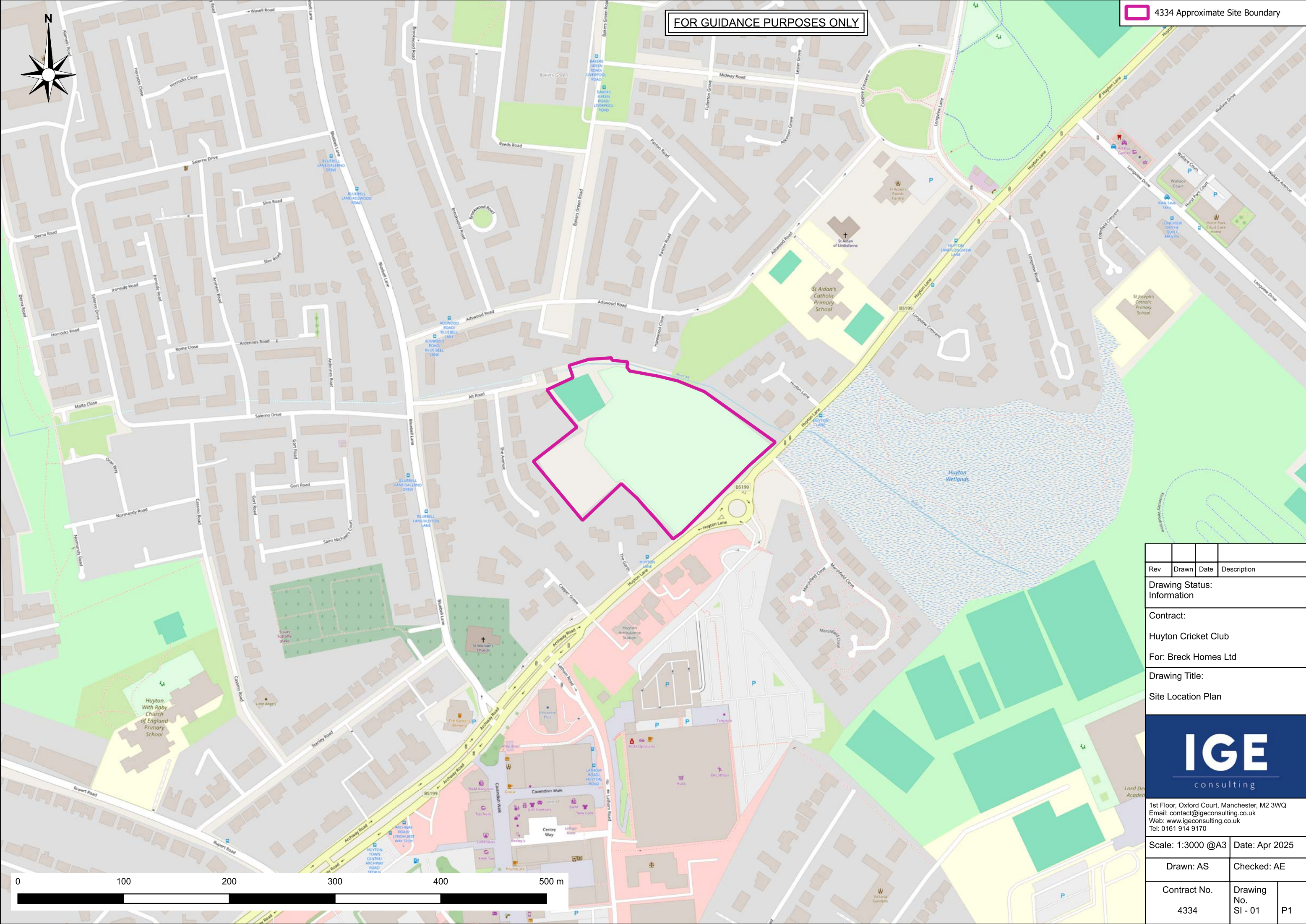
When investigating or developing potentially contaminated land it is important to recognise that sub-surface conditions may vary spatially and temporally. The absence of certain ground, ground gas, contamination or groundwater conditions at the positions tested is not a guarantee that such conditions do not exist anywhere across the site. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

Extent of Geo-Environmental Studies

This report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species e.g. Japanese Knotweed. It is recommended that the Client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the identification asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace a full and proper survey. If an Unexploded Ordnance (UXO) report has been obtained within the report, it has been so on the basis of Health and Safety concerns and no assessment has been made other than transcribing the recommendations of the sub-contractor contained within the report. In terms of a potential contaminative source, unless ordnance has been manufactured / stored on site, UXOs will only be determined as a contaminative source following a positive identification on site.

APPENDIX 2

FIGURES AND DRAWINGS



FOR GUIDANCE PURPOSES ONLY

4334 Approximate Site Boundary

Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: Huyton Cricket Club			
For: Breck Homes Ltd			
Drawing Title: Site Location Plan			
IGEconsulting 1st Floor, Oxford Court, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:3000 @A3		Date: Apr 2025	
Drawn: AS		Checked: AE	
Contract No. 4334		Drawing No. SI - 01	P1



Housetype	m²	Ft²	Total No.	Total m²	Total Ft²
Type B - 2B3P Bungalow (NDSS)	61	657	4	244	2626
Type C - 2B3P House Type (NDSS & M4(2))	74	797	9	666	7169
Type CC - 2B3P House Type (NDSS & M4(2))	74	797	1	74	797
Type F - 3B4P House Type (NDSS)	86	926	13	1118	12034
Type G - 3b4P U/P House Type (NDSS)	90	969	1	90	969
Type I - 3b5P Corner Turner HT (NDSS & M4(2))	106	1141	2	212	2282
Type J - 4b6P House Type (NDSS & M4(2))	114	1227	6	684	7363
Type L1 - 1B2P Maisonette GF M4(3)	65	700	6	390	4198
Type L2 - 2B3P Maisonette FF (NDSS)	72	775	6	432	4650
Type M - 2b3P Apartments (NDSS)	61	657	12	732	7879
Type N1 - 1b2p Apartment (NDSS)	50	538	6	300	3229
Type N2 - 2b3p Apartment (NDSS)	61	657	6	366	3940
Type N3 - 2b3p Apartment (NDSS)	50	538	6	300	3229
Type N4 - 2b3p Apartment (NDSS)	61	657	3	183	1970
TOTAL	81		5791	62334	

	Site Area		Density		Footage			
	Ha	Ac	Un/Ha	Un/Ac	m²/Ha	m²/Ac	Ft²/Ha	Ft²/Ac
Gross	2.21	5.46	36.65	14.83	2620.36	1060.42	28205.31	11414.30
Nett	1.80	4.45	45.00	18.21	3217.22	1301.97	3217.22	14014.23

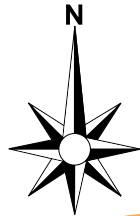
HOUSE TYPE KEY:

- TYPE B 2B3P BUNGALOW 61**
- TYPE C 2B3P HOUSE TYPE 74**
- TYPE F 3B4P HOUSE TYPE 86**
- TYPE G 3B4P FLYOVER HOUSE TYPE 90**
- TYPE I 3B6P CORNER HOUSE TYPE 106**
- TYPE J 4B6P HOUSE TYPE 114**
- TYPE L1 1B2P 65 (GF)
TYPE L2 2B3P 72 (FF)**
- TYPE M1 2B3P 61 (GF)
TYPE M2 2B3P 61 (FF)**
- TYPE N1 1B2P 50
TYPE N2 2B3P 61
TYPE N3 1B2P 50
TYPE N4 2B3P 61**

INDICATES CIRCULATION SPACE

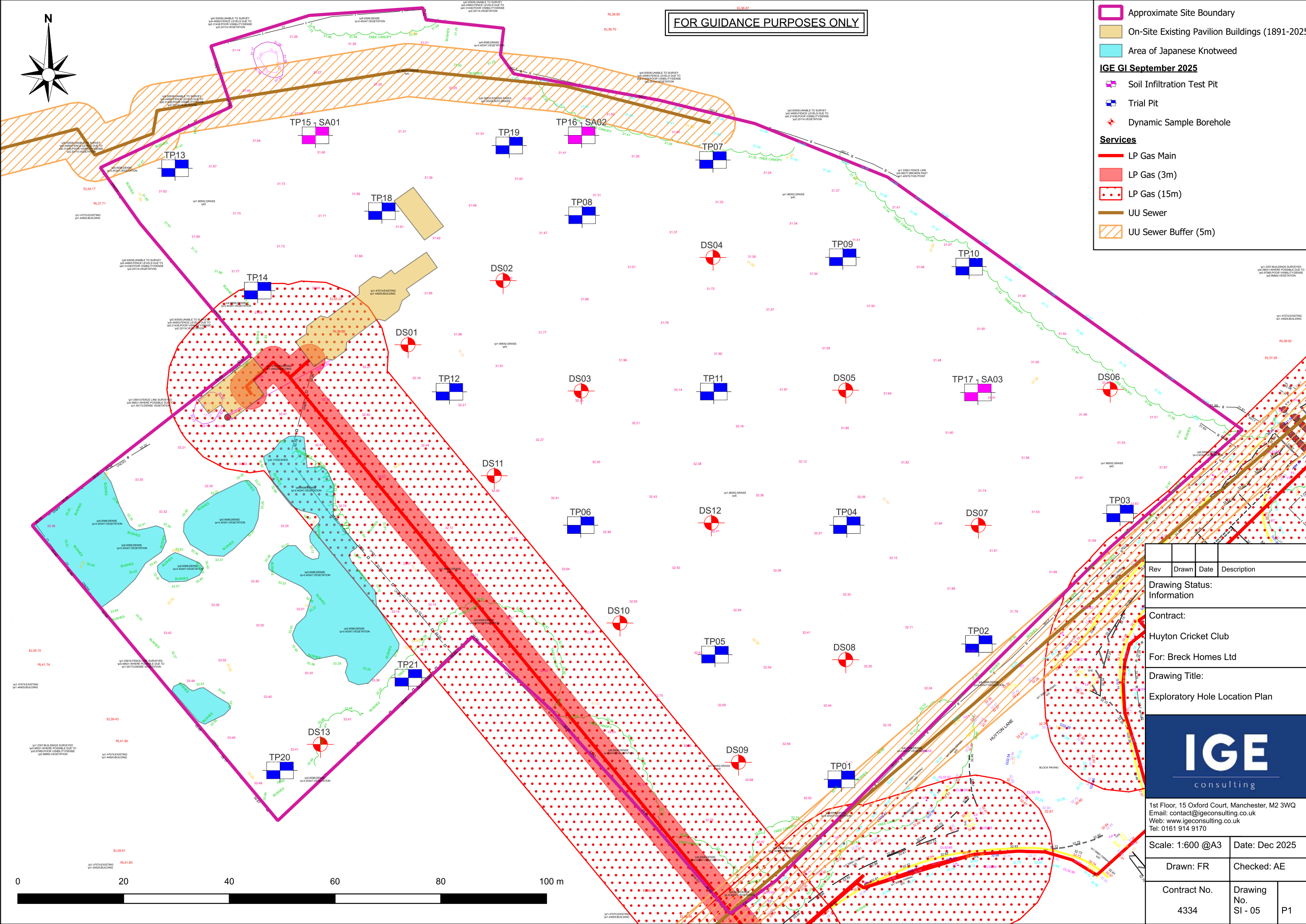
0 5 10 15 20 25
SCALE BAR

E	JUNE 25	SHW	PLOTS 42-43 SWAPPED WITH PLOTS 63 & 64
D	JUNE 26	SHW	PLOTS 42-43 MOVED OUT OF FLOOD RISK AREA
C	MAY 25	SHW	PLANNERS COMMENTS ENDORSED
B	MAY 25	SHW	REAR GARDEN AREAS UPDATED FOR PLOTS 01-45
A	MAY 25	SHW	PLOTS 62-64 & 81-82 UPDATED
REV	DATE	DRAWN	DESCRIPTION
TITLE: PROPOSED SITE LAYOUT			
Breck Homes 20 Scepters Court Bamber Bridge Preston PR5 5AW Tel: 01524 587 000 Email: hello@breck.co.uk www.breck.co.uk/homes			
PROJECT: HUYTON LANE, KNOWSLEY			
DATE: MARCH 25	SCALE: 1:500 @ A1	JOB REF: -	DRAWING NUMBER: Huyton Lane / Proposed Site Layout - Option A
			REV: E



FOR GUIDANCE PURPOSES ONLY

- Approximate Site Boundary
- On-Site Existing Pavilion Buildings (1891-2025)
- Area of Japanese Knotweed
- IGE GI September 2025**
 - Soil Infiltration Test Pit
 - Trial Pit
 - Dynamic Sample Borehole
- Services**
 - LP Gas Main
 - LP Gas (3m)
 - LP Gas (15m)
 - UU Sewer
 - UU Sewer Buffer (5m)



Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: Huyton Cricket Club			
For: Breck Homes Ltd			
Drawing Title: Exploratory Hole Location Plan			
IGE consulting			
1st Floor, 15 Oxford Court, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:600 @A3		Date: Dec 2025	
Drawn: FR		Checked: AE	
Contract No. 4334		Drawing No. SI - 05	P1

Notes

- 1
- This drawings is indicative and not to scale.

- 2
- This drawing is to be read in conjunction with all relevant Architects and Service Engineers drawings.

Key

Made Ground

Glacial Till (fine)

Glacial Till (coarse)

Pennine Middle Coal Measures Formation

Pennine Lower Coal Measures Formation

Coal Seam

Chester Formation

Made Ground topsoil comprising dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets to a depth of 0.30m to 0.70m bgl (33.20m to 30.91m AOD) encountered within the majority of exploratory holes on site.

Deeper variable Made Ground encountered along the eastern site boundary comprising brown gravelly, very clayey fine to coarse SAND with cobbles, very stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY and yellowish brown gravelly, fine to coarse SAND was recorded to a depth of between 0.60m and 1.10m bgl (31.29m and 31.27m AOD). The deeper Made Ground was encountered within TP01 to TP03 and may be associated with the construction of Huyton Lane and the footpath adjacent to the eastern site boundary.

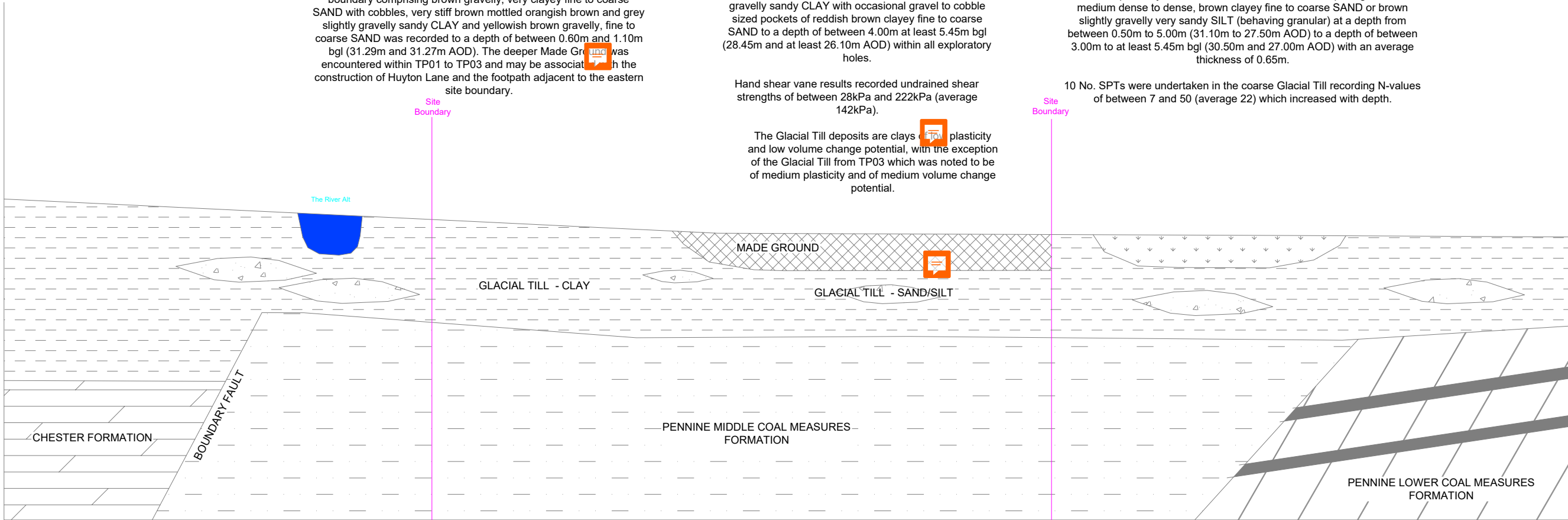
Glacial Till comprising stiff orangish brown slightly gravelly sandy CLAY with occasional gravel to cobble sized pockets of reddish brown clayey fine to coarse SAND to a depth of between 4.00m at least 5.45m bgl (28.45m and at least 26.10m AOD) within all exploratory holes.

Hand shear vane results recorded undrained shear strengths of between 28kPa and 222kPa (average 142kPa).

The Glacial Till deposits are clays of medium plasticity and low volume change potential, with the exception of the Glacial Till from TP03 which was noted to be of medium plasticity and of medium volume change potential.

12 No. exploratory holes encountered **Glacial Till** comprising bands of medium dense to dense, brown clayey fine to coarse SAND or brown slightly gravelly very sandy SILT (behaving granular) at a depth from between 0.50m to 5.00m (31.10m to 27.50m AOD) to a depth of between 3.00m to at least 5.45m bgl (30.50m and 27.00m AOD) with an average thickness of 0.65m.

10 No. SPTs were undertaken in the coarse Glacial Till recording N-values of between 7 and 50 (average 22) which increased with depth.



Rev	Drawn	Date	Description
Drawing Status			
INFORMATION			
Contract			
HUYTON CRICKET CLUB			
FOR: BRECK HOMES LTD			
Drawing Title			
CONCEPTUAL GROUND MODEL			
IGE consulting			
1st Floor, 15 Oxford Court, Manchester, M2 3WQ email: contact@igeconsulting.co.uk web: www.igeconsulting.co.uk tel: 0161 914 9170			
Scale	NTS	Date	OCT 2025
Drawn	FR	Checked	AE
Contract No.	4334	Drawing No.	SI-06 P1

Notes

- 1 This drawings is indicative and not to scale.
- 2 This drawing is to be read in conjunction with all relevant Architects and Service Engineers drawings.

Key

- Made Ground
- Glacial Till (fine)
- Glacial Till (coarse)
- Pennine Middle Coal Measures Formation
- Pennine Lower Coal Measures Formation
- Coal Seam
- Chester Formation

SOURCES

Sources

1. On-site Made Ground
2. On-site cricket club pavilion and adjacent buildings
3. Off-site current and historical industrial land use

Secondary Sources

4. Pooling beneath current and / or future foundations
5. Pooling in relative low points above low permeability deposits
6. Pooling within granular lenses within low permeability deposits

Ground Gas Sources

1. On-site Made Ground
2. Off-site Huyton Wetlands
3. Off-site coal seams

PATHWAYS

Pathways To Human Health

- A. Ingestion of dust and soil
- B. Dermal contact with dust and soil
- C. Inhalation (dust)
- D. Inhalation (vapours)
- E. Inhalation and oral backgrounds

Pathways To Controlled Waters

- A. Vertical migration through coarse Made Ground and coarse soils
- B. Lateral migration along low permeability natural soils & pooling at relative low points
- C. Vertical migration along future foundations and pooling at base
- D. Migration through porous bedrock
- E. Overland flow

Ground Gas Pathways

- A. Migration through fractures and fissures in bedrock
- B. Preferential migration along foundations & service ducts
- C. Migration within groundwater
- D. Ingress through cavity walls and floors
- E. Inhalation of ground gas and vapours

RECEPTORS

Receptors

1. End user
2. Construction workers
3. General public / adjacent site users
4. Secondary undifferentiated aquifer in superficial deposits
5. Secondary A aquifer in bedrock
6. Surface water - the River Alt
7. Buildings and services

Made Ground topsoil encountered in the majority of exploratory holes to a depth of between 0.30m and 0.70m bgl (33.20m and 30.91m AOD). No exceedances were noted within the Made Ground topsoil or underlying Glacial Till.

Deeper Made Ground was encountered along the eastern site boundary (TP01 – TP03) and within the vicinity of the hardstanding track in the northern site section (TP19) to a depth of between 0.60m and 1.10m bgl (31.29m and 31.27m AOD). No visually satisfactory evidence of contamination was recorded however, a 100% exceedance of lead was recorded within TP03 at 0.40m bgl. Given the relatively shallow depth of the exceedance recorded, feasible migration pathways are present.

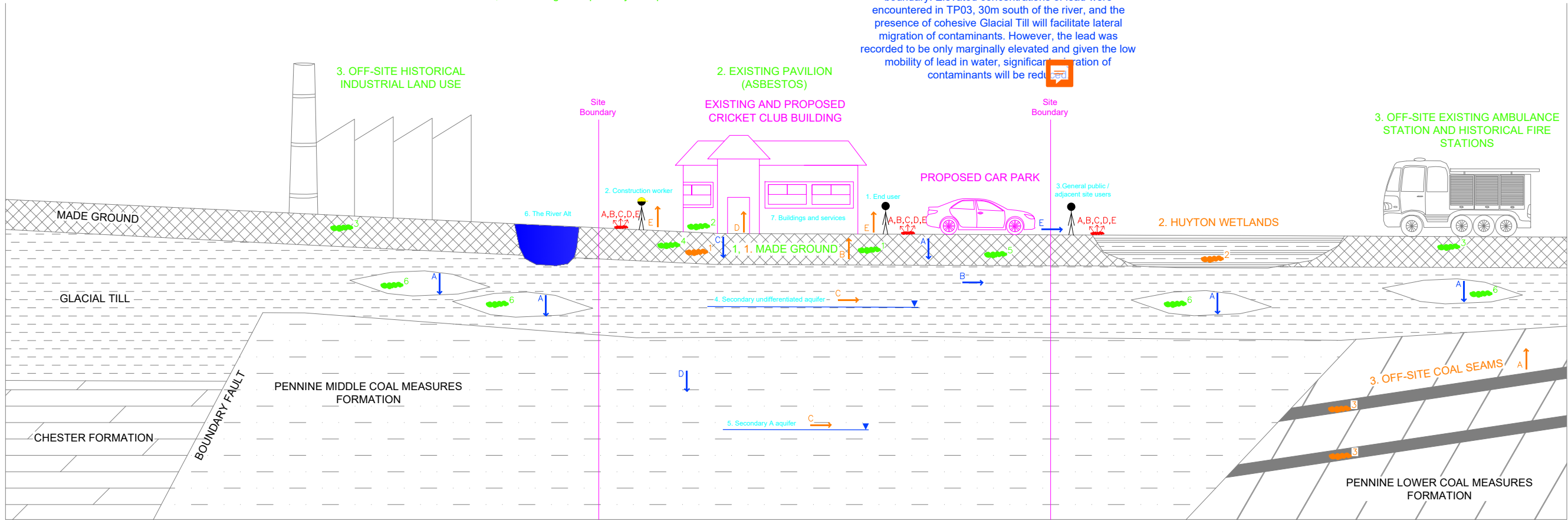
Marginally elevated concentrations of lead were recorded within TP03 at 0.40m bgl. Shallow groundwater was noted between 0.61m and 1.49m bgl (32.89 and 30.11m AOD) during monitoring. However, the elevated lead was noted to be at 0.40m bgl (30.11m AOD), above the saturated zone and given the relatively low mobility of lead, the potential for migration into the underlying groundwater is further reduced.

The River Alt is recorded along the northern site boundary. Elevated concentrations of lead were encountered in TP03, 30m south of the river, and the presence of cohesive Glacial Till will facilitate lateral migration of contaminants. However, the lead was recorded to be only marginally elevated and given the low mobility of lead in water, significant migration of contaminants will be reduced.

Limited concentrations of ground gas were recorded during gas monitoring, with methane concentrations below detection limit and a peak carbon dioxide concentration of 0.50%, suggesting the deeper Made Ground is not a significant source of ground gas. Given the lack of organic rich material, limited thickness of Made Ground and lack of elevated ground gas concentrations, the Made Ground is not considered a significant source of ground gas. Flow concentrations were also below instrument detection limit, indicating that the cohesive Glacial Till is reducing migration of ground gas across the site.

W

E



Rev	Drawn	Date	Description
Drawing Status			
INFORMATION			
Contract			
HUYTON CRICKET CLUB			
FOR: BRECK HOMES LTD			
Drawing Title			
UPDATED CONCEPTUAL SITE MODEL			
IGE consulting			
1st Floor, 15 Oxford Court, Manchester, M2 3WQ email: contact@igeconsulting.co.uk web: www.igeconsulting.co.uk tel: 0161 914 9170			
Scale	NTS	Date	OCT 2025
Drawn	FR	Checked	AE
Contract No.	4334	Drawing No.	SI-07 P1

Cross Section NE - SW

Project Name
Huyton Cricket Club

Project No.
4334

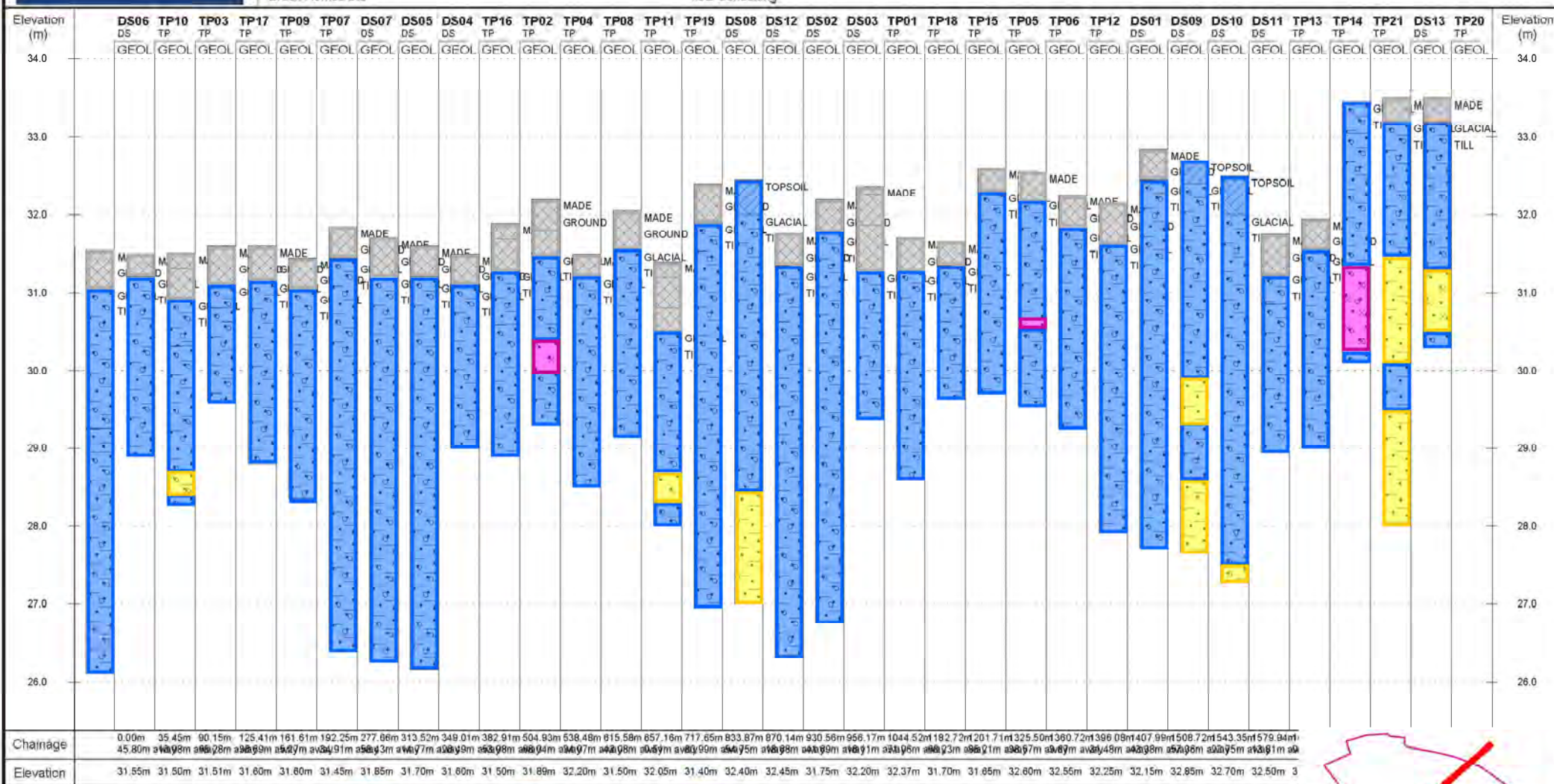
Vertical Scale
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Horizontal Scale
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Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor

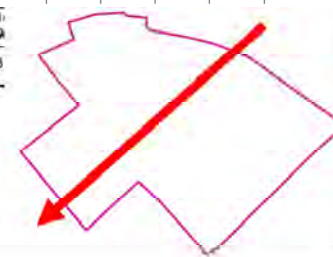


MADE GROUND

CLAY

SILT

SAND



APPENDIX 3

TRIAL PIT LOGS AND PHOTOGRAPHS

Created using Pebble Geo

Hole Type TP	Easting 344474.15	Northing 391251.68	Ground Level (m) 32.37	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.50m and 1.10m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.00m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 15°

L = 2.00m
W = 0.60m

Logger

ARE

Checked By: LM

Hole Type TP	Easting 344500.14	Northing 391277.26	Ground Level (m) 31.89	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.60m and 1.30m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.00m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 15°

L = 2.10m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP03			
		Sheet 1 of 1							
		Hole Type TP	Easting 344526.86	Northing 391301.95	Ground Level (m) 31.51	Scale 1:25			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-08		End Date 2025-09-08			
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth (thickness)	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.10	ES		31.31	(0.20) 0.20		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium of sandstone and mudstone. [MADE GROUND]	
		0.40	ES		30.91	(0.40) 0.60		Brown gravelly very clayey fine to coarse SAND. Gravel is angular to subrounded fine to coarse red brick, sandstone and mudstone. [MADE GROUND]	
		0.70	B					Very stiff brown mottled orangish brown and grey slightly gravelly slightly sandy CLAY. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. [GLACIAL TILL]	
		0.90	ES			(0.60)			
		1.20 1.25	B HV	162 (kPa)	30.31	1.20		Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	
		1.50	HV	188 (kPa)					
		1.85	HV	144 (kPa)		(1.60)			
		2.10 2.10	HV B	222 (kPa)					
		2.40	HV	142 (kPa)					
		2.70	B		28.71	2.80		Brown slightly gravelly silty clayey fine to coarse SAND. Gravel is subrounded to rounded fine to coarse sandstone and mudstone. [GLACIAL TILL]	
3.00	B		28.41	3.10 (0.10)		Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]			
3.15	HV	126 (kPa)	28.31	3.20					
End of Trial Pit at 3.20m									
Remarks Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.60m and 1.20m: no HSVs.									
Method, Plant, Stability, Dimensions 0.00 - 3.20m TP JCB 3CX Trial pit stable during excavation. Orientation: 30° L = 2.00m W = 0.60m									
Logger ARE									
Checked By: LM									

Hole Type TP	Easting 344526.86	Northing 391301.95	Ground Level (m) 31.51	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.60m and 1.20m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.20m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 30°

L = 2.00m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP04 Sheet 1 of 1				
		Hole Type TP	Easting 344475.20	Northing 391299.70	Ground Level (m) 32.20	Scale 1:25				
		Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08					
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor						
Inst/Backfill	Water Levels	Samples and Tests		Level	Depth (thickness)	Strata				
		Depth (m)	Type/Ref	Results	(m)	(m)	Legend	Description		
		0.25	ES			(0.40)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium of sandstone and mudstone. [MADE GROUND]		
		0.40	B		31.80	0.40		Brown gravelly very clayey fine to coarse SAND with low cobble content. Gravel is angular to subangular fine to coarse red brick, ceramic, sandstone and mudstone. [MADE GROUND]	0.5	
		0.60	ES		31.50	0.70				
		0.80 0.85	ES B							
		1.00	HV	168 (kPa)				Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	1.0	
		1.40	HV	112 (kPa)		(1.10)			1.5	
		1.90 1.90	HV B	28 (kPa)	30.40	1.80		Brown very sandy SILT. [GLACIAL TILL]	2.0	
		2.40 2.40	HV B	183 (kPa)	30.00	2.20		Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	2.5	
		2.70	HV	180 (kPa)		(0.70)				
		2.85	B		29.30	2.90		End of Trial Pit at 2.90m		3.0
Remarks Trial pit terminated at target depth. No water ingress.						Method, Plant, Stability, Dimensions 0.00 - 2.90m TP JCB 3CX Trial pit stable during excavation. Orientation: 45° L = 1.90m W = 0.60m			Logger ARE	
Checked By: LM										

Hole Type TP	Easting 344475.20	Northing 391299.70	Ground Level (m) 32.20	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress.

Method, Plant, Stability, Dimensions

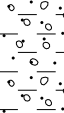
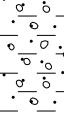
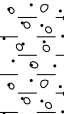
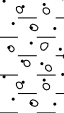
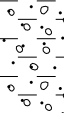
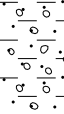
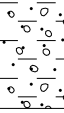
0.00 - 2.90m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 45°

L = 1.90m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP05			
		Sheet 1 of 1							
		Hole Type TP	Easting 344450.20	Northing 391275.30	Ground Level (m) 32.60	Scale 1:25			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-08		End Date 2025-09-08			
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)		Legend	Description
		0.15	ES		32.30	(0.30)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium red brick, sandstone and mudstone. [MADE GROUND]	
		0.50 0.50	ES B			0.30		Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are round sandstone and mudstone. [GLACIAL TILL]	0.5
		0.80	B						
		1.00	ES						1.0
		1.30	HV	145 (kPa)					
		1.40	B						
		1.50	HV	166 (kPa)		(2.60)			1.5
		1.90	HV	150 (kPa)					2.0
		2.20	B						
		2.30	HV	152 (kPa)					2.5
		2.60 2.60	HV B	118 (kPa)					
		2.80 2.85	HV B	153 (kPa)	29.70	2.90			
								End of Trial Pit at 2.90m	3.0
									3.5
								4.0	
								4.5	
								5.0	
Remarks Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.30m and 1.20m: no HSVs.						Method, Plant, Stability, Dimensions 0.00 - 2.90m TP JCB 3CX Trial pit stable during excavation. Orientation: 30° L = 2.10m W = 0.60m		Logger ARE	
Checked By: LM									

Hole Type TP	Easting 344450.20	Northing 391275.30	Ground Level (m) 32.60	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.30m and 1.20m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.90m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 30°

L = 2.10m
W = 0.60m

Logger

ARE

Checked By: LM

Created using Pebble Geo

Hole Type TP	Easting 344424.80	Northing 391299.70	Ground Level (m) 32.55	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.35m and 0.80m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.00m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 120°

L = 2.10m
W = 0.60m

Logger

ARE

Checked By: LM

IGE consulting		Trial Pit TP07 Sheet 1 of 1								
Hole Type TP		Easting 344449.90	Northing 391368.80	Ground Level (m) 31.45	Scale 1:25					
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09					
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor						
Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata			
		Depth (m)	Type/ Ref	Results			Legend	Description		
		0.20	ES		31.05	(0.40)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium sandstone and mudstone. [MADE GROUND]		
	0.30	B								
					(2.70)			Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	0.5	
	0.70	ES								
	0.80	B								
	1.40	B								
	1.45	HV	148 (kPa)							
	1.70	HV	144 (kPa)							
	2.00	HV	152 (kPa)							
2.20	B									
2.25	HV	170 (kPa)								
		2.40	HV	174 (kPa)					2.5	
		2.75	B							
					28.35	3.10	End of Trial Pit at 3.10m			3.0
										3.5
										4.0
										4.5
										5.0
Remarks Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 1.30m: no HSVs.							Method, Plant, Stability, Dimensions 0.00 - 3.10m TP JCB 3CX Trial pit stable during excavation. Orientation: 180° L = 1.90m W = 0.60m			Logger ARE
Checked By: LM										

Hole Type TP	Easting 344449.90	Northing 391368.80	Ground Level (m) 31.45	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 1.30m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.10m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 180°

L = 1.90m
W = 0.60m

Logger

ARE

Checked By: LM

Hole Type TP	Easting 344425.10	Northing 391358.30	Ground Level (m) 31.50	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.30m and 1.90m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.00m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 180°

L = 2.10m
W = 0.60m

Logger

ARE

Checked By: LM

IGE consulting		Trial Pit				TP09 Sheet 1 of 1			
		Hole Type TP	Easting 344474.40	Northing 391350.40	Ground Level (m) 31.60	Scale 1:25			
		Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09				
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor					
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth (thickness)	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.40	ES		31.15	0.45		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium sandstone and mudstone. [MADE GROUND]	
		0.55	B					Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	0.5
									1.0
									1.5
		1.80	B			(2.35)			2.0
		1.90	HV	167 (kPa)					2.5
									3.0
									3.5
		2.50	HV	194 (kPa)					4.0
		2.60	B						4.5
					28.80	2.80		End of Trial Pit at 2.80m	5.0
Remarks Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.45m and 1.80m: no HSVs.								Method, Plant, Stability, Dimensions 0.00 - 2.80m TP JCB 3CX Trial pit stable during excavation. Orientation: 200° L = 2.10m W = 0.60m	
Checked By: LM								Logger ARE	

Hole Type TP	Easting 344474.40	Northing 391350.40	Ground Level (m) 31.60	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.45m and 1.80m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.80m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 200°

L = 2.10m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP10			
		Sheet 1 of 1							
		Hole Type TP	Easting 344498.30	Northing 391348.60	Ground Level (m) 31.50	Scale 1:25			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09			
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)		Legend	Description
		0.10	ES		31.20	(0.30)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium red brick, ceramic, sandstone and mudstone. [MADE GROUND]	
		0.45	ES					Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	0.5
		0.70	B						1.0
		1.50	B			(2.30)			1.5
		2.45	B		28.90	2.60			2.5
								End of Trial Pit at 2.60m	3.0
									3.5
									4.0
									4.5
									5.0
Remarks Trial pit terminated at 2.60m bgl due to hard digging in stiff clay. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.30m and 2.60m: no HSVs.						Method, Plant, Stability, Dimensions 0.00 - 2.60m TP JCB 3CX Trial pit stable during excavation. Orientation: 215° L = 2.00m W = 0.60m		Logger ARE	
Checked By: LM									

Hole Type TP	Easting 344498.30	Northing 391348.60	Ground Level (m) 31.50	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at 2.60m bgl due to hard digging in stiff clay. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.30m and 2.60m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.60m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 215°

L = 2.00m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP11			
		Sheet 1 of 1							
		Hole Type TP	Easting 344450.00	Northing 391325.00	Ground Level (m) 32.05	Scale 1:25			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09			
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)		Legend	Description
		0.20	ES		31.55	(0.50)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium sandstone and mudstone. [MADE GROUND]	
	0.60 0.60	HV B	172 (kPa)	0.50			Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	0.5	
	0.80 0.80	HV ES	166 (kPa)					1.0	
	1.10	HV	162 (kPa)					1.5	
	1.30	B						2.0	
	1.50	HV	160 (kPa)					2.5	
	1.70	HV	162 (kPa)			(2.40)		3.0	
	2.05	B						3.5	
	2.30	HV	157 (kPa)					4.0	
	2.75 2.80	HV B	160 (kPa)			29.15	2.90		4.5
							End of Trial Pit at 2.90m		5.0
Remarks Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.50m and 0.90m: no HSVs.						Method, Plant, Stability, Dimensions 0.00 - 2.90m TP JCB 3CX Trial pit stable during excavation. Orientation: 0° L = 1.95m W = 0.60m			Logger ARE
Checked By: LM									

Hole Type TP	Easting 344450.00	Northing 391325.00	Ground Level (m) 32.05	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.50m and 0.90m: no HSVs.

Method, Plant, Stability, Dimensions

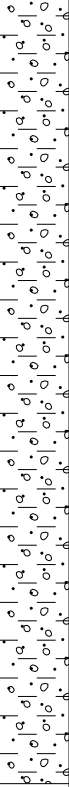
0.00 - 2.90m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 0°

L = 1.95m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP12			
		Sheet 1 of 1							
		Hole Type TP	Easting 344400.00	Northing 391324.90	Ground Level (m) 32.25	Scale 1:25			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09			
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth (thickness)	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.05	ES					Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium red brick, ceramic, sandstone and mudstone. [MADE GROUND]	
		0.45	B		31.85	0.40		Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	0.5
		1.00	HV	168 (kPa)					1.0
		1.00	ES						
		1.00	B						
		1.60	HV	153 (kPa)					1.5
		1.80	B						
		1.90	HV	139 (kPa)					2.0
		2.10	HV	145 (kPa)					
		2.40	B						2.5
	2.55	HV	101 (kPa)						
	2.80	HV	94 (kPa)						
					29.25	3.00		Brown very silty fine to coarse SAND (2.20 - 2.30m)	
								End of Trial Pit at 3.00m	3.0
									3.5
									4.0
									4.5
									5.0
Remarks Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 1.00m: no HSVs.						Method, Plant, Stability, Dimensions 0.00 - 3.00m TP JCB 3CX Trial pit unstable between 2.20m and 2.30m bgl. Orientation: 75° L = 1.80m W = 0.60m		Logger ARE	
Checked By: LM									

Hole Type TP	Easting 344400.00	Northing 391324.90	Ground Level (m) 32.25	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 1.00m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.00m TP JCB 3CX
Trial pit unstable between 2.20m and 2.30m bgl.
Orientation: 75°

L = 1.80m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP13			
		Sheet 1 of 1							
		Hole Type TP	Easting 344348.10	Northing 391367.20	Ground Level (m) 31.75	Scale 1:25			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09			
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10	ES			(0.50)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium red brick, ceramic, sandstone and mudstone. [MADE GROUND]	
		0.60	ES B		31.25	0.50		Very stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. [GLACIAL TILL]	0.5
		0.60			(0.40)				
		1.00	B		30.85	0.90		0.15m diameter land drain, orientated NW-SE. (0.50m)	
		1.20	HV	149 (kPa)		Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]		1.0	
		1.50	HV ES	140 (kPa)				1.5	
		1.50							
		1.65	B						
		1.70	HV	134 (kPa)		(1.90)			2.0
		2.10	B						2.5
2.30	HV	146 (kPa)					3.0		
2.75	B				28.95	2.80		3.5	
End of Trial Pit at 2.80m								4.0	
								4.5	
								5.0	
Remarks Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 0.90m and 2.50m and 2.80m: no HSVs.								Method, Plant, Stability, Dimensions 0.00 - 2.80m TP JCB 3CX Trial pit stable during excavation. Orientation: 80° L = 2.30m W = 0.60m	Logger ARE
Checked By: LM									

Hole Type TP	Easting 344348.10	Northing 391367.20	Ground Level (m) 31.75	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 0.90m and 2.50m and 2.80m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.80m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 80°

L = 2.30m
W = 0.60m

Logger

ARE

Checked By: LM

Hole Type TP	Easting 344363.70	Northing 391344.10	Ground Level (m) 31.95	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 0.80m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.95m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 10°

L = 2.80m
W = 0.60m

Logger

ARE

Checked By: LM

Hole Type TP	Easting 344374.70	Northing 391373.40	Ground Level (m) 31.65	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. BRE 365 infiltration testing completed between 1.00m and 2.00m bgl. Clay recovered as coarse gravel and cobble sized pieces between 0.30m and 1.50m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.00m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 210°

L = 1.80m
W = 0.60m

Logger

ARE

Checked By: LM

Hole Type TP	Easting 344425.00	Northing 391373.40	Ground Level (m) 31.50	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. BRE 365 infiltration testing completed between 1.50m and 2.50m bgl. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 2.20m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.50m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 200°

L = 1.70m
W = 0.60m

Logger

ARE

Checked By: LM

IGEconsulting		Trial Pit				TP17			
						Sheet 1 of 1			
		Hole Type TP	Easting 344500.00	Northing 391324.80	Ground Level (m) 31.60	Scale 1:25			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-10		End Date 2025-09-10			
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
						(0.50)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium red brick, ceramic, sandstone and mudstone. [MADE GROUND]	
		0.45	B		31.10	0.50		Light brown gravelly very clayey fine to coarse SAND. Gravel is subrounded to rounded fine to coarse sandstone and mudstone. [GLACIAL TILL]	0.5
		0.60	ES			(0.30)			
		0.70	B		30.80	0.80			
		1.10	HV	178 (kPa)			Stiff brown mottled orangish brown and grey slightly gravelly sandy CLAY with low cobble content. Gravel is subrounded to rounded fine to coarse coal, sandstone and mudstone. Cobbles are rounded of sandstone and mudstone. [GLACIAL TILL]	1.0	
		1.20	ES						
		1.20	B						
		1.40	HV	161 (kPa)	(1.20)			1.5	
		1.70	HV	161 (kPa)				2.0	
						29.60	2.00	End of Trial Pit at 2.00m	
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0
Remarks Trial pit terminated at target depth. No water ingress. BRE 365 infiltration testing completed between 1.00m and 2.00m bgl. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 2.20m: no HSVs.						Method, Plant, Stability, Dimensions 0.00 - 2.00m TP JCB 3CX Trial pit stable during excavation. Orientation: 300° L = 1.80m W = 0.60m			Logger ARE
Checked By: LM									

Hole Type TP	Easting 344500.00	Northing 391324.80	Ground Level (m) 31.60	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. BRE 365 infiltration testing completed between 1.00m and 2.00m bgl. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 2.20m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 2.00m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 300°

L = 1.80m
W = 0.60m

Logger

ARE

Checked By: LM

Hole Type TP	Easting 344387.20	Northing 391359.10	Ground Level (m) 31.70	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 1.10m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.10m TP JCB 3CX
Trial pit stable during excavation.
Orientation: 300°

L = 2.00m
W = 0.60m

Logger

ARE

Checked By: LM

Hole Type TP	Easting 344411.30	Northing 391371.50	Ground Level (m) 31.40	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks
Trial pit terminated at target depth. No water ingress.

Method, Plant, Stability, Dimensions
0.00 - 3.40m TP JCB 3CX
Trial pit unstable between 0.70m and 0.90m bgl.
Orientation: 340°

L = 2.10m
W = 0.60m

Logger
ARE

Checked By: LM

Hole Type TP	Easting 344368.00	Northing 391253.40	Ground Level (m) 33.50	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks
Trial pit terminated at target depth. No water ingress.

Method, Plant, Stability, Dimensions
0.00 - 3.20m TP JCB 3CX
Trial pit unstable between 2.20m and 3.00m bgl.
Orientation: 50°

Logger
ARE

L = 2.40m
W = 0.60m

Checked By: LM

Hole Type TP	Easting 344392.20	Northing 391270.90	Ground Level (m) 33.45	Scale 1:25
Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10	

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Trial pit terminated at target depth. No water ingress. Clay recovered as coarse gravel and cobble sized pieces between 0.40m and 1.00m: no HSVs.

Method, Plant, Stability, Dimensions

0.00 - 3.35m TP JCB 3CX
Trial pit unstable between 2.10m and 3.20m bgl.
Orientation: 225°

L = 2.10m
W = 0.60m

Logger

ARE

Checked By: LM

APPENDIX 4

DYNAMIC SAMPLE LOGS AND PHOTOGRAPHS

IGE consulting		Dynamic Sampler DS01 Sheet 1 of 1							
		Hole Type DS	Easting 344392.20	Northing 391333.90	Ground Level (m) 32.15	Scale 1:50			
		Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08				
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor					
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth (thickness)	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
	0.10 0.20	ES B			31.65	(0.50)		Dark brown very clayey fine to coarse SAND with frequent rootlets. [MADE GROUND]	0.5
	0.70 0.80	ES B				0.50		Stiff orangish brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	1.0
	1.20 1.20 1.40	SPT D ES	N=10 (1,1/2,2,3,3)						1.5
	1.90 2.00 2.00	HV SPT D	84 (kPa) N=16 (3,3/4,4,4,4)			(3.74)		Coarse gravel sized pockets of greenish brown clayey fine to coarse SAND. (1.75 - 1.80m) Becoming firm (1.80m)	2.0
	2.50	B						Becoming firm (1.80m)	2.5
	3.00 3.00	SPT D	N=15 (3,2/3,4,4,4)					Becoming silty (3.10m)	3.0
	3.60	B						Becoming silty (3.45m)	3.5
	4.00 4.00	SPT D	N=50 for 105mm (8,17/17,33 for 30mm)		27.91	4.24			4.0
									4.5
									5.0
								5.5	
								6.0	
								6.5	
								7.0	
								7.5	
								8.0	
								8.5	
								9.0	
								9.5	
								10.0	
Remarks Terminated due to refusal on cobble. Borehole dipped upon completion, water at 1.60m bgl, base at 4.15m bgl.						Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 4.24m DS Dart 239			Logger JA JA
Checked By: LM									

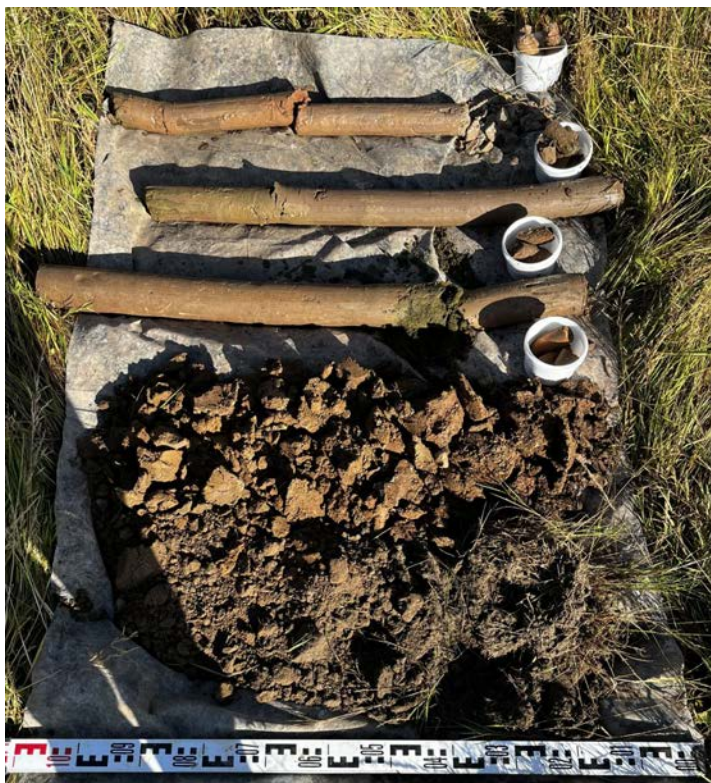
IGE consulting	Dynamic Sampler				DS01	
					SUPPLEMENTARY INFO	
	Hole Type DS	Easting 344392.20	Northing 391333.90	Ground Level (m) 32.15	Scale 1:50	
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-08	End Date 2025-09-08	
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor		
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
				Borehole dipped upon completion; water at 1.60m bgl, base at 4.15m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=10 (1,1/2,2,3,3)	
2.00 (S)					N=16 (3,3/4,4,4,4)	
3.00 (S)					N=15 (3,2/3,4,4,4)	
4.00 (S)					N=50 for 105mm (8,17/17,33 for 30mm)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	ES					
	B					
	ES					
	B					
	D					
	ES					
	D					
	B					
	D					
	B					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 100% recovery				
3.00	4.00	67mm - 80% recovery				
Remarks Terminated due to refusal on cobble. Borehole dipped upon completion, water at 1.60m bgl, base at 4.15m bgl.				Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 4.24m DS Dart 239		Logger JA JA
Checked By: LM						

Hole Type DS	Easting 344392.20	Northing 391333.90	Ground Level (m) 32.15	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-08	End Date 2025-09-08

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated due to refusal on cobble. Borehole dipped upon completion, water at 1.60m bgl, base at 4.15m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 4.24m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting		Dynamic Sampler DS02 Sheet 1 of 1							
		Hole Type DS	Easting 344410.20	Northing 391346.00	Ground Level (m) 31.75	Scale 1:50			
		Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08				
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor					
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth (thickness)	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.20	ES		31.35	(0.40)		Dark brown slightly gravelly very clayey fine to coarse SAND with frequent rootlets. Gravel is angular to subrounded fine to medium of sandstone and mudstone. [MADE GROUND]	0.5
		0.30	B			0.40			1.0
		0.70	ES	N=10 (1,2/2,2,3,3)				Stiff orangish brown mottled light grey slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	1.5
		0.70	B						2.0
		1.20	SPT	112 (kPa) N=15 (2,3/2,3,6,4)					2.5
		1.20	D						3.0
		1.90	HV	N=19 (3,3/4,4,5,6)		(5.05)		Becoming silty and firm to stiff (3.00 - 3.20m)	3.5
		2.00	SPT						4.0
		2.00	D	N=18 (3,3/3,4,5,6)					4.5
		2.50	B						5.0
3.00	SPT	N=43 (2,4/4,5,14,20)					5.5		
3.00	B						6.0		
3.00	D							6.5	
									7.0
									7.5
									8.0
									8.5
									9.0
									9.5
									10.0
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.70m bgl, base at 4.70m bgl.								Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 5.45m DS Dart 239	Logger JA JA
Checked By: LM									

	Dynamic Sampler				DS02		
	SUPPLEMENTARY INFO						
	Hole Type DS	Easting 344410.20	Northing 391346.00	Ground Level (m) 31.75	Scale 1:50		
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08			
Client Breck Homes Ltd		Consultant IGE Consulting	Contractor				
Water Strike - General							
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks			
3.00				Water ingress at 3.00m bgl.			
				Borehole dipped upon completion; water at 2.70m bgl, base at 5.70m bgl.			
SPT - Details							
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results		
1.20 (S)					N=10 (1,2/2,2,3,3)		
2.00 (S)					N=15 (2,3/2,3,6,4)		
3.00 (S)					N=19 (3,3/4,4,5,6)		
4.00 (S)					N=18 (3,3/3,4,5,6)		
5.00 (S)					N=43 (2,4/4,5,14,20)		
Sample Details							
Sample ID	Type	Water Level (m)	Remarks				
	ES						
	B						
	ES						
	B						
	D						
	D						
	B						
	B						
	D						
	D						
	D						
Depth Related Remarks							
Top Depth (m)	Base Depth (m)	Remarks					
1.00	2.00	87mm - 100% recovery					
2.00	3.00	77mm - 95% recovery					
3.00	4.00	67mm - 95% recovery					
4.00	5.00	57mm - 20% recovery					
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.70m bgl, base at 4.70m bgl.							
					Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 5.45m DS Dart 239		Logger JA JA
Checked By: LM							

Hole Type DS	Easting 344410.20	Northing 391346.00	Ground Level (m) 31.75	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-08	End Date 2025-09-08

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 2.70m bgl, base at 4.70m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting		Dynamic Sampler				DS03 Sheet 1 of 1							
		Hole Type DS		Easting 344425.00		Northing 391325.10		Ground Level (m) 32.20		Scale 1:50			
		Project Name Huyton Cricket Club				Project No. 4334		Start Date 2025-09-08		End Date 2025-09-08			
Client Breck Homes Ltd						Consultant IGE Consulting				Contractor			
Inst/ Backfill		Water Levels		Samples and Tests			Level	Depth (thickness)	Strata				
		Depth (m)	Type/ Ref	Results		(m)	(m)	Legend	Description				
		0.30	ES			31.80	(0.40)		Dark brown slightly gravelly very clayey SAND with frequent rootlets. Gravel is subangular to rounded fine to coarse of sandstone, mudstone and ceramic. [MADE GROUND]			0.5	
		0.80	ES				0.40		Stiff orangish brown mottled light grey slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]			1.0	
		0.90	B										
		1.20	SPT	N=10 (2,1/2,2,3,3)								1.5	
		1.20	D										
		1.60	B			177 (kPa)						2.0	
		1.70	HV			140 (kPa)			Reddish brown clayey fine to coarse SAND (2.00 - 2.10m)			2.5	
		1.90	HV						Becoming firm (2.40m)			3.0	
		2.00	SPT	N=14 (3,2/3,3,4,4)								3.5	
		2.00	D									4.0	
		2.80	B				(5.05)		No longer gravelly and becoming very sandy and firm (3.10m)			4.5	
		3.00	SPT	N=24 (2,3/4,5,7,8)								5.0	
		3.00	D									5.5	
		4.00	SPT	N=14 (3,2/3,3,4,4)								6.0	
		4.00	D									6.5	
		4.70	B									7.0	
		5.00	SPT	N=13 (2,3/2,3,4,4)								7.5	
		5.00	D									8.0	
								26.75	5.45	End of Borehole at 5.45m			8.5
													9.0
										9.5			
										10.0			
Remarks Terminated at target depth. Borehole dipped upon completion, water at 3.20m bgl, base at 4.60m bgl.								Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools				Logger JA	
								1.20 - 5.45m DS Dart 239				JA	
Checked By: LM													

IGEconsulting	Dynamic Sampler				DS03	
	SUPPLEMENTARY INFO					
	Hole Type DS	Easting 344425.00	Northing 391325.10	Ground Level (m) 32.20	Scale 1:50	
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-08	End Date 2025-09-08	
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor		
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
3.00				Water ingress at 3.00m bgl.		
				Borehole dipped upon completion; water at 3.20m bgl, base at 5.60m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=10 (2,1/2,2,3,3)	
2.00 (S)					N=14 (3,2/3,3,4,4)	
3.00 (S)					N=24 (2,3/4,5,7,8)	
4.00 (S)					N=14 (3,2/3,3,4,4)	
5.00 (S)					N=13 (2,3/2,3,4,4)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	ES					
	ES					
	B					
	D					
	B					
	D					
	B					
	D					
	D					
	B					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 100% recovery				
3.00	4.00	67mm - 90% recovery				
4.00	5.00	57mm - 30% recovery				
Remarks Terminated at target depth. Borehole dipped upon completion, water at 3.20m bgl, base at 4.60m bgl.				Method, Plant, Stability, Dimensions		Logger
				0.00 - 1.20m IP Hand Tools 1.20 - 5.45m DS Dart 239		JA JA
Checked By: LM						

Hole Type DS	Easting 344425.00	Northing 391325.10	Ground Level (m) 32.20	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-08	End Date 2025-09-08

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 3.20m bgl, base at 4.60m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM



Dynamic Sampler

DS04

SUPPLEMENTARY INFO

Hole Type DS	Easting 344449.90	Northing 391350.40	Ground Level (m) 31.60	Scale 1:50
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor

Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
3.70				Water ingress at 3.70m bgl.
				Borehole dipped upon completion; water at 3.80m bgl, base at 5.60m bgl.

SPT - Details

Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results
1.20 (S)					N=13 (2,3/2,3,4,4)
2.00 (S)					N=10 (2,1/2,3,2,3)
3.00 (S)					N=8 (2,2/1,2,2,3)
4.00 (S)					N=20 (3,3/4,4,6,6)
5.00 (S)					N=11 (2,3/2,3,3,3)

Sample Details

Sample ID	Type	Water Level (m)	Remarks
	ES		
	B		
	ES		
	D		
	B		
	D		
	D		
	ES		
	B		
	D		
	D		

Depth Related Remarks

Top Depth (m)	Base Depth (m)	Remarks
1.00	2.00	87mm - 80% recovery
2.00	3.00	77mm - 100% recovery
3.00	4.00	67mm - 90% recovery
4.00	5.00	57mm - 70% recovery

Remarks
Terminated at target depth. Borehole dipped upon completion, water at 3.80m bgl, base at 4.60m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m	IP	Hand Tools
1.20 - 5.45m	DS	Dart 239

Logger

JA
JA

Checked By: LM

Hole Type DS	Easting 344449.90	Northing 391350.40	Ground Level (m) 31.60	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-08	End Date 2025-09-08

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 3.80m bgl, base at 4.60m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting		Dynamic Sampler DS05 Sheet 1 of 1							
		Hole Type DS	Easting 344475.00	Northing 391325.30	Ground Level (m) 31.70	Scale 1:50			
		Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08				
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor					
Inst/ Backfill	Water Levels	Samples and Tests		Level	Depth (thickness)	Strata			
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.30	ES			(0.50)		Dark brown slightly gravelly very clayey ashy SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone, sandstone. [MADE GROUND]	
		0.30	B		31.20	0.50			0.5
		0.80	B					Stiff orangish brown mottled light grey slightly gravelly sandy CLAY. Gravel is subangular to angular fine to coarse of sandstone and mudstone. [GLACIAL TILL]	
		0.90	ES						1.0
		1.20	SPT	N=13 (2,2/2,5,4,2)					1.5
		1.20	D						
		1.70	HV	185 (kPa)					2.0
		1.70	B						
		1.80	HV	181 (kPa)					2.5
		1.90	HV	189 (kPa)					
		2.00	SPT	N=12 (2,2/3,3,3,3)					3.0
		2.00	D						
		3.00	SPT	N=10 (1,2/2,2,3,3)		(4.95)		Becoming silty and firm (3.00m)	3.5
		3.00	D						
		3.10	B						4.0
		4.00	SPT	N=35 (4,5/6,7,11,11)					4.5
		4.00	D						
		5.00	SPT	N=17 (2,3/2,4,5,6)					5.0
		5.00	D						
					26.25	5.45		End of Borehole at 5.45m	5.5
									6.0
									6.5
									7.0
									7.5
									8.0
									8.5
									9.0
									9.5
									10.0
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.60m bgl, base at 3.95m bgl.						Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools1.20 - 5.45m DS Dart 239		Logger JAJA	
Checked By: LM									

IGE consulting	Dynamic Sampler				DS05 SUPPLEMENTARY INFO	
	Hole Type DS	Easting 344475.00	Northing 391325.30	Ground Level (m) 31.70	Scale 1:50	
	Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-08	End Date 2025-09-08	
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor		
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
				Borehole dipped upon completion; water at 2.60m bgl, base at 3.95m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=13 (2,2/2,5,4,2)	
2.00 (S)					N=12 (2,2/3,3,3,3)	
3.00 (S)					N=10 (1,2/2,2,3,3)	
4.00 (S)					N=35 (4,5/6,7,11,11)	
5.00 (S)					N=17 (2,3/2,4,5,6)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	ES					
	B					
	B					
	ES					
	D					
	B					
	D					
	D					
	B					
	D					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 90% recovery				
3.00	4.00	67mm - 50% recovery				
4.00	5.00	57mm - 50% recovery				
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.60m bgl, base at 3.95m bgl.				Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 5.45m DS Dart 239		Logger JA JA
Checked By: LM						

Hole Type DS	Easting 344475.00	Northing 391325.30	Ground Level (m) 31.70	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-08	End Date 2025-09-08

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 2.60m bgl, base at 3.95m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting		Dynamic Sampler DS06 Sheet 1 of 1							
		Hole Type DS	Easting 344525.10	Northing 391325.40	Ground Level (m) 31.55	Scale 1:50			
		Project Name Huyton Cricket Club	Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09				
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor					
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth (thickness)	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.20	B					Dark brown slightly gravelly very clayey ashy SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone, sandstone, and ceramic.	
		0.30	ES			(0.50)			
		0.60	ES			31.05	0.50	[MADE GROUND]	0.5
		1.20	SPT	N=24 (3,4/5,5,7,7)				Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.	1.0
		1.20	D			(1.80)		[GLACIAL TILL]	1.5
		1.60	B					Suspected desiccation (0.50 - 2.30m)	2.0
		2.00	SPT	N=28 (4,4/5,8,7,8)					2.5
		2.00	D			29.25	2.30	Reddish brown slightly clayey fine to coarse SAND.	
						(0.30)		[GLACIAL TILL]	3.0
		3.00	SPT	N=13 (2,2/3,3,3,4)				Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.	3.5
	3.00	D					[GLACIAL TILL]	4.0	
	3.60	B						4.5	
	4.00	SPT	N=26 (4,4/5,5,8,8)			(2.85)			5.0
	4.00	D							5.5
	4.50	B							6.0
	5.00	SPT	N=17 (2,3/3,4,5,5)						6.5
	5.00	D							7.0
					26.10	5.45		End of Borehole at 5.45m	7.5
									8.0
									8.5
									9.0
									9.5
									10.0
Remarks Terminated at target depth. Borehole dipped upon completion, borehole is dry, base at 4.55m bgl.							Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools1.20 - 5.45m DS Dart 239		Logger JAJA
Checked By: LM									

IGE consulting	Dynamic Sampler				DS06	
	SUPPLEMENTARY INFO					
	Hole Type DS	Easting 344525.10	Northing 391325.40	Ground Level (m) 31.55	Scale 1:50	
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09		
Client Breck Homes Ltd		Consultant IGE Consulting	Contractor			
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
				Borehole dipped upon completion; borehole is dry, base at 5.55m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=24 (3,4/5,5,7,7)	
2.00 (S)					N=28 (4,4/5,8,7,8)	
3.00 (S)					N=13 (2,2/3,3,3,4)	
4.00 (S)					N=26 (4,4/5,5,8,8)	
5.00 (S)					N=17 (2,3/3,4,5,5)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	B					
	ES					
	ES					
	D					
	B					
	D					
	D					
	B					
	D					
	B					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 100% recovery				
3.00	4.00	67mm - 70% recovery				
4.00	5.00	57mm - 70% recovery				
Remarks Terminated at target depth. Borehole dipped upon completion, borehole is dry, base at 4.55m bgl.			Method, Plant, Stability, Dimensions		Logger	
			0.00 - 1.20m IP Hand Tools JA			
			1.20 - 5.45m DS Dart 239		JA	
Checked By: LM						

Hole Type DS	Easting 344525.10	Northing 391325.40	Ground Level (m) 31.55	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, borehole is dry, base at 4.55m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

IGEconsulting		Dynamic Sampler				DS07						
		Sheet 1 of 1										
		Hole Type DS	Easting 344500.10	Northing 391299.70	Ground Level (m) 31.85	Scale 1:50						
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09						
Client Breck Homes Ltd				Consultant IGE Consulting		Contractor						
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth (thickness)	Strata					
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description				
		0.20	ES		31.45	(0.40)		Dark brown slightly gravelly very clayey ashy SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone, sandstone, and ceramic. [MADE GROUND]	0.5			
		0.30	B									
		0.50	ES									
		1.20	SPT	N=11 (3,2/2,3,3,3)				Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	1.0			
		1.20	D									
		1.70	B									
		1.80	HV	129 (kPa)					1.5			
		1.90	HV							133 (kPa)		
		2.00	SPT								N=11 (2,2/2,3,3,3)	
		2.00	D				2.0					
		2.90	ES					N=8 (1,1/1,2,2,3)	(5.05)			Becoming firm to soft and silty (2.80m)
		3.00	SPT									
		3.00	B									
		4.00	SPT	N=31 (2,4/4,7,10,10)				Becoming firm (3.50m)	3.5			
		4.00	D									
4.50	B											
5.00	SPT	N=15 (2,3/3,3,4,5)				Becoming soft and silty (4.00m)	4.0					
5.00	D											
							Becoming firm (4.20m)	4.5				
									5.0			
									5.5			
									6.0			
									6.5			
									7.0			
									7.5			
									8.0			
									8.5			
									9.0			
									9.5			
									10.0			
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.75m bgl, base at 2.80m bgl.							Method, Plant, Stability, Dimensions		Logger			
							0.00 - 1.20m IP Hand Tools		JA			
							1.20 - 5.45m DS Dart 239		JA			
Checked By: LM												

	Dynamic Sampler				DS07		
	SUPPLEMENTARY INFO						
	Hole Type DS	Easting 344500.10	Northing 391299.70	Ground Level (m) 31.85	Scale 1:50		
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09			
Client Breck Homes Ltd		Consultant IGE Consulting	Contractor				
Water Strike - General							
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks			
2.80				Water ingress at 2.80m bgl.			
				Borehole dipped upon completion; water at 2.75m bgl, base at 2.80m bgl.			
SPT - Details							
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results		
1.20 (S)					N=11 (3,2/2,3,3,3)		
2.00 (S)					N=11 (2,2/2,3,3,3)		
3.00 (S)					N=8 (1,1/1,2,2,3)		
4.00 (S)					N=31 (2,4/4,7,10,10)		
5.00 (S)					N=15 (2,3/3,3,4,5)		
Sample Details							
Sample ID	Type	Water Level (m)	Remarks				
	ES						
	B						
	ES						
	D						
	B						
	D						
	ES						
	B						
	D						
	D						
	B						
	D						
Depth Related Remarks							
Top Depth (m)	Base Depth (m)	Remarks					
1.00	2.00	87mm - 100% recovery					
2.00	3.00	77mm - 90% recovery					
3.00	4.00	67mm - 70% recovery					
4.00	5.00	57mm - 70% recovery					
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.75m bgl, base at 2.80m bgl.							
					Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 5.45m DS Dart 239		Logger JA JA
					Checked By: LM		

Hole Type DS	Easting 344500.10	Northing 391299.70	Ground Level (m) 31.85	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 2.75m bgl, base at 2.80m bgl.

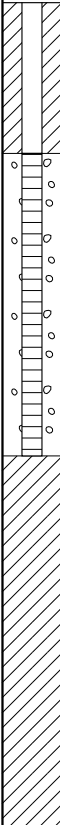
Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting		Dynamic Sampler				DS08			
		Sheet 1 of 1							
		Hole Type DS	Easting 344475.00	Northing 391274.30	Ground Level (m) 32.40	Scale 1:50			
Project Name Huyton Cricket Club			Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09		
Client Breck Homes Ltd			Consultant IGE Consulting			Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.10 0.20	ES B		31.90	(0.50)		Dark brown slightly gravelly very clayey SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone, sandstone. [MADE GROUND]	
	0.70	ES		0.50			Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	0.5	
	1.20 1.20	SPT D	N=10 (2,2/2,3,2,3)					1.0	
	1.70 1.70	HV B	119 (kPa)					1.5	
	1.80 1.90	HV HV	147 (kPa) 143 (kPa)					2.0	
	2.00 2.00	SPT D	N=12 (2,2/3,3,3,3)					2.5	
								Brown clayey fine to coarse SAND (2.40 - 2.45m)	
	3.00 3.00	SPT D	N=13 (2,3/2,3,4,4)	(4.95)				Becoming firm (3.00m)	3.0
	3.50	B							3.5
	4.00 4.00	SPT D	N=15 (2,2/4,3,4,4)						4.0
		5.00 5.00	SPT D	N=13 (2,3/2,3,4,4)	26.95	5.45			5.0
								End of Borehole at 5.45m	5.5
									6.0
									6.5
									7.0
									7.5
									8.0
									8.5
									9.0
									9.5
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.20m bgl, base at 4.60m bgl.					Method, Plant, Stability, Dimensions			Logger	
					0.00 - 1.20m IP Hand Tools			JA	
					1.20 - 5.45m DS Dart 239			JA	
Checked By: LM									

IGE consulting	Dynamic Sampler				DS08 SUPPLEMENTARY INFO	
	Hole Type DS	Easting 344475.00	Northing 391274.30	Ground Level (m) 32.40	Scale 1:50	
	Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09	
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor		
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
				Borehole dipped upon completion; water at 2.20m bgl, base at 5.60m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=10 (2,2/2,3,2,3)	
2.00 (S)					N=12 (2,2/3,3,3,3)	
3.00 (S)					N=13 (2,3/2,3,4,4)	
4.00 (S)					N=15 (2,2/4,3,4,4)	
5.00 (S)					N=13 (2,3/2,3,4,4)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	ES					
	B					
	ES					
	D					
	B					
	D					
	D					
	B					
	D					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 100% recovery				
3.00	4.00	67mm - 90% recovery				
4.00	5.00	57mm - 50% recovery				
Remarks Terminated at target depth. Borehole dipped upon completion, water at 2.20m bgl, base at 4.60m bgl.				Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 5.45m DS Dart 239		Logger JA JA
Checked By: LM						

Hole Type DS	Easting 344475.00	Northing 391274.30	Ground Level (m) 32.40	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 2.20m bgl, base at 4.60m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting	Dynamic Sampler				DS09	
	SUPPLEMENTARY INFO					
	Hole Type DS	Easting 344454.70	Northing 391254.90	Ground Level (m) 32.85	Scale 1:50	
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09		
Client Breck Homes Ltd		Consultant IGE Consulting	Contractor			
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
				Borehole dipped upon completion; water at 2.05m bgl, base at 3.25m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=9 (2,2/1,2,3,3)	
2.00 (S)					N=15 (3,2/3,4,4,4)	
3.00 (S)					N=17 (2,2/3,4,5,5)	
4.00 (S)					N=15 (2,4/3,4,4,4)	
5.00 (S)					N=50 for 135mm (8,10/20,30 for 60mm)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	ES					
	B					
	ES					
	B					
	D					
	D					
	B					
	D					
	D					
	B					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 80% recovery				
3.00	4.00	67mm - 70% recovery				
4.00	5.00	57mm - 60% recovery				
Remarks			Method, Plant, Stability, Dimensions		Logger	
Terminated at target depth. Borehole dipped upon completion, water at 2.05m bgl, base at 3.25m bgl.			0.00 - 1.20m		IP Hand Tools JA	
			1.20 - 5.29m		DS Dart 239 JA	
Checked By: LM						

Hole Type DS	Easting 344454.70	Northing 391254.90	Ground Level (m) 32.85	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 2.05m bgl, base at 3.25m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.29m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting		Dynamic Sampler				DS10			
		Sheet 1 of 1							
		Hole Type DS	Easting 344432.30	Northing 391281.30	Ground Level (m) 32.70	Scale 1:50			
Project Name Huyton Cricket Club			Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09		
Client Breck Homes Ltd			Consultant IGE Consulting			Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.10	ES			(0.30)		Dark brown slightly gravelly very clayey SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone and sandstone. [MADE GROUND]	
					32.40	0.30		Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	0.5
		0.90	ES						1.0
		1.20	SPT	N=9 (1,2/2,2,2,3)					1.5
		1.20	D						2.0
		1.60	B			(2.50)			2.5
		1.70	HV	116 (kPa)					3.0
		1.80	HV	115 (kPa)					3.5
		1.90	HV	142 (kPa)					4.0
		2.00	SPT	N=12 (2,2/3,2,3,4)					4.5
		2.00	D						5.0
		2.50	B					Becoming firm (2.40m)	5.5
		3.00	SPT	N=16 (2,2/3,3,5,5)	29.90	2.80		Medium dense brown clayey fine to coarse SAND. [GLACIAL TILL]	6.0
		3.00	D			(0.60)			6.5
					29.30	3.40		Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	7.0
					(0.70)			7.5	
	4.00	SPT	N=19 (4,3/3,4,6,6)	28.60	4.10		Dense brown clayey fine to coarse SAND. [GLACIAL TILL]	8.0	
	4.00	D			(0.94)			8.5	
	4.30	B						9.0	
	5.00	SPT	N=50 for 10mm (25 for 30mm/50 for 10mm)	27.66	5.04	End of Borehole at 5.04m			9.5
	5.00	D							10.0
Remarks Terminated at target depth. Borehole dipped upon completion, water at 1.75m bgl, base at 2.85m bgl.						Method, Plant, Stability, Dimensions			Logger
						0.00 - 1.20m IP Hand Tools 1.20 - 5.04m DS Dart 239			JA JA
Checked By: LM									

IGE consulting	Dynamic Sampler				DS10	
					SUPPLEMENTARY INFO	
	Hole Type DS	Easting 344432.30	Northing 391281.30	Ground Level (m) 32.70	Scale 1:50	
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09	
Client Breck Homes Ltd		Consultant IGE Consulting		Contractor		
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
				Borehole dipped upon completion; water at 1.75m bgl, base at 2.85m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=9 (1,2/2,2,2,3)	
2.00 (S)					N=12 (2,2/3,2,3,4)	
3.00 (S)					N=16 (2,2/3,3,5,5)	
4.00 (S)					N=19 (4,3/3,4,6,6)	
5.00 (S)					N=50 for 10mm (25 for 30mm/50 for 10mm)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	ES					
	ES					
	D					
	B					
	D					
	B					
	D					
	D					
	B					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 90% recovery				
3.00	4.00	67mm - 90% recovery				
4.00	5.00	57mm - 70% recovery				
Remarks			Method, Plant, Stability, Dimensions		Logger	
Terminated at target depth. Borehole dipped upon completion, water at 1.75m bgl, base at 2.85m bgl.			0.00 - 1.20m		IP Hand Tools JA	
			1.20 - 5.04m		DS Dart 239 JA	
Checked By: LM						

Dynamic Sampler

DS10
PHOTO PAGE

Hole Type DS	Easting 344432.30	Northing 391281.30	Ground Level (m) 32.70	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks
Terminated at target depth. Borehole dipped upon completion, water at 1.75m bgl, base at 2.85m bgl.

Method, Plant, Stability, Dimensions	Logger
0.00 - 1.20m IP Hand Tools	JA
1.20 - 5.04m DS Dart 239	JA

Checked By: LM

IGE consulting		Dynamic Sampler				DS11			
						Sheet 1 of 1			
		Hole Type DS	Easting 344408.50	Northing 391309.10	Ground Level (m) 32.50	Scale 1:50			
Project Name Huyton Cricket Club			Project No. 4334		Start Date 2025-09-09		End Date 2025-09-09		
Client Breck Homes Ltd			Consultant IGE Consulting			Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.30 0.30	ES B			(0.50)		Dark brown slightly gravelly very clayey SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone and sandstone. [MADE GROUND]	
		0.80	ES		32.00	0.50		Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	0.5
		1.20 1.20	SPT D	N=10 (2,2/2,3,2,3)					1.0
		1.70	B					Light brown clayey fine to coarse SAND (1.35 - 1.40m)	1.5
		1.90 2.00 2.00	HV SPT D	102 (kPa) N=12 (2,2/2,3,3,4)					2.0
						(4.50)			2.5
		3.00 3.00	SPT D	N=16 (3,2/3,4,4,5)					3.0
		3.60	B						3.5
		4.00 4.00	SPT D	N=18 (4,11/4,3,5,6)					4.0
									4.5
		5.00 5.00	SPT D	N=50 for 125mm (18,7/28,22 for 50mm)	27.50	5.00 (0.21)		Light orangish brown gravelly clayey fine to coarse SAND. Gravel is angular to subangular fine to coarse of sandstone. [GLACIAL TILL]	5.0
					27.29	5.21			5.5
								End of Borehole at 5.21m	6.0
									6.5
									7.0
									7.5
								8.0	
								8.5	
								9.0	
								9.5	
								10.0	
Remarks Terminated at target depth. Borehole dipped upon completion, water at 1.95m bgl, base at 4.55m bgl.						Method, Plant, Stability, Dimensions			Logger
						0.00 - 1.20m IP Hand Tools 1.20 - 5.21m DS Dart 239			
Checked By: LM									

	Dynamic Sampler				DS11		
					SUPPLEMENTARY INFO		
	Hole Type DS	Easting 344408.50	Northing 391309.10	Ground Level (m) 32.50	Scale 1:50		
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-09	End Date 2025-09-09			
Client Breck Homes Ltd		Consultant IGE Consulting	Contractor				
Water Strike - General							
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks			
				Borehole dipped upon completion; water at 1.95m bgl, base at 4.55m bgl.			
SPT - Details							
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results		
1.20 (S)					N=10 (2,2/2,3,2,3)		
2.00 (S)					N=12 (2,2/2,3,3,4)		
3.00 (S)					N=16 (3,2/3,4,4,5)		
4.00 (S)					N=18 (4,11/4,3,5,6)		
5.00 (S)					N=50 for 125mm (18,7/28,22 for 50mm)		
Sample Details							
Sample ID	Type	Water Level (m)	Remarks				
	ES						
	B						
	ES						
	D						
	B						
	D						
	D						
	B						
	D						
	D						
Depth Related Remarks							
Top Depth (m)	Base Depth (m)	Remarks					
1.00	2.00	87mm - 100% recovery					
2.00	3.00	77mm - 80% recovery					
3.00	4.00	67mm - 100% recovery					
4.00	5.00	57mm - 30% recovery					
Remarks Terminated at target depth. Borehole dipped upon completion, water at 1.95m bgl, base at 4.55m bgl.							
					Method, Plant, Stability, Dimensions		Logger
					0.00 - 1.20m IP Hand Tools		JA
1.20 - 5.21m DS Dart 239		JA					
Checked By: LM							

Hole Type DS	Easting 344408.50	Northing 391309.10	Ground Level (m) 32.50	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-09	End Date 2025-09-09

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 1.95m bgl, base at 4.55m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.21m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting		Dynamic Sampler				DS12			
		Sheet 1 of 1							
		Hole Type DS	Easting 344449.60	Northing 391300.20	Ground Level (m) 32.45	Scale 1:50			
Project Name Huyton Cricket Club		Project No. 4334		Start Date 2025-09-10		End Date 2025-09-10			
Client Breck Homes Ltd			Consultant IGE Consulting			Contractor			
Inst/ Backfill	Water Levels	Samples and Tests			Level	Depth	Strata		
		Depth (m)	Type/ Ref	Results	(m)	(m)	Legend	Description	
		0.15 0.20	ES B		32.00	(0.45)		Dark brown slightly gravelly very clayey SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone and sandstone. [MADE GROUND]	
	0.60 0.80	ES B		0.45			Stiff brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of mudstone and sandstone. [GLACIAL TILL]	0.5	
	1.20 1.20	SPT D	N=9 (1,2/1,2,3,3)					1.0	
	1.70 1.80 1.90 2.00 2.00	HV HV HV SPT D	154 (kPa) 143 (kPa) 126 (kPa) N=11 (2,2/2,2,3,4)	(3.55)			Becoming firm. (2.00 - 2.20m)	1.5	
	3.00 3.00	SPT D	N=14 (2,2/3,3,4,4)	28.45			Reddish brown fine to coarse SAND (2.50 - 2.60m) Reddish brown fine to coarse SAND (2.70 - 2.80m)	2.0	
	3.50	B						2.5	
	4.00 4.00	SPT D	N=19 (4,5/5,6,4,4)		4.00		Medium dense reddish brown clayey fine to coarse SAND. [GLACIAL TILL]	3.0	
	4.50	B			(1.45)			3.5	
	5.00 5.00	SPT D	N=11 (3,2/2,3,3,3)	27.00	5.45			4.0	
								4.5	
							End of Borehole at 5.45m	5.0	
								5.5	
								6.0	
								6.5	
								7.0	
								7.5	
								8.0	
								8.5	
								9.0	
								9.5	
								10.0	
Remarks Terminated at target depth. Borehole dipped upon completion, water at 1.90m bgl, base at 2.60m bgl.						Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools 1.20 - 5.45m DS Dart 239			Logger JA JA
Checked By: LM									

	Dynamic Sampler				DS12		
					SUPPLEMENTARY INFO		
	Hole Type DS	Easting 344449.60	Northing 391300.20	Ground Level (m) 32.45	Scale 1:50		
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10			
Client Breck Homes Ltd		Consultant IGE Consulting	Contractor				
Water Strike - General							
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks			
				Borehole dipped upon completion; water at 1.90m bgl, base at 2.60m bgl.			
SPT - Details							
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results		
1.20 (S)					N=9 (1,2/1,2,3,3)		
2.00 (S)					N=11 (2,2/2,2,3,4)		
3.00 (S)					N=14 (2,2/3,3,4,4)		
4.00 (S)					N=19 (4,5/5,6,4,4)		
5.00 (S)					N=11 (3,2/2,3,3,3)		
Sample Details							
Sample ID	Type	Water Level (m)	Remarks				
	ES						
	B						
	ES						
	B						
	D						
	D						
	D						
	B						
	D						
	B						
	D						
Depth Related Remarks							
Top Depth (m)	Base Depth (m)	Remarks					
1.00	2.00	87mm - 80% recovery					
2.00	3.00	77mm - 90% recovery					
3.00	4.00	67mm - 50% recovery					
4.00	5.00	57mm - 30% recovery					
Remarks Terminated at target depth. Borehole dipped upon completion, water at 1.90m bgl, base at 2.60m bgl.							
					Method, Plant, Stability, Dimensions		Logger
					0.00 - 1.20m IP Hand Tools		JA
		1.20 - 5.45m DS Dart 239		JA			
Checked By: LM							

Hole Type DS	Easting 344449.60	Northing 391300.20	Ground Level (m) 32.45	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-10	End Date 2025-09-10

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 1.90m bgl, base at 2.60m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

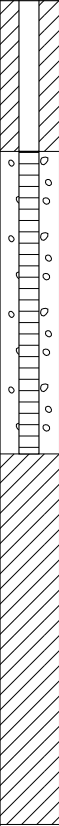
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Hole Type DS	Easting 344375.60	Northing 391258.30	Ground Level (m) 33.50	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-10	End Date 2025-09-10

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.15 0.20	ES B		33.20	(0.30) 0.30		Dark brown slightly gravelly very clayey SAND with frequent roots. Gravel is angular to subrounded fine to coarse of mudstone, sandstone, metal, clinker and red brick. [MADE GROUND]	0.5
		0.70 0.80	B ES					Stiff dark orangish brown slightly gravelly sandy CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. [GLACIAL TILL]	1.0
		1.20 1.20	SPT D	N=12 (1,2/2,3,3,4)		(1.70)		Becoming firm to stiff (1.00m)	1.5
		1.70	HV	154 (kPa)					2.0
		1.90 2.00 2.00	HV SPT D	172 (kPa) N=7 (1,1/1,1,2,3)	31.50	2.00		Loose reddish brown very clayey fine to coarse SAND. [GLACIAL TILL]	2.5
		2.50	B			(1.40)		Soft brown sandy CLAY (2.70 - 2.90m)	3.0
		3.00 3.00	SPT D	N=15 (2,2/3,3,4,5)					3.5
		3.50	B		30.10	3.40		Soft to firm brown very sandy CLAY. [GLACIAL TILL]	4.0
		4.00 4.00	SPT D	N=12 (2,3/2,3,4,3)	29.50	4.00		Medium dense reddish brown very clayey fine to coarse SAND. [GLACIAL TILL]	4.5
		5.00 5.00	SPT D	N=22 (2,3/2,4,8,8)		(1.45)			5.0
					28.05	5.45		End of Borehole at 5.45m	5.5
									6.0
									6.5
									7.0
									7.5
									8.0
									8.5
									9.0
									9.5
									10.0

Remarks

Terminated at target depth. Borehole dipped upon completion, water at 2.20m bgl, base at 2.90m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

IGE consulting	Dynamic Sampler				DS13	
	SUPPLEMENTARY INFO					
	Hole Type DS	Easting 344375.60	Northing 391258.30	Ground Level (m) 33.50	Scale 1:50	
Project Name Huyton Cricket Club		Project No. 4334	Start Date 2025-09-10	End Date 2025-09-10		
Client Breck Homes Ltd		Consultant IGE Consulting	Contractor			
Water Strike - General						
Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks		
				Borehole dipped upon completion; water at 2.20m bgl, base at 2.90m bgl.		
SPT - Details						
Top Depth (m) (Type)	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio (%)	Results	
1.20 (S)					N=12 (1,2/2,3,3,4)	
2.00 (S)					N=7 (1,1/1,1,2,3)	
3.00 (S)					N=15 (2,2/3,3,4,5)	
4.00 (S)					N=12 (2,3/2,3,4,3)	
5.00 (S)					N=22 (2,3/2,4,8,8)	
Sample Details						
Sample ID	Type	Water Level (m)	Remarks			
	ES					
	B					
	B					
	ES					
	D					
	D					
	B					
	D					
	B					
	D					
	D					
Depth Related Remarks						
Top Depth (m)	Base Depth (m)	Remarks				
1.00	2.00	87mm - 100% recovery				
2.00	3.00	77mm - 70% recovery				
3.00	4.00	67mm - 55% recovery				
4.00	5.00	57mm - 20% recovery				
Remarks			Method, Plant, Stability, Dimensions		Logger	
Terminated at target depth. Borehole dipped upon completion, water at 2.20m bgl, base at 2.90m bgl.			0.00 - 1.20m		IP Hand Tools JA	
			1.20 - 5.45m		DS Dart 239 JA	
Checked By: LM						

Hole Type DS	Easting 344375.60	Northing 391258.30	Ground Level (m) 33.50	Scale 1:50
Project Name Huyton Cricket Club	Project No. 4334		Start Date 2025-09-10	End Date 2025-09-10

Client
Breck Homes Ltd

Consultant
IGE Consulting

Contractor



Remarks

Terminated at target depth. Borehole dipped upon completion, water at 2.20m bgl, base at 2.90m bgl.

Method, Plant, Stability, Dimensions

0.00 - 1.20m IP Hand Tools
1.20 - 5.45m DS Dart 239

Logger

JA
JA

Checked By: LM

APPENDIX 5

SOIL INFILTRATION TESTING RESULTS

**DETERMINATION OF SOIL INFILTRATION RATE (f)**

15 Oxford Court
Manchester
M2 3WQ

Site Name: Huyton Cricket Club
Job Number: 4334
Date: 10.09.2025
Exploratory Hole: TP15 - SA01

Tel: 0161 914 9171
Email: contact@igeconsulting.co.uk
Web: www.igeconsulting.co.uk

Effective depth (m)	100% Full	75% Full	50% Full	25% Full
0.95	1.05	1.29	1.53	1.76

Time (mins)	Depth (m bgl)
0	1.05
1	1.06
2	1.07
3	1.07
4	1.07
5	1.08
6	1.08
7	1.08
8	1.08
9	1.08
10	1.08
72	1.08
135	1.08
200	1.08
260	1.09
310	1.09
3367	1.29
11750	1.76

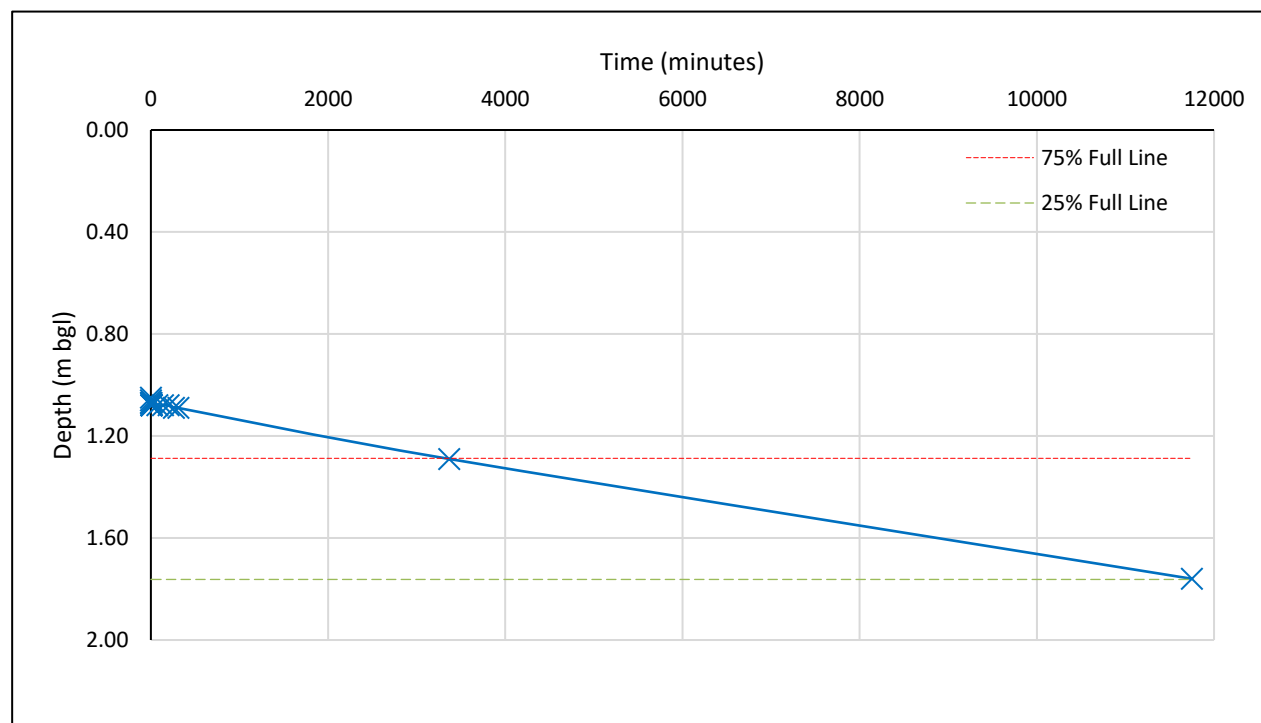
Pit dimensions (m):	
Length:	1.80
Width:	0.60
Depth:	2.00

Gravel used?	No
Void ratio of gravel fill =	1

Vp75-25 (m ³) =	0.51
ap50 (m ²) =	3.36
tp75-25 (secs) =	484980
f (m/s) =	3.15E-07

Calculations carried out in accordance with
BRE 365

100 - calculated using extrapolation



IGE Consulting Ltd
Registered in England No 10780128



**DETERMINATION OF SOIL INFILTRATION RATE (f)**

15 Oxford Court
Manchester
M2 3WQ

Site Name: Huyton Cricket Club
Job Number: 4334
Date: 10.09.2025
Exploratory Hole: TP16 - SA02

Tel: 0161 914 9171
Email: contact@igeconsulting.co.uk
Web: www.igeconsulting.co.uk

Effective depth (m)	100% Full	75% Full	50% Full	25% Full
1.00	1.50	1.75	2.00	2.25

Time (mins)	Depth (m bgl)
0	1.50
1	1.51
2	1.51
3	1.51
4	1.51
5	1.51
6	1.52
7	1.52
8	1.52
9	1.52
10	1.52
105	1.53
169	1.55
253	1.57
303	1.57
1190	1.75
3570	2.25

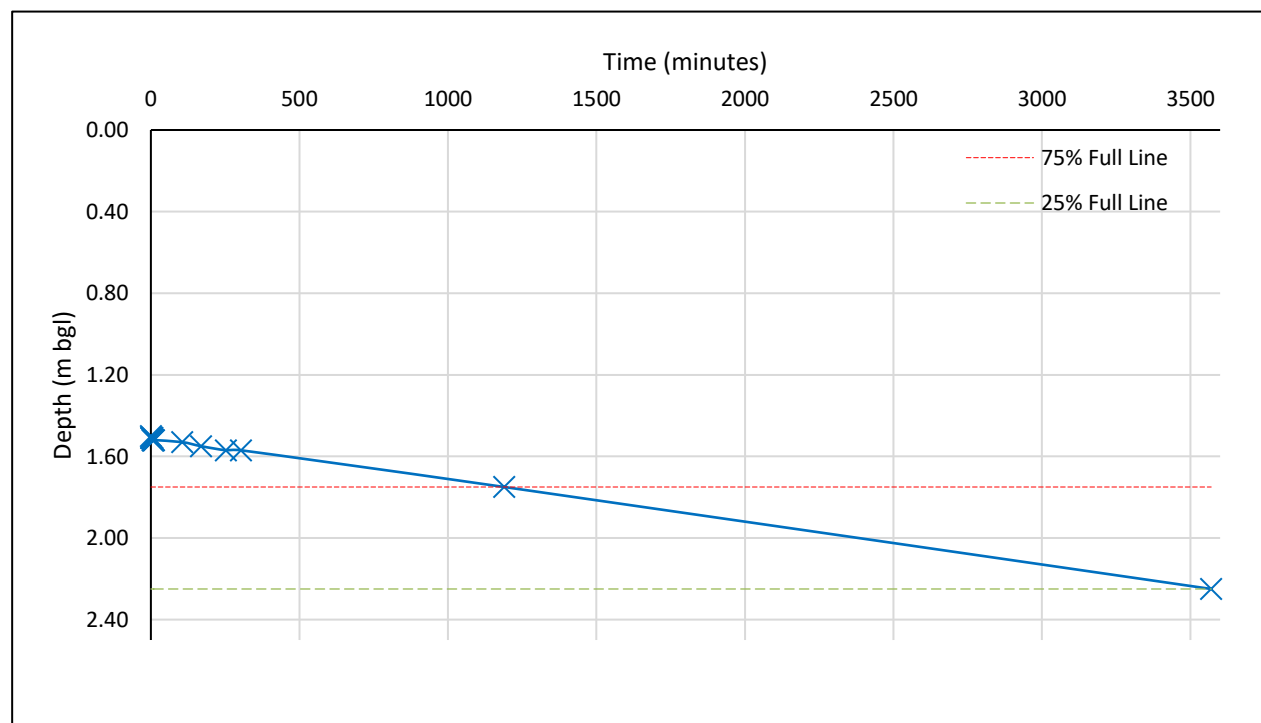
Pit dimensions (m):	
Length:	1.70
Width:	0.60
Depth:	2.50

Gravel used?	No
Void ratio of gravel fill =	1

Vp75-25 (m ³) =	0.51
ap50 (m ²) =	3.32
tp75-25 (secs) =	484980
f (m/s) =	3.17E-07

Calculations carried out in accordance with
BRE 365

100 - calculated using extrapolation



IGE Consulting Ltd
Registered in England No 10780128



**DETERMINATION OF SOIL INFILTRATION RATE (f)**

15 Oxford Court
Manchester
M2 3WQ

Site Name: Huyton Cricket Club
Job Number: 4334
Date: 10.09.2025
Exploratory Hole: TP17 - SA03

Tel: 0161 914 9171
Email: contact@igeconsulting.co.uk
Web: www.igeconsulting.co.uk

Effective depth (m)	100% Full	75% Full	50% Full	25% Full
0.88	1.12	1.34	1.56	1.78

Time (mins)	Depth (m bgl)
0	1.12
1	1.12
2	1.12
3	1.12
4	1.12
5	1.12
6	1.12
7	1.12
8	1.12
9	1.12
10	1.12
72	1.12
135	1.13
205	1.13
255	1.14
3250	1.34
9650	1.78

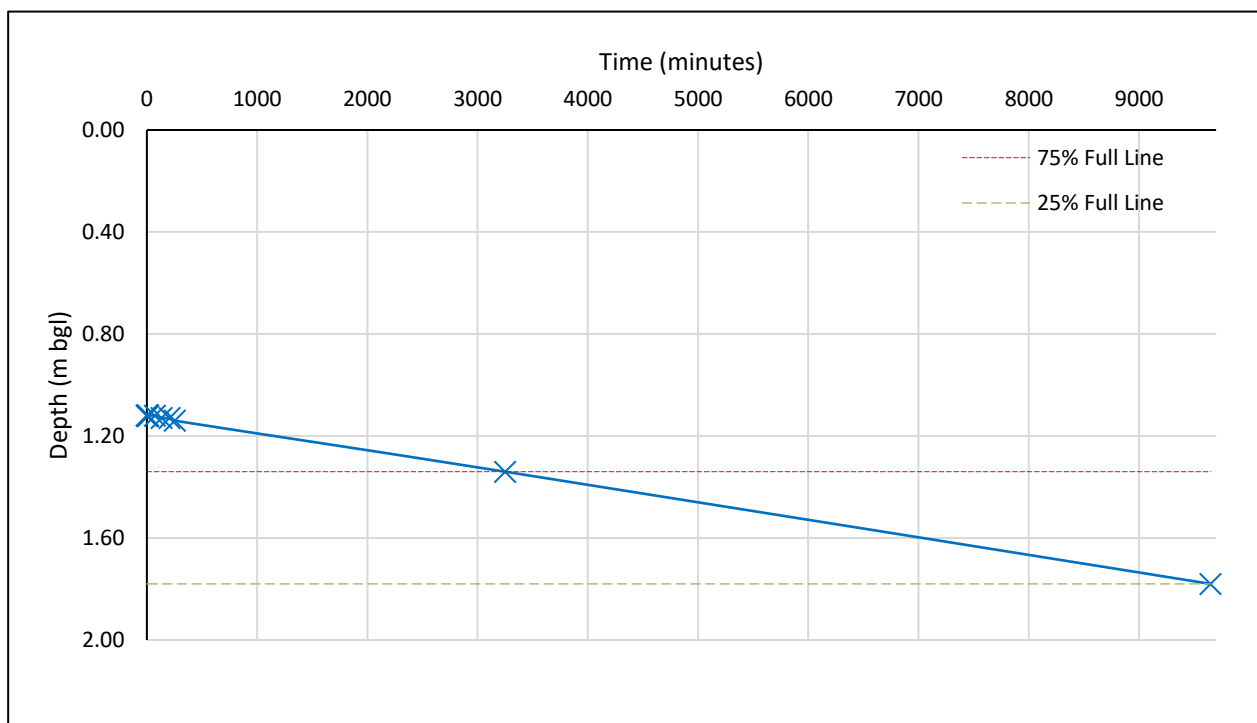
Pit dimensions (m):	
Length:	1.80
Width:	0.60
Depth:	2.00

Gravel used?	No
Void ratio of gravel fill =	1

Vp75-25 (m ³) =	0.48
ap50 (m ²) =	3.192
tp75-25 (secs) =	384000
f (m/s) =	3.88E-07

Calculations carried out in accordance with
BRE 365

100 - calculated using extrapolation



IGE Consulting Ltd
Registered in England No 10780128



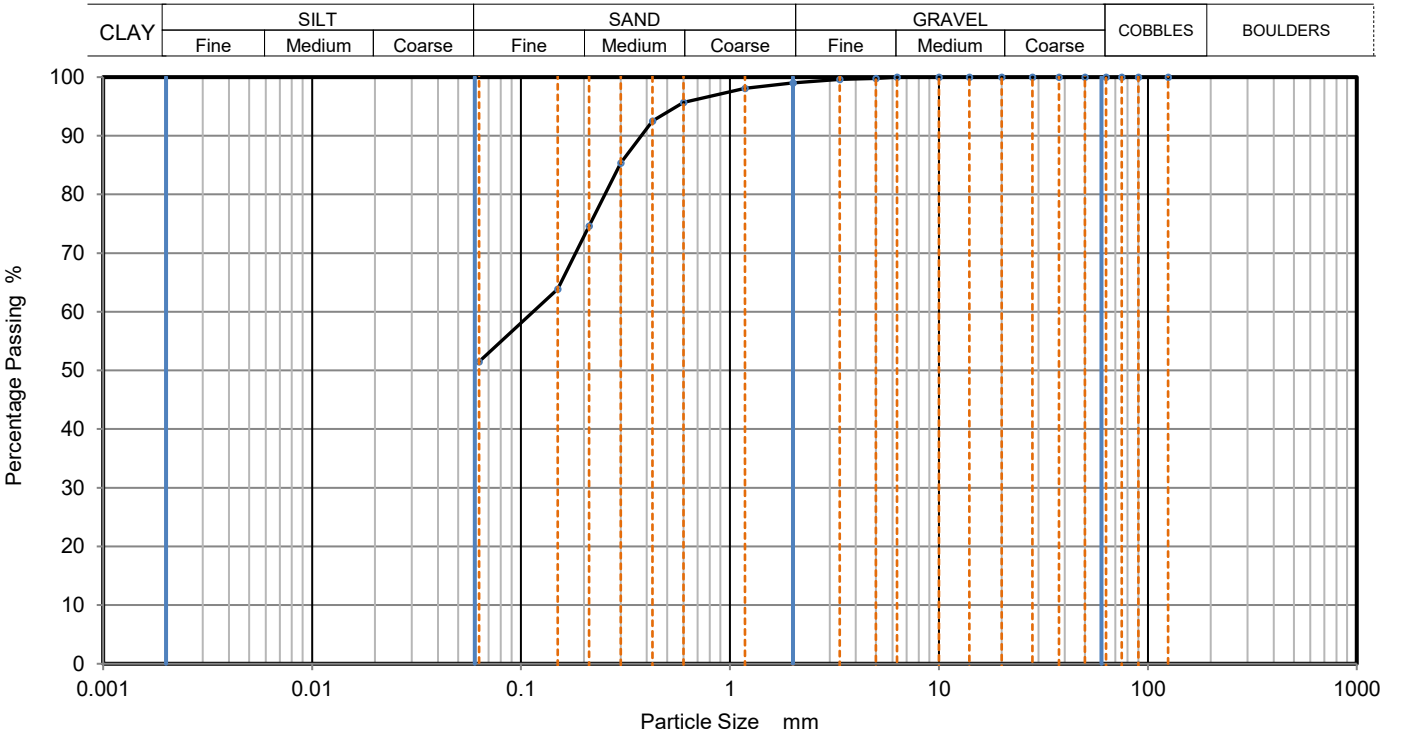
APPENDIX 6

GEOTECHNICAL LABORATORY TEST RESULTS

Project Name	Huyton Cricket Club
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Key			Test Standards:		
Density tests:	Atterberg:		Bulk Density Tests - BS EN ISO 17892-2:2014		
Linear measurement unless :	4pt cone unless :	Particle density:	Water Content - BS EN ISO 17892-1:2014+A1:2022		
wd - water displacement	cas - Casagrande method	sp - fluid pycnometer	Liquid & Plastic Limits - BS EN ISO 17892-12:2018+A2:2022		
wi - immersion in water	1pt - single point test		Particle Density - BS EN ISO 17892-3:2015		
w - water content	CF - Correlation Factor		Date Printed:		
	Liquid limit test: i - increasing moisture content, d - decreasing moisture content		02/10/2025		ISO INDX
	Atterberg sample prep: n - Natural, HP - Hand Picked, w - Washed				

GFQ-008-77 Issue 02 - Nov 23	Determination of Particle Size Distribution (ISO 17892-4:2016)			Job Ref	J325386
				Borehole/Pit No.	DS13
Project Name	Huyton Cricket Club			Sample No.	
Soil Description	Brown slightly gravelly sandy CLAY			Depth, m	3.50
Specimen Reference		Specimen Depth	m	Sample Type	D
Test Method	ISO 17892 -4, by sieving on pre-dried or dry sample			KeyLAB ID	TTLP2025100132



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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	98		
0.6	96		
0.425	93		
0.3	85		
0.212	75		
0.15	64		
0.063	52		

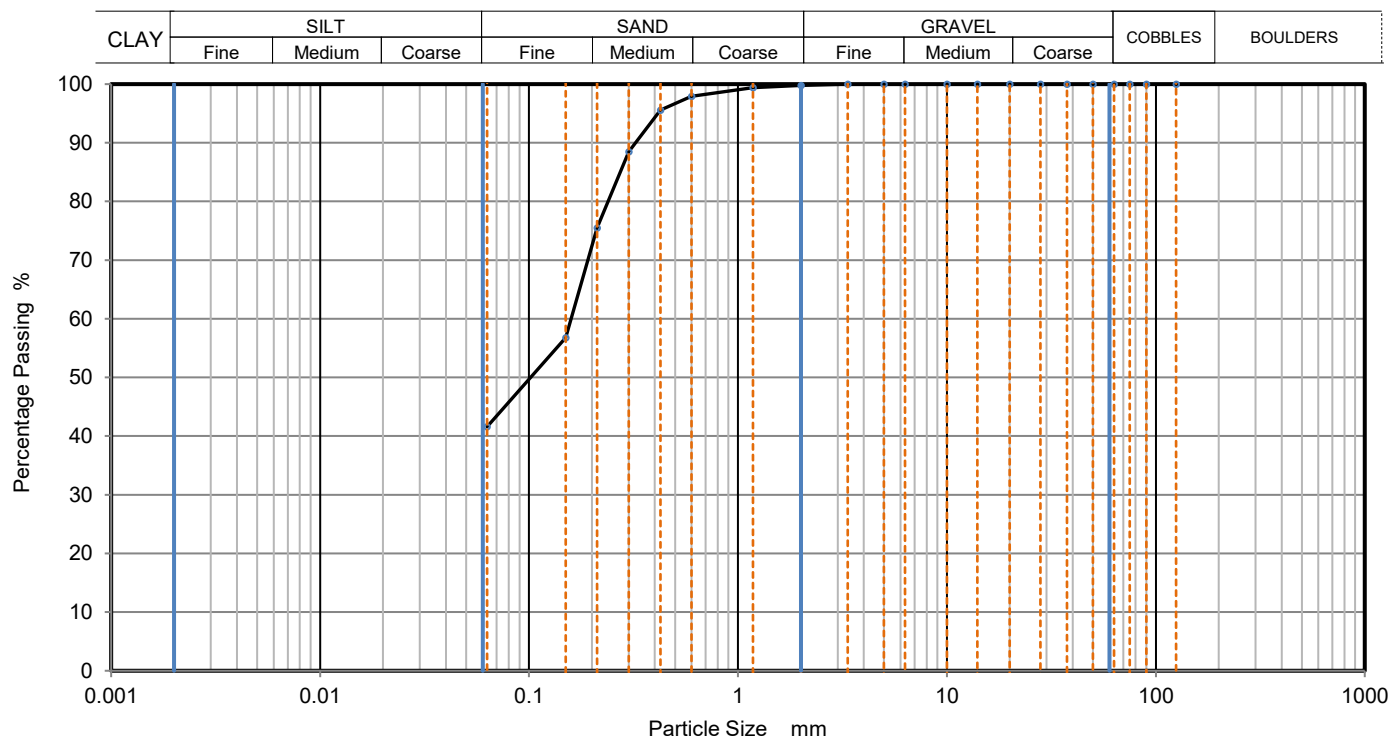
Dry Mass of sample, g 932

Sample Proportions	% dry mass
Very coarse	0
Gravel	1
Sand	47
Fines <0.063mm	52

Grading Analysis	
D100	mm 6.3
D60	mm 0.114
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	
Pretreatment Method (If Applicable)	

Remarks
Preparation and testing performed to BS EN ISO 17892-4 unless noted below

GFQ-008-77 Issue 02 - Nov 23	Determination of Particle Size Distribution (ISO 17892-4:2016)			Job Ref	J325386
				Borehole/Pit No.	TP21
Project Name	Huyton Cricket Club			Sample No.	
Soil Description	Brown sandy CLAY			Depth, m	2.70
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	ISO 17892 -4, by sieving on pre-dried or dry sample			KeyLAB ID	TTLP2025100128



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
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	99		
0.6	98		
0.425	96		
0.3	89		
0.212	76		
0.15	57		
0.063	42		

Dry Mass of sample, g

839

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	58
Fines <0.063mm	42

Grading Analysis		
D100	mm	3.35
D60	mm	0.159
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		
Pretreatment Method (If Applicable)		

Remarks

Preparation and testing performed to BS EN ISO 17892-4 unless noted below

Date Printed:

02/10/2025



ISO PSD

APPENDIX 7

CHEMICAL LABORATORY TEST RESULTS

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e: info-i2analytical@normecgroup.com

Analytical Report Number : 25-049094

Project / Site name:	Huyton Cricket Club	Samples received on:	11/09/2025
Your job number:	4334	Samples instructed on/ Analysis started on:	12/09/2025
Your order number:	4455 JA	Analysis completed by:	19/09/2025
Report Issue Number:	1	Report issued on:	20/09/2025
Samples Analysed:	24 soil samples		



Signed:

Rachel Chappell
Key Account Manager
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.

Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679456	679457	679458	679459	679460
Sample Reference	TP01	TP02	TP02	TP03	TP04
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)	0.20	0.30	1.50	0.40	0.60
Date Sampled	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025
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	14.4	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	5.8	7.2	18	6.6	9.5
Total mass of sample received	kg	0.1	NONE	0.7	0.7	0.7	0.7	0.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SPU	SPU	-	SPU	SPU
Analysis completed	N/A	N/A	N/A	18/09/2025	18/09/2025	-	18/09/2025	18/09/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.5	6.2	7.1	8	6.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.041	-	0.074	-	0.044
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	21	14	230	16	17
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	10.3	6.77	116	7.77	8.37
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	2.7	-	1.2	-	1.2
Total Sulphur	mg/kg	50	MCERTS	140	-	580	-	270
Total Sulphur	%	0.005	MCERTS	0.014	-	0.058	-	0.027
Ammoniacal Nitrogen as NH ₄ ⁺	mg/kg	0.5	MCERTS	< 0.5	-	< 0.5	-	< 0.5
Ammonium as NH ₄ ⁺ (10:1 leachate equivalent)	mg/l	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Organic Matter (automated)	%	0.1	MCERTS	1.3	2.2	2.8	2.9	2.2
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.8	1.3	1.6	1.7	1.3
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	2.8
Water Soluble Nitrate (2:1) as NO ₃ (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.06	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.09	0.11	< 0.05	0.1	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.09	0.13	< 0.05	0.1	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.06	0.09	< 0.05	0.08	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.08	0.1	< 0.05	0.09	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.09	0.1	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679456	679457	679458	679459	679460
Sample Reference	TP01	TP02	TP02	TP03	TP04
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)	0.20	0.30	1.50	0.40	0.60
Date Sampled	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.7	13	8.7	12	9.9
Barium (aqua regia extractable)	mg/kg	1	MCERTS	82	70	110	90	94
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.8	0.7	1	0.97	0.67
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.5	0.9	0.6	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	0.3	< 0.2	0.3	0.4
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	19	34	24	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	33	48	23	39	32
Lead (aqua regia extractable)	mg/kg	1	MCERTS	95	68	33	220	32
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	25	16	31	23	19
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31	24	38	32	28
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	50	55	48	62	57
Magnesium (leachate equivalent)	mg/l	2.5	NONE	4.2	-	8	-	< 2.5
Magnesium (water soluble)	mg/kg	5	NONE	8.3	-	16	-	< 5.0

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_ID_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 HS_ID_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 HS_ID_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_ID_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_ID_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_ID_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_ID_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_ID_AL	mg/kg	8.4	NONE	< 8.4	< 8.4	-	< 8.4	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_ID_AL	mg/kg	10	NONE	< 10	< 10	-	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_ID_AL	mg/kg	10	NONE	< 10	< 10	-	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 HS_ID_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_ID_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_ID_AR	mg/kg	0.02	MCERTS	< 0.020	< 0.020	-	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 EH_CU_ID_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_ID_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_ID_AR	mg/kg	10	MCERTS	< 10	< 10	-	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_ID_AR	mg/kg	10	MCERTS	< 10	< 10	-	< 10	< 10
TPHCWG - Aromatic >EC35 - EC44 EH_CU_ID_AR	mg/kg	8.4	NONE	< 8.4	< 8.4	-	< 8.4	< 8.4
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_ID_AR	mg/kg	10	NONE	< 10	< 10	-	< 10	< 10
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_ID_AR	mg/kg	10	NONE	< 10	< 10	-	< 10	< 10

TPH Total >EC6 - EC40 EH_CU+HS_ID_TOTAL	mg/kg	10	NONE	-	-	< 10	-	-
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Petroleum Range Organics (EC6 - EC10) HS_ID_TOTAL	mg/kg	1	ISO 17025	-	-	< 1.0	-	-
TPH (EC10 - EC40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	-	-	< 10	-	-

Analytical Report Number: 25-049094
 Project / Site name: Huyton Cricket Club
 Your Order No: 4455 JA

Lab Sample Number	679456	679457	679458	679459	679460
Sample Reference	TP01	TP02	TP02	TP03	TP04
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)	0.20	0.30	1.50	0.40	0.60
Date Sampled	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0

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

Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679461	679462	679463	679464	679465
Sample Reference	TP05	TP06	TP07	TP07	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	0.05	0.20	0.70	0.40
Date Sampled	08/09/2025	08/09/2025	09/09/2025	09/09/2025	09/09/2025
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	12	8.7	8.2	7.7	10
Total mass of sample received	kg	0.1	NONE	0.1	0.7	0.5	0.5	0.7

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	-
Asbestos Analyst ID	N/A	N/A	N/A	-	SPU	SPU	-	-
Analysis completed	N/A	N/A	N/A	-	18/09/2025	18/09/2025	-	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.1	6.1	6.4	6	7.2
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	-	-	-	0.064	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	12	22	32	16	16
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	5.75	10.8	15.7	7.89	7.86
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	-	1.8	-
Total Sulphur	mg/kg	50	MCERTS	-	-	-	310	-
Total Sulphur	%	0.005	MCERTS	-	-	-	0.031	-
Ammoniacal Nitrogen as NH ₄ ⁺	mg/kg	0.5	MCERTS	-	-	-	< 0.5	-
Ammonium as NH ₄ ⁺ (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-	-	< 0.05	-
Organic Matter (automated)	%	0.1	MCERTS	0.5	4.3	0.7	-	0.4
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.3	2.5	0.4	-	0.2
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	2	NONE	< 2.0	8.7	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO ₃ (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.06	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.16	< 0.05	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.16	< 0.05	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.09	< 0.05	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.1	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	-	< 0.80
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Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679461	679462	679463	679464	679465
Sample Reference	TP05	TP06	TP07	TP07	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	0.05	0.20	0.70	0.40
Date Sampled	08/09/2025	08/09/2025	09/09/2025	09/09/2025	09/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.1	13	6.9	-	8.5
Barium (aqua regia extractable)	mg/kg	1	MCERTS	96	110	120	-	100
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.82	0.65	0.91	-	0.76
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.5	0.4	-	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.6	< 0.2	-	< 0.2
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	< 1.2	< 1.2	-	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	25	41	-	34
Copper (aqua regia extractable)	mg/kg	1	MCERTS	21	43	20	-	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	8.2	54	11	-	7.5
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	30	17	35	-	30
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	35	30	42	-	33
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	43	61	40	-	40
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	-	< 2.5	-
Magnesium (water soluble)	mg/kg	5	NONE	-	-	-	< 5.0	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-	-
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-	-
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-	-
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-	-
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-	-
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-	-
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	-	< 8.4	< 8.4	-	-
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	< 10	< 10	-	-
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	< 10	< 10	-	-
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-	-
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-	-
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	-	< 0.020	< 0.020	-	-
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-	-
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	-	< 10	< 10	-	-
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	-	< 10	< 10	-	-
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	-	< 8.4	< 8.4	-	-
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	< 10	< 10	-	-
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	< 10	< 10	-	-
TPH Total >EC6 - EC40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	< 10	-	-	-	< 10
Petroleum Range Organics (EC6 - EC10) HS_1D_TOTAL	mg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
TPH (EC10 - EC40) EH_CU_1D_TOTAL	mg/kg	10	MCERTS	< 10	-	-	-	< 10

Analytical Report Number: 25-049094
 Project / Site name: Huyton Cricket Club
 Your Order No: 4455 JA

Lab Sample Number	679461	679462	679463	679464	679465
Sample Reference	TP05	TP06	TP07	TP07	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	0.05	0.20	0.70	0.40
Date Sampled	08/09/2025	08/09/2025	09/09/2025	09/09/2025	09/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
Benzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
Toluene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-
p & m-Xylene	µg/kg	8	MCERTS	-	< 8.0	< 8.0	-	-
o-Xylene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-	-

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

Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679466	679467	679468	679469	679470
Sample Reference	TP09	TP10	TP11	TP12	TP13
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)	0.40	0.45	0.80	1.00	0.10
Date Sampled	09/09/2025	09/09/2025	09/09/2025	09/09/2025	09/09/2025
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	15.6	6.4	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	9.9	7.5	12	13	7.9
Total mass of sample received	kg	0.1	NONE	0.7	0.7	0.7	0.7	0.5

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	-	-	-	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SPU	-	-	-	SPU
Analysis completed	N/A	N/A	N/A	18/09/2025	-	-	-	18/09/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	6.3	6.3	7.7	7.5	6.2
Total Cyanide	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	-	0.042	-	0.027	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	20	48	27	15	17
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	10	23.9	13.5	7.45	8.44
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	2.7	-	1.8	-
Total Sulphur	mg/kg	50	MCERTS	-	240	-	150	-
Total Sulphur	%	0.005	MCERTS	-	0.024	-	0.015	-
Ammoniacal Nitrogen as NH ₄ ⁺	mg/kg	0.5	MCERTS	-	< 0.5	-	< 0.5	-
Ammonium as NH ₄ ⁺ (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Organic Matter (automated)	%	0.1	MCERTS	4.5	-	0.7	-	2.5
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.6	-	0.4	-	1.5
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	2	NONE	2.8	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO ₃ (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.08	-	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.22	-	< 0.05	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.22	-	< 0.05	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.11	-	< 0.05	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.13	-	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.19	-	< 0.05	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.07	-	< 0.05	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.13	-	< 0.05	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.08	-	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.09	-	< 0.05	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	1.32	-	< 0.80	-	< 0.80
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Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679466	679467	679468	679469	679470
Sample Reference	TP09	TP10	TP11	TP12	TP13
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)	0.40	0.45	0.80	1.00	0.10
Date Sampled	09/09/2025	09/09/2025	09/09/2025	09/09/2025	09/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	-	8	-	9.4
Barium (aqua regia extractable)	mg/kg	1	MCERTS	120	-	99	-	110
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.78	-	0.87	-	1.1
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	-	0.4	-	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	-	< 0.2	-	0.3
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	-	< 1.2	-	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	-	41	-	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	45	-	22	-	37
Lead (aqua regia extractable)	mg/kg	1	MCERTS	67	-	30	-	89
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	3.5
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	-	28	-	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	33	-	43	-	32
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	75	-	41	-	84
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	3.2	-	2.7	-
Magnesium (water soluble)	mg/kg	5	NONE	-	6.5	-	5.3	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	-	-	-	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	-	-	-	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	-	-	-	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	-	-	-	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	-	-	-	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	-	-	-	< 8.0
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	< 8.4	-	-	-	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	-	-	-	< 10
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	-	-	-	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	-	-	-	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	-	-	-	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	< 0.020	-	-	-	< 0.020
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	-	-	-	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	-	-	-	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	-	-	-	< 10
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	< 8.4	-	-	-	< 8.4
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	-	-	-	< 10
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	-	-	-	< 10
TPH Total >EC6 - EC40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	-	-	< 10	-	-
Petroleum Range Organics (EC6 - EC10) HS_1D_TOTAL	mg/kg	1	ISO 17025	-	-	< 1.0	-	-
TPH (EC10 - EC40) EH_CU_1D_TOTAL	mg/kg	10	MCERTS	-	-	< 10	-	-

Analytical Report Number: 25-049094
 Project / Site name: Huyton Cricket Club
 Your Order No: 4455 JA

Lab Sample Number	679466	679467	679468	679469	679470
Sample Reference	TP09	TP10	TP11	TP12	TP13
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)	0.40	0.45	0.80	1.00	0.10
Date Sampled	09/09/2025	09/09/2025	09/09/2025	09/09/2025	09/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	-	-	-	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0

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

Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679471	679472	679473	679474	679475
Sample Reference	TP13	TP14	SA02/TP17	TP18	TP19
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)	1.50	0.55	0.55	0.60	0.70
Date Sampled	09/09/2025	09/09/2025	09/09/2025	10/09/2025	10/09/2025
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	6.3	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	11	8.9	8.6	14
Total mass of sample received	kg	0.1	NONE	0.7	0.7	0.6	0.6	0.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	-	-	-	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	-	-	-	-	SPU
Analysis completed	N/A	N/A	N/A	-	-	-	-	18/09/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.8	8.9	6.3	7.3	8
Total Cyanide	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.047	-	-	-	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	36	17	27	51	65
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	18.1	8.47	13.6	25.4	32.4
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	1.5	-	-	-	-
Total Sulphur	mg/kg	50	MCERTS	230	-	-	-	-
Total Sulphur	%	0.005	MCERTS	0.023	-	-	-	-
Ammoniacal Nitrogen as NH ₄ ⁺	mg/kg	0.5	MCERTS	< 0.5	-	-	-	-
Ammonium as NH ₄ ⁺ (10:1 leachate equivalent)	mg/l	0.05	MCERTS	< 0.05	-	-	-	-
Organic Matter (automated)	%	0.1	MCERTS	-	1	2.6	0.9	4.7
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	0.6	1.5	0.5	2.7
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO ₃ (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	0.11	< 0.05	0.22
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	0.21	< 0.05	0.06
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	0.2	< 0.05	0.06
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	0.11	< 0.05	0.06
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	0.11	< 0.05	0.09
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	< 0.80	< 0.80	< 0.80	< 0.80
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Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679471	679472	679473	679474	679475
Sample Reference	TP13	TP14	SA02/TP17	TP18	TP19
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)	1.50	0.55	0.55	0.60	0.70
Date Sampled	09/09/2025	09/09/2025	09/09/2025	10/09/2025	10/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	7.7	12	9.8	16
Barium (aqua regia extractable)	mg/kg	1	MCERTS	-	130	160	260	240
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-	0.86	1.1	0.91	0.88
Boron (water soluble)	mg/kg	0.2	MCERTS	-	0.4	0.7	0.5	1.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	0.4	0.2	< 0.2
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	-	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	37	34	48	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	20	37	19	54
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	14	69	9.4	39
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	31	29	41	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	1.5	1.3
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-	38	39	44	23
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	40	98	44	42
Magnesium (leachate equivalent)	mg/l	2.5	NONE	5.1	-	-	-	-
Magnesium (water soluble)	mg/kg	5	NONE	10	-	-	-	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	-	-	-	-	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	-	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	-	< 8.0
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	-	-	-	-	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	-	-	-	< 10
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	-	-	-	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	-	-	-	-	< 0.020
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	-	-	-	-	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	-	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	-	< 10
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	-	-	-	-	< 8.4
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	-	-	-	< 10
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	-	-	-	< 10
TPH Total >EC6 - EC40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	-	< 10	< 10	< 10	-
Petroleum Range Organics (EC6 - EC10) HS_1D_TOTAL	mg/kg	1	ISO 17025	-	< 1.0	< 1.0	< 1.0	-
TPH (EC10 - EC40) EH_CU_1D_TOTAL	mg/kg	10	MCERTS	-	< 10	< 10	< 10	-

Analytical Report Number: 25-049094
 Project / Site name: Huyton Cricket Club
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Lab Sample Number	679471	679472	679473	679474	679475
Sample Reference	TP13	TP14	SA02/TP17	TP18	TP19
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)	1.50	0.55	0.55	0.60	0.70
Date Sampled	09/09/2025	09/09/2025	09/09/2025	10/09/2025	10/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	-	-	-	-	< 5.0
Benzene	µg/kg	5	MCERTS	-	-	-	-	< 5.0
Toluene	µg/kg	5	MCERTS	-	-	-	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	-	-	-	-	< 8.0
o-Xylene	µg/kg	5	MCERTS	-	-	-	-	< 5.0

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

Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679476	679477	679478	679479
Sample Reference	TP21	DS03	DS09	DS11
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A
Depth (m)	0.75	0.30	0.20	0.80
Date Sampled	10/09/2025	08/09/2025	09/09/2025	09/09/2025
Time Taken	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	5.3	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	10	8.4	8.5	8.9
Total mass of sample received	kg	0.1	NONE	0.6	0.6	0.6	0.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	-	SPU	SPU	-
Analysis completed	N/A	N/A	N/A	-	18/09/2025	18/09/2025	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.6	8.7	8.3	7.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	-	-	-	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	41	26	36	64
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	20.4	13.1	18.2	32.2
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	-	-
Total Sulphur	mg/kg	50	MCERTS	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-
Ammoniacal Nitrogen as NH ₄ ⁺	mg/kg	0.5	MCERTS	-	-	-	-
Ammonium as NH ₄ ⁺ (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-	-	-
Organic Matter (automated)	%	0.1	MCERTS	0.4	3	3.4	0.6
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.2	1.7	2	0.3
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	2	NONE	< 2.0	4	< 2.0	< 2.0
Water Soluble Nitrate (2:1) as NO ₃ (leachate equivalent)	mg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.18	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.14	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.1	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.58	< 0.05	0.1	0.06
Anthracene	mg/kg	0.05	MCERTS	0.08	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.4	0.07	0.24	0.1
Pyrene	mg/kg	0.05	MCERTS	0.4	0.06	0.23	0.08
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.21	< 0.05	0.13	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.26	< 0.05	0.14	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.19	< 0.05	0.17	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.08	< 0.05	0.08	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.14	< 0.05	0.14	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.08	< 0.05	0.07	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.1	< 0.05	0.09	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	2.94	< 0.80	1.38	< 0.80
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Analytical Report Number: 25-049094
Project / Site name: Huyton Cricket Club
Your Order No: 4455 JA

Lab Sample Number	679476	679477	679478	679479
Sample Reference	TP21	DS03	DS09	DS11
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A
Depth (m)	0.75	0.30	0.20	0.80
Date Sampled	10/09/2025	08/09/2025	09/09/2025	09/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8	9.8	9.8	5.5
Barium (aqua regia extractable)	mg/kg	1	MCERTS	100	97	110	80
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.83	0.85	0.64	0.6
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.7	0.6	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.4	0.6	< 0.2
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	24	24	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	21	37	45	16
Lead (aqua regia extractable)	mg/kg	1	MCERTS	9.4	83	44	13
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31	21	17	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	36	31	30	27
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	41	62	60	27
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	-	-
Magnesium (water soluble)	mg/kg	5	NONE	-	-	-	-

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	-	< 8.4	< 8.4	-
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	< 10	< 10	-
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	< 10	< 10	-
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	-	< 0.010	< 0.010	-
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	-	< 0.020	< 0.020	-
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	-	< 10	< 10	-
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	-	< 10	< 10	-
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	-	< 8.4	< 8.4	-
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	< 10	< 10	-
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	< 10	< 10	-
TPH Total >EC6 - EC40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	< 10	-	-	< 10
Petroleum Range Organics (EC6 - EC10) HS_1D_TOTAL	mg/kg	1	ISO 17025	< 1.0	-	-	< 1.0
TPH (EC10 - EC40) EH_CU_1D_TOTAL	mg/kg	10	MCERTS	< 10	-	-	< 10

Analytical Report Number: 25-049094
 Project / Site name: Huyton Cricket Club
 Your Order No: 4455 JA

Lab Sample Number	679476	679477	679478	679479
Sample Reference	TP21	DS03	DS09	DS11
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A
Depth (m)	0.75	0.30	0.20	0.80
Date Sampled	10/09/2025	08/09/2025	09/09/2025	09/09/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-
Benzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-
Toluene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-
Ethylbenzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-
p & m-Xylene	µg/kg	8	MCERTS	-	< 8.0	< 8.0	-
o-Xylene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	-

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

Analytical Report Number : 25-049094
Project / Site name: Huyton Cricket Club

* 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 *
679456	TP01	None Supplied	0.2	Brown loam and sand with stones
679457	TP02	None Supplied	0.3	Brown clay and sand with gravel and vegetation
679458	TP02	None Supplied	1.5	Brown loam and clay with gravel
679459	TP03	None Supplied	0.4	Brown clay and sand with gravel and vegetation
679460	TP04	None Supplied	0.6	Brown clay and sand with gravel and vegetation
679461	TP05	None Supplied	1	Brown clay
679462	TP06	None Supplied	0.05	Brown loam and sand with gravel and vegetation
679463	TP07	None Supplied	0.2	Brown clay and sand with gravel
679464	TP07	None Supplied	0.7	Brown loam and sand with gravel and vegetation
679465	TP08	None Supplied	0.4	Brown clay and sand with gravel and vegetation
679466	TP09	None Supplied	0.4	Brown loam and sand with gravel and vegetation
679467	TP10	None Supplied	0.45	Brown clay and sand with vegetation and stones
679468	TP11	None Supplied	0.8	Brown clay and sand with stones
679469	TP12	None Supplied	1	Brown clay and sand with gravel
679470	TP13	None Supplied	0.1	Brown clay and sand with gravel and vegetation
679471	TP13	None Supplied	1.5	Brown clay and sand with gravel
679472	TP14	None Supplied	0.55	Brown clay and sand with gravel and vegetation
679473	SA02/TP17	None Supplied	0.55	Brown clay and sand with vegetation and stones
679474	TP18	None Supplied	0.6	Brown clay and sand with gravel and vegetation
679475	TP19	None Supplied	0.7	Brown loam and clay with gravel and vegetation
679476	TP21	None Supplied	0.75	Brown clay and sand with stones
679477	DS03	None Supplied	0.3	Brown loam and sand with gravel and vegetation
679478	DS09	None Supplied	0.2	Brown loam and sand with gravel and vegetation
679479	DS11	None Supplied	0.8	Brown clay and sand with gravel

Analytical Report Number : 25-049094
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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
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
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
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES	In-house method based on TRL 447	L038B	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
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE

Analytical Report Number : 25-049094
Project / Site name: Huyton Cricket Club

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
Water Soluble Nitrate (leachate equivalent)	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	W	NONE
Nitrate, water soluble, in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewater & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	W	NONE
Hexavalent chromium in soil (low level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	NONE
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser	In-house method	L082B	D	MCERTS
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	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
Total petroleum hydrocarbons by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE

Analytical Report Number : 25-049094
Project / Site name: Huyton Cricket Club

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
Total petroleum hydrocarbons by HS-GC-MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC-MS	In-house method	L129-PL	W	ISO 17025

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

Analytical Report Number : 25-049094

Project / Site name: Huyton Cricket Club

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container/Insufficient material provided c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP07	N/A	S	679463	b	Asbestos identification in Soil	A001B	b
TP09	N/A	S	679466	b	Asbestos identification in Soil	A001B	b

APPENDIX 8

CHEMICAL LABORATORY SCREENING TABLES

IGE

Consulting Ltd

Project: Huyton Cricket Club

Job No: 4334

Lab Sample Number		679462	679470	679456	679463	679478	679457	679477	679459	679468	679460	679475	679465	679472	679473	679474	679476	679479	679468	679461	679458	Statistical Analysis					GAC - S4UL unless stated			CASL												
Sample Reference		TP06	TP13	TP01	TP07	D509	TP02	D503	TP03	TP09	TP04	TP19	TP08	TP14	SAG2/TP17	TP16	TP21	DS11	TP11	TP05	TP02						Statistical Results			Statistical Results												
Stratum		Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Made Ground	Glacial Till	Glacial Till	Glacial Till	Glacial Till	Glacial Till	Glacial Till	Glacial Till	Glacial Till	Glacial Till	Count	Standard Deviation	Minimum	Maximum	Mean	Maximum	1% Residential with Home Grown Produce	Pass/ Fail	Exceedances	1% Residential with Home Grown Produce	Pass/ Fail	Exceedances								
Depth (m)		0.05	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.6	0.7	0.4	0.55	0.6	0.75	0.8	0.8	1	1.5																						
Date Sampled		08/09/2025	09/09/2025	08/09/2025	09/09/2025	09/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	09/09/2025	08/09/2025	10/09/2025	09/09/2025	09/09/2025	09/09/2025	10/09/2025	10/09/2025	09/09/2025	09/09/2025	08/09/2025	08/09/2025																				
Analytical Parameter (Soil Analysis)																																										
		Units	LoD																																							
Stone Content		%	0.1	< 0.1	< 0.1	14.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	8.3	< 0.1	5.3	< 0.1	6.4	< 0.1	< 0.1	20	4.23	5.3	14.4	8.1	14.4													
Moisture Content		%	0.01	8.7	7.9	5.8	8.2	8.5	7.2	8.4	6.6	9.9	9.5	14	10	11	8.9	8.6	10	8.9	12	12	18	20	2.74	5.80	18.00	9.71	18.00													
Total mass of sample received		kg	0.001	0.7	0.5	0.7	0.5	0.6	0.7	0.6	0.7	0.9	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.7	0.1	0.7	20	0.14	0.100	0.700	0.870	0.700														
Asbestos																																										
Asbestos in Soil Screen		Type	N/A	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	-	-	-	-	-	-	-	11	-	-	-	-	-														
General Inorganics																																										
pH - Automated		pH Units	N/A	6.1	6.2	7.5	6.4	8.3	6.2	8.7	8	6.3	6.3	8	7.2	8.9	6.3	7.3	7.6	7.4	7.7	7.1	7.1	20	0.87	6.10	8.90	7.23														
Total Cyanide		mg/kg	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	0.00	1.00	1.00	1.00	1.00	1.00	60	Pass	0										
Free Cyanide		mg/kg	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	0.00	1.00	1.00	1.00	1.00	1.00	60	Pass	0										
Water Soluble Sulfate as SO4 16hr extraction (2:1)		mg/kg	2.50	22	17	21	32	36	14	26	16	20	17	65	16	17	85	17	27	51	41	12	230	20	47.73	12.00	230.00	38.55														
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)		mg/l	1.25	10.8	8.44	10.3	15.7	18.2	6.77	13.1	7.77	10.3	8.37	32.4	7.86	8.47	42.4	8.37	13.5	25.4	20.4	32.2	116	20	24.11	5.75	116.00	19.25														
Organic Matter (automated)		%	0.10	4.30	2.50	1.30	0.70	3.40	2.20	3.00	2.80	4.50	2.20	4.70	0.40	1.00	2.60	0.90	0.60	0.70	0.50	2.80	20	1.44	0.40	4.70	2.88															
Total Organic Carbon (automated)		%	0.100	2.500	1.500	0.800	0.400	2.000	1.300	1.700	1.300	2.000	1.300	2.700	0.200	0.600	1.500	0.500	0.200	0.300	0.400	0.300	1.600	20	0.84	0.20	2.70	1.21														
Water Soluble Nitrate (Z 1) as NO3		mg/kg	2	8.7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	20	1.54	2.00	8.70	2.52															
Water Soluble Nitrate (Z 1) as NO3 (leachate equivalent)		mg/l	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	20	0.00	5.00	5.00	5.00															
Speciated PAHs																																										
Naphthalene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.18	0.05	0.05	0.05	0.05	0.05	20	0.03	0.05	0.18	0.06	0.18	2.30	Pass	0	15.00	Pass	0								
Acenaphthylene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	20	0.00	0.05	0.05	0.05	0.05	170	Pass	0											
Acenaphthene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.14	0.05	0.05	0.05	0.05	0.05	20	0.02	0.05	0.14	0.05	0.14	210	Pass	0											
Fluorene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.10	0.05	0.05	0.05	0.05	0.05	20	0.01	0.05	0.10	0.05	0.10	170	Pass	0											
Phenanthrene		mg/kg	0.05	0.05	0.05	0.05	0.10	0.06	0.05	0.05	0.08	0.05	0.22	0.05	0.05	0.11	0.05	0.58	0.06	0.05	0.05	0.05	20	0.12	0.05	0.58	0.09	0.58	95	Pass	0											
Anthracene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	20	0.01	0.05	0.08	0.05	0.08	2400	Pass	0											
Fluoranthene		mg/kg	0.05	0.16	0.05	0.09	0.05	0.24	0.11	0.05	0.07	0.10	0.22	0.05	0.05	0.05	0.21	0.05	0.40	0.10	0.05	0.05	0.05	20	0.09	0.05	0.40	0.11	0.40	289	Pass	0										
Pyrene		mg/kg	0.05	0.16	0.05	0.09	0.05	0.23	0.13	0.05	0.10	0.22	0.05	0.05	0.05	0.05	0.20	0.05	0.40	0.08	0.05	0.05	20	0.09	0.05	0.40	0.11	0.40	820	Pass	0											
Benzofluoranthene		mg/kg	0.05	0.09	0.05	0.05	0.13	0.09	0.11	0.05	0.05	0.11	0.05	0.11	0.05	0.21	0.05	0.21	0.05	0.05	0.05	0.05	20	0.04	0.05	0.21	0.07	0.21	7.20	Pass	0											
Chrysene		mg/kg	0.05	0.10	0.05	0.08	0.05	0.14	0.10	0.10	0.05	0.09	0.13	0.05	0.09	0.05	0.11	0.05	0.26	0.05	0.05	0.05	20	0.05	0.05	0.26	0.08	0.26	18	Pass	0											
Benzokluoranthene		mg/kg	0.05	0.05	0.05	0.05	0.17	0.10	0.05	0.05	0.10	0.05	0.05	0.05	0.05	0.05	0.05	0.10	0.05	0.05	0.05	0.05	20	0.05	0.05	0.10	0.07	0.10	2.60	Pass	0											
Benzofluoranthene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	20	0.01	0.05	0.08	0.05	0.08	77	Pass	0											
Benzolopyrene		mg/kg	0.05	0.05	0.05	0.05	0.14	0.08	0.05	0.05	0.13	0.05	0.05	0.05	0.05	0.05	0.05	0.14	0.05	0.05	0.05	0.05	20	0.03	0.05	0.14	0.06	0.14	2.30	Pass	0	5.00	Pass	0								
Indeno(1,2,3-cd)pyrene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	20	0.01	0.05	0.08	0.05	0.08	27	Pass	0											
Dibenz(a,h)anthracene		mg/kg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	20	0.00	0.05	0.05	0.05	0.05	0.24	Pass	0											
Benzofluoranthene		mg/kg	0.05	0.05	0.05	0.05	0.09	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	20	0.02	0.05	0.10	0.06	0.10	320	Pass	0											
Total PAH		mg/kg	0.8	0.6	0.6	0.8	0.8	1.38	0.6	0.8	0.8	0.8	1.32	0.8	0.8	0.8	0.8	2.94	0.6	0.6	0.6	0.6	20	0.50	0.80	2.94	0.96															
Speciated Total EPA-16 PAHs		mg/kg	0.8	0.6	0.6	0.8	0.8	1.38	0.6	0.8	0.8	0.8	1.32	0.8	0.8	0.8	0.8	2.94	0.6	0.6	0.6	0.6	20	0.50	0.80	2.94	0.96															
Heavy Metals / Metalloids																																										
Arsenic (aqueous extractable)		mg/kg	1	13	9.4	8.7	6.9	9.8	13	9.8	12	11	9.9	16	8.5	7.7	12	9.8	8	5.5	8	8.1	8.7	20	2.46	5.50	16.00	9.79	16.00	37	Pass	0										
Barium (aqueous extractable)		mg/kg	1	110	110	82	120	110	70	97	90	120	84	240																												



APPENDIX 9

GROUND GAS AND GROUNDWATER MONITORING RESULTS



Gas & Groundwater Monitoring

Site: **Huyton Cricket Club**

Job No.: **4334**



Exploratory Hole	Date	Time	Engineer	Response zone range	Water level	Base level	Atm. pressure	Pressure Trend	Flow		CH ₄		LEL		Hex		CO ₂		O ₂			H ₂ S	CO	Remarks
									(l/hr)		(%)		(%)		(%)		(%)		(%)					
				(m bgl)	(m bgl)	(m bgl)	(mbar)	peak	steady	peak	steady	peak	steady	peak	steady	peak	steady	high	steady	low	peak	peak		
DS01	22/09/2025	15:24	LL	1.00 - 3.00	1.09	3.00	1024	Falling	-48.5	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.5	0.4	21.0	19.9	19.8	1	1	Bailed to 1.44m bgl at 16:34; Redipped at 16:39 to 1.11m bgl - Attempted to bail further but quick recharge.
	17/10/2025	15:48	LG		0.99	3.00	1022	Falling	15.7	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.5	0.4	20.4	20.1	20.0	1	1	Bailed to 1.26m bgl at 16:17; redipped to 1.21m bgl at 16:35 - Attempted to bail further but could not due to fast recharge.
	31/10/2025	09:17	AH		0.87	3.00	993	Falling	99.1	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.3	0.3	20.7	20.3	20.3	1	1	Flow monitored for 10 minutes, not steady. Bailed to 1.10m bgl at 09:28; redipped at 10:19 to 0.78m bgl - Attempted to bail further but could not due to fast recharge.
	14/11/2025	08:35	JA		0.70	2.90	1005	Falling	52.5	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.3	0.3	20.3	20.2	20.2	1	1	Bailed to 0.90m bgl at 08:46; Redipped at 09:35 to 0.78m bgl.
	01/12/2025	16:06	LG		0.48	2.92	985	Falling	28.7	0.1	0.1	0.1	0.1	0.1	0.001	0.001	1.3	1.3	19.4	18.3	18.3	1	1	Bailed to 0.99m bgl at 16:23; Redipped to 0.81m bgl at 16:43. Flow fell to 0 after 10 minutes.
	22/12/2025	12:09	AH		0.60	2.88	1006	Falling	23.6	0.3	0.1	0.1	0.1	0.1	0.001	0.001	1.1	1.1	19.8	18.1	18.1	1	1	Flow measured for 10 minutes. Steady at 0.3 after 7 mins.
DS04	22/09/2025	15:39	LL	3.00 - 5.00	1.49	4.87	1025	Falling	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.001	1.3	1.3	20.8	18.7	18.7	1	1	Bailed to 3.46m bgl at 15:52; Redipped at 16:42 to 2.05m bgl.
	17/10/2025	15:34	LG		1.30	4.69	1022	Falling	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.001	1.3	1.3	20.5	16.6	16.6	1	1	Bailed to 4.44m bgl at 15:43; redipped to 2.13m bgl at 16:32.
	31/10/2025	09:32	AH		0.99	4.74	992	Falling	96.4	3.0	0.1	0.1	0.1	0.1	0.001	0.001	0.8	0.5	20.3	19.2	18.7	1	1	Bailed to 4.53m bgl at 09:44; redipped to 1.90m bgl at 10:22.
	14/11/2025	08:50	JA		0.80	4.75	1002	Falling	103.0	5.6	0.1	0.1	0.1	0.1	0.001	0.001	1.2	0.6	19.8	19.7	19.2	1	1	Bailed to 2.40m bgl at 09:03 - Redipped at 09:39 to 1.50m bgl.
	01/12/2025	15:45	LG		0.50	4.75	985	falling	113.3	2.4	0.1	0.1	0.1	0.1	0.001	0.001	1.9	1.9	18.6	18.0	18.0	1	1	Bailed to 3.40m bgl at 15:49; Redipped to 1.46m bgl at 16:37.
	22/12/2025	12:23	AH		0.70	4.56	1005	Falling	109.9	3.1	0.1	0.1	0.1	0.1	0.001	0.001	1.8	1.8	19.2	17.6	17.6	1	1	Flow measured for 10 minutes. Not steady after this time.
DS08	22/09/2025	15:57	LL	1.00 - 3.00	0.89	2.96	1029	Falling	-67.9	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.5	0.5	21.1	20.4	20.3	1	1	Bailed to 2.72m bgl at 16:09; Redipped at 16:46 to 1.99m bgl.
	17/10/2025	14:45	LG		0.99	2.97	1023	Falling	-58.5	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.6	0.5	20.2	20.2	20.1	1	1	Bailed to 2.88m bgl at 15:07; redipped to 1.64 at 16:26.
	31/10/2025	09:48	AH		1.02	2.95	992	Falling	99.2	-	0.1	0.1	0.1	0.1	0.001	0.001	0.6	0.4	20.5	20.2	20.1	1	1	Flow monitored for 10 minutes, not steady. Bailed to 2.79m bgl at 09:58; redipped to 1.84m bgl at 10:26.
	14/11/2025	09:00	JA		0.85	2.95	1001	Falling	102.0	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.6	0.2	20.2	20.0	19.5	1	1	Bailed to 2.60m bgl at 09:23; Redipped at 09:47 to 2.15m bgl.
	01/12/2025	15:11	LG		1.70	2.98	986	Falling	42.6	0.1	0.1	0.1	0.1	0.1	0.001	0.001	1.9	1.9	19.6	18.0	18.0	1	1	-
	22/12/2025	12:36	AH		0.93	2.95	1004	Falling	109.6	1.8	0.1	0.1	0.1	0.1	0.001	0.001	2.0	2.0	19.4	17.6	17.6	1	1	Flow measured for 10 minutes. Appeared steady but was consistently falling throughout time period.
DS13	22/09/2025	16:14	LL	1.00 - 3.00	0.62	2.55	1032	Falling	30.3	1.5	0.1	0.1	0.1	0.1	0.004	0.004	0.1	0.1	20.9	20.9	20.9	1	1	Flow monitored for 10 minutes. After monitoring Flow, Oxygen had dropped to 13.6% however this did not reflect when monitoring gas quantities. Bailed to 1.62m bgl at 16:35; Redipped at 16:50 to 0.68m bgl - Attempted to bail further but quick recharge.
	17/10/2025	15:15	LG		0.61	2.51	1022	Falling	-90.0	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.9	0.9	20.5	19.6	19.6	1	1	Bailed to 1.89m bgl at 15:25; redipped to 1.28 at 16:29 - Attempted to bail further but could not due to fast recharge.
	31/10/2025	10:06	AH		0.21	2.51	992	Falling	99.3	3.1	0.1	0.1	0.1	0.1	0.001	0.001	0.7	0.7	19.9	18.2	18.1	1	1	Bailed to 1.60m bgl at 10:16; redipped to 0.60 at 10:30 - Attempted to bail further but could not due to fast recharge.
	14/11/2025	09:10	JA		-	-	1001	Falling															Unable to monitor due to well being completely submerged under surface water flooding.	
	01/12/2025	16:00	LG		-	-	985	Falling															Unable to monitor due to well being completely submerged under surface water flooding.	
	22/12/2025	12:53	AH		0.10	2.47	1004	Falling	-92.0	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.1	0.1	20.3	19.8	19.7	1	1	Surface water flooded over bung. Tophat area bailed then monitored. Flow steady at 0 after 10 minutes.

Response zone flooded. Results considered unreliable in accordance with BS8485:2015 + A1 2019

Values recorded below instrument detection limit

TEST DATE AND CONDITIONS		
Date	03/12/2024	
Atmospheric Pressure	1005	mB
Ambient Temperature	21.6	°C
EnviroNics Serial No.	5089	

**GFM436 Final Inspection & Calibration
Check Certificate**

GAS DATA LTD

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GAS DATA
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Customer	IGE Consulting Ltd
Certificate Number	125752
Order Number	340542

Serial Number	13397
Software Version	G436-00.0027/0010

Recalibration DUE Date
03/12/25

Instrument Checks					
Keyboard	✓		Display Contrast	✓	
Pump Flow In	500	Accept > 200 cc/min	Pump Flow @ -200mB	300	Accept > 200 cc/min
Clock Set / Running	✓		Labels Fitted	✓	

Gas Checks						
Sensor	CH ₄		CO ₂		O ₂	
	Instrument Gas	True Gas Value %	Instrument Gas	True Gas Value %	Instrument Gas	True Gas Value %
	Readings %		Readings %		Readings %	
	59.8	60	39.5	40	20.9	20.9
	Accept ±3.0		Accept ±3.0		Accept ±0.5	
	5.0	5	4.9	5	6.0	6
Zero Reading 100% N ₂	0.0	0	0.0	0	0.0	0
	Accept ±0.0		Accept ±0.0		Accept ±0.1	

Optional Gas Checks						
Applied Gas & Range		Concentration Tested @ (ppm)	Instrument Readings (ppm)			
Gas Type	Range (ppm)		Zero Reading		Instrument Gas Reading	
H ₂ S	5000	1500	0	Accept ±0.0	1500	Accept ±5.0%
CO	2000	1000	0	Accept ±0.0	1000	Accept ±5.0%
Hexane	2.0%	2.0%	0	Accept ±0.0	1.99	Accept ±10.0%

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